

2018-2019 Catalog

Welcome

We are glad you have chosen to enroll at Houston Community College. As one of the largest and finest community colleges in the United States, HCC students come from all walks of life and have diverse educational goals in mind. Our excellent faculty and staff are committed to providing quality programs and services that will enable you to transfer to the university of your choice with an associate degree, prepare for immediate entry into numerous exciting occupations with a certificate, acquire or improve linguistic and high-tech skills and/or meet the requirements for high school equivalency diploma. Whatever your goals or aspirations may be, we are here to help you achieve them. This Course Catalog provides valuable information about many available resources while you attend HCC. In turning the pages of the Course Catalog, you will discover an array of services and activities offered that address any special needs you may have, and contributes to making your educational experience more enjoyable and meaningful. Again, welcome and best wishes as you experience all that HCC has to offer.

Our Mission

Houston Community College is an open-admission, public institution of higher education offering a high-quality, affordable education for academic advancement, workforce training, career development, and lifelong learning to prepare individuals in our diverse communities for life and work in a global and technological society.

Our Vision

Houston Community College will be a leader in providing high quality, innovative education leading to student success and completion of workforce and academic programs. We will be responsive to community needs and drive economic development in the communities we serve.

Board of Trustees

HCC's Board of Trustees represents the citizens of HCC's taxing district. There are nine single-member districts. Trustees are elected for six year terms with elections held on a 2-year rotating basis. There are no term limits.

The district boundaries are legally determined. The most recent re-districting occurred in 2015 based on the annexation of Alief and North Forest Independent School Districts.

New officers are elected annually by the members of the Board of Trustees. The three offices include Chair, Vice Chair, and Secretary.

Accreditation

The Houston Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the associate degree.

Specific program accreditations and certifications information can be found at the Specialty Accreditations section of the website found at <https://www.hccs.edu/about-hcc/accreditation/>.

Calendar

Sessions	Fall 2017	Fall 2018
RT (16 weeks)	August 28 -- December 17	August 27 -- December 16
F4A (First 4 weeks)	August 28 -- September 24	August 27 -- September 23
F8A (First 8 Weeks)	August 28 -- October 22	August 27 -- October 21
SS (Second Start 12 weeks)	September 25 -- December 17	September 24 -- December 16
F8B (Second 8 weeks)	October 23 -- December 17	October 22 -- December 16
DL1 (Dual Credit 15 weeks)	September 5 -- December 17	September 4 -- December 16
DL2 (Dual Credit 14 weeks)	September 11 -- December 17	September 10 -- December 16
Sessions	Spring 2018	Spring 2019
Mini Session (4 weeks)	December 18 -- January 10	December 17 -- January 9
RT (16 weeks)	January 16 -- May 13	January 14 -- May 12
F4A (First 4 weeks)	January 16 -- February 11	January 14 -- February 10
F8A (First 8 weeks)	January 16 to March 11	January 14 -- March 10
SS (Second Start 12 weeks)	February 12 -- May 13	February 11 -- May 12
F8B (Second 8 weeks)	March 19 -- May 13	March 18 -- May 12
DL1 (Dual Credit 15 weeks)	January 22 -- May 13	January 22 -- May 12
DL2 (Dual Credit 14 weeks)	January 29 -- May 13	January 28 -- May 12
Sessions	Summer 2017	Summer 2019
Mini Session (3 weeks)	May 14 -- June 3	May 13 -- June 2
S8A (First 8 weeks)	June 4 -- July 29	June 3 -- July 28
S1 (First 5 weeks)	June 4 -- July 8	June 3 -- July 7
S10 (10 weeks)	June 4 -- August 12	June 3 -- August 11
S2 (Second 5 weeks)	July 9 -- August 12	July 8 -- August 11
C12(Coleman 12 weeks)	May 29 -- August 19	May 28 -- August 18
Holidays (no class)	2017-2018	2018-2019
Labor Day	September 4	September 3
Thanksgiving Break	November 23 - 26	November 22 - 25
Winter Break	December 19 -- January 1	December 19 -- January 1
Martin Luther King , Jr.	January 15	January 21
President's Day	February 19	February 18
Spring Break	March 12 - 18	March 11 - 17
Spring Holiday	March 30 -- April 1	April 19 - 21
Memorial Day	May 28	May 27
Independence Day	July 4	July 4

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General Information

Campus Carry

Texas law previously permitted public and private universities to ban the carrying of concealed handguns on their campuses. On June 13, 2015, Governor Abbott signed into law S.B. 11 which adds section 411.2031 to the Government Code and authorizes a concealed handgun license holder to carry a concealed handgun on the campus of a public or private university in Texas, subject to rules and regulations adopted by the institution. HCC has designated certain areas as weapons-free zones in which concealed carrying of handguns by licensed individuals is prohibited. The effective date for HCC and community colleges across the state was August 1, 2017.

Open carry of handguns (or other firearms) on a college campus continues to be prohibited. Applicable signage is posted to conform with applicable law.

Reference: Texas Penal Code §30.06; Texas Penal Code §46.035(b)(2).

For detailed information visit <http://www.hccs.edu/departments/police/campus-carry/>.

Equal Educational Opportunity Statement

Houston Community College is committed to providing an educational climate that is conducive to the personal and professional development of each individual. HCC does not discriminate and prohibits discrimination on the basis of race, color, religion, gender identity and gender expression, national origin, age disability, sex, sexual orientation, genetic information, Veteran status, or any other characteristic protected by law, in the rights, privileges, programs, and activities generally accorded to or made available to students at the school, administration or its educational policies, admissions policies, scholarship and loan programs, and athletic and other school administered programs. Emerging English language proficiency will not be a barrier to admission to and participation in career and technical education programs. To ensure compliance with Title IX and other federal and state civil rights laws, the College has developed policies and procedures that prohibit discrimination in all forms. Such policies can be found at <https://www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f>.

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-based nature, including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual's fundamental rights and personal dignity.

David Cross, Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC Policies, compliance with applicable laws, statues, and regulations (such as Title VI, Title IX, Section 504, and ADA), and complaints may be directed to:

David Cross, Director EEO/Compliance, Title IX Coordinator
3100 Main Street, Suite 702
Houston, TX 77002 713.718.8271 or institutional.equity@hccs.edu

<http://www.hccs.edu/departments/institutional-equity/equal-opportunity-statement>

More information on these policies and programs follows in this Handbook.

Sexual Misconduct Information and Reporting

Any student who believes that he or she has experienced prohibited conduct or believes that another student has experienced prohibited conduct should immediately report the alleged acts to a responsible employee. The College District designates the following persons as responsible employees, for the purposes of reporting prohibited conduct: any instructor any administrator or the Title IX Coordinator or College Title IX Contact. For additional information please use the following links:

- Title IX Know Your Rights:
<https://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/>
- Title IX Complaint Form:
<https://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/title-ix-complaint-form/>
- Speak with a Title IX Contact:
<https://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/speak-with-a-title-ix-contact/>

The Sexual Assault Policy for Students is available at:

<https://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/sexual-assault-policy-for-students/>

Office of Institutional Equity

The Office of Institutional Equity (OIE) was established to ensure that all individuals have an opportunity to have full participation in the life of Houston Community College. Services provided by OIE include, but are not limited to:

- Ensuring compliance with HCC's policies and law prohibiting discrimination and illegal harassment based on protected characteristics.
- Investigating complaints of discrimination initiated by students, faculty, staff, and the community, promptly and impartially.
- Providing training and education materials regarding Equal Employment Opportunity (EEO) and diversity compliance issues.
- Developing new programs and metrics to advance diversity, inclusion, and multiculturalism at HCC.

For more information about OIE and its services, please see:

<https://www.hccs.edu/departments/institutional-equity/>

General Admissions Criteria

A comprehensive community college system, HCC offers many programs designed to meet the needs of students according to their interests. As an open-admissions, two-year undergraduate institution, HCC has an “open door” admissions policy; individuals who have at least one of the following qualifications are welcome to enroll:

- Accredited High School diploma; or
- High School Equivalency certificate; or
- College-level hours earned at other accredited colleges or universities; or
- International students who meet college and state requirements; or
- An eligible high school student.

All students, except international students, must apply online using the Apply Texas website at <http://www.applytexas.org>. There is no charge to apply using the Apply Texas website.

The process for international student applications is contained in the section titled International Services and Programs below.

Admission to HCC does not guarantee admission to all programs. HCC utilizes the Texas Success Initiative Assessment to assess the level of students’ reading, writing, and math skills. Based upon their assessment results and specific program objectives, students may be required to take developmental and/or prerequisite courses. In addition, special admission requirements have been established for programs that require students to possess previously learned skills and knowledge. Applicants may obtain some additional admission criteria by visiting <https://www.hccs.edu/applying-and-paying/>. For further information regarding certain programs, see below.

Admissions Application Deadline

The admissions application deadline is one week before the class start date. Students should submit the application **at least** one week before the class start date. The application deadline calendar can be found on the HCCS website available at <https://www.hccs.edu/applying-and-paying/application-deadlines/>.

High School Student Admissions

Currently enrolled high school or home-schooled students may enroll in the same volume of HCC courses (each semester) as a traditional HCC student. Students should furnish a high school transcript, TSI scores (or documentation of exemption from TSI requirements), and approval from their high school. These students will need to maintain a "C" average to continue taking courses at HCC without limitations.

Dual Credit

To be eligible for any dual credit course, the student may be currently enrolled in a public school district, charter, or private school with an established memorandum of understanding (MOU) with Houston Community College. Dual Credit students must complete an HCC admission application and submit an official high school transcript indicating TAKS, STAAR SAT, and/or ACT test scores (or bring the official test score report if test scores do not appear on the high school transcript). Dual Credit students are also allowed to take the Texas Success Initiative Assessment (TSIA) to qualify for college courses taught as dual credit. Academic Dual Credit Courses: To be eligible for academic dual credit courses, high school students must pass the applicable areas of a Texas Success Initiative (TSI). The student may be exempt from state-mandated TSI testing if he/she meets the qualifying standards on applicable areas of the SAT, ACT, PSAT, or qualifying STAAR scores by subject. Students may take college level courses related to the area(s) of the test they pass. The student must also meet institutional course prerequisites. Dual Credit students must take only courses that apply directly to their pathway and degree plan.

House Bill 505 removed limitations on the number of classes a dual credit student may take. However, Houston Community College recommends that students taking more than two classes per semester possess a 3.0 or higher grade point average in high school coursework. Dual Credit students, like all college students, are responsible for purchasing required textbooks and other essential course materials. The exception would be in cases where the high school provides textbooks. All Dual Credit instructional material is based on the recommended by the academic or workforce department. The Houston Community College Board of Trustees has waived tuition and fees for dual credit students. Students living within (In-District) or outside (Out-of-District) taxing districts may take dual credit classes at no charge. If taught in the high school, the dual credit class must be composed solely of dual credit and/or college credit students, not traditional high school students.

For Dual Credit courses, grading criteria allow faculty the opportunity to award high school and college credit based on the student's performance. For further information, contact any HCC counselor/advisor at any of the college locations.

SB 1091 limits the courses students may take. The options are to either take academic core classes or career and technical education classes. Students may not do a mixture of both unless it is indicated in their designated degree pathway. The only exceptions are taking a foreign language course or being an Early College High School student. Dual credit students must be placed on a degree plan when they enroll in the dual credit program.

Articulated Credit

HCC participates in the Advanced Technical Credit (ATC) program (commonly known as statewide articulation), provides an educational and training structure that is sensitive to the transition of high school students to college. The process that facilitates an orderly progression through programs of instruction is commonly referred to as "articulation." Articulation agreements have been developed between HCC and school districts within the service area. These articulation agreements allow students to successfully complete certain

Career and Technical Education (CTE) courses in high school to receive college credits, contingent upon enrollment in a similar Career and Technical Education program at HCC. The high school course must be on the state-approved articulated list and taught by an instructor who meets the HCC credential standards as defined by SACS. Students will only be awarded articulated credit if they received a letter grade of “B” or higher in the high school course while maintaining an overall high school GPA of at least a “C”. Students also will be awarded credit only if the course is a requirement of their degree or certificate.

Any individuals interested in majoring in Workforce (CTE) programs who want to know if they qualify for articulated credit under an Advanced Technical Credit agreement should contact an HCC Dual Credit Success Coach, Advisor or the appropriate program department chair. Students may apply for additional placement credit for no more than 18 semester credit hours. Credit for more than four courses in any one subject area requires special approval.

Early College High School Students

Early College High Schools (ECHS) provide students with a “seamless” pathway from high school to college. ECHS allows high school students to complete a two-year degree while working through his/her traditional high school degree plan. This integration typically involves an additional year of high school that includes a heavy concentration of college coursework. After tackling this rigorous course of study, students graduate high school while earning up to 60 college credits, most of which are transferable to the post-secondary institution of their choice. ECHS provides strong support to students and their family in obtaining entrance to, and success in, higher education. For a listing of local ECHS, please visit <https://www.hccs.edu/programs/dual-credit/dual-credit-high-schools>.

Home School and Private/Charter School Students

Home-schooled students may attend Houston Community College as dual credit students. They must meet the same requirements as dual credit students enrolled in public or private high schools and follow the same process of admittance to Houston Community College. In addition, they must document their status as home-schooled students, along with all pertinent information required to register for classes at Houston Community College.

The Houston Community College P-16 Council facilitates processes, consistency, standards, and procedures for homeschoolers who attend Houston Community College as dual credit students.

Private and charter school students may take dual credit courses at Houston Community College, on campus or online, but must work through the administration of their high school. Private and charter schools who want dual credit as an option for their students must have established partnerships with Houston Community College.

Adult Education Program

Adult Education and Literacy (AEL) courses are grant-supported and include high school equivalency preparation, **Texas Certificate of High School Equivalency**, basic Reading, Math, and Writing skills improvement, and English as-a-Second Language courses. Students pay a \$20 non-refundable processing fee. These courses may be appropriate for students who are:

- High school incomplete
- High school complete
- Other language speakers
- Community business organizations

For information about Adult Education call the HCC AEL Hotline, (713) 718-5381 or visit <https://www.hccs.edu/changemylife>

Workforce and Career Training Program (WCTP) is a collaborative effort by HCC and a number of high-profile nonprofit organizations to assist underemployed or unemployed individuals. All WCTP training integrates career training with Adult Education classes. Financial aid is regularly available. All WCTP programs also can be configured to accommodate students whose second language is English. To find out more, email hcc.wctp@hccs.edu or call (713) 718-2779 or visit <http://www.hccs.edu/programs/adult-education/workforce-career-training>.

IET/EL Civics offerings provide advanced English language learners with tuition assistance for concurrently enrolling in ESL courses that are integrated with Level One Certificate career programs. More information is available at <https://www.hccs.edu/programs/adult-education/iet-el-civics>.

Career4U Academy

The Adult Education & Literacy program offers four *Career4U* Academies. These academies allow students to attend college without a TSI test and earn a Level 1 certificate. Each certificate program is between 6 months and two years long, and the classes are all credit courses with a combination of workforce preparation and an added support course throughout the program. When a student signs up for a Level 1 college certificate using financial aid or self-financing, HCC supports the student until graduation. HCC provides academic and advising support with Career Navigator and textbooks to borrow throughout a student's Academy program. For more information, visit <https://www.hccs.edu/programs/adult-education/career4u-academy/>.

Business Technology Academy

The Business Technology curriculum is designed to provide students an opportunity to develop the knowledge, skills, and abilities required for assuming administrative assistant and other office positions in today's competitive workplace. The curricula are competency-based and organized to teach industry-driven educational outcomes.

- General Office Administration
- Legal Office Assistant
- Medical Coding/Transcription Specialist
- Microsoft Office Technology Specialization
- Payroll Specialist

Construction Management Technology Academy

The Construction Management Technology program is designed to develop qualified personnel for employment in the field of construction or to enhance the workplace skills of those already employed in the industry for career advancement.

- Construction Management Technology
- Heating, Air Conditioning & Refrigeration - Advanced Certificate
- Industrial Electricity – Electrical Helper
- Machine Technology - Basic Manufacturing/Machining Certificate
- Welding Technology - Basic Welding Helper Certificate Level 1

Information Technology Academy

Certificate programs focused on information technology usually last between six and 12 months. These programs will help a student to learn the basics of a particular area of information technology. IT certificate programs are often suitable for students who want to gain experience in the information technology field and are seeking to specialize in a particular skill or learn more about a particular topic.

- Computer Systems Networking - Cyber Security Certificate Level 1
- Computer Systems Networking - Microsoft Server Administration Certificate Level 1
- Geographic Information Science Technician Certificate Level 1
- Drone Operator Technician*

Healthcare Academy

Technology is becoming increasingly integrated into the healthcare industry, including medical records and health information systems. If a student is interested in these essential healthcare industries areas, Healthcare Information is a great place to start.

- Health Information Technician Level 1

Ability to Benefit Programs

The Adult Education & Literacy office at Houston Community College (HCC) has arrangements that will allow **students who do not** have a high school diploma or TxCHSE certificate to enroll at HCC and receive federal student aid including **Pell Grants**. Students need to demonstrate that they have the “ability to benefit” from postsecondary education and training and can meet certain additional requirements.

Adult High School

Adult High School is a Credit Recovery program designed to assist current high school students and adults in obtaining a Texas high school diploma. A non-refundable tuition is charged for each half-credit course. Please see <https://www.hccs.edu/programs/adult-education/adult-high-school/> for tuition and fee information.

Online College

HCC does not have a separate admission policy for the Online College. All admission policies described above apply to all students regardless of how they plan to take their courses. In Spring 2011, HCC implemented Smarter Measure, an instrument to measure students’ readiness to take online courses and set minimum scores for course placement.

Non-Degree Seeking Students

A non-degree seeking applicant is admitted with the understanding that coursework will be taken for personal enrichment and not for the purpose of seeking a degree or certificate. Non-degree seeking students may not enroll in more than a total of 12 semester credit hours and are not eligible for state or federal financial aid.

Health Sciences Program Admissions

Admission to the college does not guarantee admission to a specific program. The HCC Health Sciences Programs have special conditions for admissions, including the following possibilities: successful completion of pre-requisite courses, acceptable scores on the Health Information Systems, Inc. (HESI) or other exam, submission of a personal narrative, and/or personal interview. For details, please refer to the website by visiting <https://www.hccs.edu/centers/health-sciences/>.



International Students

Full-Time Enrollment Requirements for International Students

Effective Fall 2017, F-1 international students must earn letter grades (A, B, C, D or F). A grade of a “W” (withdrawn) or “FX” (failing due to non-attendance) will not count towards the full-time enrollment requirement. “W” or “FX” is not considered a valid letter grade and demonstrates the student is not maintaining F-1 immigration status.

F-1 students must maintain at least 12 credit hours during the fall and spring semesters (9 credit hours during the summer, provided this is their first semester of attendance at HCC). International students holding an F-1 visa are limited to no more than the equivalent of one class or 3 credit hours of distance education (online class) per semester that will count towards the full-time status.

F-1 International Students

Houston Community College (HCC) considers students holding a nonimmigrant visa to be an international student. Prospective students maintaining any other type of visa status, except F-2 and B (visiting) visas, may enroll at HCC as permitted by U.S. federal law. The student should call the college of choice for admission instructions and meet the published application deadline.

International students who want to study in the U.S. with an F-1 status must obtain a Student and Exchange Visitor Information System (SEVIS) Certificate of Eligibility, also referred to as a SEVIS Form I-20, from HCC. HCC has been approved by the U.S. Department of Homeland Security (DHS) to issue SEVIS Form I-20s required to obtain F-1 student status. The individual must then use the SEVIS Form I-20 to apply for an F-1 student visa (if outside the U.S.) or a change of non-immigrant classification to F-1 (if inside the U.S.). U.S. federal regulations require all applicants to provide certain documentation and information to the college issuing the SEVIS Form I-20 before it can be issued to a student. To apply for a SEVIS Form I-20, please refer to the “International Students” section of the HCC website (www.hccs.edu/international) and follow the outlined application guidelines.

An international student under the age of 18 who wishes to gain admission to HCC must provide documentation proving that he/she has achieved the equivalency of a U.S. high school diploma in his/her country by completing a transcript evaluation with an approved evaluation agency. F-1 students must maintain full-time status, which is defined as being enrolled in a minimum of 12 semester credit hours for the spring and fall semesters or a minimum of 9 semester credit hours for the summer term, provided in that case that summer is the initial semester of enrollment at HCC.

International Student Advisors/Designated School Officials (ISA/DSO) report all changes in enrollment status pertaining to F-1 internationals (both students and alumni) to DHS as required by U.S. federal law.

F-1 international students must adhere to the U.S. federal regulations governing their nonimmigrant status while studying in the U.S. Non-compliance could jeopardize an F-1

international student's ability to remain in the U.S and complete his/her studies at HCC. Students with questions may schedule an appointment with International Services and Programs (ISP) to discuss their options.

For more information, see <https://www.hccs.edu/support-services/international-students/>.

Concurrent Enrollment for F-1 International Students

An F-1 student maintaining his/her F-1 status at another educational institution and wishing to be concurrently enrolled at HCC must obtain a letter from the ISA/DSO at his/her parent institution confirming permission to take classes at HCC under the F-1 status. F-1 students maintaining status at other educational institutions are not eligible to work on the HCC campus until the student has received a SEVIS Form I-20 from HCC and approval to work on campus from an HCC ISA/DSO.

For more information, see <https://www.hccs.edu/support-services/international-students/>.

Summer International Transient Students

Students who are attending another college or university and wish to take summer classes at HCC must provide a letter from the ISA/DSO at their parent institution that indicates they are maintaining their F-1 status and have been given permission to enroll at HCC.

English Proficiency and Course Placement

International students planning to enroll in academic programs must demonstrate English language proficiency. This can be accomplished by taking one of the following exams: TOEFL, IELTS, PTE Academic, ACCUPLACER (ESL), SAT, ACT or an approved Texas Success Initiative (TSI) test. Students who have not taken an English language proficiency test will be administered the ACCUPLACER (ESL) test by HCC to determine the student's English language proficiency. Scores on the exams must meet state and institutional requirements for placement into college-level classes. Students who do not meet these requirements will be required to enroll in the Intensive English program. For more information, please visit <https://www.hccs.edu/support-services/international-students/foreign-credentials/>.

International Transfer Students

A transfer student is any student who has previous college work and plans to pursue a certificate or degree at HCC. HCC admits transfer students who already have established F-1 status while attending other colleges and universities.

A transfer student may be admitted to either an academic program or the Intensive English program. Students planning to transfer to HCC must submit a complete application to the Office of International Student Services. For more information, please refer to the International Students section of the HCC website <https://www.hccs.edu/support-services/international-students/> and click on "New Students."

Transfer Credit from Foreign Institutions

Students petitioning to receive transfer credit from foreign institutions must first have their transcripts evaluated by an approved evaluation agency. For a list of approved evaluation agencies, students may visit <https://www.hccs.edu/support-services/international-students/foreign-credentials/>.

Check-in and Orientation

F-1 students new to the U.S. are required to report to the Office of International Student Services for further instructions upon arriving in the country. Each semester, all incoming students (new, transfer, change-of-status and reinstatement) are required to attend the mandatory student orientation to learn more about adjusting to life in Houston and at HCC. Please visit <https://www.hccs.edu/support-services/international-students/orientation/>.

F-1 Student Health Insurance

F-1 students at HCC are enrolled in the College's mandatory student health insurance upon registration. They cannot opt out of the plan unless a waiver of coverage is approved upon condition that the student has an acceptable alternative insurance plan. Please visit <https://www.hccs.edu/support-services/international-students/health-insurance/>.

Contacting International Student Programs

Individuals seeking to enroll at HCC as F-1 students may also contact International Services and Programs at (713) 718-8521 or oiss.international@hccs.edu or visit the office at 3200 Main St., Houston 77002 (street level of the parking garage) during normal business hours. Prospective students may also learn more at <http://www.hccs.edu/international>.



International Services and Programs (ISP)

International Initiatives and Study Abroad

Houston Community College, with a diverse student body and its location within a global city, is committed to globalizing learning for students so they are equipped to compete in the global workforce. Students, faculty and staff collaborate with institutions abroad to create exchange programs and study abroad opportunities through this initiative.

Training Programs

Instructional programs and/or customized training are conducted through workforce partnerships to help students gain specific skills.

English for Speakers for Other Languages (ESOL) training and development for certificates and/or degrees are conducted through credit programs and continuing Education (CE).

For more information, see <http://www.hccs.edu/international>.

J-1 Visa Program

HCC was awarded the J-1 visa sponsorship through the U.S. Department of State. Only a few community colleges in the nation are eligible to host under the J-1 visa.

What is the J-1 Visitor Program?

The J-1 program enables foreign nationals to come to the U.S. to teach, study, conduct research, demonstrate special skills or receive on the job training for periods ranging from a few weeks to several years. The exchange of professors and research scholars promotes the exchange of ideas, research, mutual enrichment and linkages between research and academic institutions in the U.S. and foreign countries.

For more information about the J-1 Visitor Program or international initiatives, please contact the International Services and Programs (ISP) director at isp@hccs.edu.

Houston Community College (HCC) considers students holding a nonimmigrant visa to be international students. Prospective students maintaining any other type of visa status, except B (visiting) visas, may enroll at HCC as permitted by U.S. federal law. The student should call the program of choice for admission instructions and meet the published application deadline.

Veteran & Military-Affiliated Students

Veteran and/or Military-Affiliated Students who plan to use VA/GI Bill and/or State of Texas “Hazlewood Act” educational benefits must follow the steps outlined in the applicable HCC enrollment checklist. Further information is provided on the Veteran and Military-Affiliated Student Services' (VMASS) website at <https://www.hccs.edu/support-services/veteran-affairs/>, or by phone at 713-718-8522.

Upon completion of the Admissions Application, Military, Veteran and/or Military-Affiliated students should contact a HCC Student Advisor to address questions regarding enrollment and/or gaining access to additional resources or information. Students may go to any advisor at any campus location.

Residency & Tuition / Veteran & Military-Affiliated Students

Military personnel, as defined by Texas Education Code Section 54.241, their spouses and dependent children may be entitled to pay tuition and fees at an institution of higher education at the rates provided for Texas residents in certain circumstances and regardless of the length of time the person or persons has/have resided in the state.

Veteran and/or Military-Affiliated students may be required to file a ‘Letter of Intent’ with the institution to establish residency and reside in Texas while enrolled at the respective institution. In such cases, the ‘Letter of Intent/Non-Resident Waiver’ Form should be submitted to the HCC District Office of Veteran & Military-Affiliated Student Success (VMASS) prior to the start of the enrollment term but no later than the college’s Census Date (Refer to HCC Academic Calendar for respective date(s)). Additional documentation that may be required includes, but is not limited to: Military Identification Card, Official Military Orders, DD Form-214 or other official substantiating documentation.

Military personnel, Veterans and/or Military-Affiliated students should check with the HCC VMASS Office and refer to the applicable statutes found in the Texas Education Code at <http://www.statutes.legis.state.tx.us/> and Texas Higher Education Coordinating Board Rules at <http://www.thecb.state.tx.us/> for requirements on resident tuition.

Applying for Education Benefits / Veteran & Military-Affiliated Students

Students applying for Federal VA education benefits should submit the following documents to the HCC VMASS District office:

1) Complete the appropriate application for Educational Benefits to obtain the appropriate Certificate of Eligibility (COE) and submit a copy of it.

Application for VA Education Benefits (VA Form 22-1990)

<https://www.vets.gov/education/apply-for-education-benefits/application/1990/introduction>

Application for VA Education Benefits Under the National Call to Service Program (VA Form 22-1990N)

<https://www.vets.gov/education/apply-for-education-benefits/application/1990n/introduction>

Application for Family Member to Use Transferred Benefits (VA Form 22-1990E)

<https://www.vets.gov/education/apply-for-education-benefits/application/1990e/introduction>

Dependents' Application for VA Education Benefits (VA Form 22-5490)

<https://www.vets.gov/education/apply-for-education-benefits/application/5490/introduction>

Dependents' Request for Change of Program or Place of Training (VA Form 22-5495)

<https://www.vets.gov/education/apply-for-education-benefits/application/5495/introduction>

Request for Change of Program or Place of Training (VA Form 22-1995)

<https://www.vets.gov/education/apply-for-education-benefits/application/1995/introduction>

Disabled Veterans Application for Vocational Rehabilitation (VA Form 28-1900)

<https://www.ebenefits.va.gov/ebenefits/about/feature?feature=vocational-rehabilitation-and-employment>

2) Submit the DD-214 member 4, 2 or 7. [DD-214 member 1 is not acceptable].

3) Submit official transcripts from all schools attended, including military technical schools and/or non-accredited schools:

To request military transcripts for Army, Navy, Marines and Coast Guard:

<https://jst.doded.mil>

To request Community College of the Air Force transcripts: www.airuniversity.af.mil

Hazlewood Act Eligibility & Required Documentation / Veteran & Military-Affiliated Students

The Hazlewood Act is a State of Texas benefit that provides qualified Veterans, spouses, and/or dependent children with an education benefit of up to 150 hours of tuition exemption, including most fees, at public institutions of higher education in Texas. This does NOT include living expenses, books, or supply fees.

For more information, please see <https://www.tvc.texas.gov/education/hazlewood-act/>.

To be eligible, a Veteran must:

- At the time of entry into active duty in the U.S. Armed Forces, designated Texas as Home of Record; or entered the service in Texas; or was a Texas resident;
- Have received an honorable discharge or separation or a general discharge under honorable conditions as indicated on the Veteran's Certificate of Release or Discharge from Active Duty (DD Form 214);
- Served at least 181 days of active duty service (excluding training);
- Currently reside in Texas;
- Have no federal Veteran's education benefits, or have no federal Veterans education benefits dedicated to the payment of tuition and fees only (such as Chapter 33 or 31; for term or semester enrolled that do not exceed the value of Hazlewood benefits;

- Not be in default on a student loan made or guaranteed by the State of Texas;
- Enroll in classes for which the college receives tax support (i.e., a course that does not depend solely on student tuition and fees to cover its cost), unless the college's governing board has ruled to let Veterans receive the benefit while taking non-funded courses; and
- Meet the GPA requirement of the institution's satisfactory academic progress policy in a degree or certificate program as determined by the institution's financial aid policy and, as an undergraduate student, not be considered to have attempted an excessive amount of credit hours.

Required Hazelwood Documents for Veterans

To comply with the requirements of the Texas Veterans Commission, during or before registration, Veterans or qualifying dependents must present the following documents to the HCC VMASS District office:

- The member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of educational benefits.
- Provide proof of eligibility or ineligibility for Chapter 33, from VA office in Muskogee, OK, if the Veteran served after 09/11 and separation. In the event the Veteran is eligible for chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Veterans may request a copy of their benefits eligibility letter by submitting a request through the VA's Ask a Question website at <https://benefits.va.gov/gibill/>.
- A completed formal application for Hazlewood Act benefits. Applications are available at the HCC VMASS District office or a student may also download the application from the Texas Veterans Commission website: <https://www.tvc.texas.gov/education/hazlewood-act/>.
- Veterans must also provide a copy of their Hazlewood Online Database Report: <https://hazlewood.tvc.texas.gov/students/>

NOTE: Veterans may use the Hazlewood Exemption in conjunction with other VA education benefits and Pell Grant, if eligible. However, compliance with the "default loan" clause will be verified by the school. Please contact HCC VMASS District office for additional support/information.

Further information is provided on the Veteran and Military-Affiliated Services' (VMASS) website at <https://www.hccs.edu/support-services/veteran-affairs/>, or by phone at (713) 718-8522.

Spouses and/or Children required Hazlewood Documents

The military member's 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.

A letter from the Department of Veterans Affairs Office stating the parent or spouse died as result of service-related injuries or illness, is missing in action or is considered totally disabled for purposes of employability as a service-related injury or illness.

Provide proof of eligibility or ineligibility for Chapter 33 from VA office in Muskogee, OK, if the Veteran served after 09/11. In the event the Veteran is eligible for Chapter 33, the cost of enrollment for the term may not exceed the value of Hazlewood (COE is required). Please request an education benefits letter by calling 1-888-442-4551.

A completed formal application for Hazlewood Act benefits. Applications are available at the Veteran Services department. Applications are also available at the Texas Veterans Commission website at www.tvc.texas.gov/documents/TVC-ED-1-Hazlewood_Application.pdf.

Students must provide a copy of their Hazlewood Online Database Report.
<https://hazlewood.tvc.texas.gov/students/>.

Further information is provided on the Veteran and Military-Affiliated Services' (VMASS) website at <https://www.hccs.edu/support-services/veteran-affairs/>, or by phone at (713) 718-8522.

Transferability of Benefits (Legacy) Documents

Eligible Veterans may assign unused hours to a child under certain conditions. The following documents are required:

- The Veteran's member 4 copy of DD-214 (separation papers). DD214-member 1 is not a valid DD-214 for use of Educational Benefits.
- Copies of birth certificate, marriage certificates or tax returns may be requested.
- Applications are available at the Veteran Services department. Applications are also available at the Texas Veterans Commission website at <https://www.tvc.texas.gov/education/hazlewood-act/>
- Provide all transcripts from any previously attended institutions.
- Provide a copy of applicable Hazlewood Online Database Report.
<https://hazlewood.tvc.texas.gov/students/>.

Transfer / Veteran & Military-Affiliated Students

Transfer students should submit all academic transcripts from both accredited and non-accredited schools (to include military technical school credits/transcripts).

All academic transcripts (from both accredited and/or non-accredited schools) should be received and evaluated by HCC prior to selecting courses (when possible).

Further information is provided on the Veteran and Military-Affiliated Services' (VMASS) website at <https://www.hccs.edu/support-services/veteran-affairs/>, or by phone at (713) 718-8522.

Priority Enrollment / Veteran & Military-Affiliated Students

Houston Community College offers priority registration to Veteran & Military-Affiliated students prior to the general student population. Students should refer to the HCC Academic Calendar to find the appropriate Priority Registration date(s).

Veteran & Military-Affiliated students choosing to exercise 'Priority Enrollment' must provide appropriate documentation to HCC VMASS District office to ensure the respective student is identified within the HCC student management system prior to the start of each term.

Further information is provided on the Veteran and Military-Affiliated Services' (VMASS) website at <https://www.hccs.edu/support-services/veteran-affairs/>, or by phone at (713) 718-8522.



Re-admission

After Absence

Students who have not enrolled for two or more consecutive regular semesters (fall, spring) must complete the core residency questions and satisfy all applicable requirements for residency again prior to registration. See Residency Information below.

After Suspension/Academic Withdrawal

Students seeking readmission after being placed on enforced Academic Withdrawal or Suspension at HCC must attend a Student Learning Intervention Program (SLIP) session at the college they attend. Students may be required to enroll in specified courses and/or have their course load limited. Information about readmission after suspension or academic withdrawal is available on the HCC website at <https://www.hccs.edu/programs/catalog/admissions>.

Academic Fresh Start

Under the provisions of the Texas Education Code Section 51.931, Texas residents seeking to apply for admission or re-admission to HCC and/or any specialized program at HCC may elect to have academic course credit more than ten (10) years old prior to the starting date of the semester in which they seek to enroll, **not be considered** as part of the admissions process. An applicant admitted to HCC under this provision may not receive any course credit for courses taken 10 or more years prior to enrollment. This means courses excluded under this provision may not be counted toward a degree, GPA calculations, academic standing or to meet pre-requisite requirements. Applicants interested in the Academic Fresh Start Program must meet all HCC admissions requirements and must submit official transcripts from all previously attended colleges and universities along with a petition found at [https://www.hccs.edu/media/houston-community-college/district/pdf/academic-affairs/Academic-Fresh-Start-\(Update\).pdf](https://www.hccs.edu/media/houston-community-college/district/pdf/academic-affairs/Academic-Fresh-Start-(Update).pdf) prior to admission to HCC.



Admissions for Minors

Students who are 16 years old or younger **AND** have graduated from high school may be eligible for special admission to Houston Community College. Applicants who are admitted under the special admission process can enroll in college courses at an HCC campus or online.

In addition to the regular admission process, students age 16 years or younger must:

- Show proof of education indicating graduation from public high school or completed secondary education according to the same general standards as those students who graduated from public high school.
- Once admitted, meet with the Dean of Student Success prior to registering for the first semester.

Students under the age of 14 must have a parent or legal guardian available at the HCC campus site at all times when their child is attending each class. This is required to help monitor the student's activities and to be immediately available in case of an emergency. While on site at HCC, the parent or legal guardian cannot be in the student's classroom. Failure to be available on campus or insistence on being in the student's classroom will cause the student to be removed from each enrolled class.

Special Program Admissions

Upward Bound

The Upward Bound Program is funded through the Department of Education since June 1, 1974. The Program recruits H.I.S.D. students from 9th and 10th grades in order to aid and encourage them to successfully complete high school, enroll in a post-secondary institution and graduate from that institution. Through this program, HCC provides services to low-income students who will be the first generation in their families to go to college. HCC has over 80% of Upward Bound students who have successfully completed high school and have enrolled in an institution of post-secondary education.

The program has two components: an academic year and a summer component. During the Fall and Spring semesters, the program provides supplemental academic classes (Reading, Math, English/Writing, Study-Skills, and Science) and Cultural Enrichment Activities. The Summer component focuses on academic skills and comprehensive test preparation for 6-weeks (Individual assessment, college credit courses, financial aid, college admission, and etc.).

For more information, see <https://www.hccs.edu/locations/southeast-college/upward-bound/>

VAST Academy (Vocational Advancement and Skills Training)

The VAST Academy provides post-secondary transition programs and comprehensive support services which lead to meaningful credentials, employment and independence for

individuals with intellectual and developmental disabilities at three college campus locations: Central, Northwest/Spring-Branch and Southwest/Missouri City. Opportunities include workforce certificates, pre-college and freshman success bridge courses, career readiness credentials, internships and employment assistance offered through an inclusive, relevant, affordable, and supportive environment.

VAST Academy offers a Career Readiness/Occupational Skills Certificate under HCC's Division of Extended Learning, School of Continuing Education. The program's successful supportive strategies include: person-centered planning, peer mentoring, independent living, and internships based on students' interests and skills.

For more information, see <https://www.hccs.edu/continuing-education/departments/hcc-vast-academy/>.

Basic Residency Requirements

For tuition purposes, according to Texas Education Code Section 54.075 and Texas Higher Education Coordinating Board Rule 21.727, all students must answer a complete set of core residency questions within the admissions application. These questions will be used by the institution to determine if the person is a resident. The following persons shall be classified as Texas Residents and entitled to pay resident tuition at all institutions of higher education:

- A person who was enrolled at a Texas public institution during a fall or spring semester within the previous twelve months and was classified as a Texas resident for tuition purposes.
- A person who graduated from a public or accredited private high school in this state or as an alternative to high school graduation, received the equivalent of a high school diploma in this state, AND maintained a residence continuously in this state for the 36 months immediately preceding the date of graduation, or received the diploma equivalent as applicable and the 12 months preceding the census date of the academic semester in which the person enrolled.
- A person or a dependent whose parent established a domicile in this state not less than 12 months before the census date of the academic semester in which the student enrolled in an institution. AND maintained a residence continuously in the state for the 12 months immediately preceding the census date of the academic semester in which the person enrolled in an institution.
- If a basing residency on a spouse and have been married at least 12 months, residency may be classified based on the spouse's qualifications for residency.

Establishing Residency

HCC is required by state law to determine the residency status of all students for tuition purposes. Students who have not enrolled for two or more consecutive regular semesters (Fall & Spring) must complete the residency core questions and satisfy all applicable requirements to establish residency. Additional documentation may be requested at any time following registration. Residency is determined at the time of registration, either by a

student's current address or by the address of a parent or legal guardian, if the student is being claimed by his/her parents or is eligible to be claimed by his/her parents as a dependent for federal income tax purposes. A post office box can be used for a mailing address but cannot be used to establish residency. It is the responsibility of the student to register under the correct residency classification. A complete set of rules and regulations for determining residency is available at each campus's Admissions Office.

For tuition purposes, a student will be classified according to the following guidelines. The Registrar is the final authority on all questions of residency.

In-District Residency

Students who have met the basic Texas residency requirements and live in the HCC taxing district (Alief ISD, Houston ISD, Stafford MSD, and part of Missouri City).

Students must reside at a street address in the district. Post office boxes and dormitory addresses cannot be used.

Out-of-District Residency

Students who have met the basic Texas residency requirements and live outside the HCC taxing district (Alief ISD, Houston ISD, Stafford MSD, and part of Missouri City) are considered out-of-district residents.

Out-of-State Residency

A student who has not resided in Texas for 12 months immediately preceding registration is considered out-of-state. A non-resident student classification is presumed to be correct as long as the residence in the state is primarily used for the purpose of attending school. To be reclassified as a resident (after one or more years of residency), the student must show proof of intent to establish Texas as his/her permanent legal residence. See above section on Veteran and Military-Affiliated Students for information regarding residency determinations of Veterans and military-affiliated students.

International Student Residency

An international student is a non-U.S. citizen who is not a resident alien.

International students living in the United States under an eligible visa permitting residence must provide documentation and meet the same requirements as a U.S. citizen to qualify for Texas resident status for tuition purposes.

Undocumented Students

Texas State Law states that undocumented students can be admitted to the college and be considered a resident of Texas for tuition purposes if the undocumented student resided in Texas, and met the conditions listed below:

- Graduated or will graduate from a Texas public or private high school or received the equivalent of a high school diploma in Texas;

- Resided in Texas for 36 months leading up to graduation from high school or receiving the equivalent of a high school diploma;
- Have resided or will have resided in Texas for the 12 months prior to the census date of the semester in which the student will enroll in the college.
- Sign the Affidavit of Intent to Become a Permanent Resident provided by the college that states the student has filed or will file an application to become a permanent resident at the earliest opportunity the student is eligible to do so.

If the student does not meet these criteria, the student may still enroll, but will be classified as out-of-state for tuition purposes.

Change of Residency

Change from out-of-district residency to in-district residency must be made at the time of registration. Any address change which results in a change to in-district status must be accompanied by adequate documentation. Changes to in-district status made after registration will be effective the following semester. A student who qualifies for a change from out-of-state to in-state residency status for tuition purposes may file a petition for change of residency. The petition must be filed by the Official Day of Record for the regular term in order to receive any refund of tuition paid for that term.

Penalties

Any student who provides false information or withholds information for proper determination of residency, admission, or enrolment is subject to any or all of the following penalties:

- Withdrawal from all classes with no refund.
- Dismissal from the institution.
- Payment of the difference in fees within 30 days.
- Loss of credit earned while under incorrect residency status.

See Student Code of Conduct or Board Policy FLB(LOCAL) for more information.

Undocumented Students

Texas State Law states that undocumented students can be admitted to the college and be considered a resident of Texas for tuition purposes if the undocumented student resided in Texas, and met the conditions listed below:

- Graduated or will graduate from a Texas public or private high school or received the equivalent of a high school diploma in Texas;
- Resided in Texas for 36 months leading up to graduation from high school or receiving the equivalent of a high school diploma;
- Have resided or will have resided in Texas for the 12 months prior to the census date of the semester in which the student will enroll in the college.
- Sign the Affidavit of Intent to Become a Permanent Resident provided by the college that states the student has filed or will file an application to become a permanent resident at the earliest opportunity the student is eligible to do so.

If the student does not meet these criteria, the student may still enroll, but will be classified as out-of-state for tuition purposes.

Additional Requirements for Non U.S. Citizen Students

A non U.S. citizen who is living in the U.S. under permanent resident status, an appropriate visa, or who has filed an I-485 application for permanent residency and has been issued a notice of action from USCIS showing the I-485 has been approved has the same privilege of qualifying for resident status, for tuition purposes, as a U.S. citizen. Anyone permitted by Congress to adopt the United States as their domicile while living in this country is afforded the same privilege as citizens and permanent residents to establish Texas residency for tuition purposes.

For more information on residency or to see the list of approved documentation, visit - <http://www.hccs.edu/applying-and-paying/residency-information/>



Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students in “attendance” at Houston Community College certain rights with respect to their education records.

“Attendance”, as defined by Houston Community College, begins on the first day of the term in which a student is enrolled. These rights include:

- The right to inspect and review the student’s education records within 45 days of the day the College receives a request for access. A student should submit to the registrar a written request that identifies the record(s) the student wishes to inspect. The college official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the college official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.
- The right to request the amendment of the student’s education records that the student believes are inaccurate, misleading, or otherwise in violation of the student’s privacy rights under FERPA. A student who wishes to ask the College to amend a record should write the College official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. If the College decides not to amend the record as requested, the College will notify the student in writing of the decision and the student’s right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing. See policy FJ(LOCAL) available at <https://www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f/>.
- The right to provide written consent before the College discloses personally identifiable information from the student’s education records, except to the extent that FERPA authorizes disclosure without consent. The College may disclose education records without a student’s prior written consent under several FERPA exceptions including:
 - Disclosure to school officials with legitimate educational interests
 - A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted as its agent to provide a service instead of using College employees or officials (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.
 - A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the College.

- The student’s application for financial aid
- Submitting proof of dependency
- Response to a judicial order or subpoena
- A bona fide health or safety emergency
- Information requested by other schools in which the student seeks or intends to enroll
- Directory information (described below)

As of January 2012, the U.S. Department of Education’s FERPA regulations expand the circumstances under which a student’s education records and personally identifiable information (PII) contained in such records—including a student’s SSN, grades, or other private information – may be accessed without a student’s consent.

- First, the U.S. Comptroller General, The U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities (“Federal and State Authorities”) may allow access to a student’s records and PII without a student’s consent to any third party designated by a Federal or State Authority to evaluate a federal or state-supported education program. The evaluation may relate to any program that is “principally engaged in the provision of education,” such as early childhood education and job training, as well as any program that is administered by an education agency or institution.
- Second, Federal and State Authorities may allow access to a student’s education records and PII without a student’s consent to researchers performing certain types of studies, in certain cases even when HCC objects or does not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive a student’s PII, but the Authorities need not maintain direct control over such entities.
- In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without a student’s consent PII from a student’s education records, and they may track a student’s participation in education and other programs by linking such PII to other personal information about a student that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

The Family Educational Rights and Privacy Act (FERPA) of 1974, as amended, designates certain information related to a student as “Directory Information.” FERPA gives the College the right to disclose such information to anyone inquiring without having to ask a student for permission, unless the student specifically requests in writing that all such information not be made public without written consent (see link to HCC Confidentiality Form below) except by the National Student Clearinghouse to loan guarantors.

Houston Community College has designated the following as “Student Directory Information:”

- Student’s Name
- Address and telephone number
- Date of birth

- Major field of study
- Enrollment status (full/part-time)
- Classification
- Dates of attendance at HCC
- Number of semester hours completed & in progress
- Student classification
- Degrees earned and dates awarded
- Most recent previous educational institution attended

If a student does not want directory information released, the student must complete a confidentiality request form at the college campus and submit to the Registrar's Office. The Confidentiality Form is located at <https://www.hccs.edu/media/houston-community-college/district/pdf/confidentiality-form.pdf>.

The right to file a complaint with the U.S. Department of Education concerning alleged failures by the College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education 400 Maryland Avenue, SW
Washington, DC 20202-5901
ferpa@ed.gov



Cost of Attendance and Refund Information

Students have to pay tuition and mandatory fees based on residency, as discussed above and subject to certain waivers and exemptions. Tuition and fee rates are published on the HCC website and can be accessed at <https://www.hccs.edu/applying-and-paying/tuition-calculator>.

Some courses have additional course fees such as laboratory fees and program fees. Check course listings for additional fees. More information on course fees is contained below.

HCC charges a higher tuition rate to students registering for the third or subsequent time for certain courses. Students who enroll for most credit and CEU classes for a third or more time will be charged an additional \$50 per semester credit hour and \$3.00 per contact hour, except for courses exempted by The Texas Higher Education Coordinating Board.

Parking Fees are not part of the published standard Tuition & Fee rates. Therefore, Parking Fees are billed separately from these established rates.

HCC reserves the right to change its tuition and fees and refund policy structure wholly or in part during the year covered by this catalog.

Tuition and Fee Schedule for Academic Year 2018-2019

Semester Credit Tuition Fees

Description	Fall 2018	Spring 2019
<i>In District</i>		
Tuition (\$50.00 minimum)	\$31.00 per hour	\$31.00 per hour
<i>Out of District</i>		
Tuition Out-of-District	\$95.00 per hour	\$111.00 per hour
<i>Out-of-State</i>		
Tuition Out-of-State	\$95.00 per hour	\$131.00 per hour

Mandatory Fees

Description	Fall 2018	Spring 2019
General Fee	\$25.50 per hour	\$25.50 per hour
Out-of-District General Fee	\$33.50 per hour	\$33.50 per hour
Out-of-State General Fee	\$50.00 per hour	\$50.00 per hour
Technology Fee	\$10.00 per hour	\$14.00 per hour

Description	Fall 2018	Spring 2019
Student Activity Fee	\$1.00 per hour (\$12.00 maximum)	\$1.00 per hour (\$12.00 maximum)
Recreation/Athletics Fee	\$6.00 per semester	\$6.00 per semester

Other Incidental Fees

Description	Fall 2018	Spring 2019
Distance Education Fee	\$32.00 per DE course	\$42.00 per DE course
Deferment/Reproduction Fee	\$50.00	\$50.00
Drop/Add Fee	\$15.00	\$15.00
Lab Fee	\$4.00 - \$80.00	\$4.00 - \$80.00
International Student Application Fee	\$75.00	\$75.00
International Student Insurance Fee	Based on Insurance Vendor Pricing	Based on Insurance Vendor Pricing
International Student Orientation Fee	\$50.00	\$50.00
Installment Plan Enrollment Fee	\$30.00	\$30.00
Installment Plan Late Fee	\$10.00 per late installment	\$10.00 per late installment
Reinstatement Fee	\$75.00	\$75.00
Repeater Fee	\$50.00 per hour	\$50.00 per hour
Returned Check Payment Fee	\$25.00	\$25.00
Stop Payment Fee	\$25.00	\$25.00
Transcript Fee	\$5.00	\$5.00
Transcript Fee through Service Provider	Based on Service Provider Price	Based on Service Provider Price

Testing Fees

Description	Fall 2018	Spring 2019
Advance Standing Examination for College Credit Fee	\$25.00 per course	\$25.00 per course

Description	Fall 2018	Spring 2019
Advance Standing Credit Evaluation	\$25.00 per evaluation	\$25.00 per evaluation
Accuplacer College Level Math	\$10.00 per attempt	\$10.00 per attempt
Accuplacer ESL	\$29.00 Initial Test \$10.00 Retest	\$29.00 Initial Test \$10.00 Retest
CLEP Test	\$12.00	\$12.00
Correspondence Test - Proctoring Fee	\$25.00	\$25.00
EMT Testing Fee	\$29.00 - \$209.00	\$29.00 - \$209.00
HESI	\$45.00 - \$75.00	\$45.00 - \$75.00
National Registry Test Fee	\$80.00 - \$125.00	\$80.00 - \$125.00
NCLEX-RN Prep Fee	\$23.00 - \$45.00	\$23.00 - \$45.00
Medical Assistant Exam Fee	\$125.00	\$125.00
State Fire Fighter Exam Fee	\$85.00	\$85.00
Surgical Technology Exam Fee	\$190.00	\$190.00
TEAS	\$86.00	\$86.00
TSI Assessment	\$29.00 All Sections \$10.00 Per section	\$29.00 All Sections \$10.00 Per section

Course Specific Fee

Description	Fall 2018	Spring 2019
Lab Fee	\$24 - Various	\$24 - Various
Adult High School Materials Fee	\$10.00/\$20.00 (Art, BCIS, & BIM)	\$10.00/\$20.00 (Art, BCIS, & BIM)
Adult High School Tuition	\$275.00	\$275.00
Cert Nursing Aid Liability Fee	\$12.00	\$12.00
Computer Science Program Fee	\$24.00-\$75.00	\$24.00-\$75.00
Commercial Music Fee	\$75.00	\$75.00
Commercial Truck Clearing Acct	\$225.00 - \$350.00	\$225.00 - \$350.00
EMS AHA Card Fee	\$3.00 (CPR) \$15.00 (Advanced)	\$3.00 (CPR) \$15.00 (Advanced)

Description	Fall 2018	Spring 2019
EMS OR Fee	\$25.00 (Basic) \$40.00 (Advanced)	\$25.00 (Basic) \$40.00 (Advanced)
EMT Online Web Tool Fee	\$110.00	\$110.00
HS-Film Badge Fee	\$10.00 - \$26.00	\$10.00 - \$26.00
HS-Liability Insurance Fee	\$10.00 - \$34.00	\$10.00 - \$34.00
Music Fee	\$145.00	\$145.00
Phlebotomy Liability Fee	\$12.00	\$12.00
Phlebotomy Materials and Supplies	\$10.00 - \$60.00	\$10.00 - \$60.00
Police In Service Mat/Test Fee	\$50.00	\$50.00
Registration Fee Literacy NCR	\$20.00	\$20.00
Registration Fee Math & Reading	\$60.00	\$60.00
Software Access Fee	\$60.00	\$60.00
VAST Office Lab Fee	\$10.00	\$10.00
VAST Office Mat/Supply	\$5.00 - \$15.00	\$5.00 - \$15.00

Online Course Fees

In addition to tuition, there is a \$42 fee for each distance education course.

Dual Credit Course Tuition Waivers

Effective Fall 2016, tuition and fees are waived for all dual credit and early college high school students. The dual credit courses count toward both a student's high school graduation requirements and a college-level certificate or degree. See Board Policy GH(LOCAL).

Flexible-Entry Course Fees

The cost of courses taken in the flex-entry term is the same as for regular semester-hour courses.

Laboratory/Supply Fees

Laboratory supply fees, which help defray the cost of materials used in lab classes, vary. Certain programs have program-specific fees. Check course listings for additional fees in some classes.

Community Service Programs Tuition and Fees

Community Service course fees are based on total hours of instruction and maximum class size. Courses which require limits to class size in order to provide additional individual attention have larger fees. Students are expected to furnish materials necessary for the course.

Adult Education

Adult Education classes are granted supported through the Texas Workforce Commission. Adult Education courses are grant-supported and include GED preparation, basic skills improvement and English as-a-Second Language courses. In certain cases, a modest nonrefundable registration fee may apply.

Accelerate Ed

Accelerate Ed are grant-supported courses that prepare students for college and career readiness in Reading, Writing and Math. These students may or may not have already completed a high school diploma or GED. A modest non-refundable registration fee may apply

Adult High School

Adult High School is a Credit Recovery program designed to assist current high school students and adults in obtaining a Texas high school diploma. A non-refundable tuition is charged for each half-credit course. Please see <https://www.hccs.edu/programs/adult-education/adult-high-school/> for tuition and fee information.

Senior Citizen Exemption

Effective Fall 2018, HCC offers two senior citizen exemptions for adults 55 years and older.

For more information, please see <http://www.hccs.edu/resources-for/current-students/student-financial-services/waivers-and-exemptions/>.

Transfer Information and Credit

HCC Policy on Transfer

Transfer of academic credit is a public policy issue for several reasons:

- an increase in student mobility,
- the proliferation of distance learning programs and common acceptance of their legitimacy,
- the economics of expending public money twice for the same course, and
- consumer protection from expending private money twice for the same course

HCC analyzes credit accepted for transfer in terms of level, content, quality, comparability, and degree program relevance. Transfer of credit from one institution to another involves at least three considerations:

- the educational quality of the learning experience which the student transfers;
- the comparability of the nature, content, and level of the learning experience to that offered by the receiving institution; and
- the appropriateness and applicability of the learning experience to the programs offered by the receiving institution, in light of the student's educational goals.

Accreditations Accepted in Transfer

HCC accepts college level credit in transfer from colleges and universities accredited by any of the six regional accreditation bodies: Middle States Association of Colleges and Schools, New England Association of Colleges and Schools, North Central Association of Colleges and Schools, Northwest Commission on Colleges and Universities, Southern Association of Colleges and Schools, and the Western Association of Colleges and Schools.

In addition, HCC accepts college level credit in transfer from colleges and universities by any of the following national accreditation bodies: American Board of Funeral Service Education, Association of Biblical Higher Education, Association of Theological Schools in the US and Canada, Accrediting Bureau of Health Education Schools, Accrediting Commission of Career Schools and Colleges of Technology, Accrediting Council for Independent Colleges and Schools (if prior to 12/31/2016), Council on Occupational Education, and Distance Education Accrediting Commission, Distance Education and Training Council, and the National Association of Schools of Theatre.

Students Transferring to HCC from Other Colleges/Universities

HCC recommends the following steps to students considering transferring to other colleges/universities:

- Meet with an advisor at a community college campus to discuss academic goals, plans, and questions. Consider completing an associate degree before transferring. Some universities give preferential treatment in admission decisions, if a student

transfers after completing his/her associate's degree. Research indicates that students who have completed the associate degree perform better after transfer than those who did not complete the associate degree.

- If a student needs to transfer to another institution before the completion of his/her HCC associate degree, the student may be able to “transfer back” to HCC his/her college credits from another institution in order to fulfill his/her associate degree requirements. In most cases, a student can “transfer back” up to 42 college-level semester hours of credit within three years of leaving HCC to complete his/her associate degree requirements. (Note: all graduation requirements must be fulfilled.)
- HCC also recommends that a student obtain a transfer plan from his/her HCC advisor. A transfer plan lists the university-required courses which can be taken at HCC toward a student's university bachelor's degree major. If a student is undecided about his/her choice of university or his/her choice of major, see a HCC career counselor for more help.

For more information, see Transfer Information and Credit at <https://www.hccs.edu/programs/catalog/transfer-information-and-credit/>.

Prior Learning Assessment Credit

Prior Learning Assessment (PLA) is a process for assessing learning gained outside a traditional academic environment. This could be learning acquired through military service, employer training programs, independent study, non-credit courses, open courseware, or volunteer or community service. Prior Learning Assessment (PLA) is a means of evaluating what a student already knows at the college-level derived from these experiences for college credit, certification, or advanced standing toward further education or training. See PLA website for more information <http://www.hccs.edu/acc>.

To be eligible to earn PLA credit, a student must be currently or previously enrolled at HCC for the past 12 months and meet all Houston Community College admissions requirements. They should not have previously taken or attempted the course (by title that is the same as the PLA credit for which they are applying). PLA credit is only awarded when it applies to the HCC programs of study. Six hours of HCC credit must be successfully completed prior to posting PLA credit. Note: A minimum of 25% of the credits for the HCC certificate or degree must be completed at HCC, and PLA credits are not counted toward this minimum.

Credit by Examination

HCC awards credit for qualified scores on nationally standardized examinations for the following instruments:

College Board Advanced Placement (AP) Examinations, the College Level Examination Program (CLEP), International Baccalaureate (IB) exams, and the Defense Activity for Non-Traditional Education Support (DANTES) subject exams, Sophia Learning exams (with ACE evaluation), and Learning Counts exams (with ACE evaluation). Credit earned through these examinations will be recorded by the Registrar only after the student has completed six semester hours at HCC. Official test scores must be sent from the testing agency to the HCC Office of Admissions and Records. Contact the Testing Office for examination schedules and availability of the CLEP. Questions regarding credit received for the above national exams should be directed to the Advising Office.

More information on CLEP is available at <https://www.hccs.edu/support-services/transfers/transferring-credits/college-level-examination-program-clep/>.

Transfer Dispute Resolution

If a student is informed by a Texas public college or university that it will not accept the transfer of any HCC academic course credit, the student may have a case for a transfer dispute which will ultimately be resolved by the Texas Higher Education Coordinating Board (THECB). Students should be cautioned that workforce course credits may or may not be transferable, depending upon the program and articulation agreements between HCC and the college or university involved. In addition, no institution of higher education shall be required to accept in transfer, or apply toward a degree program, more than sixty-six (66) semester credit hours of lower-division academic credit. Institutions of higher education, however, may choose to accept additional credit hours by agreement. If the student wishes to transfer credit later to work on a bachelor's degree, the student should consult with an HCC program or advisor. Rules and procedures for the resolution of transfer disputes regarding lower-division courses have been formulated by the THECB as follows:

If an institution of higher education refuses to accept course credit earned by a student at another institution of higher education, the receiving institution shall provide written notice to the student and to the sending institution that transfer of course credit has been denied, along with the reasons for denial. Students may dispute the denial of transfer credit by contacting a designated official at either the sending or receiving institution.

The two institutions and the student shall attempt to resolve the dispute in accordance with THECB rules and guidelines.

If the transfer dispute is not resolved to the satisfaction of the student or the sending institution within 45 days of the date the student received written notice of denial, the institution denying the course credit transfer shall notify the Commissioner of Higher Education of the unresolved dispute and the reasons for the continued denial of course credit transfer.

The Commissioner or a designee shall make the final determination in an unresolved dispute concerning the transfer of course credit and provide written notice of the determination to the involved student and institutions.

For more information, please see Transfer Dispute Resolution
<https://www.hccs.edu/programs/catalog/transfer-information-and-credit/>.

Transfer Limitation

Students who intend to transfer to baccalaureate degree programs should be aware of possible limitations on lower division course work. Universities will generally not accept in transfer more than 66 semester credit hours of lower division academic credit.



Tuition and Fees Payment

- Tuition bills are not mailed. Students who need a paper copy of a bill should login to their student account online to print their current bill.
- All HCC students are expected to pay or make payment arrangements at the time of registration. For a student to avoid losing a place in class, he/she should be sure to pay based on the timelines allowed under the registration procedures either at a designated registration site or online.
- HCC makes education affordable to students. Students have the option to pay tuition and fees in full or in installment. See Payment Plans at <http://www.hccs.edu/applying-and-paying/installment-payment-plans/>.
- Students who fail to make payments according to the registration process guidelines may be dropped from some or all classes and will be required to register again. Section availability cannot be guaranteed.
- It is the student's responsibility to pay all charges arising from registration/enrollment including those arising from reduction of financial aid award(s) due to change in enrollment and/or eligibility status.
- Students with delinquent accounts at the end of the term will be referred to a collection agency and will be responsible for paying collection fees which may be based on a percentage at a maximum of 24% of the debt, and all costs and expenses, including reasonable attorney's fees, incurred in such collection efforts.

Pay Online

To pay tuition and fees in full online, a student will need to log in to his/her student account by visiting <https://myeagle.hccs.edu/>.

- On the home page, Student Sign In.
- Enter Web User ID and Password, or follow the instructions to obtain the Web User ID and Password.
- After signing on, verify address and phone data. If no changes are necessary, click on continue.
- Acknowledge Student Financial Responsibility and HCC Policies to continue.
- On the Student's Center, click "Make a Payment or Set up a Payment Plan".
- Select Click here to make a payment or Enroll in Payment Plan. Complete the payment plan enrollment as directed.
- Enter credit card/checking account information.
- Enter student e-mail address.
- Review information.
- Submit payment.
- Receive confirmation that payment has been accepted.

If credit card is declined, a student may repeat the process using a different credit card.

Pay in Person

Students may pay by check or money order at any cashier's window. Some locations may accept cash.

If students are receiving a tuition waiver or tuition is billed to a company or agency, those students must present the waiver to pay in person. The remaining balance should be paid in full or a Payment Plan must be set up.

Refunds and Credit Balance

Refund of Financial Aid Residual

The Financial Aid Office determines the schedule of financial aid refunds in accordance with the requirements of the Department of Education.

HCC Eagle Card

In June 2016, HCC contracted with BankMobile Disbursement to manage student refunds through the HCC Eagle Card. Students can choose either to open a BankMobile account or have their refunds deposited to an existing account by clicking "Choose a Refund Option" button on their student center page.

Credit Balances & Refunds

Credits generated as a result of withdrawal shall be refunded after the official date of record or earlier upon student request. Credits resulting from credit card payments shall be refunded to the same credit card used for initial payment as the first option. However, if it is not practicable, HCC may refund it through HCC Eagle Card.

Amount of refunds for withdrawals are determined in accordance with the Drop and Withdrawal Refund Schedule based on total semester fees. If the student has established a payment plan, any remaining installment payments due are deducted from the refund amount. Any reduction in the balance due to a withdrawal will be adjusted on the remaining installments.

Course withdrawal does not release the student from the obligation to pay any balance owed to the College. One hundred percent (100%) refund before class begins of ALL tuition and fees will be made ONLY when the college chooses not to offer the class, college error is involved, or before the applicable drop deadline.

Delinquent Student Account Balances

Holds will be placed on the student record preventing registration, grades, transcripts and other college services as the account balance becomes delinquent. Balances not settled may be forwarded to a collection agency. It is the student's responsibility to pay collection fees, which may be based on a percentage at a maximum of 24% of the debt, and all costs and expenses, including reasonable attorney's fees, incur in such collection efforts.

Notification of the outstanding student account balance is delivered by email to the student's college email address and/or by mail to the current mailing address on record. Students can always view the balance and details online. It is the responsibility of the students to update their email and mailing addresses each time there is a change. Notifications sent by the college thru any of these addresses are considered delivered.

Schedule for Drop and Withdrawal Refunds

100% Refund Dates on Drops/Withdrawals are listed on the schedule.*

*A \$15.00 Change of Schedule Fee is deducted after computing the percentage refund. All non-refundable fees will be deducted before the percentage for refund is applied.

Class Length	Last Day for 70% Refund *	Last Day for 25% Refund*
2 or less wks.	2nd day	n/a
3 wks.	3rd day	4th day
4 wks.	4th day	5th day
5 wks.	5th day	6th day
6 wks.	5th day	7th day
7 wks.	7th day	9th day
8 wks.	8th day	10th day
9 wks.	9th day	11th day
10 wks.	9th day	12th day
11 wks.	10th day	14th day
12 wks.	12th day	15th day
13 wks.	13th day	16th day
14 wks.	13th day	17th day
15 wks.	14th day	19th day
16 wks. or more	15th day	20th day

Returned Checks

A \$25.00 returned check fee shall be assessed when a check payment or an electronic check payment is returned unpaid.

Non-Refundable Fees

NOTE: HCC does not refund the following fees for any reason other than that the selected class fails to have adequate enrolment to be offered in the selected term.

Drop/Add - \$15

Returned Check - \$25

Stop Payment - \$25

Payment Plan Enrollment - \$30

Payment Plan Late - \$10

International Application - \$75

International Orientation - \$50

Deferment/Reproduction - \$50

(One-time charge for F, M, or J Visas only)

Transcript - \$5*

Transcript via Overnight Express or Fax - \$15

Advanced Standing Examination for College Credit (per course) - \$25

Advanced Standing Credit (per evaluation) - \$25

A student is not registered for any course until the full amount is paid or an installment contract is executed. For students enrolling in a Health Sciences program, see the Health Sciences section.

*An additional service provider fee is required if transcript is requested by phone or Web.



Change of Schedule: Drop/Add/Swap

Before Classes Begin

Students may add classes but only through the drop/add/swap period. Payment of course fees is made at the time of the change. If a class is full, consider taking the course at a different time, location, via Distance Education, or in the second start session.

After Classes Begin

Students can make a class change online through the drop/add/swap period listed in the academic calendar (see <https://www.hccs.edu/programs/catalog/academic-calendars/>).

Approval of requests for changes will be based on the availability of space in the class to which the student wishes to transfer.

Deadline for changing schedule or adding courses is as follows:

- In- Person - Friday before the start of session
- Online – Night before the start of session

Dropping Courses

Students should make sure they are aware of penalties regarding financial aid, additional tuition costs, etc. before withdrawing from course.

It is the responsibility of the student to officially drop or withdraw from a course. Failure to officially withdraw may result in the student receiving a grade of “F” in the course. A student may officially withdraw in any of the following ways:

- Drop online from the student’s account. A student may login to his/her Student Account at the following link:
<https://hccsaweb.hccs.edu:8080/psp/csprd/?cmd=login&languageCd=ENG&>
- Send a letter requesting withdrawal to:

Registrar
Houston Community College
P. o. Box 667517
Houston, TX 77266-7517

The withdrawal will be effective the date of postmark.

- Fax a letter of withdrawal to 713.718.2111.

A student who officially withdraws from a course before the Official Date of Record will not receive a grade and the course will not appear on the student’s permanent record. A student withdrawing from a course after this period and prior to the deadline designated in the HCC calendar will receive a grade of “W.”

Limitation/Costs of Course Withdrawals

Under Section 51.907 of the Texas Education Code

An institution of higher education may not permit a student to drop more than six courses, including any course a transfer student has dropped at another institution of higher education.” This statute was enacted by the State of Texas in the Spring 2007 and applies to students who enroll in a public institution of higher education as a first - time freshman in fall 2007 or later. Any course that a student drops is counted toward the six - course limit if “(1) the student was able to drop the course without receiving a grade or incurring an academic penalty; (2) the student’s transcript indicates or will indicate that the student was enrolled in the course; and (3) the student is not dropping the course in order to withdraw from the institution.” High school students enrolled in HCC Dual Credit and Early College are waived from this requirement until they graduate from high school. All college-level courses dropped after the official day of record are included in the six-course limit unless the student demonstrates to an appropriate college official that one of the following events occurred to the student during the semester or summer session:

- A severe illness or other debilitating condition that affects the student's ability to satisfactorily complete the course.
- The student's responsibility for the care of a sick, injured, or needy person if the provision of that care affects the student's ability to satisfactorily complete the course.
- The death of a person who is considered to be a member of the student's family or who is otherwise considered to have a sufficiently close relationship to the student that the person's death is considered to be a showing of good cause.
- The active duty service as a member of the Texas National Guard or the armed forces of the United States of either the student or a person who is considered to be a member of the student's family and such active duty interferes with the student's ability to satisfactorily complete the course.
- The change of the student's work schedule that is beyond the control of the student and that affects the student's ability to satisfactorily complete the course.
- Other personal or family reason that is considered catastrophic or beyond the control of the student and interferes with the student's ability to satisfactorily complete the course (as determined by the college official).

HCC students affected by this statute that have attended or plan to attend another institution of higher education should become familiar with that institution’s policies on dropping courses.

Other laws affecting course drops are as follows:

Senate Bill 1782 - Effective June 1, 2018

- Allows students who have accrued at least 50 SCH and stopped-out for 24 months onetime exemptions from the six-drop and three-peat rules. For more information regarding these rules, see Course Withdrawals (6-drop rule) and Repeating Courses

(Three-Pear rule) at <https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/>.

- An SB 1782 qualifying student may drop one additional course for a total of 7. If a student once again drops out for a 24 month period, the student is not granted an additional drop.
- Qualifying students should contact the Enrollment Services Office at their college to provide documentation & obtain waiver form.

Course Withdrawal for Veteran & Military-Affiliated Students

- The VA does not allow automatic payment of benefits for the following grade(s) of “W, I or FX”.
- Incomplete grades are reported to the VA as non-punitive. Students who drop courses may have to pay back money received for such courses. The VA will allow payment only in cases of mitigating circumstances and students will be required to explain in writing to the VA the reason for their withdrawal from courses.
- There is a one-time exclusion for dropping up to six credit hours. Before withdrawing from any course, students must notify the HCC VMASS Certifying Official in order to have their VA holds removed.
- The student is responsible for withdrawing from the course(s) by following the HCC’s standard withdrawal procedures. For students who need to drop a college preparatory course(s), approval must be granted by the HCC VMASS District office.
- Students must also notify their VA representatives once the class(es) have been dropped.

Please contact the Veterans Call Center at 713-718-8522 with any questions.



Attendance Policy

Students are expected to attend all lecture classes and labs regularly. Students are also responsible for materials covered during their absences. Instructors may be willing to consult with students for make-up assignments, but it is the student's responsibility to contact the instructor. Class attendance is monitored daily. Although it is the student's responsibility to drop a course for nonattendance, the instructor has the authority to drop a student for excessive absences. A student may be dropped from a course after accumulating absences in excess of 12.5 percent of the total hours of instruction (lecture and lab). For example:

- For a 3 credit-hour lecture class meeting 3 hours per week (48 hours of instruction), a student can be dropped after 6 hours of absence.
- For a 4 credit-hour lecture/lab course meeting 6 hours per week (96 hours of instruction), a student can be dropped after 12 hours of absence.

Departments and programs governed by accreditation or certification standards may have different attendance policies. Administrative drops are at the discretion of the instructor. Failure to withdraw officially can result in a grade of "F" in the course.

NOTE: It is the responsibility of the student to withdraw officially from a course.



Requirements for Academic Progress

A student's academic progress will be evaluated for the first time after a minimum of nine attempted semester hours. Houston Community College uses the 4.0 grade point average system and numerical code: 4.0 = A; 3.0 = B; 2.0 = C; 1.0 = D; and 0.0 = F.

Some health sciences programs use a different grading scale.

A student is expected to maintain a minimum cumulative GPA of 2.0 based upon the aggregate number of hours attempted at Houston Community College.

Each status is defined with the required action:

Status - Good Standing

Definition - Cumulative GPA of 2.0 or above

Action Required - None

Status - Probation

Definition - Cumulative GPA below 2.0

Action Required - Must register for SLIP and work with a counselor prior to enrolling in classes.

Status - Continued Probation

Definition - Cumulative GPA below 2.0 and Term GPA 2.0 or above

Action Required - Continue to work with the counselor from a previous semester.

Status - Suspension

Definition - Previous term status of probation or continued probation and Term GPA below 2.0

Action Required - Must register for SLIP and work with a counselor prior to enrolling in classes.

- Students on probation or suspension are required to attend a Successful Learning Intervention Program (SLIP) session prior to re-enrollment in order to meet with their designated counselor. The counselor will stipulate conditions of enrollment, including but not limited to, maximum hours and/or specific courses. It is important to note that a student on an Academic Suspension may be unable to enroll in classes for one semester. An Academic Suspension may be appealed by completing the necessary paperwork in the counseling office. For more information, see the Requirements for Academic Progress section at <https://www.hccs.edu/programs/catalog/general-course-information/>.
- Students enrolled in multiple summer sessions will have their entire summer's work evaluated for determination of their academic status.
- Students in certain Health Sciences programs are required to maintain a grade of "C" in all courses in order to continue in the program. Students not meeting these standards may continue to enroll at HCC in other programs as long as they maintain minimum HCC requirements.

- Students are responsible for knowing whether they have passed the minimum standards for continuation in college. Ineligible students who register will be subject to dismissal with forfeiture of all tuition and fees.

If a student has any questions, please contact a campus advisor at <https://www.hccs.edu/support-services/advising/>.

Satisfactory Progress Requirements for Financial Aid Students

Financial aid students must meet the following satisfactory progress requirements set by the federal government:

- Must maintain a term GPA of 2.0
- Must complete at least 67% percent of attempted courses for the academic year
- Must enroll in courses leading to an HCC degree or certificate
- Students who do not maintain the standards listed above will be ineligible to receive financial aid. A student may appeal a suspension of financial aid by submitting a written request to the college Financial Aid Office. A detailed description of the financial aid standards of progress requirement is available in the college Financial Aid Office and online at <https://www.hccs.edu/applying-and-paying/financial-aid/satisfactory-academic-progress>.

Satisfactory Progress Requirement for Veteran & Military Affiliated Students

The Department of Veterans Affairs requires that any student utilizing VA education benefits make satisfactory academic progress to remain eligible for such benefits.

Respective students on academic probation and suspension will be reported to the Department of Veterans Affairs.

Time Frame Component

A student receiving the Hazlewood Act exemption will be expected to complete their educational attainment objective or course of study within their first 90 semester hours.

Grades of “**F, FX, I, NG, or W**”, repeated courses are counted in the aggregate total number of hours attempted. Students will not receive exemption if the class has previously been passed unless the program of study requires students to take the course more than twice.

Please see the Academic Information section of the following website for grade definitions: <https://www.hccs.edu/resources-for/current-students/student-handbook/>

Repeating Courses / Veteran & Military-Affiliated Students

Students using VA educational or Hazlewood Act benefits may not retake a course in which a passing grade or a temporary grade of “**I**” is awarded.

It is ultimately the responsibility of the student to know which course(s) has/have been completed.

The HCC VMASS District office is required to notify the VA of any course duplications, and appropriate changes will be made when a student has taken a class that has been deemed successfully completed.

Progress Records

Students can check their grades at any point by logging into their Student Account. A student may login to his/her Student Account at the following link:

<https://hccsaweb.hccs.edu:8080/psp/csprd/?cmd=login&languageCd=ENG>

Grade Reports

Grades generally post one week after the last final exam for that particular term or semester.

Records and Transcripts

A transcript of college credits is an official copy of the student's permanent record bearing the HCC seal and the signature of the Registrar. Students may request a transcript at: <https://www.hccs.edu/resources-for/current-students/transcripts/>

Requests may also be made at any HCC campus. It is highly recommended that transcripts be sent electronically to colleges and universities to expedite processing. There is a charge for transcript processing. All admissions information must be on file and all holds cleared before a student's record will be released. A student should allow a week for delivery following the transcript request.

Additional time should be allowed at the close of a semester.

Students should request transcripts of work completed at another institution from that institution.



Graduation

Prior to graduation, students must submit all official transcripts of credits transferred from other institutions to the Office of Admissions and Records. A candidate for any degree or certificate must meet the graduation requirements in the catalog for the year of initial enrollment unless the student elects to graduate under the requirements of a more recent catalog. The candidate must indicate the catalog choice when applying for graduation. A student who does not maintain enrollment at HCC and has a gap in enrollment for a period of more than one calendar year is required to graduate under the catalog requirements set by the student's year of readmission.

To be considered as a candidate for the AA, AS, AAT, AAS degree or Certificate of Completion, a student must meet with their advisor and get approval and then complete the application online through their student center. This should be done at the time of registration for the final semester or during registration for the spring semester if the student wants to participate in the May ceremony. Students who are unable to complete their degree plan on file at HCC may transfer back up to 42 semester hours of equivalent courses from an accredited institution. These courses must be completed within three years of their last semester of enrollment at HCC. All other graduation requirements must be satisfied including the requirement that 25% of a student's degree must be completed at HCC.

- Students who want a printed diploma must check the diploma box on the application and provide a diploma mailing address. There is no charge for the diploma. A student may request their records be reviewed at the conclusion of their course work so the appropriate degree or certificate will be recorded on the student's transcript.

If a student did not elect to receive a copy of his/her diploma, a copy may be requested from the Registrar.



Graduation Honors

Graduation honors will be awarded to students pursuing an associates with superior cumulative GPAs. The following classifications of honors will be recognized on the student's transcript and diploma:

- Highest Honors - GPA 3.80 or above
- High Honors - GPA 3.60 to 3.79
- Honors - GPA 3.35 to 3.59

HCC will use the following guidelines to compute honors eligibility:

- The student must complete at least 25% of the program at HCC.
- The student must complete requirements for the AA, AS, AAT or AAS degree.(certificate graduates do not receive honors)
- The grades in all HCC courses will figure in the cumulative GPA (developmental courses are excluded from the degree GPA).
- Courses taken through the preceding fall semester will be used in computing the GPA for the ceremony. The student must have completed 75 percent of the course work for the degree at that time.

Participation in the Graduation Exercises

HCC holds one student graduation ceremony each year in May. Candidates for degrees and certificates are encouraged to attend the graduation ceremonies. Students who completed course requirements the previous December, or who plan to complete course requirements the following August, may participate in the May ceremony.

For additional information, go to our website at <https://www.hccs.edu/resources-for/current-students/graduation/>.



Guarantee of Educational Excellence

The Houston Community College District is committed to excellence in education. As an expression of this commitment, HCC guarantees its graduates both transfer credit and entry-level job skills. Such guarantee is a statement of confidence in the administration, faculty, and staff as well as a commitment to our educational mission to empower students so they may achieve their highest potential.

This guarantee is expressly subject to and limited to special conditions identified in the following sections on job competency and transfer credit. The HCC obligation under this guarantee is limited to providing additional courses under the conditions prescribed in these sections.

Transfer Credit

HCC guarantees to those students earning the Associate of Arts, Associate of Arts in Teaching and the Associate of Science degrees that their required courses will transfer to all public-supported Texas colleges and universities. If these courses are rejected by the senior institution of the student's choice, HCC will offer the student an alternate tuition-free course that will transfer.

Transferability means the acceptance of HCC credit toward a specific major and degree at a specific institution, as defined by the student's transfer/degree plan. However, no institution of higher education shall be required to accept in transfer, or apply toward a degree program, more than sixty-six (66) semester credit hours of lower-division academic credit. Institutions of higher education may choose to accept additional credit hours by agreement. The transfer guarantee of academic courses is subject to the following conditions:

- The student must file a written transfer/degree plan by the time he/she has completed 12 semester hours or the equivalent at HCC. The transfer/degree plan must include the following: (a) the specific institution to which the student plans to transfer, (b) the bachelor's degree and major the student plans to pursue, and (c) the date such decision was made.
- Courses must be identified by the receiving institutions as transferable and applicable toward a specific major. The receiving institution determines the following:
 - Total number of credits accepted for transfer
 - Grades required
 - Relevant grade point average
 - Duration of transferability
 - Required courses must have been taken at HCC no earlier than three years before the attempt to transfer.

If the above terms and conditions have been met and courses are not accepted by a receiving institution in transfer, the following terms and conditions are applicable:

- The student must submit to HCC a Notice of Transfer Credit Denial from the receiving institution (within 10 days of denial) so the resolution process may begin.

- If transfer credit denial is not resolved, tuition-free transfer courses (semester hour for semester hour) must be taken within a one-year period.
- Although courses are tuition-free, students will be responsible for any fees or course-related expenses, other than the course-required books which HCC is responsible for providing at no cost to the student.

Job Competency Guarantee

HCC guarantees that graduates earning workforce certificates or degrees will possess the job skills required for entry-level employment in the occupational field for which they have been trained. (This guarantee does not imply the graduate will pass any licensing or qualifying examination for a particular career.)

Any HCC workforce program certificate or degree graduate whom the employer determines is lacking in the technical or general educational skills necessary for entry to the position shall be provided up to nine tuition-free credit hours. A program of instruction must be designed to meet specific occupational competencies identified in technical courses which are competency-based and emphasize the acquisition of the skills necessary for immediate employment and/or career advancement. Program competencies are identified in the course syllabus provided to each student.

- This guarantee applies only to certificates and degrees of at least 30 semester hours or 360 contact hours.
- All course work in question must have been taken at HCC and taught by HCC instructors.
- The graduate must have completed the degree within a five-year period beginning at the point of first enrollment.
- The graduate must be employed full-time within 12 months of graduation and in a position directly related to the specific program completed at HCC.
- Within 90 days of the graduate's initial date of employment, the employer must certify in writing that the graduate lacks entry-level skills identified by HCC as program-exit competencies. The employer must specify the areas of deficiency.
- The employer, graduate, and HCC personnel will develop a written retraining plan. The retraining will be limited to nine credit hours or 360 contact hours related to the identified skill deficiency.
- The retraining must be completed within one calendar year from the time the plan is agreed upon.
- Although retraining is tuition-free, the graduate (or employer) is responsible for the cost of insurance, uniforms, fees, and any other course-related expenses. HCC is responsible for the cost of books required for the course work.

HCC Libraries and Learning Resources / Bookstore

HCC Libraries are welcoming spaces to study and access resources to support learning. Libraries are open 7 days a week and are here to help students succeed. The HCC library system consists of 9 libraries, 6 electronic resource centers (ERCs) as well as holdings with access to more than 580,000 electronic and print resources. HCC librarians are available face-to-face and online to help guide students to the resources they need. HCC librarians also collaborate with faculty to provide course related instruction face to face and on-line. HCC Libraries also provide access to more than 270 unique databases, numerous digital journals and thousands of physical multimedia items. For more information regarding all of HCC Library resources, please visit <http://library.hccs.edu>.

How Do I Find What I Want?

HCC's online catalog is accessible on and off-campus at <https://librus.hccs.edu>. The catalog is updated frequently and provides easy access for navigating library resources. The EBSCO Discovery Service also provides access to the HCC online catalog and a large selection of the HCC licensed databases in a single search.

More Than Books and Databases

HCC Libraries provides access to computers, printing, photocopying, scanning, DVDs, streaming video, Chromebooks, study rooms, 3D printing, and one-button studio access in certain locations. Assistive technology includes laptops with ADA software installed, TOPAZ video magnifiers, purple phones and more. More information regarding these resources is available at <http://library.hccs.edu/accessibility>.

What If It Isn't At My Campus?

Books can be requested and delivered to any HCC Campus library by simply clicking on the "Request" button through the catalog. Students will need an HCC Library card number to access the databases away from campus. For an HCC ID card, go to "Get My Barcode" at <http://library.hccs.edu>.

How Do I Check Out What I Need?

A student ID card is a library card. Library material can be checked out for 3 weeks and renewed twice. Students can renew twice by telephone or the library website.

Overdue Books

The card inside books shows when it is to be returned. If a student fails to return it, a "hold" status is reported and reflected on their student record(s) and will affect their ability to register for additional courses or obtain a transcript. Also, students will be blocked from further borrowing until the materials due are returned to the library.

What About Other Libraries?

In the event the HCC Libraries do not own a particular item students need for their research, students, faculty, and staff have full privileges to the TexShare Card Program and to the

interlibrary loan program which expands access to the collections of all participating libraries. Students will be subject to the loan rules of each individual institution—both as to the number of items they may check out and how long they may keep them out. Students will be responsible for any overdue fines or lost book fees that particular library may charge.

Bookstore

Students may purchase textbooks, study aids, and a wide range of novelty items and apparel at the college bookstore. Students are encouraged to purchase books prior to the first day of class. Students should bring a copy of their class schedule to ensure that they are purchasing the correct texts. The bookstore will buy back books that are in good condition and will pay 50 percent of the purchase price if they will be in use the next term and if the text is not overstocked. For more information:

<https://hccs.bncollege.com/webapp/wcs/stores/servlet/BNCBHomePage?storeId=19561&catalogId=10001&langId=-1>

For more information regarding HCC's policy regarding textbooks, please see Board Policy EDA (Legal) and (Local) located at <https://www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-e/>.



Student Services

The mission of the Student Services Division is to foster a learning environment that supports students in their educational journeys. This includes engaging students in innovative co-curricular programs and providing exceptional support services to promote their intellectual and social development.

Advising Services

HCC requires all new HCC students to enroll in a Student Success Course in their first semester to help them determine their major and plan their degree path. Once a student has selected his/her “major,” instructors who teach the courses in that field (e.g., accounting, computer science, history, etc.) will be his/her best academic advisors. If a student plans to transfer to complete a baccalaureate degree, it is important to determine a major and the transfer institution as soon as possible, because different universities may have different requirements. New students are assigned an advisor upon completion of the admission application. Advisors provide one-on-one advising support for students, assist with pathway planning, and provide information about institutional and external resources available to students. Please visit <https://www.hccs.edu/support-services/advising/> for more information regarding advising services and locating an advisor.

Student Services Contact Center

The Student Services Contact Center provides information and registration assistance to future, current and returning Houston Community College students. Students may email inquiries online to student.info@hccs.edu or chat live with knowledgeable associates regarding registration, admissions, academic and student services. Information, answers to frequently asked questions, and a video library can be found 24 hours a day, 7 days a week. More information regarding the Student Services Contact Center can be found at <https://www.hccs.edu/support-services>.



Alumni Association

The HCC Alumni Association was organized to advance the growth and development of the college and increase the presence of HCC alumni in the Houston community; promote the personal, educational, and professional development of alumni; and establish and maintain a scholarship fund for individuals who would not otherwise be able to pursue a college education. Membership is offered to all who have successfully completed any course at HCC as well as to outstanding persons who possess the principles and ideals of the Association.

The HCC Alumni Association has an Advisory Council to advise and provide input to alumni activities and events on behalf of alumni membership. All HCC alumni are encouraged to participate with the Alumni Association. To learn more about the HCC Alumni Association, please visit, hccs.edu/alumni.

Child Care

HCC-Central offers childcare through a private vendor at a discounted rate for all HCC full- and part-time students and staff at the YMCA at HCC Child Development Lab School. The center serves children 6 weeks - 5 years of age, Monday thru Friday, 7:00 am - 5:30 pm. Lab school staff are not supervised by HCC, but are expected to follow the guidelines of developmentally appropriate practice and state minimum. For more information call (713) 718-5437 or visit 3214 Austin Street for enrollment or see <https://www.hccs.edu/locations/central-college/central-campus/child-development-lab-school/>.

For more information on the YMCA, please see the Houston Community College section at the following website: <https://www.ymcahouston.org/programs/early-care/locations>.

Childcare assistance is also available through Workforce Solutions. For more information on eligibility criteria, visit <http://www.wrksolutions.com/for-individuals/financial-aid/financial-aid-for-child-care>.



disAbility Support Services

Services for Students with a Qualified Disability

Houston Community College (HCC) views equal access as a shared responsibility between HCC and the student. HCC recognizes students with disabilities as a valued element of diversity and ensures that no academically qualified student with a disability will be denied access to or participation in the services, programs, and activities of HCC. HCC makes its campuses and programs accessible to individuals with disabilities.

ADA Accommodation Process for HCC Students

The Americans with Disabilities Act, as amended, prohibits discrimination against individuals with disabilities and requires postsecondary institutions to provide accommodations when a student discloses a disability. In college, students with disabilities are covered under Section 504 of the Rehabilitation Act, which also prohibits discrimination against individuals with disabilities, and under the Americans with Disabilities Act. HCC's obligations under these laws are different than what students will have experienced during high school. The objective of reasonable accommodations in college is to accommodate the functional limitations of the student while maintaining the integrity of college courses and programs. Colleges provide reasonable accommodations in accordance with federal law, and not modifications to courses.

Student's Responsibility

Obtaining reasonable accommodations is a process which is voluntary on behalf of the student and interactive. It is the student's responsibility to self-identify, disclose their disability or condition to the disAbility Services Office, provide the appropriate documentation from a qualified professional, usually a physician or clinician, with a diagnosis of their disability (s), and request reasonable accommodations. The disAbility Services Office, in communication with the student, will issue a letter detailing the student's approved reasonable accommodations. Once the ADA accommodation letter is received by the student, the student should contact his/her instructors at the start of the semester and present the letter to them. Accommodation letters are not retroactively applied. It is the student's responsibility to communicate their questions or concerns associated with their accommodation letter to the disAbility Services office in a timely manner. Due to high demands for services, we strongly encourage students to request accommodations before the start of each academic term. Failure to provide sufficient documentation or timely request accommodations may delay the delivery of accommodations. Returning students should contact the disAbility Services office at the beginning of each semester to receive their reasonable accommodation letters. Additional documentation may be requested if students request to change their existing accommodations.

Examples of Reasonable Accommodations (not limited to)

Examples of accommodations students have received include, but are not limited to, extra time for testing, use of a tape recorder in classroom, Sign Language interpretation or CART services, preferential seating in the classroom, and alternate text books.

ADA Counselors

The point of contact for the HCC students with a qualified disability seeking accommodations under the ADA is the Ability Services Office. The Ability Services Offices are located at each of our 6 colleges. For the list of counselors and their contact information visit: <http://www.hccs.edu/support-services/disability-services/>. Students enrolled wholly as online students can contact any of the ADA counselors to request ADA accommodations.

Grievance and Appeal Process

The College District official to receive complaints is David Cross, the ADA/Section 504 coordinator. Reports of discrimination based on disability may be directed to the ADA/Section 504 coordinator. The College District designates the following person to coordinate its efforts to comply with Title II of the Americans with Disabilities Act of 1990, as amended, which incorporates and expands the requirements of Section 504 of the Rehabilitation Act of 1973, as amended:

Name: David Cross

Position: Director of EEO Compliance and the Office of Institutional Equity

Address: 3100 Main Street, 7th Floor, Houston, TX 77002

Telephone: (713) 718-8271

A party who is dissatisfied with the outcome of the investigation may appeal through the applicable grievance policy beginning at the appropriate level. See DGBA(LOCAL) for employees, FLD(LOCAL) for students, and GB(LOCAL) for community members. These policies are available at <https://www.hccs.edu/about-hcc/policies/>.

A party shall be informed of his or her right to file a complaint with the U.S. Department of Education Office for Civil Rights.



Health Services

HCC does not operate a Student Health Center; however, HCC is concerned about the health and welfare of its students and provides important health information to students. For information about student health insurance programs, visit <https://www.hccs.edu/resources-for/current-students/student-health-insurance/>.

- Bacterial meningitis vaccination:
<https://www.hccs.edu/applying-and-paying/meningitis/>
- Counseling
<https://www.hccs.edu/support-services/counseling/>
- Drug & Alcohol Abuse Prevention
<https://www.hccs.edu/support-services/drug--alcohol-abuse-prevention/>

Student Identification Card

Student identification (ID) cards are available once a student has registered and paid for classes. The card will be needed for library and computer lab usage, admission to college activities, and voting in campus elections. ID cards are nontransferable and are to be held only by the students to whom they were issued. Students are required to be in possession of their ID card at all times. All ID cards are the property of HCC and must be shown when requested by a representative of the College District. If students lose their ID cards, they should report it to the campus police by calling 713.718.8888 as soon as it is discovered as missing. To obtain a replacement card, students must initiate the process at the college campus they attend.

Career Planning and Job Search

The Career Planning and Resources Office assists current and former HCC students with career assessments, career planning, identifying full or part-time employment, connecting with internship and externship opportunities. Workshops covering job and career readiness are held in classrooms and at various campuses throughout the district. The Virtual Career Network allows a student to search employment opportunities in the Houston-area, post resumes, register for various workshops, review upcoming events, participate in mentor discussions, and much more. There is a Career Planning Specialist at each college to help set a student' career goals, resume writing, interviewing, and improving a student's overall job readiness skills. Job fairs and other on-campus recruiting/hiring events are also made available to students and alumni. For more information, please visit: <https://www.hccs.edu/support-services/career-planning>.

Student Life and Recreational/Sports

The Student Life and Recreational Sports Offices offer activities and programs that extend students' personal and intellectual growth. Some of the activities include: student government; student associations; clubs and organizations relating to student interests; honor societies; student publications (The Egalitarian and organization newsletters); recreational and intramural sports as well as cultural, social, educational and leadership development activities. To get involved, visit <https://www.hccs.edu/student-experience/student-life-on-campus/>.

Testing

The Testing Center is responsible for the administration of various assessment tests to incoming and current students for the purpose of determining course placement. Testing schedules will vary, and not all tests are available at each college. For a list of testing center locations and hours of operation visit: <https://www.hccs.edu/resources-for/current-students/testing-services/>.

Special accommodations and testing centers are available for those who qualify. HCC students with a qualified disability seeking accommodations under the ADA should contact one of The Ability Services Offices located at each of our 6 colleges. For the list of counselors and their contact information visit: www.hccs.edu/support-services/disability-services/.

Student Complaints

Houston Community College is committed to providing an educational climate that is conducive to the personal and professional development of each individual. In order to ensure that commitment, the College has developed procedures for students to address their concerns within the college community. A student who has an unresolved disagreement with a faculty or staff member, another student, or a student group, or is dissatisfied with the service they received, may initiate a complaint without prejudicing his or her status with the College. It is the goal of HCC to assist all students in efficiently resolving their concerns.

Students should refer to the HCC policy or process for specific types of complaints/appeals:

- Discrimination, Harassment and Retaliation (See Board Policies FFDA and FFDB):
<https://www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f/>
- Financial Aid Satisfactory Academic Progress Appeals:
<https://www.hccs.edu/applying-and-paying/financial-aid>
- Grade Appeals:
<https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures>
- Student Conduct (See Board Policy FLB (Local)):
<https://www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f/>

Complaints not related to the issues noted above should follow the Non-Academic Student Complaint Policy (see Board Policy FLD (Local)) at <https://www.hccs.edu/about-hcc/policies/hcc-board-policy-manual-section-f/>.

Students who have not been able to resolve their concern informally, may file a formal written complaint. Refer to one of the processes listed above based on the type of concern the student has and then submit a formal complaint at:

https://publicdocs.maxient.com/reportingform.php?HoustonCC&layout_id=5

For assistance in determining the correct procedure to follow or to identify the appropriate dean or supervisor for informal resolution, students can contact the Dean of Student Development at their campus for assistance at: <https://www.hccs.edu/about-hcc/procedures/student-rights-policies-procedures/student-complaints/speak-with-the-dean-of-students/>.

Per the Texas Higher Education Coordinating Board (THECB) codified rules under Title 19 of the Texas Administrative Code, Sections 1.110 – 1.120, after exhausting the institution's grievance/complaint process, current, former, and prospective students may initiate a complaint with THECB. Refer to THECB web site for details on this process at:

<http://www.thecb.state.tx.us/index.cfm?objectid=989FE9A0-2213-11E8-BC500050560100A9>

The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) publishes a Policy Statement on Complaint Procedures Against Its Accredited Institutions. Students, employees or others may initiate a complaint on alleged violations of SACSCOC Principles of Accreditation, the Core Requirements, and policies or procedures, as well as address possible violations of an institution's own policies and procedures, if related to the Principles. Refer to the Policy Statement for details on this process at <http://www.sacscoc.org/pdf/081705/complaintpolicy.pdf>.



Student Code of Conduct

What follows is the Student Code of Conduct, which includes non-exhaustive references to applicable HCC policies. Referenced Board Policies may be found at: <https://www.hccs.edu/about-hcc/policies/>.

Catalog Title/Subject	Verbiage	Reference
Student Code of Conduct and Discipline Procedures	<p>PROCEDURE Student Code of Conduct and Discipline Procedures</p> <p>PURPOSE The purpose of this procedure is to inform students of expected behavior, the right to due process for suspected violations of the student code of conduct, and the consequences for violations.</p> <p>APPLICABILITY This procedure applies to all students, including those seeking academic, workforce, or continuing education credit as well as non-credit seeking students.</p> <p>DEFINITIONS In the code, unless the context requires a different meaning, the following definitions apply:</p> <ul style="list-style-type: none"> • “Class Day” means a day on which classes are regularly scheduled or examinations are given. • “Dean” means the College Dean of Student Services. • “Chief of Police” means the head supervisor over police and security personnel. • “Chancellor” means the top ranking official of the Houston Community College District • “Student” means a person enrolled at the college, a person accepted for enrollment, or an alumnus of the college. • “Administrators” means all vice chancellors, associate vice chancellors, college presidents, deans, associate deans, directors and coordinators of the college district. • “Complaint” means a written summary of the essential facts constituting a violation of College Rules Regulations. • “Board” means the Board of Trustees of the Houston Community College District. • “Violation” means an offense which may result in disciplinary action, suspension or expulsion from the college. • “Classroom” includes physical and virtual educational environments. 	<p>Board Policy FM (Legal)</p> <p>Board Policy FLB (Local)</p>

Catalog Title/Subject	Verbiage	Reference
Basic Standard of Conduct	<p>According to its policy on student conduct, Houston Community College views college-level students as adults who subscribe to a basic standard of conduct, which in part requires that they not violate any municipal, state or federal laws. Accordingly, HCC has a duty and corollary disciplinary power to protect its educational purpose of setting standards of conduct and regulations of the use of district property. Moreover, a student's membership in the community of scholars is a privilege and carries with its obligations to participate in and contribute to the educational mission of the college and to avoid any behavior that is contrary to that mission. Therefore, no student may disrupt or otherwise interfere with any educational activity being performed by a member of the college district. In addition, no student may interfere with his/her fellow students' right to pursue their academic goals to the fullest in an atmosphere appropriate to a community of scholars. An instructor may establish additional reasonable behavioral guidelines for his/her class. Any student failing to abide by appropriate standards of conduct during scheduled college activities may be required by the instructor or another college official to leave that day's class or activity. The student has the right to return to the next class/activity, provided the student has met with the appropriate department chair and/or dean of students, as applicable, or unless otherwise instructed. If a student refuses a request to voluntarily leave the classroom or activity, security/HCCPD may be summoned to remove the student so that the scheduled activity can resume without further disruption. In cases of serious problems, the faculty or staff member will document and report the incident to his/her supervisor. Further disciplinary action may be pursued to include referral to the Dean of Student Services. The above policy does not diminish the student's freedom to take reasonable exception to the data or views offered in any course of study and to reserve judgment about matters of opinion. However, students are responsible for learning the content of any course of study in which they are enrolled. Free inquiry and free expression, both by the instructor and the student, and subject to applicable law, are indispensable to the pursuit of truth and the development of students. Students must exercise their liberty with responsibility. A student is not entitled to greater immunities or privileges under this policy than those enjoyed by other citizens generally.</p>	
Searches	<p>No person, except a law enforcement officer, will search a student's personal possessions for the purpose of enforcing the Student Discipline Code of Conduct unless the individual's prior permission has been obtained, subject to the limitations that follow. Searches by law enforcement</p>	Board Policy FLC (Legal) (Local)

Catalog Title/Subject	Verbiage	Reference
	<p>officers of such possessions will be conducted only as authorized by law. All HCC controlled property, such as lockers, desks, equipment, and rooms will be subject to search at any time, and no student should place an object in these HCC controlled areas with a reasonable expectation of privacy.</p>	
Smoking	<p>HCC prohibits smoking, including the use of e-cigarettes, inside any of its buildings, owned or leased, including offices, classrooms, restrooms, hallways, elevators and all other interior locations. Smoking is permitted outside in approved areas established by each college, administrative, or support location.</p>	<p>Board Policy FLB (Local)</p>
Drug-Free Schools	<p>HCC is fully dedicated to a drug-free environment for all students and employees at all college locations. The unlawful manufacture, distribution, dispensation, possession, sale, offer to sell, purchase and/or use of controlled substances or alcohol on campuses, at teaching sites, in vehicles, and on other property owned, leased or under the control of HCC and at all on-campus and off-campus, school-sponsored activities is prohibited.</p> <p>Controlled substances are those defined in Schedules I through V of Section 202 of the Texas Health and Safety Code, Section 481.001 et. seq. the Texas Controlled Substances Act. Controlled substances include, but are not limited to, such substances as marijuana, hashish, heroin, cocaine, LSD, PCP, methamphetamine, anabolic steroids, human-growth hormones and fentanyl. A student who uses a drug authorized by a licensed physician through a prescription specifically for that student's use will not be considered to have violated this rule. As a condition of enrollment, all students are required to follow HCC policy and regulations concerning alcohol and other drugs. College counselors are available to students for consultation on alcohol and other drug issues. Counselors will assist students personally or act as a referral source when necessary. All student-counselor relationships will be on a confidential basis to the extent permitted by law.</p> <p>HCC distributes to students an annual statement regarding its drug and alcohol policies, in addition to this Handbook and Code of Conduct.</p>	<p>Board Policy FLBE (Legal) (Local)</p>
Drug and Alcohol Violations	<p>Students who violate the Student Discipline and Conduct Policy regarding drugs and alcohol on campus will be subject to disciplinary action including but not limited to: referral to drug and alcohol counseling or rehabilitation programs, student assistance programs, suspension, expulsion and referral to appropriate law enforcement officials for prosecution.</p>	

Catalog Title/Subject	Verbiage	Reference
Financial Obligation	<p>Students are responsible for resolving their financial obligations to the college. The College Operations Officer or appropriate official may initiate disciplinary proceedings against students who allegedly:</p> <ul style="list-style-type: none"> • Refuse to pay or fail to pay a debt owed to the college. • Gives the college a check, draft, or order with intent to defraud the college. The Business Office sends written notice to a student when the drawee has rightfully refused payment. A student's failure to pay the college the amount due on a check, draft or order on or before the fifth class day after the notice is given for the purpose of this Code of Conduct constitutes prima facie evidence that the student intended to defraud the college. 	Board Policy FLB (Local)
Misuse of Electronic Devices in the Classroom	<p>The use of electronic devices by students in the classroom is up to the discretion of the instructor. Any use of such devices for purposes other than student learning is strictly prohibited. If an instructor perceives such use as disruptive and/or inappropriate, the instructor has the right to ask the student to terminate such use. If the behavior continues, the student may be subject to disciplinary action to include removal from the classroom or referral to the dean of student services for further disciplinary action.</p>	
Social Networking and Student in Health Care Programs	<p>Students in health care programs must adhere to federal laws regarding HIPAA protected information and college policies regarding protection of privacy of the student's patients. Students may not post any photos, videos, patient information, or any other data regarding patients or affiliations on Social Networking sites, including but not limited to Facebook, MySpace, Twitter, YouTube.</p>	
Recording in the Classroom	<p>Students must obtain consent from an instructor in order to audio or video record any portion of classroom time. If a student is receiving an accommodation for a disability, the student may be required to sign a statement assuring that the recording is only for personal use and will not be distributed.</p> <p>Failure to abide by this policy may result in disciplinary action.</p>	
Academic Integrity and Scholastic Dishonesty	<p>When Houston Community College awards a credential, it is avowing that the work is of quality and integrity. A credential is meaningless if it is not honestly earned; therefore, HCC expects all students to conduct themselves with honor and integrity. Proceedings may be initiated by instructors, department chairs, and/or instructional deans against a student accused of a violation of academic integrity. "Scholastic Dishonesty" includes, but is not limited to cheating, plagiarism, and collusion.</p>	

Catalog Title/Subject	Verbiage	Reference
	<p>As stated in Board Policy FLB, “cheating” shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> • Copying from another student’s test or class work; • Using test materials not authorized by the person administering the test; • Collaborating with or seeking aid from another student during a test without permission from the test administrator; • Knowingly using, buying, selling, stealing, or soliciting, in whole or in part, the contents of an unadministered test, paper, or another assignment; • The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test; • Substituting for another student, or permitting another student to substitute for one’s self, to take a test; • Bribing another person to obtain an unadministered test or information about an unadministered test; • Manipulating a test, assignment, or final course grades. <p>“Plagiarism” shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another’s work and the unacknowledged submission or incorporation of it in one’s own work.</p> <p>“Collusion” shall be defined as the unauthorized collaboration with another person in preparing written work submitted for fulfillment of course requirements.</p> <p>Scholastic dishonesty shall also include any fraud, unethical conduct, or intentional misconduct by administrators, faculty, staff, or students, including but not limited to the falsification or unauthorized altering of information of a student record (including information in an official student information system).</p> <p>Penalties and/ or disciplinary proceedings may be initiated by instructors, department chairs, instructional deans, and/or deans of student services against a student accused of academic dishonesty. Discretion is given to the instructor as to the administration of consequences for academic integrity violations at the classroom level, subject to any rules imposed by the relevant program/division/center of excellence. Consequences might include such penalties as:</p> <ul style="list-style-type: none"> • a zero on the assignment in question; • a mandatory re-taking or re-doing of the assignment in question, failure of which to perform resulting in course failure; • a significant deduction from the final overall course grade; 	

Catalog Title/Subject	Verbiage	Reference
	<ul style="list-style-type: none"> • dismissal from the course (if prior to the date of last withdrawal); or • failure of the entire course. <p>Regardless of consequence, academic integrity violations must be documented, so that the due process rights of all concerned parties are upheld, and that the institution is better able to monitor and maintain academic rigor. See Procedures for Documenting Integrity Violations.</p>	
Violations of Academic Integrity	<p>If an instructor or instructional leader suspects that academic integrity has been violated, the instructor/leader will collect the evidence and notify the student. The student may meet with the instructor/leader to discuss the evidence. The instructor/leader will notify the student of findings in writing (HCC student email sufficient). Possible consequences for a violation of academic integrity may include a grade of “o” or “F” on the particular assignment/exam or failure in the course. Some HCC programs may view a first violation to be egregious and may result in removal from the program.</p> <p>Individual assignment/exam grades are final. Students who wish to contest findings that result in failure of the course may submit a request for review to the chair (or dean if the chair is the instructor or if there is no chair) within seven (7) business days. The chair (or instructional leader) reviews evidence presented by both parties and makes a determination within seven (7) business days.</p> <p>Appeals of the chair’s decision may only be made on procedural grounds and should be submitted within seven (7) business days to the appropriate dean/next level supervisor.</p> <p>Egregious violations: If an instructor or instructional leader determines the alleged violation of academic integrity warrants action beyond the course, the case may be referred directly to the Dean of Student Success and Engagement who will utilize the Student Code of Conduct procedures to resolve the allegation.</p> <p>A violation of academic integrity that is “egregious” is defined as an action that goes well beyond the boundaries of acceptable behavior. Examples may include (but are not limited to) organizing or participating in a cheating ring, theft or misappropriation of instructional materials, impersonation of another student, purchasing of papers or assignments from others, bribery of another to take an exam or complete an assignment, or any violation that also violates state and/or federal laws.</p>	
Record Keeping, Repeat Violations, and	<p>Once a violation of academic integrity has been confirmed, the instructor/leader will enter the case and all supporting documentation into the HCC electronic tracking system (Maxient). An HCC Dean of Student Success and</p>	

Catalog Title/Subject	Verbiage	Reference
<p>Egregious Violations of Integrity</p>	<p>Engagement or an Associate Dean of Student Success and Engagement will be automatically notified of the case through Maxient. The receiving Dean of Student Success and Engagement will review for any prior violations.</p> <p>Violations involving dual credit students will be reported to HCC P-16 Coordinators who will report the incident to the student’s high school.</p> <p>First time violation: The Dean of Student Success and Engagement will send the student confirmation that the incident has been recorded, the importance of academic integrity going forward, and the possible consequences should there be any violations in the future.</p> <p>Repeat violation: The Dean of Student Success and Engagement will send the student correspondence requiring them to set up a meeting to discuss the repeat integrity violation. A second violation may result in a one semester suspension from HCC. Three or more violations may result in a permanent expulsion from HCC.</p> <p>Egregious violations may be met with immediate suspension or expulsion in accordance with rules set down in the Student Code of Conduct.</p>	
<p>Disruptive Activity</p>	<p>Students shall not engage in disruptive activities while on the college campus or property. The Dean of Student Services will be responsible for enforcing regulations set by the college and the state concerning disruptive activities. State legislation governing such activities is found in Texas Education Code 37.123, and is as follows:</p> <p>No person or groups of persons acting in concert may willfully engage in disruptive activities or disrupt a lawful assembly on the campus or property of any private or public school or institution of higher education or public vocational and technical school or institute. For the purposes of this Code of Conduct, as in the Act, “Disruptive Activity” means:</p> <ul style="list-style-type: none"> • Obstructing or restraining the passage of persons in an exit, entrance or hallway of any building without the authorization of the administration of the school • Seizing control of any building or portion of a building for the purpose of interfering with any administrative, educational, research or other authorized activity • Preventing or attempting to prevent by force or violence or the threat of force or violence any lawful assembly authorized by the school administration • Disrupting by force or violence or the threat of force or violence a lawful assembly in progress • Obstructing or restraining the passage of any person at an exit or entrance to said campus or property or preventing or attempting to prevent by force or violence or by threats thereof the ingress or egress of any person 	<p>Board Policy FLB (Legal)</p>

Catalog Title/Subject	Verbiage	Reference
	<p>to or from said property or campus without the authorization of the administration of the school</p> <p>A lawful assembly is disrupted when any person in attendance is rendered incapable of participating in the assembly due to the use of force or violence or due to reasonable fear that force or violence is likely to occur. Nothing herein shall be construed to infringe upon any right of free speech or expression guaranteed by the Constitution of the United States or the State of Texas. Students engaging in disruptive activity may be subject to disciplinary action.</p>	
Disruptive Classroom Behavior	<p>While it is impossible to compile a complete list of disruptive behavior, any form of conduct by an individual or group of students that interferes with or inhibits the educational opportunities of another student is considered a disruption. Similarly, conduct that diminishes the effectiveness of an instructor or has the effect of negatively impacting the learning environment is also considered a disruption. Students engaging in disruptive classroom behavior may be subject to disciplinary action.</p>	Board Policy FLB (Local)
Threatening or Violent Behavior	<p>Students are prohibited from making threats or engaging in violent activities. Examples of such behavior consist of, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Intentionally, recklessly, or negligently engaging in verbal abuse, threats, intimidation, harassment, coercion, and/or other conduct which threatens or endangers the mental or physical health and/or safety of any person or causes reasonable apprehension of such harm. • Stalking or willfully, maliciously and repeatedly following or harassing another person in a manner that would cause a reasonable person to feel frightened, intimidated, harassed, molested. • Engaging in conduct that constitutes harassment, including sexual harassment and sexual misconduct, bullying, or dating violence directed toward another person, including a student or employee. • Engaging in a physical altercation or fighting • Causing physical injury to another person • Sexual assault <p>Such behaviors will not be tolerated and may be grounds for disciplinary action, up to and including expulsion. A student who poses a threat to him/herself or others will be subject to disciplinary action which may involve a mental health leave of absence.</p>	

Catalog Title/Subject	Verbiage	Reference
Other Offenses	<p>The college Dean of Student Services may initiate disciplinary proceedings against students who engage in other offenses to include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • Conducting oneself in a manner that significantly interferes with college teaching, research, administration, disciplinary procedures or other authorized college activities (including its public service functions) on the college premises • Damaging, defacing or destroying college property or the property of a member of the college community or a campus visitor • Damaging, misusing or reprogramming college computers or equipment without proper authorization or installing viruses • Knowingly provide false information in response to requests from the college • Hate messaging • Hazing, as defined by state law and college regulations • Forging, altering or misusing college documents, records, or ID cards • Violating college policies or regulations concerning registration of student organizations, use of college facilities, or the time, place, and manner of public expressions • Intentionally making false accusations against faculty, staff, or students • Failure to comply with lawful directions of college officials acting in the performance of their duties • Committing any act which is classified as an indictable offense under either state or federal law while on campus or while involved in college-sponsored activities • Failure to comply with the college’s attendance policy or other academic requirements of the college and its programs • Using, possessing, controlling, manufacturing, transmitting, selling, or being under the influence of any illicit drug or narcotic, as those terms are defined by the Texas Controlled Substance Act, on college district property or at any college-related events or activities, unless under the direction of a physician • Using, possessing, controlling, manufacturing, transmitting, or selling paraphernalia related to any prohibited substance • Using, possessing, controlling, manufacturing, transmitting, selling, or being under the influence of 	<p>Board Policy FLB (Local)</p> <p>Board Policy FLBC (Legal)</p> <p>Board Policy FLBE (Legal) (Local) (Exhibit)</p>

Catalog Title/Subject	Verbiage	Reference
	<p>alcohol or another intoxicating beverage without the permission of the college district</p> <ul style="list-style-type: none"> • Destroying state property or students' personal property • Instigating a disturbance or riot which substantially disrupts the educational process • Theft, attempted theft or unauthorized use or possession of HCC property or property belonging to others • Any attempt at bodily harm toward self or others (this includes taking an overdose of pills or any other act where emergency medical attention is required) • Failure to pay or settle a debt owed with the college • Failure to comply with parking and traffic regulations • Possession, distribution, sale, or use of firearms in violation of the college district's regulations regarding campus carry and/or applicable state law, explosives (including fireworks), swords, daggers, straight razors or illegal knives on any campus or in automobiles on campus parking lots • Misuse of ID card • Gambling • Unauthorized use of college facilities • Violating policies, rules, or agreements signed by the student regarding the use of technology resources • Other activities which disrupt the normal educational process 	
<p>Student Discipline Code</p>	<p>Students in the college district are protected as any citizen and have due process rights as stated in the Fourteenth Amendment. Students must, however, assume the responsibilities of citizenship. They are expected to obey both the penal and civil statutes of the State of Texas and the federal government and the Board Rules, College District Regulations and Administration Rules. This Student Discipline Code contains regulations for dealing with alleged student violations of college district standards of conduct in a manner consistent with the requirements of procedural due process.</p> <p>The code applies to individual students and states the function of student, faculty and administrative staff members of the college district in disciplinary procedures. The college district has jurisdiction for disciplinary purposes over persons who were students at the time they allegedly violated rules and policies. A student shall be subject to discipline if the student commits a violation: (1) while on college district premises; (2) while attending a college district activity; or (3) while elsewhere if the behavior</p>	<p>Board Policy FM (Legal) Board Policy FLB (Local)</p>

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	adversely impacts the educational environment or otherwise interferes with the college district's operations or objectives.	
Initiation of Disciplinary Action	<p>An instructor has the right to require a student to leave the classroom when it is perceived that the student is disruptive. If a student refuses a request to voluntarily leave the classroom, security/HCCPD may be summoned to remove the student so that the class can resume without further disruption. If a student is required to leave the classroom, the student must meet with the appropriate department chair, or in the case of a serious violation, the student will be required to meet with the dean of student services prior to returning to class. All efforts will be made to meet with the student prior to the next class meeting in order to handle the matter expediently.</p> <p>When the Dean of Student Services receives information that a student has allegedly violated a rule or policy, the dean will investigate the alleged violation. Upon completion of the investigation, the dean can take action as stated in the Penalties Section of this procedure.</p> <p>The Dean can take immediate interim disciplinary actions and suspend the right of a student to be present on any HCC campus, enroll or attend classes. Altering the status of a student for violation of a rule or policy when an emergency exists, requires immediate action to preserve the educational environment.</p> <p>The Dean also has the right to suspend a student pending investigation. In the event the temporarily suspended student is found not to have violated the rule or policy, the student will be given the opportunity to resume classes and make up the work at no cost to the student.</p>	
Summoning the Student	<p>A student can be summoned by the Dean to appear in connection with an alleged violation. It is the student's responsibility to maintain a current address and phone number within the college's student system account. In other instances, college officials may complete a Student Incident Report and tell a student that he/she cannot return to a class or activity until the student has contacted the Dean.</p> <p>The student will be directed to appear at a specified time and place not more than seven working days after the time of the call or the completion of the form.</p> <p>The Dean can place a student on disciplinary probation if the student fails, without good cause, to comply with a Letter of Summons, or the Dean can proceed against the student as described below in "Administrative Disposition of a Violation."</p>	

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Administrative Disposition of a Violation	<p>In administratively disposing of a violation, the Dean can impose any disciplinary action authorized in “Penalties,” subject to the student’s right to appeal.</p> <p>At a conference with a student in connection with an alleged violation, the Dean will advise the student of his or her rights.</p> <p>The Dean will prepare an accurate, written summary of each administrative disposition of a violation and forward a copy to the student and to the college president and other administrative personnel when deemed appropriate. (Discretion may call for modification of this listing.)</p> <p>If the administrative disposition is accepted, the student will be given an opportunity to review and sign a statement certifying understanding of the nature of the charges, the right to a hearing or to waive the same, the penalty imposed, and the waiver of the right to appeal. In the event that a student refuses the administrative disposition, the student may appeal the decision and is entitled to a hearing.</p>	
Student Discipline Committee	<p>When a student refuses administrative disposition of a violation, the student is entitled to a hearing before a Discipline Committee. This request must be made in writing on or before the seventh working day following the administrative disposition. Discipline Committees will be appointed by the college president and will include three faculty or staff members and two students. The Discipline Committee will elect a chairperson from the three faculty or staff members. The chairperson will preside over the hearing. All members of the committee are eligible to vote in the hearing and the majority vote will dictate the outcome of the proceedings.</p> <p>The college Dean of Student Services will set the date, time and place for the hearing and notify the student defendant of the date, time, and place. The Dean will also request the appearance of witnesses and require the production of documentary and other evidence.</p> <p>The Dean will represent the college before the Discipline Committee and present evidence to support any allegations of violations of Board Rules, College Regulations, or Administrative Rules.</p>	
Notice	<p>The Dean will notify the student concerned by phone and email or letter using the student’s last known information in HCC files of the date, time and place for the hearing. The dean will specify a hearing date not less than three, or more than 10, class days after the date of the contact. The Dean can, for good cause, postpone the hearing as long as all interested parties are notified of the new hearing date, time and place.</p>	

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	<p>The Discipline Committee can hold a hearing at any time as long as the student has been provided actual notice of the date, time and place of the hearing as provided above.</p> <p>The hearing notice will:</p> <ul style="list-style-type: none"> • State the violation for which the student is accused. • Direct the student to appear before the committee on the date and at the time and place specified. • Advise the student of his or her rights. 	
Student Rights	<p>Charges stemming from a single transaction or occurrence against one or more students can be heard together; however, at the option of the committee or upon request by one of the students involved, a separate hearing may be held. At least seventy-two hours prior to the hearing date, the student concerned should furnish the committee chairperson with:</p> <ul style="list-style-type: none"> • The name and address of each witness the student wants to appear and a description of all documentary and other evidence possessed by the college which the student wants produced. • A summary of the proposed testimony of each witness. • A request for a separate hearing, if any, and the grounds for such request. <p>When the hearing is set, or for any good cause determined by the committee chairperson, the student concerned is entitled to furnish the information described above before the hearing begins. Failure to provide advanced notices can result in the committee's refusal to allow witnesses to participate in the hearing or can be grounds for a delay in the proceeding.</p>	
Hearing	<p>The hearing is informal and the chairperson will provide reasonable opportunities for witnesses to be heard. The college will be represented by the Dean. The student is entitled to obtain legal representation at his/her own expense if he/she so chooses.</p> <p>The committee will proceed generally as follows during the hearing:</p> <ul style="list-style-type: none"> • The Dean reads the violation for which the student is accused. • The Dean informs the student of his or her rights. • The Dean presents the college's case. • The student presents his or her defense. • The Dean and the student present rebuttal evidence and arguments. <p>The committee meets in closed session to discuss the case and votes to decide whether or not there has been a violation of a rule or policy. If the committee finds the</p>	

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	<p>student has violated a rule or policy, the committee will determine the appropriate action:</p> <ul style="list-style-type: none"> • Uphold the decision and penalty imposed by the Dean • Impose a less severe penalty • Find the student free from any violations <p>The committee or the Dean acting on behalf of the committee will state in writing the outcome of the hearing. In the event that a student is found to have violated a rule or policy each violation will be stated with the corresponding penalty. Each committee member concurring in the finding and penalty will sign the statement. The committee will include in the statement its reasons for the finding and penalty.</p>	
Evidence	<p>Legal rules of evidence do not apply to hearings before the Discipline Committee, and the committee can admit and give probative effect to evidence that possesses probative value and is commonly accepted by reasonable people in the conduct of their affairs. The committee will exclude irrelevant, immaterial and unduly repetitious evidence. The committee will recognize as privileged, to the extent permitted by law, communications between a student and a member of the professional staff of the counseling center where such communications were made in the course of performance of official duties and when the matters discussed were understood by the staff member and the student to be confidential. Committee members can freely question witnesses. The committee will presume a student is innocent of the alleged violation until it is convinced by a preponderance of the evidence that the student violated a rule or policy. All evidence will be offered to the committee during the hearing and made a part of the hearing record. Documentary evidence can be admitted in the form of copies or extracts or by incorporation by reference.</p>	
Record	<p>The hearing record will include:</p> <ul style="list-style-type: none"> • A copy of the notice required • All documentary and other evidence offered or admitted as evidence • The committee's decision <p>The disciplinary records and proceedings will be kept separate from the student's academic record and will be treated as confidential to the extent provided by law. Final disposition of the record will reside with the Office of Student Records.</p>	
Appeal	<p>A student is entitled to appeal from the Discipline Committee to the college president. The college president will automatically review every penalty of expulsion. A petition is informal, but will contain the information</p>	

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	<p>required. A student should file the petition with the president on or before the third class day after the Discipline Committee announces its decision. The decision of the president is final.</p> <p>The college president in his/her review may take any action that the Student Discipline Committee is authorized to take. The college president will receive written briefs and hear oral argument during their review, if a student chooses to file a written brief.</p>	
Grounds for Appeal	<p>The appeal must cite at least one of the following criterion as the reason for the appeal.</p> <ul style="list-style-type: none"> • Procedures were not properly followed as outlined in Student Rights and Responsibilities. • New or newly discovered information which substantially affects the outcome of the hearing has been discovered. Under this criterion, the case may be referred to the hearing body. • The imposed sanction was inconsistent or too severe for the gravity of the violation(s). 	
Penalties	<p>Subject to the student’s right of appeal, the Dean, Discipline Committee, or President may impose one or more of the following penalties for violation of a rule or policy:</p> <ul style="list-style-type: none"> • Warning • Disciplinary probation • Suspension of rights or privileges, with specific rights and/or privileges specified • Suspension of eligibility for official co-curricular activities • Suspension • Expulsion • Restitution • Withholding of transcript or degree • Denial of degree <p>The penalties above shall be defined as follows:</p> <ul style="list-style-type: none"> • Warning indicates that further violations of regulations will result in more severe disciplinary action. Warning can be imposed for any length of time up to one calendar year, and the student will be automatically removed from warning status when the imposed period expires. • Disciplinary probation indicates that further violations can result in suspension. In addition, the Dean may require the student to participate in activities such as counseling, tutoring, etc. A hold will be placed on the student's account preventing any transactions. The student must communicate with the Dean prior to initiating any transactions (i.e. registration, transcript 	

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	<p>requests, etc.). Deans can require records from counselors or tutoring to be submitted in an effort to ensure that the imposed sanction reasonably may lead to correcting the harm caused by the misbehavior or preventing future similar violations. Disciplinary probation can be imposed for any length of time up to one calendar year and the student will be automatically removed from probation when the imposed period expires.</p> <ul style="list-style-type: none"> • Suspension of rights and privileges is an elastic penalty which can impose limitations or restrictions to fit the particular case. • Suspension of eligibility for official co-curricular activities prohibits, during the period of suspension, the student on whom it is imposed from joining a registered student organization, taking part in a registered student organization's activities or attending its meetings or functions, or participating in an official co-curricular activity. Such suspension can be imposed for any length of time up to one calendar year. • Suspension from the college prohibits, during the period of suspension, the student on whom it is imposed from being initiated into an honorary or service organization; from entering the college campus except in response to an official summons; and from registering, either for credit or for non-credit, for scholastic work at or through the college. Such suspension can be imposed for any length of time up to one calendar year. • Expulsion is permanent severance from the college. • Restitution is reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensate for damages. • Withholding of transcript or degree is imposed upon a student who fails to pay a debt owed the college or who has a disciplinary case pending final disposition. The penalty terminates on payment of the debt or final disposition of the case. • Denial of degree can be imposed on a student found guilty of scholastic dishonesty and can be imposed for any length of time, up to and including permanent denial. 	
Organizational Discipline	Organizations and officers of organizations must adhere to the same basic Standard of Conduct applied to individual students within the College District. Student groups and organizations may be charged with alleged violations of local, state and federal laws and/or College District policies. A student group or organization and its officers may be held	Board Policy FLBC (Legal)

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	collectively and/or individually responsible when alleged violations occur either during an event sponsored by the organization or by an individual representing or associated with that organization or group.	
Causes for Disciplinary Action Against an Organization	<p>Causes for disciplinary action against an organization include the following:</p> <ul style="list-style-type: none"> • Financial irresponsibility • Criminal actions on the part of officers • Criminal actions at an organization-sponsored event • Use of illegal substances at an organizational event (with the knowledge of the officers) • Destructive actions at an organizational event • Failure to live up to contractual obligations of the organization • Discrimination or harassment knowingly sanctioned or allowed by an organization or at an organizational event • Disruption of College activities on or off campus • Violation of College policy by the officers operating on behalf of the organization • Abuse of the role of student organization in representing the College District • Hazing, and all acts associated with hazing as set forth in Texas Education Code Chapter 37, Subchapter F; • Initiations that include features that are dangerous, harmful, or degrading to a student • Any violation covered in the Student Discipline Code 	
Office of Responsibility	Student Services	

Alcohol and Controlled Substance Policy and Procedures

Subject: The term Controlled Substances are those defined in Schedules I through V of Section 202 of the Texas Health and Safety Code, Section 481.001 *et. seq.* the Texas Controlled Substances Act. Controlled substances include, but are not limited to, such substances as marijuana, hashish, heroin, cocaine, LSD, PCP, methamphetamine, anabolic steroids, human-growth hormones and fentanyl.

Purpose

Houston Community College (HCC) is committed to providing its students and employees a drug- and alcohol-free workplace and learning environment to promote the reputation of HCC and its employees as responsible citizens of public trust, and to provide a consistent model of substance-free behavior for students. All employees and students are informed of the program and policy regarding the use of alcoholic beverages and controlled substances by means of the website, student handbook, and electronic mail.

Policy

Houston Community College (HCC) standards of conduct for all employees and students clearly prohibit the unlawful possession, use, or distribution of illicit drugs and alcohol on the campus, at District-sponsored events, on any HCC premises, or as part of any of the school's activities. Students and employees who violate this policy will be subject to arrest and disciplinary action by the college imposed through established due process procedures as set forth in applicable law, applicable HCC Board Policy, and the Student Code of Conduct and Disciplinary Procedures.

Students

As a condition of enrollment, all students are required to follow HCC policy and regulations concerning alcohol and other drugs. The unlawful manufacture, distribution, dispensation, possession, sale, offer to sell, purchase, or use of a controlled substance or alcohol on campuses, at teaching sites, in vehicles, and on other property owned, leased, or under control of HCC, and at all on-campus and off-campus school-sponsored activities is prohibited. Students who violate the applicable HCC Board Policies and/or the Student Code of Conduct and Disciplinary Procedures regarding drugs and alcohol on campus will be subject to disciplinary action including but not limited to: referral to drug and alcohol counseling or rehabilitation programs, student assistance programs, suspension, expulsion, and/or referral to appropriate law enforcement officials for prosecution.

College Employees

While at work, each System employee has a responsibility to deliver service in a safe, efficient, and conscientious manner. Therefore, the use, sale, distribution, manufacturing, or possession of alcohol, or any drugs, including prescription medication used in an unauthorized manner is strictly prohibited and may result in disciplinary action up to, and including, termination.

Each employee has access to HCC employee rules and regulations governing employee conduct in the HCC General New Employee Orientation Booklet, (GNEO). These rules and

regulations are in effect when on campus in any capacity and participating in any HCC (or College) sponsored activity, either on campus or at an off-campus event.

College employees are subject to disciplinary actions as outlined in the HCC/HR policies on the HCC website, Procedure: C.12.1 Drug-and Alcohol-Free Workplace.

State and Federal Statues

Houston Community College (HCC) provides notice of the federal and state laws and regulations, including legal sanctions, which govern alcoholic beverages and controlled substances. The laws are listed and can be found at the following link:

<https://www.hccs.edu/support-services/drug--alcohol-abuse-prevention/standards-of-conduct/>

Health Risks

Houston Community College (HCC) recognizes that drug and alcohol use is a health problem with serious consequences that affect students and their ability to reach their goals.

Health risks associated with drug and alcohol use can be found on the College Drinking, Change the Culture website and DEA-United States Drug Enforcement Administration via a link from www.hccs.edu:

<https://www.collegedrinkingprevention.gov/> and <https://www.dea.gov/factsheets>

Prevention Program

HCC has established a Drug and Alcohol Prevention Program to inform its faculty, staff, and students about the dangers of drug and alcohol abuse, penalties that may be imposed for drug and alcohol abuse violations, and available resources to combat drug and alcohol related issues. The following approaches and program activities and services constitute HCC's effort to prevent drug and alcohol abuse on the part of students. The student services area provides oversight for the content and timelines of the programs for students.

- A. Individual counseling services using Motivational/Feedback techniques
- B. Use of the Brief Alcohol Screening and Intervention for College Students (BASICS) administered by trained counselors
- C. Use of the web-based surveys, Alcohol eCheckUp To Go and Marijuana eCheckUp To Go, to provide students individualized feedback
- D. Educational Awareness Programs - at least one workshop, seminar, or presentation at event per college during the academic year open to students, faculty, and staff
- E. Informational Services - counseling offices will provide readily available brochures and information sheets on alcohol and drug use to students
- F. Referral Services - a list of referral services specialized in providing services and assisting individuals with substance use related issues

Biennial Review

On a biennial basis, a committee chaired by the Associate Vice Chancellor of Student Success and comprised of representatives from the police department, human resources, counseling, financial aid, and student life will conduct a review of the program to assess the following:

- A. Determine the effectiveness of the program and implement necessary changes
- B. Determine the number of drug and alcohol-related violations and fatalities that occur on the HCC campuses
- C. Determine the number and type of sanctions that are imposed
- D. Ensure that sanctions are consistently enforced

Hazing Information

HCC prohibits hazing and/or any conduct related to hazing by any individual, group, or organization. Individuals or organizations that engage in conduct constituting hazing are subject to disciplinary action in accordance with the HCC Student Code of Conduct and Discipline Procedures and prosecution in accordance with applicable law.

Texas Education Code Chapter 37, Subchapter F governs conduct considered to be hazing in educational institutions. Criminal offenses may be imposed for hazing for both individuals and organizations.

Pursuant to Texas Education Code Section 37.151(6), “hazing” means any intentional, knowing, or reckless act, occurring on or off campus by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in any organization whose members are or include other students. The term includes:

1. Any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of a harmful substance on the body, or similar activity;
2. Any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
3. Any activity involving consumption of a food, liquid, alcoholic beverage, liquor, drug, or other substance that subjects the student to an unreasonable risk of harm or that adversely affects the mental or physical health or safety of the student;
4. Any activity that intimidates or threatens the student with ostracism, that subjects the student to extreme mental stress, shame, or humiliation, or that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution, or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to acts described above; or

5. Any activity that induces, causes, or requires the student to perform a duty or task that involves a violation of the Penal Code.

An individual commits the offense of hazing if the individual: (1) engages in hazing; (2) solicits, encourages, directs, aids, or attempts to aid another in engaging in hazing; or (3) has first-hand knowledge of the planning of a specified hazing incident involving a student in an educational institution, or first-hand knowledge that a hazing incident has occurred, and knowingly fails to report that knowledge in writing to the dean of students or other appropriate official of the institution. The degree of offense depends on the specific conduct of the individual and the extent of injury to the victim.

Additionally, an organization is subject to criminal penalties for engaging in hazing. An organization commits the offense of hazing if the organization condones or encourages hazing, or if an officer or any combination of members, pledges, or alumni of the organization commits or assists in the commission of hazing. Such offense is punishable as a misdemeanor by imposition of a fine.

It is not a defense to prosecution for the offense of hazing that the victim acquiesced or consented to the act of hazing. Further, an individual who makes a report in good faith to the dean of students or other college official of an act of hazing is immune from criminal prosecution and civil liability that might otherwise be imposed as a result of the report.

In addition to the penalties imposed by Texas Education Code Chapter 37, Subchapter F, individuals or organizations that engage in hazing may be subject to prosecution for other offenses in the Penal Code and subject to disciplinary action in accordance with the HCC Student Code of Conduct and Disciplinary Procedures.

Gang-Free Zones

Certain criminal offenses, including those involving organized criminal activity such as gang-related crimes, will be enhanced to the next highest category of offense if they are committed in a gang-free zone. For purposes of the college district, a gang-free zone includes a school bus and a location in, on, or within 1,000 feet of any district-owned or leased property or campus.

Degree and Certificate Options

Houston Community College offers the following awards to students once they have chosen their career paths and completed all necessary course and residency requirements.

Associate of Arts--AA Degree

This degree prepares students for academic transfer to a public university or college in Texas as a junior for those who declare a major in the liberal or fine arts. The degree includes 42 hours of the core curriculum and 18 hours of transferable course electives.

Associate of Arts in Teaching--AAT Degree

This degree prepares students for academic transfer to a public university or college in Texas as a junior with a specific teaching major as Early Childhood-Grade 6 or Grades 4-8 Generalist. The degree includes 42 hours of the core curriculum and 18 hours in courses related to teaching.

Associate of Science—AS Degree

This degree prepares students for academic transfer to a public university or college in Texas as a junior for those who declare a major in the sciences, as math, engineering, biology, chemistry, and others. The degree includes 42 hours of the core curriculum and 18 hours of transferable course electives relevant to the student's career path.

Associate of Applied Science—AAS Degree

This degree is specifically for students seeking technical career skills for work in a specific field or industry. The emphasis is on practical and applied skills, but does include 15 hours of general education core classes. It is primarily designed for work, not transfer, although general education core classes will transfer.

Certificates—Level One and Level Two

Certificates in a specialized career field will help a student gain skills for job advancement. Most certificates are designed to be stackable (Level One to Level Two) to help a student complete an AAS degree if so desired.

Marketable Skills Award—MSA

An MSA award prepares a student to enter a high-demand career field with minimal training.

Enhanced Skills Certificate

The certificate is pursued simultaneously with an AAS degree and offers a specialization in a career field with targeted training.

Advanced Skills Certificate

After the student completes an Associate or Bachelor's degree, the advanced skills certificate provides specialized career field training.

Degree and Certificate Requirements for Graduation

Houston Community College offers various degrees and courses to serve the needs of its individual students. Students interested in academic transfer degrees (AA, AS, and AAT) may study courses and earn degrees that will transfer to four year universities, while students interested in pursuing work or advancing in their workplace skills may earn AAS degrees or Certificates that enhance employability. In addition, HCC also offers continuing education courses to enhance lifelong learning.

Students should work with an advisor at the beginning to help identify their program of study, take courses in the prescribed sequence or pathway, and choose their elective credits based on any transfer plans of their intended four year university. Before the final semester, the student should again work with their advisor to assure that all requirements are met in order to file for graduation. In general, working closely with an advisor will create the seamless path to completion.

Core Curriculum

The core curriculum is designed to provide students with the foundational knowledge and transferable skills that are needed for future careers and work in a technological and global society. In addition, the core curriculum helps individual students to develop personal skills of critical thinking, communication, empirical and quantitative reasoning, teamwork, personal responsibility, and social responsibility. Core educated individuals are guided by a strong sense of values, ethics, and civic engagement. The Texas Higher Education Coordinating Board approved a 42 semester credit hour (SCH) core curriculum for all undergraduate students in Texas which was implemented in fall of 2014 for all public colleges and universities offering academic degrees. It included the following statements of purpose, the six core objectives, and the foundational component areas.

Statement of Purpose

Through the core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

Core Objectives

- Critical Thinking Skills—to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- Communication Skills—to include effective development, interpretation and expression of ideas through written, oral and visual communication
- Empirical and Quantitative Skills—to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.
- Teamwork—to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal.

- Personal Responsibility—to include the ability to connect choices, actions, and consequences to ethical decision-making.
- Social Responsibility—to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities.

Foundational Component Areas

- Communication—(6 SCH) Courses in this category focus on developing ideas and expressing them clearly, considering the effect of the message, fostering understanding, and building the skills needed to communicate persuasively. Courses involve the command of oral, aural, written and visual literacy skills that enable people to exchange messages appropriate to the subject, occasion, and audience.
- Mathematics—(3 SCH) Courses in this category focus on quantitative literacy in logic, patterns and relationships. Courses involve the understanding of key mathematical concepts and the application of appropriate qualitative tools to everyday experience.
- Life and Physical Sciences—(6 SCH) Courses in this category focus on describing, explaining and predicting natural phenomena using the scientific method. Courses involve the understanding of interactions among natural phenomena and the implications of scientific principles on the physical world and on human experiences.
- Language, Philosophy & Culture—(3 SCH) Courses in this category focus on how ideas, values, beliefs, and other aspects of culture express and affect human experience. Courses involve the exploration of ideas that foster aesthetic and intellectual creation in order to understand the human condition across cultures.
- Creative Arts—(3 SCH) Courses in this category focus on the appreciation and analysis of creative artifacts and works of the human imagination. Courses involve the synthesis and interpretation of artistic expression and enable critical, creative, and innovative communication about works of art.
- American History—(6 SCH) Courses in this category focus on the consideration of past events and ideas relative to the United States, with the option of including Texas History for a portion of this component area. Courses involve the interaction among individuals, communities, states, the nation, and the world, considering how these interactions have contributed to the development of the United States and its global role.
- Government/Political Science—(6 SCH) Courses in this category focus on consideration of the constitution of the United States and the constitutions of the states, with special emphasis on that of Texas. Courses involve the analysis of governmental institutions, political behavior, civic engagement, and their political and philosophical foundations.

- Social and Behavioral Sciences—(3 SCH) Courses in this category focus on the application of empirical and scientific methods that contribute to the understanding of what makes us human. Courses involve the exploration of behavior and interactions among individuals and groups.
- Component Area Option—(6 SCH)
 - A minimum of 3 SCH must meet the definition and corresponding Core Objectives specified in one of the foundation component areas;
 - As an option for up to 3 semester credit hours of the Component Area Option, an institution may select course(s) that (1) meet the definition specified for one or more of the foundational component areas and (2) includes a minimum of 3 core objectives, including Critical Thinking Skills, Communication Skills, and one of the remaining Core Objectives of the Institution’s choice.

General Associate Degree Requirements (for AA, AAT, and AS)

To be eligible for an Associate of Arts, Associate of Arts in Teaching, or an Associate of Science, a student must successfully

1. Complete at least 60 hours, including 42 hours of core curriculum courses and 18 hours in the student’s area of major and intended transfer major; for the Associate of Science, the student needs 6 additional hours of math and four additional hours of natural science.
2. Complete at least 25% of the semester hours toward the degree in the Houston Community College System. These hours may not be satisfied by credit by exam.
3. Have an overall 2.0 HCC grade point average.
4. Satisfy TSI requirements.
5. Resolve all financial obligations and return all college materials, including library books, to HCC prior to graduation.

General Associate of Applied Science Degree Requirements (AAS)

The Associate of Applied Science degree is designed for students who complete a college-level workforce education curriculum. The AAS degree prepares students for employment in a specific career, and the program pathway includes general education core requirements (15 hours) and specific applied or technical courses in the field.

AAS Requirements

To be eligible for an AAS degree, the student must successfully complete the following:

- 60 semester hours of credit and the prescribed curriculum for the two-year career and technology education program.

- Complete a minimum of 25% semester hours of credit toward the degree at HCC, 12 semester hours of which must be in the career and technology education program the student is pursuing. These hours may not be satisfied by Credit by Exam or Advanced Standing Credit.
- Have an overall 2.0 HCC GPA.
- Satisfy all TSI requirements.
- Resolve all financial obligations and return all materials to HCC prior to graduation.
- Multiple Associate of Applied Science degrees may be earned from HCC if all AAS program requirements are met, including earning at least 18 additional semester hours at HCC. Twelve of the hours must be earned in the major program of the additional degree.

The general education block for each program must contain a minimum of 15 college credit hours. These must be taken from the following categories:

- Humanities/Fine Arts 3 SCH
- Social/Behavioral Science 3 SCH
- Math/Natural Science 3 SCH
- General Education Electives 6 SCH

Certificate Programs and General Requirements

Houston Community College awards certificates upon completion of courses that have been industry-validated and designed to develop and upgrade the skills in a specific occupation. These programs vary in length and time based on Level One or Level Two. To be awarded a certificate, a student must do the following:

- Fulfill all course requirements for the certificate, by completing 50% of the coursework at HCC.
- Earn a GPA of 2.0 in all courses required for the certificate.
- Apply for graduation before the announced deadline.
- Students who are pursuing an Advanced Technical Certificate must complete a related associate or bachelor's degree prior to enrollment.

Core Curriculum

Core Curriculum Electives for Academic Degree Programs

	Minimum SCH Required for the AA or AS Degree
Communication	6
Mathematics	3
Life & Physical Sciences	6
Language, Philosophy, & Culture	3
Creative Arts	3
American History	6
Government/Political Science	6
Social & Behavioral Sciences	3
Component Area Option	6
Total	42

Communication - 6 SCH

	SCH
ENGL 1301 Composition I	3
ENGL 1302 Composition II	3
ENGL 2311 Technical & Business Writing	3

Mathematics - 3 SCH

MATH 1314 College Algebra	3
MATH 1316 Plane Trigonometry	3
MATH 1324 Mathematics for Business & Social Sciences	3
MATH 1325 Calculus for Business & Social Sciences	3
MATH 1332 Contemporary Mathematics	3
MATH 1342 Elementary Statistical Methods	3
MATH 1350 Mathematics for Teachers I	3
MATH 2318 Linear Algebra	3
MATH 2320 Differential Equations	3
MATH 2412 Pre-Calculus Math	4
MATH 2413 Calculus I	4
PSYC 2317 Statistical Methods in Psychology	3

Life & Physical Sciences - 6 SCH

ANTH 2301 Physical Anthropology (Lecture)	3
ASTR 1303 Stars & Galaxies (Lecture)	3
ASTR 1304 Solar System (Lecture)	3
ASTR 1403 Stars & Galaxies (Lecture & Lab)	4
ASTR 1404 Solar System (Lecture & Lab)	4

BIOL	1306	Biology for Science Majors I (Lecture)	3
BIOL	1308	Biology for Non-Science Majors I (Lecture)	3
BIOL	1309	Biology for Non-Science Majors II (Lecture)	3
BIOL	1322	Nutrition & Diet Therapy	3
BIOL	1407	Biology for Science Majors II (Lecture & Lab)	4
BIOL	2301	Anatomy & Physiology I (Lecture)	3
BIOL	2302	Anatomy & Physiology II (Lecture)	3
CHEM	1305	Introductory Chemistry I (Lecture)	3
CHEM	1311	General Chemistry I (Lecture)	3
CHEM	1405	Introductory Chemistry I (Lecture & Lab)	4
CHEM	1412	General Chemistry II (Lecture & Lab)	4
GEOG	1301	Physical Geography	3
GEOL	1301	Earth Sciences for Non-Science Majors I (Lecture)	3
GEOL	1305	Environmental Science (Lecture)	3
GEOL	1345	Oceanography (Lecture)	3
GEOL	1347	Meteorology (Lecture)	3
GEOL	1403	Physical Geology (Lecture & Lab)	4
GEOL	1404	Historical Geology (Lecture & Lab)	4
PHYS	1305	Elementary Physics I (Lecture)	3
PHYS	1401	College Physics I (Lecture & Lab)	4
PHYS	1402	College Physics II (Lecture & Lab)	4
PHYS	2325	University Physics I (Lecture)	3
PHYS	2326	University Physics II (Lecture)	3
Language, Philosophy, & Culture - 3 SCH			
ENGL	2322	British Literature I	3
ENGL	2323	British Literature II	3
ENGL	2327	American Literature I	3
ENGL	2328	American Literature II	3
ENGL	2332	World Literature I	3
ENGL	2333	World Literature II	3
ENGL	2342	Forms of Literature I	3
ENGL	2343	Forms of Literature II	3
ENGL	2351	Mexican American Literature	3
HIST	2311	Western Civilization I	3
HIST	2312	Western Civilization II	3
HIST	2321	World Civilizations I	3
HIST	2322	World Civilizations II	3
HUMA	1305	Introduction to Mexican American Studies	3
HUMA	2319	American Minority Studies	3

HUMA	2323	World Cultures	3
PHIL	1301	Introduction to Philosophy	3
PHIL	1304	Introduction to World Religions	3
PHIL	2306	Introduction to Ethics	3
PHIL	2307	Introduction to Social & Political Philosophy	3
PHIL	2316	Classical Philosophy	3

Creative Arts - 3 SCH

ARTS	1301	Art Appreciation	3
ARTS	1303	Art History I	3
ARTS	1304	Art History II	3
DANC	1305	World Dance	3
DANC	2303	Dance Appreciation	3
DRAM	1310	Introduction to Theater	3
DRAM	2361	History of the Theater I	3
DRAM	2366	Introduction to Cinema	3
HUMA	1301	Introduction to Humanities I	3
HUMA	1311	Mexican American Fine Arts Appreciation	3
MUSI	1306	Music Appreciation	3
MUSI	1307	Music Literature	3
MUSI	1310	American Music	3

American History - 6 SCH

HIST	1301	United States History I	3
HIST	1302	United States History II	3
HIST	2301	Texas History	3
HIST	2327	Mexican American History I	3
HIST	2328	Mexican American History II	3
HIST	2381	African-American History	3

Government/Political Science - 6 SCH

GOVT	2305	Federal Government	3
GOVT	2306	Texas Government	3

Social & Behavioral Sciences - 3 SCH

ANTH	2346	General Anthropology	3
ANTH	2351	Cultural Anthropology	3
ECON	1301	Introduction to Economics	3
ECON	2301	Principles of Macroeconomics	3
ECON	2302	Principles of Microeconomics	3
GEOG	1302	Human Geography	3
GEOG	1303	World Regional Geography	3
PSYC	2301	General Psychology	3

PSYC	2314	Lifespan Growth & Development	3
PSYC	2316	Psychology of Personality	3
PSYC	2319	Social Psychology	3
SOCI	1301	Introduction to Sociology	3
SOCI	1306	Social Problems	3
SOCI	2336	Criminology	3
TECA	1354	Child Growth & Development	3

Component Area Option - 6 SCH

Any course listed above, or:

ANTH	2101	Physical Anthropology (Lab)	1
ANTH	2302	Introduction to Archaeology	3
ARAB	1411	Beginning Arabic I	4
ARAB	1412	Beginning Arabic II	4
BIOL	1106	Biology for Science Majors I (Lab)	1
CHEM	1111	General Chemistry I (Lab)	1
CHIN	1411	Beginning Chinese I	4
CHIN	1412	Beginning Chinese II	4
COMM	1307	Introduction to Mass Communication	3
COMM	2311	Media Writing	3
COSC	1436	Programming Fundamentals I	4
EDUC	1300	Learning Framework	3
FREN	1411	Beginning French I	4
FREN	1412	Beginning French II	4
GERM	1411	Beginning German I	4
GERM	1412	Beginning German II	4
JAPN	1411	Beginning Japanese I	4
JAPN	1412	Beginning Japanese II	4
KORE	1411	Beginning Korean I	4
KORE	1412	Beginning Korean II	4
MATH	1351	Mathematics for Teachers II	3
MATH	2414	Calculus II	4
MATH	2415	Calculus III	4
KINE	1304 ¹	Personal/Community Health	3
KINE	1306 ¹	First Aid	3
PHIL	2303	Introduction to Formal Logic	3
PHYS	2125	University Physics I (Lab)	1
PHYS	2126	University Physics II (Lab)	1
SOCI	2301	Marriage & the Family	3
SPAN	1411	Beginning Spanish I	4

SPAN	1412	Beginning Spanish II	4
SPCH	1311	Introduction to Speech Communication	3
SPCH	1315	Public Speaking	3
SPCH	1318	Interpersonal Communication	3
SPCH	1321	Business & Professional Communication	3

1 AA and AS students may use either KINE 1304 or KINE 1306 to fulfill 3 SCH of the Component Area Option. A student cannot use both of these courses to satisfy the 6 SCH CAO requirement for the academic degree.

Core Curriculum

General Education Electives for Workforce Degree Programs

Minimum SCH Required for the AAS Degree

Humanities/Fine Arts	3
Social/Behavioral Science	3
Math/Natural Science	3
General Education Electives	6

Humanities/Fine Arts Electives			SCH
ARTS	1301	Art Appreciation	3
ARTS	1303	Art History I	3
ARTS	1304	Art History II	3
DANC	1305	World Dance	3
DANC	2303	Dance Appreciation	3
DRAM	1310	Introduction to Theater	3
DRAM	2361	History of the Theater I	3
DRAM	2366	Introduction to Cinema	3
ENGL	2322	British Literature I	3
ENGL	2323	British Literature II	3
ENGL	2327	American Literature I	3
ENGL	2328	American Literature II	3
ENGL	2332	World Literature I	3
ENGL	2333	World Literature II	3
ENGL	2342	Forms of Literature I	3
ENGL	2343	Forms of Literature II	3
ENGL	2351	Mexican American Literature	3
HIST	1301	United States History I	3
HIST	1302	United States History II	3
HIST	2301	Texas History	3
HIST	2311	Western Civilization I	3
HIST	2312	Western Civilization II	3
HIST	2321	World Civilizations I	3
HIST	2322	World Civilizations II	3
HIST	2327	Mexican American History I	3
HIST	2328	Mexican American History II	3
HIST	2381	African-American History	3
HUMA	1301	Introduction to Humanities I	3

HUMA	1305	Introduction to Mexican American Studies	3
HUMA	1311	Mexican American Fine Arts Appreciation	3
HUMA	2319	American Minority Studies	3
HUMA	2323	World Cultures	3
MUSI	1306	Music Appreciation	3
MUSI	1307	Music Literature	3
MUSI	1310	American Music	3
PHIL	1301	Introduction to Philosophy	3
PHIL	1304	Introduction to World Religions	3
PHIL	2306	Introduction to Ethics	3
PHIL	2307	Introduction to Social & Political Philosophy	3
PHIL	2316	Classical Philosophy	3

Social/Behavioral Sciences Electives

ANTH	2346	General Anthropology	3
ANTH	2351	Cultural Anthropology	3
ECON	1301	Introduction to Economics	3
ECON	2301	Principles of Macroeconomics	3
ECON	2302	Principles of Microeconomics	3
EDUC	1300	Learning Framework	3
GEOG	1302	Human Geography	3
GEOG	1303	World Regional Geography	3
GOVT	2305	Federal Government	3
GOVT	2306	Texas Government	3
PSYC	2301	General Psychology	3
PSYC	2314	Lifespan Growth & Development	3
PSYC	2316	Psychology of Personality	3
PSYC	2319	Social Psychology	3
SOCI	1301	Introduction to Sociology	3
SOCI	1306	Social Problems	3
SOCI	2301	Marriage & the Family	3
SOCI	2336	Criminology	3
TECA	1354	Child Growth & Development	3

Math/Natural Science Electives			SCH
ANTH	2101	Physical Anthropology (Lab)	1
ANTH	2301	Physical Anthropology (Lecture)	3
ANTH	2302	Introduction to Archaeology	3
ASTR	1303	Stars & Galaxies (Lecture)	3
ASTR	1304	Solar System (Lecture)	3
ASTR	1403	Stars & Galaxies (Lecture & Lab)	4
ASTR	1404	Solar System (Lecture & Lab)	4
BIOL	1106	Biology for Science Majors I (Lab)	1
BIOL	1306	Biology for Science Majors I (Lecture)	3
BIOL	1308	Biology for Non-Science Majors I (Lecture)	3
BIOL	1309	Biology for Non-Science Majors II (Lecture)	3
BIOL	1322	Nutrition & Diet Therapy	3
BIOL	1407	Biology for Science Majors II (Lecture & Lab)	4
BIOL	2301	Anatomy & Physiology I (Lecture)	3
BIOL	2302	Anatomy & Physiology II (Lecture)	3
CHEM	1111	General Chemistry I (Lab)	1
CHEM	1305	Introductory Chemistry I (Lecture)	3
CHEM	1311	General Chemistry I (Lecture)	3
CHEM	1405	Introductory Chemistry I (Lecture & Lab)	4
CHEM	1412	General Chemistry II (Lecture & Lab)	4
COSC	1436	Programming Fundamentals I	4
GEOG	1301	Physical Geography	3
GEOL	1301	Earth Sciences for Non-Science Majors I (Lecture)	3
GEOL	1305	Environmental Science (Lecture)	3
GEOL	1345	Oceanography (Lecture)	3
GEOL	1347	Meteorology (Lecture)	3
GEOL	1403	Physical Geology (Lecture & Lab)	4
GEOL	1404	Historical Geology (Lecture & Lab)	4
MATH	1314	College Algebra	3
MATH	1316	Plane Trigonometry	3
MATH	1324	Mathematics for Business & Social Sciences	3
MATH	1325	Calculus for Business & Social Sciences	3
MATH	1332	Contemporary Mathematics	3
MATH	1342	Elementary Statistical Methods	3
MATH	1350	Mathematics for Teachers I	3
MATH	1351	Mathematics for Teachers II	3
MATH	2318	Linear Algebra	3
MATH	2320	Differential Equations	3

MATH	2412	Pre-Calculus Math	4
MATH	2413	Calculus I	4
MATH	2414	Calculus II	4
MATH	2415	Calculus III	4
PHIL	2303	Introduction to Formal Logic	3
PHYS	1305	Elementary Physics I (Lecture)	3
PHYS	1401	College Physics I (Lecture & Lab)	4
PHYS	1402	College Physics II (Lecture & Lab)	4
PHYS	2125	University Physics I (Lab)	1
PHYS	2126	University Physics II (Lab)	1
PHYS	2325	University Physics I (Lecture)	3
PHYS	2326	University Physics II (Lecture)	3
PSYC	2317	Statistical Methods in Psychology	3

Description of HCC's programs are available at <https://www.hccs.edu/finder/>

For information regarding faculty credentials, please see
<https://www.hccs.edu/programs/catalog/faculty-list-by-department/>

Academic Degrees and Certificates

General Academic Transfer Degrees

Associate of Arts in

MULTIDISCIPLINARY STUDIES

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH #3## ²	Approved Mathematics Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
XXXX #3## ¹	Component Area Option Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		15

Second Semester - Spring

GOVT 2306	Texas Government	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15

Total Minimum Credits for the AA Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate MATH course.

³ Consult with an advisor to select an appropriate elective.

Academic Degrees and Certificates

Associate in Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH #3## ²	Approved Mathematics Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ³	Transferable Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
XXXX #3## ¹	Component Area Option Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #4## ¹	Life & Physical Sciences Elective with Lab	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		16

Second Semester - Spring

GOVT 2306	Texas Government	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
XXXX #3## ³	Transferable Elective	3
XXXX #2## ³	Transferable Elective	2
Semester Total		14

Total Minimum Credits for the AS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate MATH course.

³ Consult with an advisor to select an appropriate elective.

Academic Degrees and Certificates

Specific Academic Transfer Degrees & Certificates

Associate of Arts in ANTHROPOLOGY

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 1342	Elementary Statistical Methods	3

Bachelor of Arts Transfer Specialization

XXXX 141 ²	Beginning Foreign Language I	4
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Bachelor of Science Transfer Specialization

ANTH 2346	General Anthropology	3
Semester Total		15 - 16

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
ANTH 2301	Physical Anthropology (Lecture)	3
ANTH 2101	Physical Anthropology (Lab)	1

Bachelor of Arts Transfer Specialization

XXXX 141 ³	Beginning Foreign Language II	4
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Bachelor of Science Transfer Specialization

PSYC 2301	General Psychology	3
MATH #3## ²	Mathematics Elective	3
Semester Total		14 - 16

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2305	Federal Government	3
ANTH 2351	Cultural Anthropology	3
BIOL #3## ⁴	Biology Elective OR	
CHEM #3## ⁵	Chemistry Elective	3

Bachelor of Arts Transfer Specialization

XXXX 231 ³	Intermediate Foreign Language I	3
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Bachelor of Science Transfer Specialization

MATH #3## ²	Mathematics Elective	3
Semester Total		15

Academic Degrees and Certificates

Second Semester - Spring

XXXX #3## ¹	Creative Arts Elective	3
GOVT 2306	Texas Government	3
SOCI 1301	Introduction to Sociology	3

Bachelor of Arts Transfer Specialization

ANTH 2302	Introduction to Archaeology OR	
ANTH 2346	General Anthropology	3
XXXX 2312 ³	Intermediate Foreign Language II	3

Bachelor of Science Transfer Specialization

ANTH 2302	Introduction to Archaeology	3
XXXX #3## ⁶	Approved Elective	3

Semester Total **15**

Total Minimum Credits for the AA Degree⁷ **60**

- ¹ A list of electives appears in the Core Curriculum section of this catalog.
- ² All four foreign language courses must be in one language: French or Spanish.
- ³ All four foreign language courses must be in one language: French or Spanish.
- ⁴ Biology electives: BIOL 1308, 1411, or 1413.
- ⁵ Chemistry elective: CHEM 1305, 1405, or 1411.
- ⁶ Consult with an advisor to select an appropriate elective.
- ⁷ The BS Transfer Specialization has 61 semester credit hours.

Academic Degrees and Certificates

Associate of Arts in

BUSINESS

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
ECON 2301	Principles of Macroeconomics	3
BCIS 1305	Business Computer Applications	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		15

Second Semester - Spring

ACCT 2301	Principles of Financial Accounting	3
HIST #3## ¹	American History Elective	3
MATH 1324	Mathematics for Business & Social Sciences	3
ENGL 1302	Composition II	3
GOVT 2305	Federal Government	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ACCT 2302	Principles of Managerial Accounting	3
HIST #3## ¹	American History Elective	3
ECON 2302	Principles of Microeconomics	3
MATH 1325	Calculus for Business & Social Sciences	3
PHIL 2306	Introduction to Ethics	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Life & Physical Sciences Elective	3
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
PSYC 2301	General Psychology OR	
SOCI 1301	Introduction to Sociology	3
SPCH 1315	Public Speaking OR	
SPCH 1321	Business & Professional Communication	3
Semester Total		15

Total Minimum Credits for the AA Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Arts in COMMUNICATION

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3

Advertising/Public Relations Specialization

COMM 1307	Introduction to Mass Communication	3
COMM 2327	Introduction to Advertising	3

Mass Media Specialization

COMM 1307	Introduction to Mass Communication	3
COMM 1335	Introduction to Electronic Media	3

Speech Communication Specialization

COMM 1307	Introduction to Mass Communication OR	
XXXX #3## ¹	Liberal Arts Elective	3
SPCH 1311	Introduction to Speech Communication	3

Semester Total 15

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ²	American History Elective	3
XXXX #3## ²	Creative Arts Elective	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3

Advertising/Public Relations Specialization

COMM 2330	Introduction to Public Relations	3
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Mass Media Specialization

COMM 2311	Media Writing	3
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Speech Communication Specialization

SPCH 1315	Public Speaking	3
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Semester Total 15

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
XXXX #3## ²	Creative Arts Elective	3
XXXX #3## ²	Language, Philosophy, & Culture Elective	3
XXXX #3## ²	Life & Physical Sciences Elective	3

Academic Degrees and Certificates

Advertising/Public Relations & Mass Media Specializations

COMM 2324	Practicum in Electronic Media OR	
COMM 2389	Academic Cooperative	3
Speech Communication Specialization		
SPCH 1318	Interpersonal Communication	3
Semester Total		15

Second Semester - Spring

GOVT 2306	Texas Government	3
HIST #3## ²	American History Elective	3
XXXX #3## ²	Life & Physical Sciences Elective	3
XXXX #3## ¹	Liberal Arts Elective	3

Advertising/Public Relations Specialization

COMM 2300	Media Literacy OR	
COMM 2305	Editing & Layout OR	
COMM 2311	Media Writing	3

Mass Media Specialization

COMM 2300	Media Literacy OR	
COMM 2305	Editing & Layout	3

Speech Communication Specialization

SPCH 1321	Business & Professional Communication	3
Semester Total		15

Total Minimum Credits for the AA Degree **60**

¹ Liberal arts electives include the following selections from the Core Curriculum: ANTH (not 2301, 2101), GEOG (not 1301), HIST, HUMA, PHIL (not 2303), PSYC (not 2317), SOCI, or TECA

² A list of electives appears in the Core Curriculum section of this catalog.

Note: Students transferring to a BA program in Communication(s) will need 6 hours of the same intermediate foreign language (LANG 2311 and 2312).

Academic Degrees and Certificates

Associate of Arts in		SCH
COMPUTER INFORMATION SYSTEMS		
FIRST YEAR		
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1324	Mathematics for Business & Social Sciences	3
BCIS 1305	Business Computer Applications	3
HIST #3## ¹	American History Elective	3
Semester Total		15
Second Semester - Spring		
ENGL 1302	Composition II	3
MATH 1325	Calculus for Business & Social Sciences	3
COSC 1436	Programming Fundamentals I	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
HIST #3## ¹	American History Elective	3
Semester Total		16
SECOND YEAR		
First Semester - Fall		
MATH 1342	Elementary Statistical Methods	3
COSC 1437	Programming Fundamentals II	4
ECON 2301	Principles of Macroeconomics OR	
ECON 2302	Principles of Microeconomics	3
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
Semester Total		16
Second Semester - Spring		
ACCT 2301	Principles of Financial Accounting	3
COSC 2425	Computer Organization	4
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2306	Texas Government	3
Semester Total		13
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Arts in

DANCE

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 1332	Contemporary Mathematics	3
DANC 1201	Dance Composition - Improvisation	2
DANC 1245	Beginning Modern Dance	2
Semester Total		16

Second Semester - Spring

ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
DANC 1241	Beginning Ballet	2
DANC 1301	Dance Composition - Choreography OR	
DANC 1245	Beginning Modern Dance OR	
DANC 1247	Beginning Jazz Dance	2
DANC 1110	Tap Dance OR	
DANC 1112	Dance Practicum OR	
DANC 1128	Ballroom & Social Dance OR	
DANC 1151	Freshman Dance Performance	1
DANC 2303	Dance Appreciation	3
Semester Total		14

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
DANC 2245	Intermediate Modern Dance	2
DANC 1245	Beginning Modern Dance OR	
DANC 1247	Beginning Jazz Dance OR	
DANC 2241	Intermediate Ballet OR	
DANC 2247	Intermediate Jazz Dance	2
DANC 1110	Tap Dance OR	
DANC 1112	Dance Practicum OR	
DANC 1128	Ballroom & Social Dance OR	
DANC 1151	Freshman Dance Performance OR	
DANC 2151	Sophomore Dance Performance	1
Semester Total		14

Academic Degrees and Certificates

Second Semester - Spring

GOVT 2306	Texas Government	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
DANC 1305	World Dance	3
DANC 2241	Intermediate Ballet	2
DANC 1245	Beginning Modern Dance OR	
DANC 1247	Beginning Jazz Dance OR	
DANC 2245	Intermediate Modern Dance OR	
DANC 2247	Intermediate Jazz Dance	2
	Semester Total	16
	Total Minimum Credits for the AA Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Arts in

DRAMA

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
DRAM 1310	Introduction to Theater	3
	Semester Total	15

Second Semester - Spring

ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
DRAM 1351	Acting I	3
DRAM 1120	Theater Practicum I	1
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
	Semester Total	13

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
GOVT 2305	Federal Government	3
DRAM 1322	Stage Movement	3
DRAM 1121	Theater Practicum II	1
DRAM 1330	Stagecraft I	3
	Semester Total	16

Second Semester - Spring

XXXX #3## ¹	Life & Physical Sciences Elective	3
GOVT 2306	Texas Government	3
DRAM 1352	Acting II	3
DRAM 1341	Makeup	3
DRAM 2120	Theater Practicum III	1
DRAM 2361	History of the Theater I	3
	Semester Total	16

Total Minimum Credits for the AA Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Arts in

ENGLISH

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH #3## ²	Approved Mathematics Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
XXXX #3## ⁴	Liberal Arts Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ENGL 2342	Forms of Literature I OR	
ENGL 2343	Forms of Literature II	3
ENGL 23##	English Literature/Creative Writing Elective	3
ENGL 23##	English Literature/Creative Writing Elective	3
GOVT 2305	Federal Government	3
XXXX 1411	Beginning Foreign Language I	4
Semester Total		16

Second Semester - Spring

ENGL 23##	English Literature/Creative Writing Elective	3
XXXX 1412	Beginning Foreign Language II	4
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #1## ⁵	Transferable Elective	1
Semester Total		14

Total Minimum Credits for the AA Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate MATH course.

³ Students who complete a four-hour course should consult with an advisor to have the additional hour applied toward the one-hour transferable elective.

⁴ Liberal arts electives: ANTH (not 2301, 2101), GEOG (not 1301), HIST, HUMA, PHIL (not 2303), PSYC (not 2317), SOCI, or TECA 1354.

⁵ Consult with an advisor to select an appropriate elective.

Academic Degrees and Certificates

Associate of Arts in GOVERNMENT

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
XXXX 1411 ¹	Beginning Foreign Language I	4
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
Semester Total		16

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST 1302	United States History II	3
XXXX 1412 ¹	Beginning Foreign Language II	4
GOVT 2304	Introduction to Political Science	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3
Semester Total		16

SECOND YEAR

First Semester - Fall

XXXX #3## ²	Language, Philosophy, & Culture Elective	3
XXXX #3## ³	Liberal Arts Elective	3
XXXX 2311 ¹	Intermediate Foreign Language I	3
GOVT 2305	Federal Government	3
XXXX #3## ²	Life & Physical Sciences Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ³	Liberal Arts Elective	3
XXXX 2312 ¹	Intermediate Foreign Language II	3
GOVT 2306	Texas Government	3
XXXX #3## ²	Creative Arts Elective	3
XXXX #3## ²	Life & Physical Sciences Elective	3
Semester Total		15

Total Minimum Credits for the AA Degree **62**

- ¹ All four foreign language courses must be in one language: French or Spanish.
- ² A list of electives appears in the Core Curriculum section of this catalog.
- ³ Liberal Arts electives: Choose any Core Curriculum course from Creative Arts, Language, Philosophy, & Culture, or Social & Behavioral Sciences.

Academic Degrees and Certificates

Associate of Arts in

HISTORY

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
MATH 1332	Contemporary Mathematics	3
XXXX #3## ¹	Creative Arts Elective	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II	3
HIST 1302	United States History II	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ²	Transferable Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
HIST 23##	History Elective	3
XXXX 141 ³	Beginning Foreign Language I	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #1## ²	Transferable Elective	1
Semester Total		14

Second Semester - Spring

HIST 23## ⁴	History Elective	3
HIST 23## ⁵	United States History Elective	3
GOVT 2306	Texas Government	3
XXXX 142 ³	Beginning Foreign Language II	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		16

Total Minimum Credits for the AA Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Creative Arts elective recommendations: HUMA 1301; ARTS 1301, 1303, or 1304.

Life & Physical Sciences recommendations: ANTH 2301, BIOL 1308, GEOG 1301, GEOL 1301 or 1305.
Students who successfully complete a four-hour Life & Physical Sciences elective should consult with an advisor to have the additional hour applied toward the one-hour transferable elective requirement.

² Consult with an advisor to select an appropriate elective.

³ All four foreign language courses must be in one language: French or Spanish.

⁴ HIST 2311, 2312, 2321, or 2322.

⁵ HIST 2301, 2327, 2328, or 2381.

Academic Degrees and Certificates

Associate of Arts in		SCH
INTERDISCIPLINARY STUDIES		
FIRST YEAR		
First Semester - Fall		
EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1332	Contemporary Mathematics QR	
MATH 1342	Elementary Statistical Methods	3
Mexican-American/Latino Studies Specialization		
HIST 2327	Mexican-American History I	3
SPAN 1411 ¹	Beginning Spanish I QR	
SPAN 2313 ²	Spanish for Native/Heritage Speakers I	4
All Other Specializations		
HIST 1301	United States History I	3
XXXX 1411 ¹	Beginning Foreign Language I	4
Semester Total		16
Second Semester - Spring		
ENGL 1302	Composition II	3
Africana/African American Studies Specialization		
ARTS 1304	Art History II QR	
HUMA 1301	Introduction to Humanities I	3
HIST 2381	African-American History	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 1412 ¹	Beginning Foreign Language II	4
Global Studies Specialization		
ARTS 1304	Art History II QR	
HUMA 1301	Introduction to Humanities I	3
HIST 1302	United States History II	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 1412 ¹	Beginning Foreign Language II	4
Mexican-American/Latino Studies Specialization		
HUMA 1311	Mexican American Fine Arts Appreciation QR	
HUMA 1301	Introduction to Humanities I	3
HIST 2328	Mexican-American History II	3
XXXX #3## ³	Life & Physical Sciences Elective	3
SPAN 1412 ¹	Beginning Spanish II QR	
SPAN 2315 ²	Spanish for Native/Heritage Speakers II	4

Academic Degrees and Certificates

Women & Gender Studies Specialization

ARTS 1304	Art History II QR	
HUMA 1301	Introduction to Humanities I	3
HIST 1302	United States History II	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 1412 ¹	Beginning Foreign Language II	4
	Semester Total	16

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
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Africana/African American Studies Specialization

ENGL 2328	American Literature II QR	
ENGL 2343	Forms of Literature II	3
SOCI 1306	Social Problems	3
XXXX #3## ³	Life & Physical Sciences Elective	3
XXXX 2311 ¹	Intermediate Foreign Language I	3

Global Studies Specialization

ENGL 2332	World Literature I QR	
ENGL 2333	World Literature II	3
GEOG 1303	World Regional Geography	3
GEOG 1301	Physical Geography	3
XXXX 2311 ¹	Intermediate Foreign Language I	3

Mexican-American/Latino Studies Specialization

ANTH 2351	Cultural Anthropology	3
ENGL 2351	Mexican-American Literature	3
SPAN 2311 ¹	Intermediate Spanish I	3
XXXX #3## ³	Life & Physical Sciences Elective	3

Women & Gender Studies Specialization

ENGL 2343	Forms of Literature II QR	
HUMA 2319	American Minority Studies	3
SOCI 1306	Social Problems	3
XXXX 2311 ¹	Intermediate Foreign Language I	3
XXXX #3## ³	Life & Physical Sciences Elective	3
	Semester Total	15

Second Semester - Spring

GOVT 2306	Texas Government	3
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Africana/African American Studies Specialization

HUMA 2319	American Minority Studies	3
HUMA 2323	World Cultures	3
SOCI 2319	Minority Studies	3
XXXX 2312 ¹	Intermediate Foreign Language II	3

Global Studies Specialization

Academic Degrees and Certificates

ANTH 2351	Cultural Anthropology	3
HIST 2322	World Civilizations II	3
PHIL 1304	Introduction to World Religions OR	
PHIL 2316	Classical Philosophy OR	
HUMA 2323	World Cultures	3
XXXX 2312 ¹	Intermediate Foreign Language II	3
Mexican-American/Latino Studies Specialization		
HUMA 1305	Introduction to Mexican American Studies	3
HUMA 2319	American Minority Studies	3
HUMA 2323	World Cultures OR	
GOVT 2311	Mexican-American & Latinx Politics	3
SPAN 2312 ¹	Intermediate Spanish II	3
Women & Gender Studies Specialization		
HUMA 2319	American Minority Studies	3
PSYC 2306	Human Sexuality	3
SOCI 2301	Marriage & the Family	3
XXXX 2312 ¹	Intermediate Foreign Language II	3
	Semester Total	15
Total Minimum Credits for the AA Degree		62

- ¹ All four foreign language courses must be in one language: French or Spanish.
- ² Students who select Spanish for Native/Heritage Speakers I and II will still meet the 60-hour degree requirement.
- ³ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Certificate in

AFRICANA/AFRICAN AMERICAN STUDIES

SCH

Choose two of the following courses:

6

- ENGL 1302 Composition II - Africana/Af.-Am. Studies
- GOVT 2305 Federal Government - Africana/Af.-Am. Studies
- HIST 2381 African-American History

Choose one course from two of the following categories:

6

Language, Philosophy, & Culture

- HUMA 2319 American Minority Studies **OR**
- HUMA 2323 World Cultures - Africana/Af.-Am. Studies **OR**
- ENGL 2343 Forms of Literature II - Africana/Af.-Am. Studies

Creative Arts

- ARTS 1304 Art History II **OR**
- HUMA 1301 Introduction to Humanities I

Social & Behavioral Sciences

- SOCI 1306 Social Problems

Total Minimum Credits for the Certificate

12

Certificate in

GLOBAL STUDIES

SCH

- HUMA 1301 Introduction to Humanities I

3

Choose one of the following courses:

3

- ENGL 2332 World Literature I
- ENGL 2333 World Literature II
- HUMA 2323 World Cultures
- PHIL 2316 Classical Philosophy
- PHIL 1304 Introduction to World Religions

Choose one course from two of the following categories:

Social & Behavioral Sciences

6

- ANTH 2351 Cultural Anthropology **OR**
- GEOG 1303 World Regional Geography

Component Area Option

- XXXX #4##¹ Beginning Foreign Language I or II **OR**
- XXXX #3##¹ Spanish for Native/Heritage Speakers I or II **OR**
- XXXX #3##¹ Intermediate Foreign Language I or II

3-4

Total Minimum Credits for the Certificate

12

¹ Consult with an advisor to select an appropriate elective.

Academic Degrees and Certificates

Certificate in		
Mexican-American/Latino Studies		SCH
Choose one of the following courses:		3
HUMA 1305 Introduction to Mexican American Studies		
ENGL 2351 Mexican-American Literature		
Choose one of the following courses:		3
HIST 2327 Mexican-American History I		
HIST 2328 Mexican-American History II		
Choose one course from two of the following categories:		6
Creative Arts		
HUMA 1301 Introduction to Humanities I		
HUMA 1311 Mexican American Fine Arts Appreciation		
Government/Political Science		
GOVT 2305 Federal Government OR		
GOVT 2306 Texas Government		
Component Area Option		
HUMA 2323 World Cultures - Mesoamerica		
SPAN 1411 Beginning Spanish I OR		
SPAN 1412 Beginning Spanish II		
Total Minimum Credits for the Certificate		12

Certificate in		
WOMEN & GENDER STUDIES		SCH
ENGL 1302 Composition II - Women/Gender Issues		3
HIST 1302 United States History II		3
Choose one course from two of the following categories:		6
Language, Philosophy, & Culture		
HUMA 2319 American Minority Studies OR		
ENGL 2343 Forms of Literature II - Women/Gender Issues		
Creative Arts		
ARTS 1304 Art History II OR		
HUMA 1301 Introduction to Humanities I		
Social & Behavioral Sciences		
SOCI 1306 Social Problems - Women/Gender Issues		
Total Minimum Credits for the Certificate		12

Academic Degrees and Certificates

Associate of Arts in

MUSIC

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MUAP 11## ¹	Applied Music Lesson	1
MUAP 11## ¹	Applied Music Studio	1
MUSI 1311	Music Theory I	3
MUSI 1116	Sight Singing & Ear Training I	1
MUSI 1181	Piano Class I	1
MUEN 11##	Ensemble	1
Semester Total		14

Second Semester - Spring

ENGL 1302	Composition II	3
MUAP 11## ¹	Applied Music Lesson	1
MUAP 11## ¹	Applied Music Studio	1
MUSI 1312	Music Theory II	3
MUSI 1117	Sight Singing & Ear Training II	1
MUSI 1182	Piano Class II	1
MUEN 11## ¹	Ensemble	1
MUEN 11## ¹	Ensemble OR	
MUAP 11## ¹	Improvisation OR	
MUSI #1## ¹	Diction/IPA for Singers	1
GOVT 2305	Federal Government	3
Semester Total		15

Third Semester - Summer

HIST #3## ²	American History Elective	3
Semester Total		3

SECOND YEAR

First Semester - Fall

MUAP 21## ¹	Applied Music Lesson	1
MUAP 21## ¹	Applied Music Studio	1
MUSI 2311	Music Theory III	3
MUSI 2116	Sight Singing & Ear Training III	1
MUSI 2181	Piano Class III	1
MUEN 11## ¹	Ensemble	1
GOVT 2306	Texas Government	3
XXXX #3## ²	Life & Physical Sciences Elective OR	
XXXX #3## ²	Mathematics Elective	3
Semester Total		14

Second Semester - Spring

Academic Degrees and Certificates

MUAP 21## ¹	Applied Music Lesson	1
MUAP 21## ¹	Applied Music Studio	1
MUSI 2312	Music Theory IV	3
MUSI 2117	Sight Singing & Ear Training IV	1
MUSI 2182	Piano Class IV	1
MUEN 11## ¹	Ensemble	1
MUSI 1307	Music Literature	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3
	Semester Total	14
Total Minimum Credits for the AA Degree		60

¹ Consult with an advisor to select an appropriate elective.

² A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Arts in STUDIO ART

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
ARTS 1311	Design I (2-Dimensional Design)	3
ARTS 1316	Drawing I	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II	3
MATH #3## ²	Mathematics Elective	3
HIST #3## ¹	American History Elective	3
ARTS 1303	Art History I	3
ARTS 1312	Design II (3-Dimensional Design)	3
Semester Total		15

SECOND YEAR

First Semester - Fall

GOVT 2305	Federal Government	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
ARTS 1304	Art History II	3
ARTS 1317	Drawing II	3
Semester Total		15

Second Semester - Spring

GOVT 2306	Texas Government	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
ARTS #3## ³	3-D Studio Elective	3
ARTS #3## ⁴	2-D Studio Elective	3
Semester Total		15

Total Minimum Credits for the AA Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Math electives: MATH 1314, 1324, 1332, or 1342.

³ 3-D Studio electives: ARTS 2311 (3-D), 2326, 2333, 2341, 2346, 2347.

⁴ 2-D Studio electives: ARTS 2311 (2-D), 2313, 2314, 2316, 2317, 2323, 2356, 2357, 2366.

Academic Degrees and Certificates

Associate of Arts in

TEACHING

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
BIOL 1308	Biology for Non-Science Majors I (Lecture)	3
BIOL 1108	Biology for Non-Science Majors I (Lab)	1
EDUC 1301	Introduction to the Teaching Profession	3
ENGL 1301	Composition I	3
HIST 1301	United States History I	3
Semester Total		16

Second Semester - Spring

ENGL 1302	Composition II	3
HIST 1302	United States History II OR	
HIST 2301	Texas History	3
MATH 1314	College Algebra OR	
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
SPCH 1315	Public Speaking	3
CHEM 1405	Introductory Chemistry I (Lecture & Lab) OR	
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		16

SECOND YEAR

First Semester - Fall

EDUC 2301	Introduction to Special Populations	3
ENGL 23## ¹	English Literature Elective	3
GOVT 2305	Federal Government	3
MATH 1350	Mathematics for Teachers I	3
XXXX #3## ²	Social & Behavioral Sciences Elective	3
Semester Total		15

Second Semester - Spring

GOVT 2306	Texas Government	3
MATH 1351	Mathematics for Teachers II	3
XXXX #3## ³	Creative Arts Elective	3
XXXX #4## ⁴	Physical Lab Science Elective	4
Semester Total		13

Total Minimum Credits for the AAT Degree **60**

- ¹ ENGL 2322, 2323, 2327, 2328, 2332, 2333, 2342, or 2343.
- ² GEOG 1303; PSYC 2301; or TECA 1354.
- ³ ARTS 1301, 1303, 1304; DANC 1305, 2303; DRAM 1310, 2361, 2366; HUMA 1301; MUSI 1306, 1307, 1310.
- ⁴ ANTH 2301 & 2101; ASTR 1403 or 1404; GEOL 1403 or 1404; or PHYS 1401 or higher.

Academic Degrees and Certificates

Associate of Arts in WORLD LANGUAGES

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
FREN 141 ²	Beginning French I OR	
SPAN 141 ²	Beginning Spanish I	4
MATH 1332	Contemporary Mathematics OR	
MATH 1342	Elementary Statistical Methods	3
Semester Total		16

Second Semester - Spring

ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
FREN 1412 ²	Beginning French II OR	
SPAN 1412 ²	Beginning Spanish II	4
XXXX #3## ¹	Life & Physical Sciences Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		16

SECOND YEAR

First Semester - Fall

FREN 2311 ²	Intermediate French I OR	
SPAN 2311 ²	Intermediate Spanish I	3
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Life & Physical Sciences Elective	3
Semester Total		15

Second Semester - Spring

FREN 2312 ²	Intermediate French II OR	
SPAN 2312 ²	Intermediate Spanish II	3
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		15

Total Minimum Credits for the AA Degree **62**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² All four foreign language courses must be in one language: French or Spanish.

Academic Degrees and Certificates

Associate of Science in

BIOLOGY

Biology Majors & Pre-medical Programs

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
MATH 2412	Pre-Calculus Math	4
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		18

Second Semester - Spring

ENGL 1302	Composition II	3
BIOL 1407	Biology for Science Majors II (Lecture & Lab)	4
MATH 2413	Calculus I	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
Semester Total		15

SECOND YEAR

First Semester - Fall

HIST #3##	American History Elective	3
GOVT 2305	Federal Government OR	
GOVT 2306	Texas Government	3
CHEM 2423	Organic Chemistry I (Lecture & Lab)	4
PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		14

Second Semester - Spring

BIOL #4## ¹	Biology Elective	4
HIST #3##	American History Elective	3
CHEM 2425	Organic Chemistry II (Lecture & Lab)	4
PHYS 1402	College Physics II (Lecture & Lab)	4
Semester Total		15

Total Minimum Credits for the AS Degree

62

¹ BIOL 2406, 2416, 2421 or 2320/2120.

Academic Degrees and Certificates

Associate of Science in BIOLOGY

Health Sciences Professions

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1

Semester Total

14

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
PSYC 2301	General Psychology	3

Pre-Nursing Specialization

BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
MATH 1342	Elementary Statistical Methods OR	
PSYC 2317	Statistical Methods in Psychology	3

Pre-Radiologic Sciences Specialization

BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
MATH 2412	Pre-Calculus Math OR	
MATH 2413	Calculus I	4

Pre-Clinical Laboratory Services Specialization

CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 1314	College Algebra	3

Semester Total

16 - 17

SECOND YEAR

First Semester - Fall

HIST #3## ¹	American History Elective	3
GOVT 2305	Federal Government	3
PSYC 2314	Lifespan Growth & Development	3

Pre-Nursing Specialization

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
BIOL 1322	Nutrition & Diet Therapy	3

Academic Degrees and Certificates

Pre-Radiologic Sciences Specialization

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
PHYS 1401	College Physics I (Lecture & Lab)	4

Pre-Clinical Laboratory Services Specialization

BIOL 1407	Biology for Science Majors II (Lecture & Lab) OR	
BIOL 2416	Genetics (Lecture & Lab)	4
CHEM 2423	Organic Chemistry I (Lecture & Lab)	4
Semester Total		16 - 17

Second Semester - Spring

Pre-Nursing Specialization

BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
HIST #3## ¹	American History Elective	3
XXXX #1## ²	Transferable Elective	1

Pre-Radiologic Sciences Specialization

PHYS 1402	College Physics II (Lecture & Lab)	4
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
HIST #3## ¹	American History Elective	3

Pre-Clinical Laboratory Services Specialization

CHEM 2425	Organic Chemistry II (Lecture & Lab)	4
GOVT 2306	Texas Government	3
XXXX #3## ¹	Creative Arts Elective	3
HIST #3## ¹	American History Elective	3
XXXX #1## ²	Transferable Elective	1
Semester Total		13 - 14

Total Minimum Credits for the AS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Academic Degrees and Certificates

Associate of Science in CHEMISTRY

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		17

Second Semester - Spring

ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
MATH 2414	Calculus II	4
CHEM 1412	General Chemistry II (Lecture & Lab)	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		17

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2305	Federal Government	3
CHEM 2423	Organic Chemistry I (Lecture & Lab)	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
Semester Total		14

Second Semester - Spring

XXXX #3## ¹	Creative Arts Elective	3
GOVT 2306	Texas Government	3
CHEM 2425	Organic Chemistry II (Lecture & Lab)	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
Semester Total		14

Total Minimum Credits for the AS Degree **62**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Academic Degrees and Certificates

Associate of Science in COMPUTER SCIENCE

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 2412	Pre-Calculus Math	4
COSC 1436	Programming Fundamentals I	4
HIST #3## ¹	American History Elective	3
Semester Total		17

Second Semester - Spring

ENGL 1302	Composition II	3
MATH 2413	Calculus I	4
COSC 1437	Programming Fundamentals II	4
HIST #3## ¹	American History Elective	3
Semester Total		14

SECOND YEAR

First Semester - Fall

MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
COSC 2436	Programming Fundamentals III	4
GOVT 2305	Federal Government	3
Semester Total		15

Second Semester - Spring

PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
COSC 2425	Computer Organization	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
GOVT 2306	Texas Government	3
Semester Total		14

Total Minimum Credits for the AS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Science in ENGINEERING SCIENCE

SCH

FIRST YEAR

First Semester - Fall

ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
MATH 2413	Calculus I	4
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
ENGR 1201	Introduction to Engineering	2
Semester Total		16

Second Semester - Spring

ENGR 1204	Engineering Graphics I	2
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
MATH 2414	Calculus II	4
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
GOVT 2305	Federal Government	
GOVT 2306	Texas Government	3
Semester Total		16

SECOND YEAR

First Semester - Fall

ENGR 2304	Programming for Engineers	3
ECON 2301	Principles of Macroeconomics OR	
ECON 2302	Principles of Microeconomics	3
ENGR 2301	Engineering Mechanics-Statics	3
MATH 2415	Calculus III	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
Semester Total		17

Second Semester - Spring

ENGR 2405	Electrical Circuits I	4
MATH 2320	Differential Equations	3
XXXX #3## ²	Engineering Elective	3
XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
Semester Total		16

Total Minimum Credits for the ASES Degree **65**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Academic Degrees and Certificates

Associate of Science in GEOLOGY

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		13

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
HIST #3## ¹	American History Elective	3
CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 2413	Calculus I	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		17

SECOND YEAR

First Semester - Fall

MATH 2414	Calculus II	4
GOVT 2305	Federal Government	3
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
GEOL 1403	Physical Geology (Lecture & Lab)	4
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Creative Arts Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
GOVT 2306	Texas Government	3
GEOL 1404	Historical Geology (Lecture & Lab)	4
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
Semester Total		17

Total Minimum Credits for the AS Degree **62**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Science in MATHEMATICS

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
MATH 2412	Pre-Calculus Math	4
Semester Total		14

Second Semester - Spring

ENGL 1302	Composition II	3
CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 2413	Calculus I	4
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
Semester Total		17

SECOND YEAR

First Semester - Fall

MATH 2414	Calculus II	4
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
Semester Total		14

Second Semester - Spring

GOVT 2306	Texas Government	3
HIST #3## ¹	American History Elective	3
MATH 2415	Calculus III	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
Semester Total		17

Total Minimum Credits for the AS Degree **62**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Science in PHYSICS

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
MATH 2412	Pre-Calculus Math	4
HIST #3## ¹	American History Elective	3
Semester Total		17

Second Semester - Spring

ENGL 1302	Composition II	3
CHEM 1412	General Chemistry II (Lecture & Lab)	4
MATH 2413	Calculus I	4
HIST #3## ¹	American History Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
Semester Total		17

SECOND YEAR

First Semester - Fall

MATH 2414	Calculus II	4
GOVT 2305	Federal Government	3
XXXX #3## ¹	Creative Arts Elective	3
PHYS 2325	University Physics I (Lecture)	3
PHYS 2125	University Physics I (Lab)	1
Semester Total		14

Second Semester - Spring

GOVT 2306	Texas Government	3
MATH 2415	Calculus III	4
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
PHYS 2326	University Physics II (Lecture)	3
PHYS 2126	University Physics II (Lab)	1
Semester Total		14

Total Minimum Credits for the AS Degree **62**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Academic Degrees and Certificates

Associate of Science in PSYCHOLOGY

SCH

FIRST YEAR

First Semester

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective	3
PSYC 2301	General Psychology	3
MATH 1314	College Algebra	3
XXXX #3## ¹	Transferable Elective	1
Semester Total		16

Second Semester

ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective	3
PHIL 1301	Introduction to Philosophy	3
PSYC 2314	Lifespan Growth & Development OR	
PSYC 2308	Child Psychology	3
PSYC 2317	Statistical Methods in Psychology OR	
PSYC 23##	Stats/Research Methods	3
Semester Total		15

SECOND YEAR

First Semester

BIOL 1306	Biology for Science Majors I (Lecture)	3
BIOL 1106	Biology for Science Majors I (Lab)	1
XXXX #3## ¹	Creative Arts Elective	3
GOVT 2305	Federal Government	3
PSYC 2319	Social Psychology	3
XXXX #3## ¹	Social & Behavioral Sciences Elective	3
Semester Total		16

Second Semester

BIOL 1407	Biology for Science Majors II (Lecture & Lab)	4
GOVT 2306	Texas Government	3
PSYC 2316	Psychology of Personality OR	
PSYC #3## ²	Abnormal Psychology	3
PSYC #3## ²	Psychology Elective OR	
PSYC #3## ²	Biological Psychology	3
Semester Total		13

Total Minimum Credits for the AS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

² This PSYC elective is still in development at the state level.

Academic Degrees and Certificates

Transfer Advising Plan

Associate of Arts in

MULTIDISCIPLINARY STUDIES

Kinesiology & Exercise Science Major

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
HIST #3## ¹	American History Elective OR	
GOVT 2305	Federal Government	3
MATH 1332	Contemporary Mathematics	3
KINE 1301	Foundations of Kinesiology	3
KINE #1## ²	Activity Course	1
	Semester Total	16

Second Semester - Spring

ENGL 1302	Composition II	3
HIST #3## ¹	American History Elective OR	
GOVT 2306	Texas Government	3
PSYC 2301	General Psychology	3
KINE 1306	First Aid OR	
KINE 2356	Care & Prevention of Athletic Injuries	3
KINE 1338	Concepts of Physical Fitness	3
KINE #1## ²	Activity Course	1
	Semester Total	16

SECOND YEAR

First Semester - Fall

BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
XXXX #3## ¹	Creative Arts Elective	3
GOVT 2305	Federal Government OR	
HIST #3##	American History Elective	3
KINE 1304	Personal/Community Health	3
KINE #1## ²	Activity Course	1
	Semester Total	14

Academic Degrees and Certificates

Second Semester - Spring

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
GOVT 2306	Texas Government OR	
HIST #3##	American History Elective	3
XXXX #3## ¹	Language, Philosophy, & Culture Elective	3
KINE 1346	Drug Use & Abuse	3
KINE #1## ²	Activity Course	1
	Semester Total	14
Total Minimum Credits for the AA Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Activity courses include KINE 1100 – 1150 or 2100 – 2150.

Workforce Degrees and Certificates

Accounting

ACCOUNTING

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ACCT 2301	Principles of Financial Accounting	3
XXXX #3## ¹	Math/Natural Science Elective	3
ENGL 1301	Composition I	3
XXXX #3## ²	Computer Applications Elective	3

Semester Total 15

Second Semester - Spring

ACNT 2331	Internal Control & Auditing QR	
ACNT 1313	Computerized Accounting Applications	3
ACNT 1331	Federal Income Tax: Individual	3
ACCT 2302	Principles of Managerial Accounting	3
ACNT 1382	Cooperative Education - Accounting Technology/Technician & Bookkeeping	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3

Semester Total 15

SECOND YEAR

First Semester - Fall

ACNT 2303	Intermediate Accounting I	3
ITSW 2334	Advanced Spreadsheets QR	
POFI 1349	Spreadsheets	3
ACNT 1347	Federal Income Tax for Partnerships & Corporations	3
PSYC 2301	General Psychology	3

ACNT 2382 Cooperative Education-Accounting Technology/Technician & Bookkeeping 3

Semester Total 15

Second Semester - Spring

BMGT 1327	Principles of Management	3
ECON 2301	Principles of Macroeconomics	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BUSG 2305	Business Law/Contracts	3
ACNT 2304	Intermediate Accounting II (Capstone)	3

Semester Total 15

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.

Workforce Degrees and Certificates

ACCOUNTING

Certificate - Level 1

SCH

First Semester - Fall

ACNT 1313	Computerized Accounting Applications	3
ACNT 1331	Federal Income Tax: Individual	3
ACCT 2301	Principles of Financial Accounting	3
XXXX #3## ¹	Computer Applications Elective	3
Semester Total		12

Second Semester - Spring

ACCT 2302	Principles of Managerial Accounting	3
ACNT 2331	Internal Control & Auditing	3
ACNT 1347	Federal Income Tax for Partnerships & Corporations	3
ACNT 1382	Cooperative Education - Accounting Technology/Technician & Bookkeeping	3
Semester Total		12

Third Semester - Summer

ITSW 2334	Advanced Spreadsheets	3
ACNT 2382	Cooperative Education - Accounting Technology/Technician & Bookkeeping	3
ACNT 2303	Intermediate Accounting I (Capstone)	3
ACNT 2309	Cost Accounting OR	
ACNT 1392	Special Topics in Accounting: Small Business Accounting	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

36

¹ Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.

Workforce Degrees and Certificates

ACCOUNTING - PAYROLL SPECIALIST

Certificate - Level 1

SCH

First Semester - Fall

ACNT 1303	Introduction to Accounting I	3
ACNT 1329	Payroll & Business Tax Accounting (Capstone)	3
POFI 1301	Computer Applications I OR	
ITSC 1309	Integrated Software Applications I	3
POFI 1349	Spreadsheets OR	
ITSW 2334	Advanced Spreadsheets	3
ACNT 1313	Computerized Accounting Applications	3
Total Minimum Credits for the Level 1 Certificate		15

Workforce Degrees and Certificates

ACCOUNTING - FORENSIC ACCOUNTING & FRAUD EXAMINATION

Enhanced Skills Certificate

SCH

First Semester - Fall

ACNT 1305	Forensic Accounting	3
ACNT 1335	Accounting Ethics	3
ACNT 2330	Governmental & Not-for-Profit Accounting	3
ACNT 1391	Special Topics in Accounting: Fraud Examination	3
Total Minimum Credits for the Enhanced Skills Certificate		12

Workforce Degrees and Certificates

Applied Horticulture

APPLIED HORTICULTURE - LANDSCAPING OPERATIONS & MANAGEMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
AGRI 1309	Computers in Agriculture	3
HALT 1324	Turfgrass Science & Management	3
HALT 1306	Introduction to Landscape Maintenance	3
HALT 1325	Landscape Plant Material	3
Semester Total		15

Second Semester - Spring

HALT 1319	Landscape Construction	3
HALT 1331	Woody Plant Materials	3
HALT 1327	Horticultural Equipment Management	3
HALT 1322	Landscape Design	3
HALT 1351	Landscape Business Operations	3
Semester Total		15

Third Semester - Summer

SPNL 1291	Special Topics in Spanish Language & Literature	2
HALT 1380	Cooperative Education - Applied Horticulture/Horticultural Operations, General	3
Semester Total		5

SECOND YEAR

First Semester - Fall

HALT 2331	Advanced Landscape Design	3
HALT 2315	Landscape Management (Capstone)	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Second Semester - Spring

HALT 1491	Special Topics in Horticulture Services Operations & Management, General	4
HALT 2323	Horticultural Pest Control	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		13

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Audio Recording Technology

AUDIO RECORDING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSC 1335	Commercial Music Software	3
MUSC 1331	MIDI I	3
RTVB 1321	TV/Video Field Production	3
Semester Total		12

Second Semester - Spring

MUSC 1327	Audio Engineering I	3
MUSC 1323	Audio Electronics	3
XXXX #3## ¹	General Education Elective	3
MUSB 1305	Survey of the Music Business	3
Semester Total		12

Third Semester - Summer

MUSC 2427	Audio Engineering II	4
RTVB 1240	Audio/Radio Production Practices	2
Semester Total		6

SECOND YEAR

First Semester - Fall

MUSC 2447	Audio Engineering III	4
RTVB 2232	Audio/Radio Production Practices II	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Second Semester - Spring

MUSC 2448	Audio Engineering IV	4
MUSC 2201	Audio Engineering Practices	2
MUSC 1405	Live Sound I	4
RTVB 2282	Cooperative Education - Radio & Television Broadcasting Technology/Technician	2
Semester Total		12

Third Semester - Summer

RTVB 2343	Commercial Recording Techniques (Capstone)	3
Semester Total		3

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

AUDIO RECORDING TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

MUSC 1335	Commercial Music Software	3
MUSC 1331	MIDI I	3
RTVB 1321	TV/Video Field Production	3
MUSB 1305	Survey of the Music Business	3
Semester Total		12

Second Semester - Spring

MUSC 1327	Audio Engineering I	3
MUSC 1323	Audio Electronics	3
MUSC 1405	Live Sound I	4
Semester Total		10

Third Semester - Summer

MUSC 2427	Audio Engineering II (Capstone)	4
RTVB 1240	Audio/Radio Production Practices	2
Semester Total		6

Total Minimum Credits for the Level 1 Certificate

28

Workforce Degrees and Certificates

AUDIO RECORDING TECHNOLOGY - ELECTRONIC MUSIC PRODUCTION

Certificate - Level 1		SCH
First Semester - Fall		
MUSB 1305	Survey of the Music Business	3
MUSC 1335	Commercial Music Software	3
MUSC 1331	MIDI I	3
MUSI 1181	Piano Class I OR	
MUAP 1169	Piano	1
MUSI 1301	Fundamentals of Music I	3
Semester Total		13
Second Semester - Spring		
MUSC 1327	Audio Engineering I	3
MUSC 2355	MIDI II	3
MUSC 2433	Scoring for Video & Film	4
MUSI 1182	Piano Class II OR	
MUAP 1169	Piano	1
MUSC 1270	Fundamentals of Music Production	2
Semester Total		13
Third Semester - Summer		
MUSC 2345	Synthesis II	3
MUSC 1350	Remixing (Capstone)	3
Semester Total		6
Total Minimum Credits for the Level 1 Certificate		32

Workforce Degrees and Certificates

Automotive Technology

AUTOMOTIVE TECHNOLOGY - TECHNICIAN

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
AUMT 1305	Introduction to Automotive Technology	3
AUMT 2328	Automotive Service	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3

Semester Total 15

Second Semester - Spring

AUMT 1307	Automotive Electrical Systems	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2321	Automotive Electrical Diagnosis & Repair	3
AUMT 2317	Automotive Engine Performance Analysis I	3
XXXX #3## ¹	Math/Natural Science Elective	3

Semester Total 15

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
AUMT 2313	Automotive Drive Train & Axles	3
AUMT 1306	Automotive Engine Removal & Installation	3
AUMT 2325	Automotive Automatic Transmission & Transaxle	3
AUMT 2334	Automotive Engine Performance Analysis II	3

Semester Total 15

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
AUMT 1319	Automotive Engine Repair	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
AUMT 2380	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (Capstone)	3

Semester Total 15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

AUTOMOTIVE TECHNOLOGY - TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

AUMT 1305	Introduction to Automotive Technology	3
AUMT 2328	Automotive Service	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3
Semester Total		12

Second Semester - Spring

AUMT 1307	Automotive Electrical Systems	3
AUMT 1345	Automotive Climate Control Systems	3
AUMT 2321	Automotive Electrical Diagnosis & Repair	3
AUMT 2317	Automotive Engine Performance Analysis I	3
Semester Total		12

Third Semester - Summer

AUMT 2313	Automotive Drive Train & Axles	3
AUMT 1306	Automotive Engine Removal & Installation	3
AUMT 2325	Automotive Automatic Transmission & Transaxle	3
AUMT 2334	Automotive Engine Performance Analysis II	3
AUMT 1380	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate

39

Workforce Degrees and Certificates

AUTOMOTIVE TECHNOLOGY - AUTOBODY/COLLISION REPAIR TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

ABDR 2441	Major Collision Repair & Panel Replacement	4
ABDR 1431	Basic Refinishing	4
ABDR 1207	Collision Repair Welding	2
ABDR 1215	Vehicle Trim & Hardware	2
Semester Total		12

Second Semester - Spring

ABDR 1458	Intermediate Refinishing	4
ABDR 1441	Structural Analysis & Damage Repair I	4
ABDR 1442	Structural Analysis & Damage Repair II	4
Semester Total		12

Third Semester - Summer

ABDR 2449	Advanced Refinishing	4
ABDR 2431	Structural Analysis & Damage Repair III	4
ABDR 1291	Special Topics in Auto/Automotive Body Repairer	2
ABDR 1280	Cooperative Education - Autobody/Collision & Repair Technology/Technician (Capstone)	2
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

36

Workforce Degrees and Certificates

AUTOMOTIVE TECHNOLOGY - MAINTENANCE & LIGHT REPAIR

Certificate - Level 1

First Semester - Fall

AUMT 1305	Introduction to Automotive Technology	3
AUMT 1307	Automotive Electrical Systems	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3
AUMT 2310	Automotive Service Consultant	3
Semester Total		15

Second Semester - Spring

AUMT 1345	Automotive Climate Control Systems	3
AUMT 2317	Automotive Engine Performance Analysis I	3
AUMT 2328	Automotive Service	3
AUMT 1380	Cooperative Education - Automobile/Automotive Mechanics Technology/Technician (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate 27

Workforce Degrees and Certificates

AUTOMOTIVE TECHNOLOGY - LIGHT AUTOMOTIVE MAINTENANCE TECHNICIAN

Occupational Skills Award **SCH**

First Semester - Fall

AUMT 1305	Introduction to Automotive Technology	3
AUMT 1310	Automotive Brake Systems	3
AUMT 1316	Automotive Suspension & Steering Systems	3
AUMT 2328	Automotive Service	3
Total Minimum Credits for the Occupational Skills Award		12

Workforce Degrees and Certificates

Banking/Finance

BANKING/FINANCE

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ACCT 2301	Principles of Financial Accounting	3
BNKG 1303	Principles of Bank Operation	3
BNKG 1351	Selling Bank/Financial Products & Services	3
BNKG 1340	Money & Financial Markets	3
Semester Total		15

Second Semester - Spring

BNKG 1356	Analyzing Financial Statements	3
IBUS 2339	International Banking & Trade Finance	3
BUSG 1301	Introduction to Business	3
BNKG 1345	Consumer Lending	3
BNKG 1380	Cooperative Education - Banking & Financial Support Services	3
Semester Total		15

SECOND YEAR

First Semester - Fall

BNKG 1343	Law & Banking	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BUSG 1303	Principles of Finance	3
BMGT 1327	Principles of Management	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ECON 2302	Principles of Microeconomics	3
BNKG 2374	Financial Business Administration (Capstone)	3
ENGL 1301	Composition I	3
BNKG 2381	Cooperative Education - Banking & Financial Support Services	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

BANKING/FINANCE - FINANCIAL LENDING

Certificate - Level 1

SCH

First Semester - Fall

BNKG 1303	Principles of Bank Operation	3
BNKG 1351	Selling Bank/Financial Products & Services	3
BNKG 1340	Money & Financial Markets	3
HRPO 1311	Human Relations	3
Semester Total		12

Second Semester - Spring

BNKG 1356	Analyzing Financial Statements	3
IBUS 2339	International Banking & Trade Finance	3
BNKG 1345	Consumer Lending	3
BNKG 1349	Commercial Lending	3
BNKG 2380	Cooperative Education - Banking & Financial Support Services (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate

27

Workforce Degrees and Certificates

BANKING/FINANCE - FINANCIAL OPERATIONS

Certificate - Level 1

SCH

First Semester - Fall

BNKG 1303	Principles of Bank Operation	3
BNKG 1351	Selling Bank/Financial Products & Services	3
BNKG 1340	Money & Financial Markets	3
HRPO 1311	Human Relations	3
Semester Total		12

Second Semester - Spring

BUSG 1303	Principles of Finance	3
ETWR 1302 ¹	Introduction to Technical Writing	3
BNKG 1380	Cooperative Education - Banking & Financial Support Services (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate

21

¹ ENGL 1301 is required for the Banking/Finance AAS Degree.

Workforce Degrees and Certificates

BANKING/FINANCE - TELLER TRAINING

Occupational Skills Award

SCH

First Semester - Fall

BNKG 1305	Teller Training	3
BNKG 1373	Teller Training Lab	3
BNKG 1351	Selling Bank/Financial Products & Services	3
Total Minimum Credits for the Occupational Skills Award		9

Workforce Degrees and Certificates

Business Management

BUSINESS MANAGEMENT - GENERAL BUSINESS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BUSG 1301	Introduction to Business OR	
BUSI 1301	Business Principles	3
MATH 1324	Mathematics for Business & Social Sciences OR	
MATH 1314	College Algebra	3
BMGT 1327	Principles of Management	3
Semester Total		15

Second Semester - Spring

BMGT 1301	Supervision	3
HRPO 1311	Human Relations	3
MRKG 1311	Principles of Marketing	3
BUSG 1370	Personal Financial Planning	3
BMGT 1341	Business Ethics	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3
ECON 2302	Principles of Microeconomics	3
BUSI 2301	Business Law I OR	
BUSG 2305	Business Law/Contracts	3
BCIS 1305	Business Computer Applications	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

HRPO 2301	Human Resources Management	3
HRPO 2307	Organizational Behavior	3
XXXX #3## ¹	General Education Elective	3
BUSG 2380	Cooperative Education - Business/Commerce, General	3
BUSG 2309	Small Business Management/Entrepreneurship (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

BUSINESS MANAGEMENT - GENERAL BUSINESS

Certificate - Level 1

SCH

First Semester - Fall

ETWR 1302 ¹	Introduction to Technical Writing OR	
ENGL 1301	Composition I	3
BUSG 1301	Introduction to Business OR	
BUSI 1301	Business Principles	3
BUSG 1370	Personal Financial Planning	3
BMGT 1327	Principles of Management	3

Semester Total

12

Second Semester - Spring

BMGT 1301	Supervision	3
HRPO 1311	Human Relations	3
BUSG 2305	Business Law/Contracts OR	
BUSI 2301	Business Law I	3
HRPO 2307	Organizational Behavior OR	
BMGT 1341	Business Ethics	3
BUSG 1380	Cooperative Education - Business/Commerce, General (Capstone)	3

Semester Total

15

Total Minimum Credits for the Level 1 Certificate

27

¹ ETWR 1302 does not count toward the AAS degree in Business Management.

Workforce Degrees and Certificates

BUSINESS MANAGEMENT - ENTREPRENEURSHIP

Certificate - Level 1

SCH

First Semester - Fall

ETWR 1302	Introduction to Technical Writing	3
BUSG 1370	Personal Financial Planning	3
BUSG 1301	Introduction to Business OR	
BUSI 1301	Business Principles	3
BUSG 1307	Entrepreneurship & Economic Development	3

Semester Total

12

Second Semester - Spring

BUSG 2309	Small Business Management/Entrepreneurship	3
BUSG 2305	Business Law/Contracts OR	
BUSI 2301	Business Law I	3
ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3
MRKG 1311	Principles of Marketing OR	
MRKG 2312	e-Commerce Marketing	3
BUSG 1380	Cooperative Education - Business/Commerce, General	3

Semester Total

15

Total Minimum Credits for the Level 1 Certificate

27

Workforce Degrees and Certificates

BUSINESS MANAGEMENT - HUMAN RESOURCE MANAGEMENT SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
BUSG 1301	Introduction to Business OR	
BUSI 1301	Business Principles	3
HRPO 1305	Management & Labor Relations	3
BMGT 1327	Principles of Management	3
Semester Total		15

Second Semester - Spring

HRPO 1302	Human Resources Training & Development	3
HRPO 1311	Human Relations	3
MATH 1314	College Algebra OR	
MATH 1324	Mathematics for Business & Social Sciences	3
BMGT 1301	Supervision	3
ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3
Semester Total		15

SECOND YEAR

First Semester - Fall

HRPO 2306	Benefits & Compensation	3
HRPO 2307	Organizational Behavior OR	
BMGT 1341	Business Ethics	3
BUSI 2301	Business Law I OR	
BUSG 2305	Business Law/Contracts	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BCIS 1305	Business Computer Applications	3
Semester Total		15

Second Semester - Spring

ECON 2302	Principles of Microeconomics	3
XXXX #3## ¹	General Education Elective	3
HRPO 2303	Employment Practices	3
HRPO 2301	Human Resources Management (Capstone)	3
BUSG 2380	Cooperative Education - Business/Commerce, General	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

BUSINESS MANAGEMENT - HUMAN RESOURCE MANAGEMENT SPECIALIZATION

Certificate - Level 1		SCH
First Semester - Fall		
ETWR 1302	Introduction to Technical Writing	3
BUSG 1301	Introduction to Business OR	
BUSI 1301	Business Principles	3
HRPO 1305	Management & Labor Relations	3
HRPO 1302	Human Resources Training & Development	3
Semester Total		12
Second Semester - Spring		
HRPO 2301	Human Resources Management	3
HRPO 2306	Benefits & Compensation	3
HRPO 2307	Organizational Behavior OR	
BMGT 1341	Business Ethics	3
BUSI 2301	Business Law I OR	
BUSG 2305	Business Law/Contracts	3
BUSG 1380	Cooperative Education - Business/Commerce, General (Capstone)	3
Semester Total		15
Total Minimum Credits for the Level 1 Certificate		27

Workforce Degrees and Certificates

BUSINESS MANAGEMENT - INSURANCE SPECIALIST/ASSOCIATE

Certificate - Level 1

SCH

First Semester - Fall

BUSG 1301	Introduction to Business	3
INSR 1205	Personal Insurance	2
INSR 1209	Principles of Insurance	2
INSR 1301	Commercial Insurance	3
INSR 2340	Multiline Insurance Sales & Marketing	3
INSR 1217	Insurance Customer Service Representative	2
INSR 1117	Special Topics in Insurance: Insurance Customer Service Representative	1

Total Minimum Credits for the Level 1 Certificate

16

Workforce Degrees and Certificates

Business Technology

BUSINESS TECHNOLOGY - GENERAL OFFICE ADMINISTRATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFT 1329	Beginning Keyboarding	3
POFT 1370	Introduction to Office Technology	3
POFT 1325	Business Math Using Technology	3

Semester Total 15

Second Semester - Spring

ENGL 1301	Composition I	3
POFT 1319	Records & Information Management I	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
POFT 2301	Intermediate Keyboarding	3
POFI 1341	Computer Applications II	3

Semester Total 15

SECOND YEAR

First Semester - Fall

POFT 1345	Shorthand/Notetaking I	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3
BMGT 1325	Office Management	3
POFI 1349	Spreadsheets	3
POFT 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3

Semester Total 15

Second Semester - Spring

POFT 2331	Administrative Project Solutions (Capstone)	3
POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
XXXX #3## ¹	Math/Natural Science Elective	3
PSYC 2301	General Psychology	3
ECON 1301	Introduction to Economics	3

Semester Total 15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - GENERAL OFFICE ADMINISTRATION

Certificate - Level 1

SCH

First Semester - Fall

POFI 1301 Computer Applications I 3

POFT 1325 Business Math Using Technology 3

POFT 1329 Beginning Keyboarding 3

Semester Total 9

Second Semester - Spring

POFT 1319 Records & Information Management I 3

POFI 1341 Computer Applications II 3

POFT 1370 Introduction to Office Technology 3

POFT 2301 Intermediate Keyboarding (Capstone) 3

Semester Total 12

Total Minimum Credits for the Level 1 Certificate 21

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - HUMAN RESOURCES/PEOPLESOFT SPECIALIZATION

Certificate - Level 1		SCH
First Semester - Fall		
POFI 1301	Computer Applications I	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3
POFT 1329	Beginning Keyboarding	3
Semester Total		9
Second Semester - Spring		
POFI 1341	Computer Applications II	3
BMGT 1371	Intermediate HR/PeopleSoft Applications	3
BMGT 2305	Advanced Communications in Management	3
Semester Total		9
Third Semester - Summer		
BMGT 2331	Principles of Quality Management	3
BMGT 2310	Financial Management	3
POFT 2331	Administrative Project Solutions (Capstone)	3
Semester Total		9
Total Minimum Credits for the Level 1 Certificate		27

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - LEGAL OFFICE ASSISTANT SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFL 1305	Legal Terminology	3
POFT 1345	Shorthand/Notetaking I	3
POFT 1329	Beginning Keyboarding	3
Semester Total		15

Second Semester - Spring

POFT 2301	Intermediate Keyboarding	3
POFL 2305	Introduction to Legal Research	3
POFT 1319	Records & Information Management I	3
POFT 1370	Introduction to Office Technology	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
POFT 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
POFL 1359	Legal Transcription	3
BMGT 1325	Office Management	3
ECON 1301	Introduction to Economics	3
Semester Total		15

Second Semester - Spring

POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
PSYC 2301	General Psychology	3
XXXX #3## ¹	Math/Natural Science Elective	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3
POFT 2331	Administrative Project Solutions (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - LEGAL OFFICE ASSISTANT SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

POFI 1301	Computer Applications I	3
POFL 1305	Legal Terminology	3
POFT 1345	Shorthand/Notetaking I	3
POFL 1359	Legal Transcription	3
Semester Total		12

Second Semester - Spring

BMGT 1370	Introduction to HR/PeopleSoft Applications	3
POFL 2305	Introduction to Legal Research	3
POFT 2301	Intermediate Keyboarding (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **21**

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - MEDICAL CODING/TRANSCRIPTION SPECIALIST SPECIALIZATION

Certificate - Level 1		SCH
First Semester - Fall		
MDCA 1313	Medical Terminology	3
POFI 1301	Computer Applications I	3
POFT 2301	Intermediate Keyboarding	3
POFM 1300	Basic Medical Coding	3
Semester Total		12
Second Semester - Spring		
MRMT 1307	Medical Transcription I	3
POFM 2333	Medical Document Production	3
POFT 2331	Administrative Project Solutions (Capstone)	3
Semester Total		9
Total Minimum Credits for the Level 1 Certificate		21

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - MEDICAL OFFICE SPECIALIST SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFM 1300	Basic Medical Coding	3
POFT 1329	Beginning Keyboarding	3
MDCA 1313	Medical Terminology	3
Semester Total		15

Second Semester - Spring

MRMT 1307	Medical Transcription I	3
POFT 2301	Intermediate Keyboarding	3
POFM 2333	Medical Document Production	3
POFT 2331	Administrative Project Solutions (Capstone)	3
POFI 1341	Computer Applications II	3
Semester Total		15

SECOND YEAR

First Semester - Fall

POFT 1370	Introduction to Office Technology	3
POFT 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
BMGT 1325	Office Management	3
POFT 1319	Records & Information Management I	3
PSYC 2301	General Psychology	3
Semester Total		15

Second Semester - Spring

ENGL 1301	Composition I	3
BIOL 1308	Biology for Non-Science Majors I (Lecture)	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
ECON 1301	Introduction to Economics	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - MICROSOFT OFFICE TECHNOLOGY SPECIALIZATION

Associate of Applied Science SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFT 1329	Beginning Keyboarding	3
POFI 1349	Spreadsheets	3
POFT 1325	Business Math Using Technology	3
Semester Total		15

Second Semester - Spring

POFI 1341	Computer Applications II	3
POFI 2331	Desktop Publishing	3
POFT 2301	Intermediate Keyboarding	3
POFT 1370	Introduction to Office Technology	3
BMGT 1325	Office Management	3
Semester Total		15

SECOND YEAR

First Semester - Fall

POFI 1380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
ENGL 1301	Composition I	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
ECON 1301	Introduction to Economics	3
BMGT 1370	Introduction to HR/PeopleSoft Applications	3
Semester Total		15

Second Semester - Spring

BMGT 1371	Intermediate HR/PeopleSoft Applications	3
POFT 2331	Administrative Project Solutions (Capstone)	3
PSYC 2301	General Psychology	3
XXXX #3## ¹	Math/Natural Science Elective	3
POFT 2380	Cooperative Education - Administrative Assistant & Secretarial Science, General	3
Semester Total		15

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - MICROSOFT OFFICE TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

POFI 1301 Computer Applications I 3

POFI 1349 Spreadsheets 3

POFT 1329 Beginning Keyboarding 3

Semester Total 9

Second Semester - Spring

POFI 1341 Computer Applications II 3

POFT 1325 Business Math Using Technology 3

POFI 2331 Desktop Publishing (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 18

Workforce Degrees and Certificates

BUSINESS TECHNOLOGY - BILINGUAL

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
POFI 1301	Computer Applications I	3
POFT 1370	Introduction to Office Technology	3
POFT 1329	Beginning Keyboarding	3
XXXX 1411 ¹	Beginning Foreign Language I	4

Semester Total **16**

Second Semester - Spring

ENGL 1301	Composition I	3
POFI 1341	Computer Applications II	3
XXXX 1412 ¹	Beginning Foreign Language II	4
POFI 1349	Spreadsheets	3
POFT 1319	Records & Information Management I	3

Semester Total **16**

Third Semester - Summer

BMGT 1325	Office Management	3
POFT 2331	Administrative Project Solutions (Capstone)	3

Semester Total **6**

Total Minimum Credits for the Level 2 Certificate **38**

¹ Foreign language courses must be in the same language.

Workforce Degrees and Certificates

Child Development

CHILD DEVELOPMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CDEC 1313	Curriculum Resources for Early Childhood Programs	3
TECA 1311	Educating Young Children	3
CDEC 1323	Observation & Assessment	3
Semester Total		15

Second Semester - Spring

CDEC 1358	Creative Arts for Early Childhood	3
XXXX #3## ¹	Math/Natural Science Elective	3
CDEC 2326	Administration of Programs for Children I	3
TECA 1354	Child Growth & Development	3
CDEC 1319	Child Guidance	3
Semester Total		15

Third Semester - Summer

SOCI 1301	Introduction to Sociology OR	
SOCI 2301	Marriage & the Family OR	
GOVT 2305	Federal Government	3
CDEC #3## ²	Approved Program Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
CDEC 1356	Emergent Literacy for Early Childhood	3
PSYC 2301	General Psychology	3
TECA 1303	Families, School, & Community	3
CDEC 1359	Children with Special Needs	3
Semester Total		15

Second Semester - Spring

CDEC 2307	Math & Science for Early Childhood	3
TECA 1318	Wellness of the Young Child	3
CDEC 2380	Cooperative Education - Child Care Provider/Assistant (Capstone)	3
Semester Total		9

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select a CDEC elective.

Workforce Degrees and Certificates

CHILD DEVELOPMENT - ADMINISTRATION

Certificate - Level 1

SCH

First Semester - Fall

CDEC 1313	Curriculum Resources for Early Childhood Programs	3
CDEC 2326	Administration of Programs for Children I	3
BMGT 1301	Supervision	3
Semester Total		9

Second Semester - Spring

CDEC 1319	Child Guidance	3
XXXX #3## ¹	Approved Program Elective	3
CDEC 2328	Administration of Programs for Children II (Capstone)	3
POFT 1301	Computer Applications I OR	
ITSC 1309	Integrated Software Applications I	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

21

¹ CDEC 1317, 1321, 1339, 1391, 1393, 2315, 2322, 2324, 2328, 2341; BUSG 1370 & BMGT 1301; POFI 1301, ITSC 1309, or BCIS 1305, all EDUC courses.

Alternative electives may be chosen with prior departmental approval.

Workforce Degrees and Certificates

CHILD DEVELOPMENT- EARLY CHILDHOOD

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
TECA 1311	Educating Young Children	3
XXXX #3## ¹	Approved Program Elective	3
CDEC 1313	Curriculum Resources for Early Childhood Programs	3
Semester Total		15

Second Semester - Spring

PSYC 2301	General Psychology OR	
SOCI 1301	Introduction to Sociology OR	
CDEC 1359	Children with Special Needs	3
TECA 1354	Child Growth & Development	3
CDEC 1319	Child Guidance	3
CDEC 1358	Creative Arts for Early Childhood	3
XXXX #3## ¹	Approved Program Elective	3
Semester Total		15

Third Semester - Summer

CDEC 2315	Diverse Cultural/Multilingual Education	3
CDEC 1356	Emergent Literacy for Early Childhood	3
TECA 1318	Wellness of the Young Child	3
CDEC 2307	Math & Science for Early Childhood	3
CDEC 2326	Administration of Programs for Children I (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 2 Certificate

45

¹ Consult with an advisor to select an approved program elective.

Workforce Degrees and Certificates

CHILD DEVELOPMENT - INFANT & TODDLER TEACHER

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

CDEC 1339	Early Childhood Development: 0-3 Years	3
CDEC 1321	The Infant & Toddler	3
CDEC 1391	Special Topics in Family Life & Relations Studies	3
Semester Total		9

Second Semester - Spring

CDEC 1313	Curriculum Resources for Early Childhood Programs	3
CDEC 1319	Child Guidance (Capstone)	3
CDEC 1323	Observation & Assessment	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate

18

Workforce Degrees and Certificates

CHILD DEVELOPMENT - TEACHER ASSISTANT/AIDE

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
TECA 1354	Child Growth & Development	3
CDEC 1323	Observation & Assessment	3
ENGL 1301	Composition I	3
TECA 1311	Educating Young Children	3
Semester Total		15

Second Semester - Spring

SOC1 1301	Introduction to Sociology OR	
TECA 1303	Families, School, & Community	3
CDEC 1319	Child Guidance	3
CDEC 1313	Curriculum Resources for Early Childhood Programs	3
EDUC 1301	Introduction to the Teaching Profession	3
EDUC 2301	Introduction to Special Populations OR	
CDEC 1359	Children with Special Needs	3
Semester Total		15

Third Semester - Summer

CDEC 1358	Creative Arts for Early Childhood	3
CDEC 2315	Diverse Cultural/Multilingual Education	3
Semester Total		6

SECOND YEAR

First Semester - Fall

CDEC 1356	Emergent Literacy for Early Childhood	3
CDEC 2341	The School Age Child (Capstone)	3
SPCH 1315	Public Speaking OR	
SPCH 1318	Interpersonal Communication	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate	48
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Workforce Degrees and Certificates

Computer Programming

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - MICROSOFT C# SPECIALIZATION

Associate of Applied Science SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I (with C#)	4
Semester Total		16

Second Semester - Spring

MATH 1324	Mathematics for Business & Social Sciences	3
COSC 1437	Programming Fundamentals II (with C#)	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		13

Third Semester - Summer

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		3

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
ITSE 2471	Mobile Application Programming I	4
XXXX #3## ¹	General Education Elective	3
XXXX #3## ²	Program Approved Business Elective	3
Semester Total		14

Workforce Degrees and Certificates

Second Semester - Spring

INEW 2434	Advanced Web Programming	4
ITSE 2453	Advanced C# Programming	4
ITSE 1380	Cooperative Education - Computer Programming/Programmer, General OR	
INEW 2332	Comprehensive Software Project: Coding, Testing, & Implementation (Capstone)	3
XXXX #3## ³	Program Approved IT Elective	3
	Semester Total	14
	Total Minimum Credits for the AAS Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² ACCT 2301, 2302; BMGT 1301, 1303, 1325; BUSG 1301, 2305, 2317; ECON 1301, 2301, 2302; HRPO 1311, 2307.

³ COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

Workforce Degrees and Certificates

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - MICROSOFT C++ SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I (with C++)	4
Semester Total		16

Second Semester - Spring

MATH 1324	Mathematics for Business & Social Sciences	3
COSC 1437	Programming Fundamentals II (with C++)	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		13

Third Semester - Summer

XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		3

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
COSC 2425	Computer Organization & Machine Language	4
COSC 2436	Programming Fundamentals III (with C++)	4
XXXX #3## ²	Program Approved Business Elective	3
Semester Total		15

Second Semester - Spring

ITSE 2343	Advanced Mobile Programming OR	
INEW 2434	Advanced Web Programming	4
ITSE 1380	Cooperative Education - Computer Programming/Programmer, General OR	
INEW 2332	Comprehensive Software Project: Coding, Testing, & Implementation (Capstone)	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ³	Program Approved IT Elective	3
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² ACCT 2301, 2302; BMGT 1301, 1303, 1325; BUSG 1301, 2305, 2317; ECON 1301, 2301, 2302; HRPO 1311, 2307.

³ COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

Workforce Degrees and Certificates

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - JAVA SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I (with Java)	4
Semester Total		16

Second Semester - Spring

MATH 1324	Mathematics for Business & Social Sciences	3
COSC 1437	Programming Fundamentals II (with Java)	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
XXXX #2## ¹	General Education Elective	2
Semester Total		12

Third Semester - Summer

XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		3

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
COSC 2436	Programming Fundamentals III (with Java)	4
INEW 2438	Advanced Java Programming	4
XXXX #3## ²	Program Approved Business Elective	3
Semester Total		15

Second Semester - Spring

INEW 2434	Advanced Web Programming	4
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITSE 1380	Cooperative Education - Computer Programming/Programmer, General OR	
INEW 2332	Comprehensive Software Project: Coding, Testing, & Implementation (Capstone)	3
XXXX #4## ³	Program Approved IT Elective	4
Semester Total		14

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² ACCT 2301, 2302; BMGT 1301, 1303, 1325; BUSG 1301, 2305, 2317; ECON 1301, 2301, 2302; HRPO 1311, 2307.

³ COSC 2436; GISC 1411; INEW 2475; ITNW 1313; ITSE 2333, 2471; ITSY 1342.

Workforce Degrees and Certificates

COMPUTER PROGRAMMING - DATABASE ADMINISTRATOR

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I	4
MATH 1314	College Algebra	3
Semester Total		13

Second Semester - Spring

ITSC 1307	UNIX Operating System I OR	
ITMT 1358	Windows Client Operating System	3
ITSE 1345	Introduction to Oracle SQL	3
ITSE 1456	Extensible Markup Language (XML)	4
Semester Total		10

Third Semester - Summer

ITSE 2456	Oracle Database Administration I OR	
ITMT 2403	Administering a Microsoft SQL Server Database	4
Semester Total		4

SECOND YEAR

First Semester - Fall

ITSE 2458	Oracle Database Administration II OR	
ITSE 2333	Implementing a Database on Microsoft SQL Server (Capstone)	
Semester Total		4

Total Minimum Credits for the Level 2 Certificate **31**

Workforce Degrees and Certificates

COMPUTER PROGRAMMING - MOBILE APPLICATION DEVELOPER

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
COSC 1436	Programming Fundamentals I	4
MATH 1314	College Algebra	3
Semester Total		13

Second Semester - Spring

COSC 1437	Programming Fundamentals II	4
ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
ITSE 2471	Mobile Application Programming I	4
Semester Total		11

SECOND YEAR

First Semester - Fall

ITSE 2402	Intermediate Web Programming	4
ITSE 2472	Mobile Application Programming II (Capstone)	4
Semester Total		8

Total Minimum Credits for the Level 2 Certificate **32**

Workforce Degrees and Certificates

COMPUTER PROGRAMMING - SHAREPOINT ADMINISTRATOR

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
COSC 1436	Programming Fundamentals I	4
ITSC 1319	Internet/Web Page Development	3
MATH 1314	College Algebra	3
Semester Total		13

Second Semester - Spring

INEW 2475	SharePoint Administration I	4
ITSE 1346	Database Theory & Design OR	3
ITSE 1345	Introduction to Oracle SQL	3
ITSE 2402	Intermediate Web Programming	4
Semester Total		11

SECOND YEAR

First Semester - Fall

INEW 1340	ASP.NET Programming	3
INEW 2476	SharePoint Administration II (Capstone)	4
Semester Total		7

Total Minimum Credits for the Level 2 Certificate	31
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Workforce Degrees and Certificates

COMPUTER PROGRAMMING - WEB APPLICATION DEVELOPER

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
COSC 1436	Programming Fundamentals I	4
ITSC 1319	Internet/Web Page Development	3
MATH 1314	College Algebra	3
Semester Total		13

Second Semester - Spring

ITSE 2402	Intermediate Web Programming	4
COSC 1437	Programming Fundamentals II	4
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
ITSC 1307	UNIX Operating System I OR	
ITMT 1358	Windows Client Operating System	3
Semester Total		14

SECOND YEAR

First Semester - Fall

ITSE 1346	Database Theory & Design OR	
ITSE 1345	Introduction to Oracle SQL	3
Semester Total		3

Total Minimum Credits for the Level 2 Certificate **30**

Workforce Degrees and Certificates

Computer Systems Networking

COMPUTER SYSTEMS NETWORKING - CISCO SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
ITSC 1316	Linux Installation & Configuration OR	
ITSC 1307	UNIX Operating System I OR	
ITMT 1358	Windows Client Operating System	3

Semester Total 15

Second Semester - Spring

ITSC 1319	Internet/Web Page Development	3
ITSC 1425	Personal Computer Hardware	4
ITCC 1414	CCNA 1: Introduction to Networks	4
ITSY 1342	Information Technology Security	3

Semester Total 14

Third Semester - Summer

ITCC 1440	CCNA 2: Routing & Switching Essentials	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3

Semester Total 7

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITCC 2412	CCNA 3: Scaling Networks	4
XXXX #3## ¹	General Education Elective	3
ITSC 1358	UNIX System Administration I	3

Semester Total 13

Second Semester - Spring

ITCC 2441	CCNA Security	4
ITCC 2413	CCNA 4: Connecting Networks	4
ITNW 1380	Cooperative Education - Computer Systems Networking & Telecommunications OR	3
ITNW 2335	Network Troubleshooting & Support (Capstone)	3

Semester Total 11

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CERTIFIED CISCO NETWORK PROFESSIONAL (CCNP)

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

ITCC 1414	CCNA 1: Introduction to Networks	4
Semester Total		4

Second Semester - Spring

ITCC 1440	CCNA 2: Routing & Switching Essentials	4
ITCC 2412	CCNA 3: Scaling Networks	4
Semester Total		8

Third Semester - Summer

ITCC 2413	CCNA 4: Connecting Networks	4
Semester Total		4

SECOND YEAR

First Semester - Fall

ITCC 2454	CCNP R&S ROUTE	4
ITCC 2455	CCNP R&S SWITCH	4
Semester Total		8

Second Semester - Spring

ITCC 2456	CCNP R&S TSHOOT (Capstone)	4
ITSC 1307	UNIX Operating System I	3
Semester Total		7

Total Minimum Credits for the Level 1 Certificate

31

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CERTIFIED CISCO NETWORK

ASSOCIATE (CCNA)

Certificate - Level 1

SCH

First Semester - Fall

ITCC 1414	CCNA 1: Introduction to Networks	4
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Semester Total	4
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Second Semester - Spring

ITCC 1440	CCNA 2: Routing & Switching Essentials	4
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ITCC 2412	CCNA 3: Scaling Networks	4
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Semester Total	8
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Third Semester - Summer

ITCC 2413	CCNA 4: Connecting Networks (Capstone)	4
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Semester Total	4
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Total Minimum Credits for the Level 1 Certificate	16
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Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CYBER SECURITY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BCIS 1305	Business Computer Applications OR	
ITMT 1358	Windows Client Operating System	3
ITSC 1307	UNIX Operating System I	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
ITSY 1342	Information Technology Security	3
COSC 1436	Programming Fundamentals I	4
Semester Total		17

Third Semester - Summer

ITMT 1357	Administering a Windows Server Operating System	3
Semester Total		3

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITNW 1313	Computer Virtualization	3
ITSY 2330	Intrusion Detection	3
ITSY 2401	Firewalls & Network Security	4
Semester Total		13

Second Semester - Spring

ITSY 2443	Computer System Forensics	4
ITSY 1491	Special Topics in Information Technology/Security	4
ITSY 2471	Cyber Competitions (Capstone)	4
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CYBER SECURITY

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1307	UNIX Operating System I	3
BCIS 1305	Business Computer Applications OR	
ITMT 1358	Windows Client Operating System	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4

Semester Total **13**

Second Semester - Spring

ITSY 1342	Information Technology Security	3
ITNW 1313	Computer Virtualization	3

Semester Total **6**

SECOND YEAR

First Semester - Fall

ITSY 2401	Firewalls & Network Security	4
ITSY 2330	Intrusion Detection	3
ITSY 2443	Computer System Forensics	4

Semester Total **11**

Second Semester - Spring

ITSY 1491	Special Topics in Information Technology/Security	4
ITSY 2471	Cyber Competitions (Capstone)	4

Semester Total **8**

Total Minimum Credits for the Level 2 Certificate **38**

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CYBER SECURITY

Certificate - Level 1

SCH

First Semester - Fall

ITSC 1307	UNIX Operating System I	3
ITMT 1358	Windows Client Operating System	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4

Semester Total

10

Second Semester - Spring

ITSY 1342	Information Technology Security (Capstone)	3
ITSY 2330	Intrusion Detection	3

Semester Total

6

Total Minimum Credits for the Level 1 Certificate

16

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - HELP DESK SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
ITNW 1425	Fundamentals of Networking Technologies	4
Semester Total		13

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITNW 1492	Special Topics in Computer Systems Networking & Telecommunications	4
ITSC 2339	Personal Computer Help Desk Support	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
ITNW 1308	Implementing & Supporting Client Operating Systems	3
Semester Total		16

Third Semester - Summer

ITSY 1342	Information Technology Security	3
ITSC 1307	UNIX Operating System I	3
Semester Total		6

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
ITSC 1319	Internet/Web Page Development	3
ITMT 2302	Windows Server 2008 Active Directory Configuration	3
ITSC 1358	UNIX System Administration I	3
Semester Total		12

Second Semester - Spring

ITNW 1313	Computer Virtualization	3
ITNW 1392	Special Topics in Computer Systems Networking & Telecommunications	3
ITMT 2301	Windows Server 2008 Network Infrastructure Configuration (Capstone)	3
ITSC 1447	UNIX System Administration II	4
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - HELP DESK

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITNW 1313	Computer Virtualization	3
ITNW 1358	Network+	3
ITNW 1308	Implementing & Supporting Client Operating Systems	3
Semester Total		12

Second Semester - Spring

ITSC 1307	UNIX Operating System I	3
ITSY 1342	Information Technology Security	3
ITMT 2302	Windows Server 2008 Active Directory Configuration	3
Semester Total		9

SECOND YEAR

First Semester - Fall

ITSC 1358	UNIX System Administration I	3
ITSC 1447	UNIX System Administration II (Capstone)	4
ITMT #3## ¹	Computer Systems & Networking Elective	3
Semester Total		10

Total Minimum Credits for the Level 2 Certificate

31

¹ Consult with an advisor to select a Computer Systems and Networking elective.

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - HELP DESK

Certificate - Level 1

SCH

First Semester - Fall

ITSC 1307 UNIX Operating System I 3

ITNW 1358 Network+ 3

ITNW 1308 Implementing & Supporting Client Operating Systems 3

Semester Total 9

Second Semester - Spring

ITMT 2302 Windows Server 2008 Active Directory Configuration 3

ITSY 1342 Information Technology Security 3

ITSC 1358 UNIX System Administration I (Capstone) 3

ITNW 1313 Computer Virtualization 3

Semester Total 12

Total Minimum Credits for the Level 1 Certificate 21

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - INFORMATION TECHNOLOGY CORE		
Certificate - Level 1		SCH
First Semester - Fall		
ITSC 1301	Introduction to Computers	3
ITSC 1425	Personal Computer Hardware	4
ITSC 1321	Intermediate PC Operating Systems	3
ITNW 1313	Computer Virtualization	3
Semester Total		13
Second Semester - Spring		
ITNW 1425	Fundamentals of Networking Technologies	4
ITSE 1402	Computer Programming - Swift I	4
ITSY 1342	Information Technology Security	3
ITSC 2339	Personal Computer Help Desk Support (Capstone)	3
Semester Total		14
Total Minimum Credits for the Level 1 Certificate		27

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - LINUX SERVER ADMINISTRATOR SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
ITSC 1316	Linux Installation & Configuration	3
ITSC 1307	UNIX Operating System I	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II	3
ITSC 1458	UNIX System Administration I	4
ITNW 1358 ¹	Network+ OR	
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
XXXX #3## ²	Humanities/Fine Arts Elective	3
Semester Total		14

Third Semester - Summer

ITSC 1319	Internet/Web Page Development	3
ITSY 2401	Firewalls & Network Security	4
Semester Total		7

SECOND YEAR

First Semester - Fall

ITSC 1425	Personal Computer Hardware	4
ITSC 1447	UNIX System Administration II	4
ITNW 1313	Computer Virtualization	3
XXXX #3## ²	Humanities/Fine Arts Elective	3
Semester Total		14

Second Semester - Spring

ITSC 2425	Advanced Linux (Capstone)	4
XXXX #3## ³	Program Approved Business Elective	3
XXXX #3## ²	Social/Behavioral Sciences Elective	3
Semester Total		10

Total Minimum Credits for the AAS Degree

60

¹ Students who choose Network+ must also complete a one-hour elective.

² A list of electives appears in the Core Curriculum section of this catalog.

³ Consult with an advisor to select a Program Approved Business Elective.

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - LINUX ADMINISTRATOR

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1425	Personal Computer Hardware	4
ITSC 1316	Linux Installation & Configuration	3
ITSC 1307	UNIX Operating System I	3
Semester Total		13

Second Semester - Spring

ITSC 1458	UNIX System Administration I	4
ITNW 1358	Network+ OR	
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	3
Semester Total		7

Third Semester - Summer

ITSC 1319	Internet/Web Page Development	3
ITSC 1447	UNIX System Administration II	4
Semester Total		7

SECOND YEAR

First Semester - Fall

ITSC 2339	Personal Computer Help Desk Support	3
ITNW 1313	Computer Virtualization	3
ITSC 2425	Advanced Linux (Capstone)	4
Semester Total		10

Total Minimum Credits for the Level 2 Certificate

37

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - LINUX SYSTEM ADMINISTRATION

Certificate - Level 1

SCH

First Semester - Fall

ITSC 1425	Personal Computer Hardware	4
ITSC 1307	UNIX Operating System I	3
Semester Total		7

Second Semester - Spring

ITSC 1316	Linux Installation & Configuration	3
ITSC 1458	UNIX System Administration I (Capstone)	4
Semester Total		7

Third Semester - Summer

ITSC 1319	Internet/Web Page Development	3
ITNW 1358	Network+ OR	
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	3
Semester Total		6

Total Minimum Credits for the Level 1 Certificate **20**

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
MATH 1314	College Algebra	3
ITSC 1425	Personal Computer Hardware	4
ITMT 1358	Windows Client Operating System	3
Semester Total		16

Second Semester - Spring

ENGL 1301	Composition I	3
ITSY 1342	Information Technology Security	3
ITMT 2305	Designing & Implementing a Server Infrastructure	3
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	4
Semester Total		13

Third Semester - Summer

SPCH #3## ¹	Speech Elective	3
ITSC 1319	Internet/Web Page Development	3
Semester Total		6

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
ITNW 1313	Computer Virtualization	3
ITMT 1357	Administering a Windows Server Operating System	3
COSC 1436	Programming Fundamentals I	4
Semester Total		13

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
ITMT 1305	Configuring Advanced Window Server Operating Systems	3
ITSY 2330	Intrusion Detection	3
ITNW 1380	Cooperative Education - Computer Systems Networking & Telecommunications OR	
ITNW 2335	Network Troubleshooting & Support (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

1 A list of electives appears in the Core Curriculum section of this catalog.

2 SPCH Electives: SPCH 1311, 1321 or 1315.

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION

Certificate - Level 2

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ITNW 1358	Network+ OR	
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	3
ITMT 1358	Windows Client Operating System	3
Semester Total		9

Second Semester - Spring

ITMT 2305	Designing & Implementing a Server Infrastructure	3
ITSY 1342	Information Technology Security	3
ITSC 1425	Personal Computer Hardware	4
Semester Total		10

Third Semester - Summer

ITSC 1319	Internet/Web Page Development	3
Semester Total		3

SECOND YEAR

First Semester - Fall

ITNW 1313	Computer Virtualization	3
ITSY 2330	Intrusion Detection	3
ITMT 1357	Administering a Windows Server Operating System (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 2 Certificate		31
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Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION

Certificate - Level 1 SCH

First Semester - Fall

ITNW 1358	Network+ OR	
ITNW 1425	Fundamentals of Networking Technologies OR	
ITCC 1414	CCNA 1: Introduction to Networks	3
ITMT 1358	Windows Client Operating System	3
ITSC 1309	Integrated Software Applications I OR	
BCIS 1305	Business Computer Applications	3
Semester Total		9

Second Semester - Spring

ITMT 2305	Designing & Implementing a Server Infrastructure (Capstone)	3
ITSY 1342	Information Technology Security	3
ITSC 1425	Personal Computer Hardware	4
Semester Total		10

Total Minimum Credits for the Level 1 Certificate 19

Workforce Degrees and Certificates

Construction Management Technology

CONSTRUCTION MANAGEMENT TECHNOLOGY - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ELPT 1315	Electrical Calculations I	3
CNBT 1301	Introduction to the Construction Industry	3
CNBT 1318	Construction Tools & Techniques	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
CNBT 1311	Construction Methods & Materials I	3
Semester Total		18

Second Semester - Spring

CNBT 1342	Building Codes & Inspections	3
ELPT 1329	Residential Wiring	3
CNBT 1346	Construction Estimating I	3
CNBT 1302	Mechanical, Plumbing, & Electrical Systems in Construction I	3
CNBT 1316	Construction Technology I	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
CNBT 2337	Construction Estimating II	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Second Semester - Spring

CNBT 2342	Construction Management I	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Third Semester - Summer

CNBT 1391	Special Topics in Construction/Building Technology/Technician	3
CNBT 2335	Computer-Aided Construction Scheduling (Capstone)	3
Semester Total		6

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

CONSTRUCTION MANAGEMENT TECHNOLOGY - CRAFT MANAGEMENT SPECIALIZATION

Associate of Applied Science SCH

FIRST YEAR

Block credit for approved certification: 21 semester hours. 21

EDUC 1300	Learning Framework	3
Semester Total		24

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
CNBT 1342	Building Codes & Inspections	3
CNBT 2335	Computer-Aided Construction Scheduling	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

CNBT 1346	Construction Estimating I	3
CNBT 2342	Construction Management I	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

Third Semester - Summer

CNBT 2337	Construction Estimating II	3
CNBT 1391	Special Topics in Construction/Building Technology/Technician (Capstone)	3
Semester Total		6

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

CONSTRUCTION MANAGEMENT TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
CNBT 1301	Introduction to the Construction Industry	3
CNBT 1318	Construction Tools & Techniques	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
CNBT 1311	Construction Methods & Materials I	3
Semester Total		15

Second Semester - Spring

CNBT 2335	Computer-Aided Construction Scheduling	3
ELPT 1329	Residential Wiring	3
CNBT 1302	Mechanical, Plumbing, & Electrical Systems in Construction I	3
CNBT 1316	Construction Technology I (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

27

Workforce Degrees and Certificates

CONSTRUCTION MANAGEMENT TECHNOLOGY - CONSTRUCTION HELPER		
Certificate - Level 1		SCH
First Semester - Fall		
ELPT 1315	Electrical Calculations I	3
CNBT 1301	Introduction to the Construction Industry	3
CNBT 1318	Construction Tools & Techniques	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
CNBT 1311	Construction Methods & Materials I (Capstone)	3
Total Minimum Credits for the Level 1 Certificate		15

Workforce Degrees and Certificates

Corrosion Technology

CORROSION TECHNOLOGY - ASSOCIATE OF APPLIED SCIENCE

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
METL 1313	Introduction to Corrosion	3
ENGL 1301	Composition I	3
ENTC 2331	Manufacturing Materials	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Natural Science Elective	3
METL 1301	Introduction to Metallurgy	3
METL 2441	Cathodic Protection	4
DFTG 1305	Technical Drafting	3
Semester Total		13

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
INMT 1311	Computer Integrated Manufacturing	3
HYDR 1345	Hydraulics & Pneumatics	3
NDTE 1305	Introduction to Ultrasonics	3
ENTC 1347	Safety & Ergonomics OR	
OSHT 1301	Introduction to Safety & Health	3
Semester Total		15

Second Semester - Spring

INMT 1343	Computer Aided Design/Computer Aided Manufacturing (CAD-CAM)	3
METL 2405	Atmospheric Corrosion Control (Capstone)	4
INMT 1317	Industrial Automation	3
CETT 1409	DC-AC Circuits	4
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		17

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

CORROSION TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

METL 1313	Introduction to Corrosion	3
TECM 1301	Industrial Mathematics	3
ELPT 1311	Basic Electrical Theory	3
ETWR 1302	Introduction to Technical Writing	3
Semester Total		12

Second Semester - Spring

METL 1301	Introduction to Metallurgy	3
METL 2405	Atmospheric Corrosion Control (Capstone)	4
METL 2441	Cathodic Protection	4
Semester Total		11

Total Minimum Credits for the Level 1 Certificate **23**

Workforce Degrees and Certificates

Cosmetology

COSMETOLOGY OPERATOR

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
XXXX #3## ¹	Math/Natural Science Elective	3
CSME 1410	Introduction to Haircutting & Related Theory	4
CSME 1405	Fundamentals of Cosmetology	4
CSME 2204	Introduction to the Theory & Chemistry of Hair Color	2

Semester Total **16**

Second Semester - Spring

CMSE 1391	Special Topics in Cosmetology/Cosmetologist, General	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
CSME 1453	Chemical Reformation & Related Theory	4
CSME 2501	The Principles of Hair Coloring & Related Theory	5

Semester Total **15**

Third Semester - Summer

CSME 2439	Advanced Hair Design	4
CSME 2343	Salon Development	3

Semester Total **7**

SECOND YEAR

First Semester - Fall

CSME 2337	Advanced Cosmetology Techniques	3
CSME 2410	Advanced Haircutting & Related Theory	4
XXXX #3## ¹	General Education Elective	3
PSYC 2301	General Psychology	3

Semester Total **13**

Second Semester - Spring

CSME 1451	Artistry of Hair, Theory & Practice	4
CSME 2541	Preparation for the State Licensing Examination (Capstone)	5

Semester Total **9**

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

COSMETOLOGY OPERATOR

Certificate - Level 2		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
CSME 1405	Fundamentals of Cosmetology	4
CSME 1410	Introduction to Haircutting & Related Theory	4
CSME 1453	Chemical Reformation & Related Theory	4
CSME 2204	Introduction to the Theory & Chemistry of Hair Color	2
Semester Total		17
Second Semester - Spring		
CSME 2501	The Principles of Hair Coloring & Related Theory	5
CSME 2337	Advanced Cosmetology Techniques	3
CSME 2439	Advanced Hair Design	4
CSME 1391	Special Topics in Cosmetology/Cosmetologist, General	3
Semester Total		15
Third Semester - Summer		
CSME 2343	Salon Development	3
CSME 2410	Advanced Haircutting & Related Theory	4
CSME 1451	Artistry of Hair, Theory & Practice	4
CSME 2541	Preparation for the State Licensing Examination (Capstone)	5
Semester Total		16
Total Minimum Credits for the Level 2 Certificate		48

Workforce Degrees and Certificates

COSMETOLOGY INSTRUCTOR

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
CSME 1535	Orientation to the Instruction of Cosmetology	5
CSME 1534	Cosmetology Instructor I	5
XXXX #3## ¹	Computer Applications Elective	3
Semester Total		16

Second Semester - Spring

XXXX #3## ²	Math/Natural Science Elective	3
CSME 2514	Cosmetology Instructor II	5
CSME 2549	Cosmetology Instructor III	5
XXXX #3## ²	General Education Elective	3
Semester Total		16

SECOND YEAR

First Semester - Fall

CSME 2544	Cosmetology Instructor IV	5
CSME 2545	Instructional Theory & Clinic Operation (Capstone)	5
XXXX #3## ²	Humanities/Fine Arts Elective	3
BMGT 1301	Supervision	3
Semester Total		16

Second Semester - Spring

BUSG 2309	Small Business Management/Entrepreneurship	3
GOVT 2306	Texas Government	3
SPCH 1321	Business & Professional Communication OR	
SPCH 1315	Public Speaking	3
PSYC 2301	General Psychology	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ Computer applications electives: ITSC 1309, POFI 1301, or BCIS 1305.

² A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

COSMETOLOGY INSTRUCTOR

Certificate - Level 1

SCH

First Semester - Fall

CSME 1535 Orientation to the Instruction of Cosmetology 5

CSME 1534 Cosmetology Instructor I 5

CSME 2514 Cosmetology Instructor II 5

Semester Total 15

Second Semester - Spring

CSME 2549 Cosmetology Instructor III 5

CSME 2544 Cosmetology Instructor IV 5

CSME 2545 Instructional Theory & Clinic Operation (Capstone) 5

Semester Total 15

Total Minimum Credits for the Level 1 Certificate 30

Workforce Degrees and Certificates

COSMETOLOGY - BARBER/STYLIST

Certificate - Level 1

SCH

First Semester - Fall

BARB 1307	Introduction to Hair Design	3
BARB 1402	Barber Styling I	4
BARB 1404	Introduction to Barber Styling	4
BARB 1391	Special Topics in Barber/Hairstylist	3
Semester Total		14

Second Semester - Spring

BARB 1442	Barber Styling II	4
BARB 2402	Barber Styling III	4
BARB 2431	Advanced Barber Styling I	4

Workforce Degrees and Certificates

Semester Total		12
Third Semester - Summer		
BARB 2441	Advanced Barber Styling II	4
BARB 2432	Barber Law & Shop Management I	4
BARB 2444	Barber Law & Shop Management II	4
BARB 2470	Preparation for the State Barber Examination (Capstone)	4
Semester Total		16
Total Minimum Credits for the Level 1 Certificate		42

Workforce Degrees and Certificates

COSMETOLOGY - FACIAL SPECIALIST

Certificate - Level 1

SCH

First Semester - Fall

CSME 1420 Orientation to Facial Specialist 4

CSME 1421 Principles of Facial & Skin Care Technology I 4

CSME 1447 Principles of Skin Care/Facials & Related Theory 4

Semester Total 12

Second Semester - Spring

CSME 1545 Principles of Facial & Skin Care Technology II 5

CSME 2531 Principles of Facial & Skin Care Technology III (Capstone) 5

CSME 1491 Special Topics in Cosmetology/Cosmetologist, General 4

Semester Total 14

Total Minimum Credits for the Level 1 Certificate 26

Workforce Degrees and Certificates

COSMETOLOGY - STYLING/SALON MANAGEMENT ENTREPRENEUR

Certificate - Level 1

SCH

First Semester - Fall

BUSG 1307	Entrepreneurship & Economic Development	3
POFI 1301	Computer Applications I	3
BUSG 2309	Small Business Management/Entrepreneurship	3
BMGT 1301	Supervision	3
Semester Total		12

Second Semester - Spring

HRPO 1311	Human Relations	3
MRKG 1311	Principles of Marketing	3
ACNT 1303	Introduction to Accounting I OR	3
ACCT 2301	Principles of Financial Accounting	3
CSME 2343	Salon Development (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

24

Workforce Degrees and Certificates

COSMETOLOGY - HAIR WEAVING & BRAIDING ENTREPRENEUR

Certificate - Level 1

SCH

First Semester - Fall

CSME 1452	Orientation to Hair Weaving & Braiding	4
CSME 1557	Applications of Hair Weaving & Braiding	5
CSME 1491	Special Topics in Cosmetology/Cosmetologist, General	4
CSME 2343	Salon Development (Capstone)	3
Total Minimum Credits for the Level 1 Certificate		16

Workforce Degrees and Certificates

COSMETOLOGY - LASH

Occupational Skills Award

SCH

This award is pending SACS-COC approval for January 2019.

First Semester - Fall

CSME 1507	Orientation to Eyelash Extensions	5
CSME 1308	Principles of Eyelash Extensions	3
CSME 1409	Application of Eyelash Extensions	4
Total Minimum Credits for the Occupational Skills Award		12

Workforce Degrees and Certificates

Criminal Justice

CRIMINAL JUSTICE - LAW ENFORCEMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
CRIJ 1301	Introduction to Criminal Justice	3
ENGL 1301	Composition I	3
GOVT 2305	Federal Government	3
Semester Total		12

Second Semester - Spring

CRIJ 1307	Crime in America	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
XXXX #3## ¹	Math/Natural Science Elective	3
CRIJ 2328	Police Systems & Practices	3
Semester Total		12

SECOND YEAR

First Semester - Fall

GOVT 2306	Texas Government	3
CRIJ 2323	Legal Aspects of Law Enforcement	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ²	Computer Applications Elective	3
Semester Total		12

Second Semester - Spring

CJLE 1506	Basic Peace Officer I	5
CJLE 1512	Basic Peace Officer II	5
CJLE 1518	Basic Peace Officer III	5
CJLE 1524	Basic Peace Officer IV	5
Semester Total		20

Third Semester - Summer

CJLE 2484	Cooperative Education-Criminal Justice/Police Science (Capstone)	4
Semester Total		4

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

CRIMINAL JUSTICE - BASIC PEACE OFFICER LICENSING

Certificate - Level 1

SCH

LEVEL I

First Semester - Fall

CJLE 1506	Basic Peace Officer I	5
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CJLE 1512	Basic Peace Officer II	5
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Semester Total		10
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LEVEL II

Second Semester - Spring

CJLE 1518	Basic Peace Officer III	5
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CJLE 1524	Basic Peace Officer IV (Capstone)	5
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Semester Total		10
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Total Minimum Credits for the Level 1 Certificate		20
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Workforce Degrees and Certificates

Culinary Arts

CULINARY ARTS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
CHEF 1301	Basic Food Preparation	3
CHEF 2201	Intermediate Food Preparation	2
CHEF 2231	Advanced Food Preparation	2
CHEF 1205	Sanitation & Safety	2
Semester Total		15

Second Semester - Spring

CHEF 2302	Saucier	3
CHEF 1310	Garde Manger	3
RSTO 1325	Purchasing for Hospitality Operations	3
PSTR 1301	Fundamentals of Baking	3
HAMG 1321	Introduction to Hospitality Industry	3
Semester Total		15

Third Semester - Summer

GEOL 1305	Environmental Science (Lecture)	3
MATH 1324	Mathematics for Business & Social Sciences	3
RSTO 1301	Beverage Management	3
Semester Total		9

SECOND YEAR

First Semester - Fall

CHEF 1302	Principles of Healthy Cuisine	3
CHEF 1314	A La Carte Cooking	3
CHEF 1313	Food Service Operation/Systems	3
HAMG 1324	Hospitality Human Resources Management	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
CHEF 2171	Culinary Capstone Projects Laboratory (Capstone)	1
CHEF 2265	Practicum (or Field Experience) - Culinary Arts/Chef Training	2
Semester Total		6

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

CULINARY ARTS

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
CHEF 1301	Basic Food Preparation	3
CHEF 2201	Intermediate Food Preparation	2
CHEF 2231	Advanced Food Preparation	2
CHEF 1205	Sanitation & Safety	2
Semester Total		12

Second Semester - Spring

PSTR 1301	Fundamentals of Baking	3
CHEF 2302	Saucier	3
CHEF 1310	Garde Manger	3
HAMG 1321	Introduction to Hospitality Industry	3
RSTO 1325	Purchasing for Hospitality Operations	3
Semester Total		15

Third Semester - Summer

RSTO 1301	Beverage Management	3
CHEF 1314	A La Carte Cooking (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 2 Certificate

33

Workforce Degrees and Certificates

CULINARY ARTS - BAKING & PASTRY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
PSTR 1301	Fundamentals of Baking	3
PSTR 1310	Pies, Tarts, Teacakes & Cookies	3
CHEF 1205	Sanitation & Safety	2
Semester Total		14

Second Semester - Spring

GEOL 1305	Environmental Science (Lecture)	3
PSTR 1312	Laminated Dough, Paté à Choux, & Donuts	3
PSTR 2301	Chocolates & Confections	3
PSTR 1306	Cake Decorating I	3
PSTR 1305	Breads & Rolls	3
Semester Total		15

Third Semester - Summer

MATH 1324	Mathematics for Business & Social Sciences	3
PSTR 1343	Bakery Operations & Management	3
PSTR 1340	Plated Desserts	3
Semester Total		9

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
PSTR 2307	Cake Decorating II OR	
PSTR 2350	Wedding Cakes	3
HAMG 1324	Hospitality Human Resources Management	3
PSTR 1471	Baking for Special Dietary Needs	4
Semester Total		13

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
PSTR 2370	Supervised Study: Capstone in Baking & Pastry Arts (Capstone)	3
PSTR 2331	Advanced Pastry Shop	3
Semester Total		9

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

CULINARY ARTS - BAKING & PASTRY

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
PSTR 1301	Fundamentals of Baking	3
PSTR 1306	Cake Decorating I	3
PSTR 1310	Pies, Tarts, Teacakes & Cookies	3
CHEF 1205	Sanitation & Safety	2
Semester Total		14

Second Semester - Spring

PSTR 1343	Bakery Operations & Management	3
PSTR 1305	Breads & Rolls	3
PSTR 2307	Cake Decorating II OR	
PSTR 2350	Wedding Cakes	3
PSTR 1312	Laminated Dough, Paté à Choux, & Donuts	3
HAMG 1324	Hospitality Human Resources Management	3
Semester Total		15

Third Semester - Summer

PSTR 2331	Advanced Pastry Shop	3
PSTR 2301	Chocolates & Confections	3
PSTR 1340	Plated Desserts	3
PSTR 2370	Supervised Study: Capstone in Baking & Pastry Arts (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate

41

Workforce Degrees and Certificates

CULINARY ARTS - BAKER

Certificate - Level 1

SCH

First Semester - Fall

PSTR 1301 Fundamentals of Baking 3

CHEF 1205 Sanitation & Safety 2

Semester Total 5

Second Semester - Spring

PSTR 1305 Breads & Rolls 3

PSTR 1312 Laminated Dough, Paté à Choux, & Donuts 3

PSTR 1310 Pies, Tarts, Teacakes & Cookies (Capstone) 3

PSTR #3##¹ Program Approved Elective 3

Semester Total 12

Total Minimum Credits for the Level 1 Certificate 17

¹ PSTR 1340, 1391, 2301, 2307, 2331, or 2350.

Workforce Degrees and Certificates

CULINARY ARTS - PASTRY COOK

Certificate - Level 1

SCH

First Semester - Fall

PSTR 1301 Fundamentals of Baking 3

CHEF 1205 Sanitation & Safety 2

Semester Total 5

Second Semester - Spring

PSTR 1305 Breads & Rolls 3

PSTR 1306 Cake Decorating I 3

PSTR 1310 Pies, Tarts, Teacakes & Cookies (Capstone) 3

PSTR #3##¹ Program Approved Elective 3

Semester Total 12

Total Minimum Credits for the Level 1 Certificate 17

¹ PSTR 1340, 1391, 2301, 2307, 2331, or 2350.

Workforce Degrees and Certificates

Dental Assisting

ALLIED HEALTH - DENTAL ASSISTING

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

EDUC 1300	Learning Framework	3
HPRS 1201	Introduction to Health Professions	2
Semester Total		5

First Semester - Fall

DNTA 1245	Preventive Dentistry	2
DNTA 1411	Dental Science	4
DNTA 1401	Dental Materials	4
DNTA 1415	Chairside Assisting	4
DNTA 1305	Dental Radiology	3
Semester Total		17

Second Semester - Spring

DNTA 1447	Advanced Dental Science	4
DNTA 1351	Dental Office Management	3
DNTA 1453	Dental Assisting Applications	4
DNTA 1349	Dental Radiology in the Clinic	3
DNTA 1167	Practicum (or Field Experience) - Dental Assisting/Assistant	1
Semester Total		15

Third Semester - Summer

DNTA 2130	Seminar for the Dental Assistant	1
DNTA 1102	Communication & Behavior in the Dental Office	1
DNTA 2267	Practicum (or Field Experience) - Dental Assisting/Assistant (Capstone)	2
Semester Total		4

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
XXXX #4## ¹	Math/Natural Science Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
ENGL 1302	Composition II	3
Semester Total		13

Workforce Degrees and Certificates

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
	Semester Total	6
	Total Minimum Credits for the AAS Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DENTAL ASSISTING

Certificate - Level 1

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
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	Semester Total	2
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First Semester - Fall

DNTA 1245	Preventive Dentistry	2
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DNTA 1411	Dental Science	4
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DNTA 1401	Dental Materials	4
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DNTA 1415	Chairside Assisting	4
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DNTA 1305	Dental Radiology	3
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	Semester Total	17
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Second Semester - Spring

DNTA 1447	Advanced Dental Science	4
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DNTA 1351	Dental Office Management	3
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DNTA 1453	Dental Assisting Applications	4
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DNTA 1349	Dental Radiology in the Clinic	3
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DNTA 1167	Practicum (or Field Experience) - Dental Assisting/Assistant	1
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	Semester Total	15
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Third Semester - Summer

DNTA 2130	Seminar for the Dental Assistant	1
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DNTA 1102	Communication & Behavior in the Dental Office	1
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DNTA 2267	Practicum (or Field Experience) - Dental Assisting/Assistant (Capstone)	2
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	Semester Total	4
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	Total Minimum Credits for the Level 1 Certificate	38
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Workforce Degrees and Certificates

Dental Hygiene

DENTAL HYGIENE

Associate of Applied Science

SCH

Prerequisite Semester

CHEM 1305	Introductory Chemistry I (Lecture)	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
ENGL 1301	Composition I	3
SOCI 1301	Introduction to Sociology	3
Semester Total		13

FIRST YEAR

First Semester - Fall

DHYG 1331	Preclinical Dental Hygiene	3
DHYG 1304	Dental Radiology	3
DHYG 1227	Preventive Dental Hygiene Care	2
DHYG 1301	Orofacial Anatomy, Histology & Embryology	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
Semester Total		15

Second Semester - Spring

DHYG 1260	Clinical-Dental Hygiene/Hygienist	2
DHYG 1339	General & Oral Pathology	3
DHYG 2201	Dental Hygiene Care I	2
DHYG 1319	Dental Materials	3
BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
DHYG 1207	General & Dental Nutrition	2
Semester Total		16

Third Semester - Summer

DHYG 1261	Clinical - Dental Hygiene/Hygienist	2
Semester Total		2

SECOND YEAR

First Semester - Fall

DHYG 1211	Periodontology	2
DHYG 1235	Pharmacology for the Dental Hygienist	2
DHYG 1215	Community Dentistry	2
DHYG 2260	Clinical - Dental Hygiene/ Hygienist	2
PHIL 2306	Introduction to Ethics	3
Semester Total		11

Second Semester - Spring

DHYG 2153	Dental Hygiene Practice	1
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Workforce Degrees and Certificates

DHYG 2231	Dental Hygiene Care II	2
DHYG 2261	Clinical - Dental Hygiene/ Hygienist (Capstone)	2
PSYC 2301	General Psychology	3
SPCH 1318	Interpersonal Communication	3
	Semester Total	11
	Total Minimum Credits for the AAS Degree	68

Workforce Degrees and Certificates

Diagnostic Medical Sonography

DIAGNOSTIC MEDICAL SONOGRAPHY

Advanced Technical Certificate

SCH

FIRST YEAR

First Semester - Fall

DMSO 1210	Introduction to Sonography	2
DMSO 1441	Abdominopelvic Sonography	4
DMSO 1202	Basic Ultrasound Physics	2
DMSO 1355	Sonographic Pathophysiology	3
DMSO 1451	Sonographic Sectional Anatomy	4

Semester Total 15

Second Semester - Spring

DMSO 2441	Sonography of Abdominopelvic Pathology	4
DMSO 2405	Sonography of Obstetrics/Gynecology	4
DMSO 1342	Intermediate Ultrasound Physics	3
DMSO 1266	Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician	2

Semester Total 13

Third Semester - Summer

DMSO 2351	Doppler Physics	3
DMSO 2342	Sonography of High Risk Obstetrics	3
DMSO 2253	Sonography of Superficial Structures	2
DMSO 2266	Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician	2

Semester Total 10

SECOND YEAR

First Semester - Fall

DMSO 2243	Advanced Ultrasound Physics	2
DMSO 2130	Advanced Ultrasound & Review	1
DMSO 2467	Practicum (or Field Experience) - Diagnostic Medical Sonography/Sonographer & Ultrasound Technician	4

Semester Total 7

Total Minimum Credits for the Advanced Technical Certificate 45

Workforce Degrees and Certificates

Digital Communication

DIGITAL COMMUNICATION - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTC 1309	Basic Illustration	3
ARTC 1305	Basic Graphic Design	3
Semester Total		15

Second Semester - Spring

ARTC 1353	Computer Illustration	3
PHTC 1311	Fundamentals of Photography	3
ARTC 1313	Digital Publishing I	3
IMED 1316	Web Design I	3
ARTV 1351	Digital Video	3
Semester Total		15

Third Semester - Summer

IMED 1341	Interface Design	3
XXXX #3## ¹	General Education Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

ARTC 1317	Design Communication I	3
IMED 2359	Interactive Web Elements	3
IMED 1359	Writing for Digital Media	3
ARTS 1303	Art History I	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

ARTV 1345	3-D Modeling & Rendering I	3
XXXX #3## ¹	Math/Natural Science Elective	3
IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		9

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GENERAL

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
ARTC 1302	Digital Imaging (Photoshop)	3
PHTC 1311	Fundamentals of Photography	3
IMED 1316	Web Design I (Capstone)	3
ARTV 1351	Digital Video	3
Total Minimum Credits for the Level 1 Certificate		18

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GENERAL

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTC 1309	Basic Illustration	3
ARTC 1305	Basic Graphic Design	3
Semester Total		15

Second Semester - Spring

PHTC 1311	Fundamentals of Photography	3
ARTC 1353	Computer Illustration	3
IMED 1316	Web Design I	3
Semester Total		9

SECOND YEAR

First Semester - Fall

IMED 1341	Interface Design	3
IMED 2359	Interactive Web Elements	3
ARTV 1351	Digital Video	3
Semester Total		9

Second Semester - Spring

IMED 1359	Writing for Digital Media	3
ARTV 1345	3-D Modeling & Rendering I	3
ARTC 1313	Digital Publishing I	3
ARTC 2335	Portfolio Development for Graphic Design OR	
IMED 2313	Project Analysis & Design (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate **45**

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL MEDIA SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTC 1305	Basic Graphic Design	3
ARTC 1325	Introduction to Computer Graphics	3
ARTV 1371	Introduction to 3D Printing Technology	3

Semester Total

15

Second Semester - Spring

IMED 1341	Interface Design	3
ARTV 1345	3-D Modeling & Rendering I	3

Workforce Degrees and Certificates

IMED 1316	Web Design I	3
ARTC 1353	Computer Illustration	3
	Semester Total	12
Third Semester - Summer		
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	General Education Elective	3
IMED 1359	Writing for Digital Media	3
	Semester Total	9
SECOND YEAR		
First Semester - Fall		
ARTV 1351	Digital Video	3
ARTV 2301	2-D Animation I	3
ARTV 2345	3-D Modeling & Rendering II	3
ARTS 1303	Art History I	3
	Semester Total	12
Second Semester - Spring		SCH
IMED 1345	Interactive Digital Media I	3
XXXX #3## ¹	General Education Elective	3
IMED 2313	Project Analysis & Design	3
IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
	Semester Total	12
Total Minimum Credits for the AAS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL MEDIA SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
ARTC 1302	Digital Imaging (Photoshop)	3
IMED 1316	Web Design I (Capstone)	3
ARTV 1345	3-D Modeling & Rendering I	3
ARTV 1371	Introduction to 3D Printing Technology	3

Semester Total 18

Total Minimum Credits for the Level 1 Certificate 18

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL MEDIA SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTV 1371	Introduction to 3D Printing Technology	3

Semester Total **15**

Second Semester - Spring

IMED 1341	Interface Design	3
IMED 1316	Web Design I	3
ARTC 1353	Computer Illustration	3
ARTV 1345	3-D Modeling & Rendering I	3

Semester Total **12**

SECOND YEAR

First Semester - Fall

ARTV 2345	3-D Modeling & Rendering II	3
IMED 1359	Writing for Digital Media	3
ARTV 1351	Digital Video	3
IMED 1345	Interactive Digital Media I	3

Semester Total **12**

Second Semester - Spring

ARTV 2301	2-D Animation I	3
IMED 2313	Project Analysis & Design (Capstone)	3

Semester Total **6**

Total Minimum Credits for the Level 2 Certificate **45**

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PHTC 1371	Adobe Photoshop Lightroom CC	3
PHTC 1311	Fundamentals of Photography	3
PHTC 1343	Expressive Photography	3
ARTC 1302	Digital Imaging (Photoshop)	3
Semester Total		15

Second Semester - Spring

PHTC 1353	Portraiture I	3
IMED 1359	Writing for Digital Media	3
ARTC 1305	Basic Graphic Design	3
PHTC 2349	Photo Digital Imaging II	3
Semester Total		12

Third Semester - Summer

XXXX #3## ¹	Humanities/Fine Arts Elective	3
ARTV 1351	Digital Video	3
ARTS 1303	Art History I	3
Semester Total		9

SECOND YEAR

First Semester - Fall

PHTC 1345	Illustrative Photography I	3
PHTC 1351	Photojournalism I	3
PHTC 2353	Portraiture II	3
XXXX #3## ¹	General Education Elective	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	Math/Natural Science Elective	3
PHTC 2343	Portfolio Development	3
PHTC 2340	Photographic Studio Management	3
IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

IMED 1359	Writing for Digital Media	3
ARTC 1305	Basic Graphic Design	3
ARTC 1302	Digital Imaging I (Photoshop)	3
PHTC 1311	Fundamentals of Photography	3
PHTC 1343	Expressive Photography (Capstone)	3
Total Minimum Credits for the Level 1 Certificate		15

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - DIGITAL PHOTOGRAPHY SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PHTC 1371	Adobe Photoshop Lightroom CC	3
PHTC 1311	Fundamentals of Photography	3
PHTC 1343	Expressive Photography	3
ARTC 1302	Digital Imaging (Photoshop)	3
Semester Total		15

Second Semester - Spring

PHTC 1353	Portraiture I	3
IMED 1359	Writing for Digital Media	3
ARTC 1305	Basic Graphic Design	3
PHTC 2349	Photo Digital Imaging II	3
Semester Total		12

SECOND YEAR

First Semester - Fall

PHTC 1345	Illustrative Photography I	3
ARTV 1351	Digital Video	3
PHTC 1351	Photojournalism I	3
ARTC 2313	Digital Publishing II	3
Semester Total		12

Second Semester - Spring

PHTC 2343	Portfolio Development	3
PHTC 2340	Photographic Studio Management (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 2 Certificate

45

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 2311	History of Communication Graphics	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTC 1309	Basic Illustration	3
ARTC 1305	Basic Graphic Design	3

Semester Total 15

Second Semester - Spring

ARTC 1313	Digital Publishing I	3
ARTC 1321	Illustration Techniques I	3
ARTC 1353	Computer Illustration	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3

Semester Total 12

Third Semester - Summer

XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3

Semester Total 6

SECOND YEAR

First Semester - Fall

ARTC 2317	Typographic Design	3
ARTC 1317	Design Communication I	3
ARTC 2313	Digital Publishing II	3
ARTC 2305	Digital Imaging II	3

Semester Total 12

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
IMED 1316	Web Design I QR	3
PHTC 1311	Fundamentals of Photography	3
ARTC 2335	Portfolio Development for Graphic Design	3
ARTC 2347	Design Communication II	3

Semester Total 12

Third Semester - Summer

IMED 2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
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Semester Total 3

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 2311	History of Communication Graphics	3
ARTC 1305	Basic Graphic Design	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTC 1353	Computer Illustration	3
ARTC 1313	Digital Publishing I (Capstone)	3
Total Minimum Credits for the Level 1 Certificate		15

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - GRAPHIC DESIGN SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1305	Basic Graphic Design	3
ARTC 2311	History of Communication Graphics	3
ARTC 1302	Digital Imaging I (Photoshop)	3
ARTC 1309	Basic Illustration	3
Semester Total		15

Second Semester - Spring

ARTC 1317	Design Communication I	3
ARTC 1321	Illustration Techniques I	3
ARTC 1353	Computer Illustration (Illustrator)	3
ARTC 1313	Digital Publishing I	3
Semester Total		12

SECOND YEAR

First Semester - Fall

ARTC 2313	Digital Publishing II	3
ARTC 2305	Digital Imaging II	3
IMED 1316	Web Design I OR	
PHTC 1311	Fundamentals of Photography	3
ARTC 2317	Typographic Design	3
Semester Total		12

Second Semester - Spring

ARTC 2347	Design Communication II	3
ARTC 2335	Portfolio Development for Graphic Design (Capstone)	3
Semester Total		6

Total Minimum Credits for the Level 2 Certificate **45**

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - MOBILE APPLICATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1325	Introduction to Computer Graphics	3
IMED 1316	Web Design I	3
IMED 1341	Interface Design	3
Semester Total		9

Second Semester - Spring

IMED 2351	Digital Media Programming	3
IMED 2359	Interactive Web Elements	3
IMED 2345	Interactive Digital Media II (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate 18

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - VISUAL EFFECTS & MOTION GRAPHICS SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTC 1309	Basic Illustration	3
ARTV 1303	Basic Animation	3
ARTV 1341	3-D Animation I	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Math/Natural Science Elective	3
ARTC 1305	Basic Graphic Design	3
ARTV 2301	2-D Animation I	3
ARTV 2351	3-D Animation II	3
ARTC 1353	Humanities/Fine Arts Elective	3
Semester Total		15

Third Semester - Summer

ARTV 1351	Digital Video	3
ARTS 1303	Art History I	3
Semester Total		6

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
ARTC 1359	Visual Design For New Media	3
ARTV 2330	2-D Animation II	3
ARTV 2341	Advanced Digital Video	3
ARTV 2355	Character Rigging & Animation	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
ARTV 2335	Portfolio Development for Animation	3
IMED 2388	Internship-Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		9

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - VISUAL EFFECTS & MOTION GRAPHICS SPECIALIZATION

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

ARTC 1302	Digital Imaging (Photoshop)	3
ARTV 1303	Basic Animation	3
ARTC 1309	Basic Illustration	3
Semester Total		9

Second Semester - Spring

ARTC 1305	Basic Graphic Design	3
ARTV 1341	3-D Animation I	3
ARTV 2301	2-D Animation I (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate **18**

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - VISUAL EFFECTS & MOTION GRAPHICS SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1302	Digital Imaging (Photoshop)	3
ARTV 1303	Basic Animation	3
ARTC 1309	Basic Illustration	3
ARTV 1341	3-D Animation I	3
Semester Total		15

Second Semester - Spring

ARTC 1305	Basic Graphic Design	3
ARTV 2351	3-D Animation II	3
ARTV 2301	2-D Animation I	3
ARTV 1351	Digital Video	3
ARTC 1353	Computer Illustration	3
Semester Total		15

SECOND YEAR

First Semester - Fall

ARTC 1359	Visual Design For New Media	3
ARTV 2330	2-D Animation II	3
ARTV 2341	Advanced Digital Video	3
ARTV 2355	Character Rigging & Animation	3
Semester Total		12

Second Semester - Spring

ARTV 2335	Portfolio Development for Animation (Capstone)	3
Semester Total		3

Total Minimum Credits for the AAS Degree **45**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
IMED 1316	Web Design I	3
ARTC 1302	Digital Imaging (Photoshop)	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
IMED 2351	Digital Media Programming	3
IMED 1341	Interface Design	3
IMED 2315	Web Design II	3
Semester Total		12

Third Semester - Summer

IMED 2359	Interactive Web Elements	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		9

SECOND YEAR

First Semester - Fall

IMED 1359	Writing for Digital Media	3
IMED 2309	Internet Commerce	3
ARTV 1351	Digital Video	3
ARTS 1303	Art History I	3
Semester Total		12

Second Semester - Spring

IMED 2371	Content Management Systems	3
IMED 2313	Project Analysis & Design	3
XXXX #3## ¹	Approved Program Elective	3
IMED 2388	Internship-Digital Communication & Media/Multimedia (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
ARTC 1302	Digital Imaging (Photoshop)	3
IMED 1341	Interface Design	3
IMED 1316	Web Design I (Capstone)	3
Total Minimum Credits for the Level 1 Certificate		15

Workforce Degrees and Certificates

DIGITAL COMMUNICATION - WEB PUBLISHING SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ARTC 1325	Introduction to Computer Graphics	3
ARTC 1305	Basic Graphic Design	3
IMED 1316	Web Design I	3
ARTC 1302	Digital Imaging (Photoshop)	3

Semester Total 15

Second Semester - Spring

IMED 1341	Interface Design	3
IMED 2351	Digital Media Programming	3
IMED 2315	Web Design II	3

Semester Total 9

SECOND YEAR

First Semester - Fall

IMED 2359	Interactive Web Elements	3
ARTV 1351	Digital Video	3
IMED 2309	Internet Commerce	3

Semester Total 9

Second Semester - Spring

IMED 2371	Content Management Systems	3
IMED 1359	Writing for Digital Media	3
IMED 2313	Project Analysis & Design (Capstone)	3

Semester Total 9

Total Minimum Credits for the Level 2 Certificate 42

Workforce Degrees and Certificates

Digital Gaming

DIGITAL GAMING & SIMULATION FOR ARTISTS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1306	Design & Creation of Games	3
GAME 1378	Art for 2D Games	3
GAME 1373	Introduction to Perspective Drawing	3
GAME 1336	Introduction to 3D Game Modeling	3
Semester Total		15

Second Semester - Spring

ARTS 1303	Art History I OR	
ARTS 1304	Art History II	3
GAME 1302	Interactive Storyboarding	3
GAME 1375	Principles of Game Concept Art	3
GAME 1303	Introduction to Game Design & Development	3
GAME 2336	Lighting, Shading, & Texture	3
Semester Total		15

Third Semester - Summer

XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	
Semester Total		6

SECOND YEAR

First Semester - Fall

GAME 1314	Character Sculpting	3
GAME 2332	Project Development I	3
GAME 1374	Introduction to 3D Game Animation	3
GAME 2304	Level Design II	3
Semester Total		12

Second Semester - Spring

GAME 2374	3D Rigging for Games & Simulations	3
GAME 2334	Project Development II (Capstone)	3
GAME 2308	Portfolio for Game Development	3
PSYC 2301	General Psychology	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL GAMING & SIMULATION FOR ARTISTS

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1306	Design & Creation of Games	3
GAME 1378	Art for 2D Games	3
GAME 1373	Introduction to Perspective Drawing	3
GAME 1336	Introduction to 3D Game Modeling	3
Semester Total		15

Second Semester - Spring

ARTS 1303	Art History I OR	
ARTS 1304	Art History II	3
GAME 1302	Interactive Storyboarding	3
GAME 1303	Introduction to Game Design & Development	3
GAME 1375	Principles of Game Concept Art	3
GAME 2336	Lighting, Shading, & Texture	3
Semester Total		15

SECOND YEAR

First Semester - Fall

GAME 1314	Character Sculpting	3
GAME 1374	Introduction to 3D Game Animation	3
GAME 2304	Level Design II	3
GAME 2332	Project Development I (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate **42**

Workforce Degrees and Certificates

DIGITAL GAMING & SIMULATION FOR PROGRAMMERS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1306	Design & Creation of Games	3
GAME 1378	Art for 2D Games	3
GAME 1379	Introduction to Game Programming	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
GAME 1304	Level Design I	3
GAME 1336	Introduction to 3D Game Modeling	3
GAME 2347	Advanced Game Programming	3
GAME 2302	Mathematical Applications for Game Development	3
Semester Total		15

Third Semester - Summer

GAME 2373	2D Game Programming	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

GAME 2319	Game Engine	3
GAME 2304	Level Design II	3
GAME 2332	Project Development I	3
GAME 2342	Game Development Using C++	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	Math/Natural Science Elective	3
GAME 2308	Portfolio for Game Development	3
GAME 2334	Project Development II (Capstone)	3
GAME 2341	Game Scripting	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DIGITAL GAMING & SIMULATION FOR PROGRAMMERS

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GAME 1306	Design & Creation of Games	3
GAME 1378	Art for 2D Games	3
GAME 1379	Introduction to Game Programming	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

GAME 1304	Level Design I	3
GAME 1336	Introduction to 3D Game Modeling	3
GAME 2302	Mathematical Applications for Game Development	3
GAME 2347	Advanced Game Programming	3
Semester Total		12

Third Semester - Summer

GAME 2373	2D Game Programming	3
Semester Total		3

SECOND YEAR

First Semester - Fall

GAME 2304	Level Design II	3
GAME 2319	Game Engine	3
GAME 2332	Project Development I (Capstone)	3
GAME 2342	Game Development Using C++	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate

42

Workforce Degrees and Certificates

Drafting & Design Engineering Technology

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 2317	Descriptive Geometry	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 1333	Mechanical Drafting	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

DFTG 1358	Electrical/Electronics Drafting OR	
DFTG 1329	Electro-Mechanical Drafting	3
DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2323	Pipe Drafting	3
DFTG 2330	Civil Drafting	3
MATH 1316	Plane Trigonometry	3
Semester Total		15

Second Semester - Spring

DFTG 1317	Architectural Drafting-Residential	3
ARCE 1352	Structural Drafting	3
DFTG 2335	Advanced Technologies in Mechanical Design & Drafting OR	
DFTG 2340	Solid Modeling/Design	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2338	Final Project - Advanced Drafting (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - GENERAL

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309 Basic Computer-Aided Drafting 3

DFTG 1305 Technical Drafting 3

Semester Total 6

Second Semester - Spring

DFTG 1358 Electrical/Electronics Drafting **OR**

DFTG 1329 Electro-Mechanical Drafting 3

DFTG 2319 Intermediate Computer-Aided Drafting **OR**

DFTG 1310 Specialized Basic Computer Aided Drafting (CAD) 3

DFTG 1333 Mechanical Drafting 3

DFTG 1317 Architectural Drafting-Residential 3

Semester Total 12

Third Semester - Summer

DFTG 2323 Pipe Drafting 3

DFTG 2330 Civil Drafting (Capstone) 3

ARCE 1352 Structural Drafting 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 27

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - ARCHITECTURAL SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 1317	Architectural Drafting-Residential	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
MATH 1316	Plane Trigonometry	3
ARCE 1352	Structural Drafting	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2300	Intermediate Architectural Drafting-Residential	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 2330	Civil Drafting	3
DFTG 1376	Revit Residential	3
Semester Total		15

Second Semester - Spring

DFTG 2331	Advanced Technologies in Architectural Design & Drafting	3
DFTG 1392	Special Topics in Architectural Drafting & Architectural CAD/CADD	3
DFTG 2328	Architectural Drafting - Commercial (Capstone)	3
ARCE 2352	Mechanical & Electrical Systems OR	
XXXX #3## ²	Program Approved Elective	3
DFTG 2338	Final Project - Advanced Drafting OR	
DFTG 2381	Cooperative Education - Drafting & Design Technology/Technician, General	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² ARCE 2352, DFTG 1302, 1305, 1309, 1310, 1313, 1315, 1317, 1329, 1333, 1345, 1358, 1372, 1376, 1391, 1391 - Auto-ISO, 1392 - Architectural Desktop I, 1392 - Green Building, 1392 - Revit Residential, 1393, 1394, 1395, 2300, 2302, 2304, 2305, 2306, 2307, 2308, 2310, 2317, 2319, 2321, 2323, 2328, 2330, 2331, 2332, 2335, 2336, 2338, 2340, 2345, 2358, 2370, 2371, 2373, 2374, 2380, 2381.

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - ARCHITECTURAL SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309	Basic Computer-Aided Drafting	3
DFTG 1305	Technical Drafting	3
Semester Total		6

Second Semester - Spring

ARCE 1352	Structural Drafting	3
DFTG 1317	Architectural Drafting-Residential	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
DFTG 2330	Civil Drafting	3
Semester Total		12

Third Semester - Summer

DFTG 1376	Revit Residential	3
ARCE 2352	Mechanical & Electrical Systems OR	
XXXX #3## ¹	Program Approved Elective	3
DFTG 2328	Architectural Drafting - Commercial (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate

27

¹ ARCE 2352, DFTG 1302, 1305, 1309, 1310, 1313, 1315, 1317, 1329, 1333, 1345, 1358, 1372, 1376, 1391, 1391 - Auto-ISO, 1392 - Architectural Desktop I, 1392 - Green Building, 1392 - Revit Residential, 1393, 1394, 1395, 2300, 2302, 2304, 2305, 2306, 2307, 2308, 2310, 2317, 2319, 2321, 2323, 2328, 2330, 2331, 2332, 2335, 2336, 2338, 2340, 2345, 2358, 2370, 2371, 2373, 2374, 2380, 2381.

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - CIVIL SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
SRVY 1301	Introduction to Surveying	3
DFTG 1310	Specialized Basic Computer Aided Drafting (CAD) OR	
DFTG #3## ¹	Drafting Elective	3
DFTG 2317	Descriptive Geometry	3
MATH 1316	Plane Trigonometry	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ²	Social/Behavioral Sciences Elective	3
SRVY 1341	Land Surveying	3
DFTG 2321	Topographical Drafting OR	
DFTG 2375	Introduction to GIS	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 2330	Civil Drafting	3
Semester Total		15

Workforce Degrees and Certificates

Second Semester - Spring

ARCE 1352	Structural Drafting	3
DFTG 2370	Intermediate CAD (Microstation)	3
XXXX #3## ²	Humanities/Fine Arts Elective	3
SRVY 2348	Plane Surveying	3
DFTG 2374	Civil 3D OR	
DFTG 2338	Final Project - Advanced Drafting (Capstone)	3

Semester Total **15**

Total Minimum Credits for the AAS Degree **60**

¹ ARCE 2352, DFTG 1302, 1305, 1309, 1310, 1313, 1315, 1317, 1329, 1333, 1345, 1358, 1372, 1376, 1391, 1391 - Auto-ISO, 1392 - Architectural Desktop I, 1392 - Green Building, 1392 - Revit Residential, 1393, 1394, 1395, 2300, 2302, 2304, 2305, 2306, 2307, 2308, 2310, 2317, 2319, 2321, 2323, 2328, 2330, 2331, 2332, 2335, 2336, 2338, 2340, 2345, 2358, 2370, 2371, 2373, 2374, 2380, 2381.

² A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - CIVIL SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309 Basic Computer-Aided Drafting 3

DFTG 1305 Technical Drafting 3

Semester Total 6

Second Semester - Spring

DFTG 1310 Specialized Basic Computer Aided Drafting (CAD) 3

DFTG 2319 Intermediate Computer-Aided Drafting 3

SRVY 1301 Introduction to Surveying 3

DFTG 2330 Civil Drafting 3

Semester Total 12

Third Semester - Summer

SRVY 1341 Land Surveying 3

DFTG 2374 Civil 3-D **OR**

DFTG 2338 Final Project - Advanced Drafting (Capstone) 3

ARCE 1352 Structural Drafting 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 27

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - ELECTRICAL SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 1333	Mechanical Drafting	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 1329	Electro-Mechanical Drafting	3
MATH 1316	Plane Trigonometry	3
Semester Total		15

SECOND YEAR

First Semester - Fall

DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2317	Descriptive Geometry	3
DFTG 1358	Electrical/Electronics Drafting	3
DFTG 2340	Solid Modeling/Design	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

Second Semester - Spring

DFTG 2335	Advanced Technologies in Mechanical Design & Drafting	3
DFTG 2302	Machine Drafting	3
DFTG 2305	Printed Circuit Board Design OR	
XXXX #3## ²	Program Approved Elective	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 2307	Electrical Drafting (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

1 A list of electives appears in the Core Curriculum section of this catalog.

2 Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - ELECTRICAL SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309 Basic Computer-Aided Drafting 3

DFTG 1305 Technical Drafting 3

Semester Total 6

Second Semester - Spring

DFTG 1310 Specialized Basic Computer Aided Drafting (CAD) 3

DFTG 2319 Intermediate Computer-Aided Drafting 3

DFTG 1333 Mechanical Drafting 3

DFTG 1358 Electrical/Electronics Drafting 3

Semester Total 12

Third Semester - Summer

DFTG 2302 Machine Drafting 3

DFTG 2335 Advanced Technologies in Mechanical Design & Drafting OR

DFTG 2340 Solid Modeling/Design 3

DFTG 1329 Electro-Mechanical Drafting 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 27

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - MECHANICAL SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 1333	Mechanical Drafting	3
DFTG 2319	Intermediate Computer-Aided Drafting	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2340	Solid Modeling/Design	3
MATH 1316	Plane Trigonometry	3
Semester Total		15

SECOND YEAR

First Semester - Fall

DFTG 2335	Advanced Technologies in Mechanical Design & Drafting	3
DFTG 2317	Descriptive Geometry	3
DFTG 2306	Machine Design	3
DFTG 2302	Machine Drafting	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

Second Semester - Spring

DFTG 1310	Specialized Basic Computer Aided Drafting (CAD)	3
DFTG 2338	Final Project - Advanced Drafting OR	
DFTG 2381	Cooperative Education - Drafting & Design Technology/Technician, General	3
DFTG 2358	Advanced Machine Design (Capstone)	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
XXXX #3## ²	Program Approved Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - MECHANICAL SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309 Basic Computer-Aided Drafting 3

DFTG 1305 Technical Drafting 3

Semester Total 6

Second Semester - Spring

DFTG 1333 Mechanical Drafting 3

DFTG 2319 Intermediate Computer-Aided Drafting 3

DFTG 2317 Descriptive Geometry 3

DFTG 2340 Solid Modeling/Design 3

Semester Total 12

Third Semester - Summer

DFTG 2306 Machine Design (Capstone) 3

DFTG 2302 Machine Drafting 3

DFTG 2335 Advanced Technologies in Mechanical Design & Drafting 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 27

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - PIPE SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
DFTG 1305	Technical Drafting	3
DFTG 1309	Basic Computer-Aided Drafting	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

DFTG 2319	Intermediate Computer-Aided Drafting	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
DFTG 2323	Pipe Drafting	3
DFTG 1333	Mechanical Drafting	3
DFTG 2317	Descriptive Geometry	3
Semester Total		15

SECOND YEAR

First Semester - Fall

DFTG 1395	Special Topics in Mechanical Drafting & Mechanical Drafting CAD/CADD	3
DFTG 2308	Instrumentation Drafting	3
XXXX #3## ²	Program Approved Elective	3
MATH 1316	Plane Trigonometry	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		15

Second Semester - Spring

ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
DFTG 2340	Solid Modeling/Design	3
DFTG 2345	Advanced Pipe Drafting (Capstone)	3
DFTG 1372	Smart Plant 3D Drafting OR	
DFTG 2373	Piping Design Management Systems (PDMS)	3
ARCE 1352	Structural Drafting	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

DRAFTING & DESIGN ENGINEERING TECHNOLOGY - COMPUTER-AIDED

DRAFTING - PIPE SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

DFTG 1309 Basic Computer-Aided Drafting 3

DFTG 1305 Technical Drafting 3

Semester Total 6

Second Semester - Spring

DFTG 2319 Intermediate Computer-Aided Drafting 3

DFTG 2323 Pipe Drafting 3

DFTG 1333 Mechanical Drafting 3

DFTG 2308 Instrumentation Drafting 3

Semester Total 12

Third Semester - Summer

ARCE 1352 Structural Drafting 3

DFTG 1395 Special Topics in Mechanical Drafting & Mechanical Drafting CAD/CADD
AutoPlant Isometrics **OR** 3

DFTG 1372 Smart Plant 3D Drafting 3

DFTG 2345 Advanced Pipe Drafting (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 27

Workforce Degrees and Certificates

Electronics Engineering Technology

ELECTRONICS ENGINEERING TECHNOLOGY - BIOMEDICAL ELECTRONICS SPECIALIZATION

Associate of Applied Science SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MATH 1314	College Algebra	3
CETT 1321	Electronic Fabrication	3
CPMT 1449	Computer Networking Technology	4

Semester Total **13**

Second Semester - Spring

CETT 1403	DC Circuits	4
CETT 1425	Digital Fundamentals	4
MATH 1316	Plane Trigonometry	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3

Semester Total **14**

Third Semester - Summer

PHYS 1401	College Physics I (Lecture & Lab)	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3

Semester Total **7**

SECOND YEAR

First Semester - Fall

CETT 1405	AC Circuits	4
CETT 1429	Solid State Devices	4
BIOM 1309	Applied Biomedical Equipment Technology	3
CETT 1431	Programming for Discrete Electronic Devices	4

Semester Total **15**

Second Semester - Spring

BIOM 2331	Biomedical Clinical Instrumentation	3
HPRS 1206	Essentials of Medical Terminology	2
BIOM 2389	Internship - Biomedical Technology/Technician	3
CETT 1357	Linear Integrated Circuits (Capstone)	3

Semester Total **11**

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER ENGINEERING SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
CETT 1321	Electronic Fabrication	3
CPMT 1449	Computer Networking Technology	4
Semester Total		16

Second Semester - Spring

CETT 1403	DC Circuits	4
CETT 1425	Digital Fundamentals	4
MATH 1316	Plane Trigonometry	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		14

Third Semester - Summer

PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		4

SECOND YEAR

First Semester - Fall

CETT 1405	AC Circuits	4
CETT 1429	Solid State Devices	4
CETT 1431	Programming for Discrete Electronic Devices	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

XXXX #4## ²	Program Approved Elective	4
XXXX #4## ²	Program Approved Elective	4
CETT 1357	Linear Integrated Circuits (Capstone)	3
Semester Total		11

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Any CETT or CPMT elective.

Workforce Degrees and Certificates

ELECTRONICS ENGINEERING TECHNOLOGY - BASIC ELECTRONICS

Certificate - Level 2 SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
MATH 1314	College Algebra	3
CETT 1321	Electronic Fabrication	3
CPMT 1449	Computer Networking Technology	4

Semester Total **13**

Second Semester - Spring

CETT 1403	DC Circuits	4
CETT 1425	Digital Fundamentals	4
MATH 1316	Plane Trigonometry	3

Semester Total **11**

Third Semester - Summer

CETT 1405	AC Circuits	4
CETT 1429	Solid State Devices (Capstone)	4
CPMT 1303	Introduction to Computer Technology	3
XXXX #4## ¹	Program Approved Elective	4
XXXX #4## ¹	Program Approved Elective	4

Semester Total **19**

Total Minimum Credits for the Level 2 Certificate **43**

¹ Any CETT or CPMT elective; TECM 1301 or 1303.

Workforce Degrees and Certificates

ELECTRONICS ENGINEERING TECHNOLOGY - COMPUTER SERVICING/NETWORKS

Certificate - Level 1

SCH

First Semester - Fall

CPMT 1303	Introduction to Computer Technology	3
CPMT 1411	Introduction to Computer Maintenance OR	
XXXX #4## ¹	Program Approved Elective	4
Semester Total		7

Second Semester - Spring

CETT 1321	Electronic Fabrication	3
TECM 1301	Industrial Mathematics OR	
XXXX #3## ¹	Program Approved Elective	3
CPMT 1449	Computer Networking Technology	4
Semester Total		10

Total Minimum Credits for the Level 1 Certificate

17

¹ Any CETT or CPMT elective; or TECM 1303.

Workforce Degrees and Certificates

Emergency Medical Services

EMERGENCY MEDICAL SERVICES

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EMSP 1501	Emergency Medical Technician	5
EMSP 1160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2205	EMS Operations	2
EMSP 1338	Introduction to Advanced Practice	3
EMSP 1356	Patient Assessment & Airway Management	3
EMSP 1355	Trauma Management	3
Semester Total		17

Second Semester - Spring

EMSP 1263	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2306	Emergency Pharmacology	3
EMSP 2444	Cardiology	4
EMSP 2160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
XXXX #3## ¹	General Education Elective	3
Semester Total		17

SECOND YEAR

First Semester - Fall

EMSP 2434	Medical Emergencies	4
EMSP 2261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2330	Special Populations	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		16

Second Semester - Spring

EMSP 2262	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2243	Assessment Based Management (Capstone)	2
EMSP 1191	Special Topics in Emergency Medical Technology/Technician	1
XXXX #3## ¹	Humanities/Fine Arts Elective	3
EMSP 2252	Emergency Medical Services Research	2
Semester Total		10

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

EMERGENCY MEDICAL SERVICES - PARAMEDIC

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

EMSP 1501	Emergency Medical Technician	5
EMSP 1160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
EMSP 2205	EMS Operations	2
EMSP 1338	Introduction to Advanced Practice	3
EMSP 1356	Patient Assessment & Airway Management	3
EMSP 1355	Trauma Management	3

Semester Total 17

Second Semester - Spring

EMSP 1263	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2306	Emergency Pharmacology	3
EMSP 2444	Cardiology	4
EMSP 2160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1

Semester Total 10

SECOND YEAR

First Semester - Fall

EMSP 2434	Medical Emergencies	4
EMSP 2261	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2330	Special Populations	3

Semester Total 9

Second Semester - Spring

EMSP 2262	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
EMSP 2243	Assessment Based Management (Capstone)	2

Semester Total 4

Total Minimum Credits for the Level 1 Certificate 40

Workforce Degrees and Certificates

EMERGENCY MEDICAL SERVICES - ADVANCED TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

EMSP 1501	Emergency Medical Technician	5
EMSP 1160	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	1
Semester Total		6

Second Semester - Spring

EMSP 2205	EMS Operations	2
EMSP 1338	Introduction to Advanced Practice	3
EMSP 1356	Patient Assessment & Airway Management	3
EMSP 1355	Trauma Management	3
EMSP 1263	Clinical - Emergency Medical Technology/Technician (EMT Paramedic)	2
Semester Total		13

Total Minimum Credits for the Level 1 Certificate

19

Workforce Degrees and Certificates

EMERGENCY MEDICAL SERVICES - RN TO PARAMEDIC

Enhanced Skills Certificate	SCH
First Semester - Fall	
EMSP 1491 Special Topics in Emergency Medical Technology/Technician	4
EMSP 2553 Emergency Medical Services Certification for Health Care Professionals	5
Semester Total	9
Total Minimum Credits for the Enhanced Skills Certificate	9

Workforce Degrees and Certificates

Fashion Design

FASHION DESIGN

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
FSHD 1313	Art for Fashion	3
FSHD 1322	Fashion Sketching	3
FSHD 1324	Ready-to-Wear Construction	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

FSHD 1328	Flat Pattern Design I	3
FSHN 1301	Textiles	3
FSHD 1351	Design Construction Techniques	3
FSHD 1311	Fashion History	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Third Semester - Summer

FSHD 2306	Draping	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

FSHD 1355	Flat Pattern Design II	3
FSHD 1318	Apparel Computer Systems	3
FSHD 2343	Fashion Collection Design	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Second Semester - Spring

FSHD 2341	Pattern Grading	3
FSHD 2388	Internship-Fashion/Apparel Design	3
FSHD 2344	Fashion Collection Production (Capstone)	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

FASHION DESIGN - COMMERCIAL SAMPLE MAKER

Certificate - Level 1		SCH
First Semester - Fall		
FSHD 1324	Ready-to-Wear Construction	3
FSHD 1318	Apparel Computer Systems	3
Semester Total		6
Second Semester - Spring		
FSHD 1351	Design Construction Techniques	3
FSHD 1328	Flat Pattern Design I	3
FSHD 2306	Draping	3
FSHD 1291	Special Topics in Fashion Design & Illustration (Knitwear)	2
Semester Total		11
Third Semester - Summer		
FSHD 1355	Flat Pattern Design II	3
FSHD 2337	Couture Dressmaking	3
FSHD 2341	Pattern Grading	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3
Semester Total		12
Total Minimum Credits for the Level 1 Certificate		29

Workforce Degrees and Certificates

FASHION DESIGN - DIGITAL DESIGN

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1324	Ready-to-Wear Construction	3
FSHD 1318	Apparel Computer Systems	3
FSHD 1322	Fashion Sketching	3
Semester Total		9

Second Semester - Spring

FSHN 1301	Textiles	3
FSHD 1328	Flat Pattern Design I	3
FSHD 2305	Computer Aided Apparel Design	3
Semester Total		9

Third Semester - Summer

FSHN 2432	Advanced Pattern Drafting	4
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3
FSHD 2341	Pattern Grading	3
Semester Total		10

Total Minimum Credits for the Level 1 Certificate

28

Workforce Degrees and Certificates

FASHION DESIGN - MEN'S TAILORING & ALTERATIONS

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHD 1318	Apparel Computer Systems	3
FSHD 1324	Ready-to-Wear Construction	3
FSHN 1301	Textiles	3

Semester Total

12

Second Semester - Spring

FSHN 1305	Apparel Alterations	3
FSHN 1329	Basic Men's Tailoring	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3

Semester Total

9

Total Minimum Credits for the Level 1 Certificate

21

Workforce Degrees and Certificates

FASHION DESIGN - PATTERNMAKING

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHD 1313	Art for Fashion	3
FSHD 1328	Flat Pattern Design I	3
FSHN 1301	Textiles	3
FSHD 1318	Apparel Computer Systems	3
Semester Total		15

Second Semester - Spring

FSHD 1332	Custom Patterns	3
FSHD 1355	Flat Pattern Design II	3
FSHD 2306	Draping	3
FSHD 2341	Pattern Grading	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate 30

Workforce Degrees and Certificates

FASHION DESIGN - THEATRICAL COSTUME DESIGN

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
FSHN 1301	Textiles	3
DRAM 1310	Introduction to Theater	3
FSHD 1313	Art for Fashion	3
FSHD 1322	Fashion Sketching	3
FSHD 1324	Ready-to-Wear Construction	3

Semester Total **18**

Second Semester - Spring

FSHD 1235	Millinery	2
FSHD 1328	Flat Pattern Design I	3
FSHD 1351	Design Construction Techniques	3
FSHD 2215	Bustier Construction	2
FSHD 1332	Custom Patterns	3
FSHD 1311	Fashion History	3

Semester Total **16**

Third Semester - Summer

FSHD 2306	Draping	3
FSHD 2310	Fabric Design	3
FSHN 1329	Basic Men's Tailoring	3
FSHD 2312	Theatrical Costume Design	3
FSHD 2388	Internship-Fashion/Apparel Design (Capstone)	3

Semester Total **15**

Total Minimum Credits for the Level 2 Certificate **49**

Workforce Degrees and Certificates

Fashion Merchandising

FASHION MERCHANDISING

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
FSHD 1302	Introduction to Fashion	3
FSHN 1301	Textiles	3
XXXX #3## ¹	General Education Elective	3
FSHD 1324	Ready-to-Wear Construction	3
Semester Total		15

Second Semester - Spring

FSHN 1320	Fashion Selling	3
FSHD 1311	Fashion History	3
FSHD 1318	Apparel Computer Systems	3
Semester Total		9

Third Semester - Summer

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		12

SECOND YEAR

First Semester - Fall

FSHN 2303	Fashion Buying	3
FSHN 2307	Fashion Advertising	3
FSHN 2320	Visual Merchandising	3
MRKG 1311	Principles of Marketing	3
Semester Total		12

Second Semester - Spring

FSHN 2301	Fashion Promotion	3
FSHN 2305	Fashion Retailing	3
FSHN 2309	Fashion Image	3
FSHN 2388	Internship-Fashion Merchandising (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

FASHION MERCHANDISING - FASHION IMAGE CONSULTANT

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHN 1301	Textiles	3
FSHD 1313	Art for Fashion	3
FSHD 1324	Ready-to-Wear Construction	3

Semester Total

12

Second Semester - Spring

FSHN 1320	Fashion Selling	3
FSHN 2301	Fashion Promotion	3
FSHN 2309	Fashion Image	3
FSHD 1311	Fashion History	3
FSHD 1318	Apparel Computer Systems	3

Semester Total

15

Third Semester - Summer

FSHN 2388	Internship-Fashion Merchandising (Capstone)	3
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Semester Total

3

Total Minimum Credits for the Level 1 Certificate

30

Workforce Degrees and Certificates

FASHION MERCHANDISING - VISUAL MERCHANDISING

Certificate - Level 1

SCH

First Semester - Fall

FSHD 1302	Introduction to Fashion	3
FSHN 1301	Textiles	3
FSHD 1313	Art for Fashion	3
Semester Total		9

Second Semester - Spring

FSHN 2303	Fashion Buying	3
FSHN 2305	Fashion Retailing	3
FSHD 1318	Apparel Computer Systems	3
FSHD 1322	Fashion Sketching	3
FSHN 2301	Fashion Promotion	3
Semester Total		15

Third Semester - Summer

FSHN 2307	Fashion Advertising	3
FSHN 2320	Visual Merchandising	3
FSHN 2388	Internship-Fashion Merchandising (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate 33

Workforce Degrees and Certificates

Filmmaking

FILMMAKING - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
RTVB 1321	TV/Video Field Production	3
RTVB 1309	Audio/Radio Production I	3
RTVB 2330	Film & Video Editing	3
Semester Total		12

Second Semester - Spring

RTVB 2337	TV/Video Production Workshop I	3
RTVB 1329	Scriptwriting	3
FLMC 1300	Production Management	3
FLMC 1311	Survey of the Motion Picture	3
FLMC 2344	Advanced Film & Video Editing	3
Semester Total		15

Third Semester - Summer

FLMC 1292	Special Topics in Film-Video Making/Cinematography & Production	2
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		5

SECOND YEAR

First Semester - Fall

FLMC 1304	Lighting for Film or Video	3
FLMC 2333	Cinematography	3
FLMC 2335	Screenwriting for Features, Shorts & Documentaries	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

FLMC 2334	Directing for Film or Video	3
FLMC 2330	Audio Post Production	3
FLMC 2336	Production Development - Producing	3
RTVB 2164	Practicum (or Field Experience) - Radio & Television (Capstone)	1
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

FILMMAKING - GENERAL

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
RTVB 1321	TV/Video Field Production	3
RTVB 1309	Audio/Radio Production I	3
RTVB 2330	Film & Video Editing	3
Semester Total		12

Second Semester - Spring

RTVB 2337	TV/Video Production Workshop I	3
RTVB 1329	Scriptwriting	3
FLMC 1300	Production Management	3
FLMC 1311	Survey of the Motion Picture	3
FLMC 2344	Advanced Film & Video Editing	3
Semester Total		15

Third Semester - Summer

FLMC 1292	Special Topics in Film-Video Making/Cinematography & Production	2
Semester Total		2

SECOND YEAR

First Semester - Fall

FLMC 1304	Lighting for Film or Video	3
FLMC 2333	Cinematography	3
FLMC 2335	Screenwriting for Features, Shorts & Documentaries	3
Semester Total		9

Second Semester - Spring

FLMC 2330	Audio Post Production	3
FLMC 2336	Production Development - Producing	3
FLMC 2334	Directing for Film or Video	3
RTVB 2164	Practicum (or Field Experience) - Radio & Television (Capstone)	1
Semester Total		10

Total Minimum Credits for the Level 2 Certificate

48

Workforce Degrees and Certificates

FILMMAKING - EDITING SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

FLMC 1311	Survey of the Motion Picture	3
RTVB 1321	TV Field Production	3
RTVB 1309	Audio/Radio Production I	3
RTVB 2330	Film and Video Editing	3

Semester Total

12

Second Semester - Spring

FLMC 1300	Production Management	3
FLMC 1331	Video Graphics & Visual Effects I	3
FLMC 2344	Advanced Film & Video Editing (Capstone)	3
FLMC 2330	Audio Post Production	3
FLMC 1292	Special Topics in Film-Video Making/Cinematography & Production	2

Semester Total

14

Total Minimum Credits for the Level 1 Certificate

26

Workforce Degrees and Certificates

FILMMAKING - FILM/VIDEO PRODUCTION SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

RTVB 1309	Audio/Radio Production I	3
RTVB 1321	TV Field Production	3
RTVB 2330	Film & Video Editing	3
FLMC 1311	Survey of the Motion Picture	3
Semester Total		12

Second Semester - Spring

FLMC 1300	Production Management	3
RTVB 1329	Scriptwriting	3
RTVB 2337	TV/Video Production Workshop I	3
FLMC 2344	Advanced Film & Video Editing (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

24

Workforce Degrees and Certificates

FILMMAKING - SCREENWRITING SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

FLMC 1311	Survey of the Motion Picture	3
RTVB 1321	TV Field Production	3
RTVB 1329	Scriptwriting	3
RTVB 2330	Film & Video Editing	3
Semester Total		12

Second Semester - Spring

FLMC 2335	Screenwriting for Features, Shorts & Documentaries (Capstone)	3
FLMC 1292	Special Topics in Film - Video Making/Cinematography & Production	2
FLMC 1300	Production Management	3
FLMC 2336	Production Developing - Producing	3
Semester Total		11

Total Minimum Credits for the Level 1 Certificate

23

Workforce Degrees and Certificates

Fire Science & Safety

FIRE SCIENCE & SAFETY - FIREFIGHTER

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
FIRS 1301	Firefighter Certification I	3
FIRS 1407	Firefighter Certification II	4
FIRS 1313	Firefighter Certification III	3
Semester Total		13

Second Semester - Spring

FIRS 1319	Firefighter Certification IV	3
FIRS 1423	Firefighter Certification V	4
FIRS 1329	Firefighter Certification VI	3
FIRS 1433	Firefighter Certification VII	4
FIRS 1203	Firefighter Agility & Fitness Preparation	2
Semester Total		16

SECOND YEAR

First Semester - Fall

CHEM 1305	Introductory Chemistry I (Lecture)	3
FIRT 1327	Building Construction in the Fire Service	3
GOVT 2306	Texas Government	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
FIRT 2309	Firefighting Strategies & Tactics I	3
PSYC 2301	General Psychology	3
Semester Total		18

Second Semester - Spring

FIRT 1309	Fire Administration I	3
FIRT 1338	Fire Protection Systems	3
FIRT 1315	Hazardous Materials I	3
FIRT 1303	Fire & Arson Investigation I	3
FIRT 2188	Internship - Emergency Management (Capstone)	1
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

FIRE SCIENCE & SAFETY - BASIC FIREFIGHTER

Certificate - Level 1

SCH

First Semester - Fall

FIRS 1301	Firefighter Certification I	3
FIRS 1407	Firefighter Certification II	4
FIRS 1313	Firefighter Certification III	3
FIRS 1203	Firefighter Agility & Fitness Preparation	2

Semester Total

12

Second Semester - Spring

FIRS 1319	Firefighter Certification IV	3
FIRS 1423	Firefighter Certification V	4
FIRS 1329	Firefighter Certification VI	3
FIRS 1433	Firefighter Certification VII (Capstone)	4

Semester Total

14

Total Minimum Credits for the Level 1 Certificate

26

Workforce Degrees and Certificates

FIRE SCIENCE & SAFETY - FIRE & ARSON INVESTIGATION TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
CRIJ 1301	Introduction to Criminal Justice	3
ENGL 1301	Composition I	3
CRIJ 2323	Legal Aspects of Law Enforcement	3
FIRT 1338	Fire Protection Systems	3
Semester Total		15

Second Semester - Spring

GOVT 2306	Texas Government	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
CRIJ 1307	Crime in America	3
CRIJ 1310	Fundamentals of Criminal Law	3
FIRT 1327	Building Construction in the Fire Service	3
Semester Total		15

SECOND YEAR

First Semester - Fall

CHEM 1305	Introductory Chemistry I (Lecture)	3
CRIJ 2314	Criminal Investigation	3
FIRT 1303	Fire & Arson Investigation I	3
XXXX #3## ¹	General Education Elective	3
FIRT 1315	Hazardous Materials I	3
Semester Total		15

Second Semester - Spring

CRIJ 1306	Court Systems & Practices	3
CRIJ 2328	Police Systems & Practices	3
FIRT 1345	Hazardous Materials II	3
FIRT 2333	Fire & Arson Investigation II	3
FIRT 2380	Cooperative Education-Fire Protection & Safety Technology/Technician (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

FIRE SCIENCE & SAFETY - FIRE & ARSON INVESTIGATOR

Occupational Skills Award

SCH

First Semester - Fall

FIRT 1301	Fundamentals of Fire Protection	3
FIRT 1303	Fire & Arson Investigation I	3
FIRT 2333	Fire & Arson Investigation II	3
Total Minimum Credits for the Occupational Skills Award		9

Workforce Degrees and Certificates

FIRE SCIENCE & SAFETY - FIRE OFFICER I

Certificate - Level 1

SCH

First Semester - Fall

FIRT 1307 Fire Prevention Codes & Inspections 3

FIRT 1309 Fire Administration I 3

FIRT 1303 Fire & Arson Investigation I 3

Semester Total 9

Second Semester - Spring

FIRT 2309 Firefighting Strategies & Tactics I 3

FIRT 2305 Fire Instructor I 3

FIRT 2351 Company Fire Officer **OR**

FIRT 1342 Fire Officer I (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 18

Workforce Degrees and Certificates

FIRE SCIENCE & SAFETY - FIRE INSTRUCTOR

Occupational Skills Award SCH

First Semester - Fall

FIRT 2305 Fire Instructor I 3

Semester Total 3

Second Semester - Spring

FIRT 2307 Fire Instructor II 3

Semester Total 3

Third Semester - Summer

FIRT 2459 Fire Instructor III 4

Semester Total 4

Total Minimum Credits for the Occupational Skills Award 10

Workforce Degrees and Certificates

FIRE SCIENCE & SAFETY - FIRE INSPECTOR

Occupational Skills Award SCH

First Semester - Fall

FIRT 1408 Fire Inspector I 4

FIRT 1340 Fire Inspector II 3

FIRT 1202 Plan Examiner I 2

Total Minimum Credits for the Occupational Skills Award 9

Workforce Degrees and Certificates

Geographic Information Science

GEOGRAPHIC INFORMATION SCIENCE

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
GISC 1411	Introduction to Geographic Information Systems (GIS)	4
Semester Total		13

Second Semester - Spring

GEOG 1301	Physical Geography	3
GISC 1401	Cartography & Geography in Geographical Information Systems (GIS) & Global Positioning Systems	4
GISC 1421	Introduction to Raster-Based Geographic Information Systems (GIS)	4
COSC 1436	Programming Fundamentals I (using Python)	4
Semester Total		15

Third Semester - Summer

ITSE 1345	Introduction to Oracle SQL	3
DFTG 1309	Basic Computer-Aided Drafting	3
Semester Total		6

SECOND YEAR

First Semester - Fall

GISC 2401	Data Acquisition & Analysis in Geographic Information Systems (GIS)	4
GISC 2250	Scripting for Geographic Information Systems (GIS)	2
GISC 2411	Geographic Information Systems (GIS) Applications	4
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		13

Second Semester - Spring

GEOL 1403	Physical Geology	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
GISC 2359	Web-Served Geographic Information Systems (GIS) (Capstone)	3
GISC 2364	Practicum - Cartography OR	
GISC 2380	Cooperative Education - Cartography OR	
GISC 1491	Special Topics in Cartography	3
Semester Total		13

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

GEOGRAPHIC INFORMATION SCIENCE - ANALYST

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
GISC 1411	Introduction to Geographic Information Systems (GIS)	4
MATH 1314	College Algebra	3
COSC 1436	Programming Fundamentals I OR	
ITSE 1402	Computer Programming	4

Semester Total **14**

Second Semester - Spring

GISC 1401	Cartography & Geography in Geographical Information Systems (GIS) & Global Positioning Systems	4
GISC 1421	Introduction to Raster-Based Geographic Information Systems (GIS)	4
ITSE 1345	Introduction to Oracle SQL	3

Semester Total **11**

Third Semester - Summer

GISC 2401	Data Acquisition & Analysis in Geographic Information Systems (GIS)	4
GISC 2411	Geographic Information Systems (GIS) Applications	4

Semester Total **8**

SECOND YEAR

First Semester - Fall

GISC 2250	Scripting for Geographic Information Systems (GIS)	2
GISC 2359	Web-Served Geographic Information Systems (GIS) (Capstone)	3

Semester Total **5**

Total Minimum Credits for the Level 2 Certificate **38**

Workforce Degrees and Certificates

GEOGRAPHIC INFORMATION SCIENCE - TECHNICIAN

Certificate - Level 1

SCH

First Semester - Fall

GISC 1411	Introduction to Geographic Information Systems (GIS)	4
ITSE 1402	Computer Programming	4
Semester Total		8

Second Semester - Spring

GISC 1401	Cartography & Geography in Geographical Information Systems (GIS) & Global Positioning Systems (Capstone)	4
GISC 1421	Introduction to Raster-Based Geographic Information Systems (GIS)	4
ITSE 1345	Introduction to Oracle SQL	3
GISC 2364	Practicum - Cartography OR	
GISC 2380	Cooperative Education - Cartography	3
Semester Total		14

Total Minimum Credits for the Level 1 Certificate

22

Workforce Degrees and Certificates

Health Information Technology

HEALTH INFORMATION TECHNOLOGY

Associate of Applied Science

SCH

Prerequisite Semester

XXXX #3## ¹	General Education Elective	3
ENGL 1301	Composition I	3
Semester Total		6

FIRST YEAR

First Semester - Fall

BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
HPRS 1201	Introduction to Health Professions	2
HITT 1301	Health Data Content & Structure	3
HITT 1166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician	1
POFI 1301	Computer Applications I	3
Semester Total		13

Second Semester - Spring

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
HITT 1305	Medical Terminology I	3
HITT 1345	Health Care Delivery Systems	3
HITT 1167	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician	1
HITT 1255	Health Care Statistics	2
Semester Total		13

Third Semester - Summer

HITT 1249	Pharmacology	2
HPRS 2201	Pathophysiology	2
Semester Total		4

SECOND YEAR

First Semester - Fall

HITT 1341	Coding & Classification Systems	3
HITT 1253	Legal & Ethical Aspects of Health Information	2
HITT 2343	Quality Assessment & Performance Improvement	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
		11

Second Semester - Spring

HITT 2335	Coding & Reimbursement Methodologies	3
HITT 2239	Health Information Organization & Supervision	2
HITT 1211	Health Information Systems	2
HITT 2166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician	1

Workforce Degrees and Certificates

XXXX #3## ¹	General Education Elective	3
	Foundations for Nursing Practice	11
Third Semester - Summer		
HITT 2149	RHIT Competency Review	1
HITT 2167	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)	1
	Semester Total	2
Total Minimum Credits for the AAS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

HEALTH INFORMATION TECHNOLOGY - ANALYSIS

Certificate - Level 1

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
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Semester Total		2
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First Semester - Fall

HITT 1305	Medical Terminology I	3
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HITT 1301	Health Data Content & Structure	3
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HITT 1166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)	1
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POFI 1301	Computer Applications I	3
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Semester Total		10
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Second Semester - Spring

HITT 1345	Health Care Delivery Systems	3
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HITT 1255	Health Care Statistics	2
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HITT 1167	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)	1
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Semester Total		6
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Total Minimum Credits for the Level 1 Certificate		18
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Workforce Degrees and Certificates

HEALTH INFORMATIONTECHNOLOGY- CODING

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

HPRS 1201	Introduction to Health Professions	2
HITT 1301	Health Data Content & Structure	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
Semester Total		9

Second Semester - Spring

BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
HITT 1345	Health Care Delivery Systems	3
HITT 1253	Legal & Ethical Aspects of Health Information	2
HITT 1305	Medical Terminology I	3
Semester Total		12

Third Semester - Summer

HITT 1249	Pharmacology	2
HPRS 2201	Pathophysiology	2
Semester Total		4

SECOND YEAR

First Semester - Fall

HITT 1341	Coding & Classification Systems	3
POFI 1301	Computer Applications I	3
Semester Total		6

Second Semester - Spring

HITT 2335	Coding & Reimbursement Methodologies	3
HITT 1211	Health Information Systems	2
HITT 2166	Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician (Capstone)	1
Semester Total		6

Total Minimum Credits for the Level 2 Certificate

37

Workforce Degrees and Certificates

Heating, Air Conditioning, & Refrigeration

HEATING, AIR CONDITIONING & REFRIGERATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ELPT 1315	Electrical Calculations I	3
HART 1301	Basic Electricity for HVAC	3
HART 1356 ¹	EPA Recovery Certification Preparation	3
XXXX #3## ²	Social/Behavioral Sciences Elective	3

Semester Total 15

Second Semester - Spring

HART 1303	Air Conditioning Control Principles	3
HART 1307	Refrigeration Principles	3
HART 1341 ³	Residential Air Conditioning	3
HART 1345 ³	Gas & Electric Heating	3
XXXX #3## ²	Social/Behavioral Sciences Elective	3

Semester Total 15

Third Semester - Summer

HART 2334 ³	Advanced Air Conditioning Controls	3
HART 2341	Commercial Air Conditioning	3
HART 2345	Residential Air Conditioning Systems Design QR	
HART 2302	Commercial Air Conditioning System Design	3
XXXX #3## ²	Humanities/Fine Arts Elective	3
XXXX #3## ²	Math/Natural Science Elective	3

Semester Total 15

SECOND YEAR

First Semester - Fall

HART 2336	Air Conditioning Troubleshooting (Capstone)	3
HART 2342 ¹	Commercial Refrigeration	3
HART 2349 ¹	Heat Pumps	3
HART 2374	Building Control Systems	3
XXXX #3## ²	Humanities/Fine Arts Elective	3

Semester Total 15

Total Minimum Credits for the AAS Degree 60

¹ Employment Ready (ER) certification required.

² A list of electives appears in the Core Curriculum section of this catalog.

³ EPA certification required.

Workforce Degrees and Certificates

HEATING, AIR CONDITIONING & REFRIGERATION - BASIC

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1315 Electrical Calculations I 3

HART 1301 Basic Electricity for HVAC 3

HART 1356 EPA Recovery Certification Preparation 3

Semester Total 9

Second Semester - Spring

HART 1303 Air Conditioning Control Principles 3

HART 1307 Refrigeration Principles 3

HART 1341 Residential Air Conditioning (Capstone) 3

HART 1345 Gas & Electric Heating 3

Semester Total 12

Total Minimum Credits for the Level 1 Certificate 21

Workforce Degrees and Certificates

HEATING, AIR CONDITIONING & REFRIGERATION - ADVANCED

Certificate - Level 1		SCH
First Semester - Fall		
ELPT 1315	Electrical Calculations I	3
HART 1301	Basic Electricity for HVAC	3
HART 1307	Refrigeration Principles	3
HART 1356	EPA Recovery Certification Preparation	3
Semester Total		12
Second Semester - Spring		
HART 1303	Air Conditioning Control Principles	3
HART 1341	Residential Air Conditioning	3
HART 1345	Gas & Electric Heating	3
HART 2342	Commercial Refrigeration	3
HART 2334	Advanced Air Conditioning Controls	3
Semester Total		15
Third Semester - Summer		
HART 2336	Air Conditioning Troubleshooting (Capstone)	3
HART 2341	Commercial Air Conditioning	3
HART 2349	Heat Pumps	3
HART 2302	Commercial Air Conditioning System Design	3
HART 2345	Residential Air Conditioning Systems Design	3
Semester Total		15
Total Minimum Credits for the Level 1 Certificate		42

Workforce Degrees and Certificates

Heavy Vehicle & Truck Repair

HEAVY VEHICLE & TRUCK REPAIR

Certificate - Level 1

SCH

First Semester - Fall

DEMR 1301	Shop Safety & Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1310	Diesel Engine Testing & Repair I	3
DEMR 2312	Diesel Engine Testing & Repair II	3
Semester Total		12

Second Semester - Spring

DEMR 1305	Basic Electrical Systems	3
DEMR 2332	Electronic Controls	3
DEMR 2439	Advanced Electrical Systems	4
DEMR 1323	Heating, Ventilation, & Air Conditioning (HVAC) Troubleshooting & Repair	3
Semester Total		13

Third Semester - Summer

DEMR 1329	Preventative Maintenance	3
DEMR 1316	Basic Hydraulics	3
DEMR 1330	Steering & Suspension I	3
DEMR 1342	Power Train Applications I	3
DEMR 1381	Cooperative Education-Diesel Mechanics Technology/Technician (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate

40

Workforce Degrees and Certificates

HEAVY VEHICLE & TRUCK REPAIR - DIESEL PREVENTATIVE MAINTENANCE

Occupational Skills Award SCH

First Semester - Fall

DEMR 1301	Shop Safety & Procedures	3
DEMR 1317	Basic Brake Systems	3
DEMR 1310	Diesel Engine Testing & Repair I	3
DEMR 2312	Diesel Engine Testing & Repair II	3
Total Minimum Credits for the Occupational Skills Award		12

Workforce Degrees and Certificates

Histologic Technician

HISTOLOGIC TECHNICIAN

Associate of Applied Science

SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
HPRS 1201	Introduction to Health Professions	2
MATH 1314	College Algebra	3
ENGL 1301	Composition I	3
BIOL 1306	General Biology I (Lecture)	3
BIOL 1106	General Biology I (Lab)	1
Semester Total		15

FIRST YEAR

First Semester - Fall

CHEM 1311	General Chemistry I (Lecture) OR	
CHEM 1305	Introductory Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab) OR	
CHEM 1105	Introductory Chemistry I (Lab)	1
HLAB 1305	Functional Histology I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
HLAB 1301	Introduction to Histotechnology	3
Semester Total		14

Second Semester - Spring

HLAB 1402	Histotechnology I	4
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
HLAB 1346	Functional Histology II	3
Semester Total		11

Third Semester - Summer

HLAB 1266	Practicum (or Field Experience) - Histologic Technology/Histotechnologist	2
HLAB 1443	Histotechnology II	4
Semester Total		6

SECOND YEAR

First Semester - Fall

HLAB 1267	Practicum (or Field Experience) - Histologic Technology/Histotechnologist	2
HLAB 2434	Histotechnology III	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Workforce Degrees and Certificates

Second Semester - Spring

HLAB 1268	Practicum (or Field Experience) - Histologic Technology/Histotechnologist	2
HLAB 2341	Registry Review (Capstone)	3
	Semester Total	5
	Total Minimum Credits for the AAS Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Hospitality Management

HOSPITALITY MANAGEMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
HAMG 1321	Introduction to Hospitality Industry	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
BMGT 1327	Principles of Management	3

Semester Total 15

Second Semester - Spring

CHEF 1205	Sanitation & Safety	2
CHEF 1471	Introduction to Food Preparation for Hospitality	4
HAMG 1313	Front Office Management	3
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
ITSC 1309	Integrated Software Applications I	3

Semester Total 15

Third Semester - Summer

ECON 2301	Principles of Macroeconomics	3
XXXX #3## ¹	Math/Natural Science Elective	3
SPCH 1315	Public Speaking	3

Semester Total 9

SECOND YEAR

First Semester - Fall

GEOG 1302	Human Geography	3
HAMG 1324	Hospitality Human Resources Management	3
HAMG 2307	Hospitality Marketing & Sales	3
ACNT 1303	Introduction to Accounting I	3

Semester Total 12

Second Semester - Spring

HAMG 1340	Hospitality Legal Issues	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
HAMG 2380	Cooperative Education- Hospitality Administration/Management, General (Capstone)	3

Semester Total 9

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

HOSPITALITY MANAGEMENT - HOTEL MANAGEMENT

Certificate - Level 1		SCH
First Semester - Fall		
HAMG 1321	Introduction to Hospitality Industry	3
ACNT 1303	Introduction to Accounting I	3
HAMG 1313	Front Office Management	3
BMGT 1327	Principles of Management	3
Semester Total		12
Second Semester - Spring		
HAMG 1324	Hospitality Human Resources Management	3
HAMG 2337	Hospitality Facilities Management	3
HAMG 1340	Hospitality Legal Issues	3
HAMG 1342	Guest Room Management	3
HAMG 1166	Practicum (or Field Experience) - Hospitality Administration/Management, General (Capstone)	1
Semester Total		13
Total Minimum Credits for the Level 1 Certificate		25

Workforce Degrees and Certificates

HOSPITALITY MANAGEMENT - RESTAURANT MANAGEMENT

Certificate - Level 1

SCH

First Semester - Fall

HAMG 1321	Introduction to Hospitality Industry	3
ACNT 1303	Introduction to Accounting I	3
CHEF 1205	Sanitation & Safety	2
BMGT 1327	Principles of Management	3
Semester Total		11

Second Semester - Spring

HAMG 1324	Hospitality Human Resources Management	3
RSTO 2301	Principles of Food & Beverage Controls	3
CHEF 1313	Food Service Operation/Systems	3
CHEF 1471	Introduction to Food Preparation for Hospitality	4
HAMG 1166	Practicum (or Field Experience) - Hospitality Administration/Management, General (Capstone)	1
Semester Total		14

Total Minimum Credits for the Level 1 Certificate	25
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Workforce Degrees and Certificates

Human Service Technology

HUMAN SERVICE TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

XXXX #3## ¹	Directed Elective	3
HPRS 1201	Introduction to Health Professions	2
PSYC 2301	General Psychology	3
SCWK 1321	Orientation to Social Services	3
DAAC 1417	Basic Counseling Skills	4
Semester Total		15

Second Semester - Spring

CMSW 1313	Assessment & Service Delivery	3
DAAC 2354	Dynamics of Group Counseling	3
ENGL 1301	Composition I	3
PSYC 2316	Psychology of Personality	3
XXXX #3## ¹	Directed Elective	3
Semester Total		15

Third Semester - Summer

CMSW 1266	Practicum-Clinical & Medical Social Worker	2
PSYC 2314	Lifespan Growth & Development	3
XXXX #3## ²	Humanities/Fine Arts Elective	3
Semester Total		8

SECOND YEAR

First Semester - Fall

CMSW 1267	Practicum-Clinical & Medical Social Worker	2
DAAC 1311	Counseling Theories	3
XXXX #3## ¹	Directed Elective	3
POFI 1301	Computer Applications I	3
Semester Total		11

Second Semester - Spring

CMSW 1353	Family Intervention Strategies	3
XXXX #3## ²	Math/Natural Science Elective	3
XXXX #3## ¹	Directed Elective	3
CMSW 2266	Practicum-Clinical & Medical Social Worker (Capstone)	2
Semester Total		11

Total Minimum Credits for the AAS Degree **60**

¹ Consult with an advisor to select an appropriate elective.

² A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

HUMAN SERVICE TECHNOLOGY - CHEMICAL DEPENDENCY COUNSELOR		
Certificate - Level 1		SCH
First Semester - Fall		
HPRS 1201	Introduction to Health Professions	2
DAAC 1304	Pharmacology of Addiction	3
DAAC 1417	Basic Counseling Skills	4
CMSW 1313	Assessment & Service Delivery	3
Semester Total		12
Second Semester - Spring		
DAAC 1319	Substance-Related & Addictive Disorders	3
DAAC 1305	Co-Occuring Disorders	3
XXXX #3## ¹	Directed Elective	3
XXXX #3## ¹	Directed Elective	3
Semester Total		12
Third Semester - Summer		
DAAC 2267	Practicum-Substance Abuse/Addiction Counseling	2
Semester Total		2
Total Minimum Credits for the Level 1 Certificate		26

¹ Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

HUMAN SERVICE TECHNOLOGY - CERTIFIED PREVENTION SPECIALIST

Occupational Skills Award		SCH
First Semester - Fall		
DAAC 2306	Substance Abuse Prevention I	3
DAAC 1304	Pharmacology of Addiction	3
Semester Total		6
Second Semester - Spring		
DAAC 2353	Substance Abuse Prevention II	3
Semester Total		3
Third Semester - Summer		
DAAC 1264	Practicum-Substance Abuse/Addiction Counseling	2
Semester Total		2
Total Minimum Credits for the Occupational Skills Award		11

Workforce Degrees and Certificates

HUMAN SERVICE TECHNOLOGY - COMMUNITY HEALTH WORKER

Occupational Skills Award		SCH
First Semester - Fall		
CHLT 1302	Wellness & Health Promotion	3
CHLT 1401	Introduction to Community Health	4
Semester Total		7
Second Semester - Spring		
CHLT 1291	Special Topics in Community Health Liaison	2
CHLT 1342	Community Health Field Methods	3
Semester Total		5
Third Semester - Summer		
CHLT 1266	Practicum (or Field Experience) - Community Health Services/Liaison/Counseling	2
Semester Total		2
Total Minimum Credits for the Occupational Skills Award		14

Workforce Degrees and Certificates

Industrial Electricity

INDUSTRIAL ELECTRICITY - ELECTRICAL HELPER

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
ELPT 1221	Introduction to Electrical Safety & Tools	2
ELPT 1311	Basic Electrical Theory	3
ELPT 1325	National Electrical Code I	3
ELPT 1329	Residential Wiring	3
ELPT 1345	Commercial Wiring (Capstone)	3
Total Minimum Credits for the Level 1 Certificate		17

Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY - ELECTRICAL POWER TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
ELPT 1221	Introduction to Electrical Safety & Tools	2
ELPT 1325	National Electrical Code I	3
CNBT 1300	Residential & Light Commercial Blueprint Reading	3
ELPT 1329	Residential Wiring	3
Semester Total		14

Second Semester - Spring

ELPT 1341	Motor Control	3
ELPT 1311	Basic Electrical Theory	3
ELMT 1301	Programmable Logic Controllers	3
ELPT 1345	Commercial Wiring	3
ELPT 1457	Industrial Wiring	4
Semester Total		16

Third Semester - Summer

ELPT 1355	Electronic Applications	3
ELPT 2337	Electrical Planning & Estimating	3
Semester Total		6

Total Minimum Credits for the Level 1 Certificate

37

¹ Consult with an advisor to select a program approved elective.

Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY - INDUSTRIAL AUTOMATION TECHNOLOGY

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
ELPT 1321	Introduction to Electrical Safety & Tools	3
HYDR 1345	Hydraulics & Pneumatics	3
ELPT 1341	Motor Control	3
ELPT 1325	National Electrical Code I	3

Semester Total **15**

Second Semester - Spring

ELPT 1311	Basic Electrical Theory	3
ELMT 1301	Programmable Logic Controllers	3
INCR 1302	Physics of Instrumentation	3
ELPT 1457	Industrial Wiring	4

Semester Total **13**

Third Semester - Summer

ELPT 2419	Programmable Logic Controllers I	4
ELPT 1355	Electronic Applications	3
ELPT 2449	Industrial Automation (Capstone)	4

Semester Total **11**

Total Minimum Credits for the Level 1 Certificate **39**

Workforce Degrees and Certificates

INDUSTRIAL ELECTRICITY - SOLAR PHOTOVOLTAIC SYSTEM INSTALLER

Certificate - Level 1

SCH

First Semester - Fall

ELPT 1315	Electrical Calculations I	3
ELPT 1221	Introduction to Electrical Safety & Tools	2
ELMT 1311	Solar Fundamentals	3
ELPT 1325	National Electrical Code I	4
Semester Total		15

Second Semester - Spring

ELPT 1311	Basic Electrical Theory	3
ELMT 1402	Solar Photovoltaic Systems	3
Semester Total		6

Total Minimum Credits for the Level 1 Certificate

15

Workforce Degrees and Certificates

Instrumentation & Controls Engineering Technology

INSTRUMENTATION & CONTROLS ENGINEERING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
PTAC 1308	Safety, Health, & Environment I	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
Semester Total		15

Second Semester - Spring

INTC 1356	Instrumentation Calibration	3
CETT 1403	DC Circuits	4
MATH 1316	Plane Trigonometry	3
CETT 1425	Digital Fundamentals	4
CPMT 1449	Computer Networking Technology	4
Semester Total		18

SECOND YEAR

First Semester - Fall

INTC 1441	Principles of Automatic Control	4
INTC 1343	Application of Industrial Automatic Controls	3
CETT 1405	AC Circuits	4
PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
RBTC 1301	Programmable Logic Controllers	3
INTC 2330	Instrumentation Systems Troubleshooting OR	
INTC 2336	Distributed Control & Programmable Logic (Capstone)	3
Semester Total		12

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

INSTRUMENTATION & CONTROLS ENGINEERING TECHNOLOGY

Certificate - Level 2		SCH
First Semester - Fall		
EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
PTAC 1308	Safety, Health, & Environment I	3
MATH 1314	College Algebra	3
INTC 1356	Instrumentation Calibration	3
Semester Total		15
Second Semester - Spring		
INTC 1441	Principles of Automatic Control	4
MATH 1316	Plane Trigonometry	3
CETT 1425	Digital Fundamentals	4
CETT 1403	DC Circuits	4
Semester Total		15
Third Semester - Summer		
INTC 1343	Application of Industrial Automatic Controls	3
RBTC 1301	Programmable Logic Controllers	3
INTC 2330	Instrumentation Systems Troubleshooting (Capstone)	3
XXXX #4## ¹	Program Approved Elective	4
Semester Total		13
Total Minimum Credits for the Level 2 Certificate		43

¹ Consult with an advisor to determine the appropriate elective.

Workforce Degrees and Certificates

Interior Design

INTERIOR DESIGN

Associate of Applied Science

SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
XXXX #3## ¹	General Education Elective	3
Semester Total		6

FIRST YEAR

First Semester - Fall

INDS 1311	Fundamentals of Interior Design	3
INDS 1301	Basic Elements of Design	3
INDS 1319	Technical Drawing for Interior Designers	3
INDS 1370	History of Interiors	3
INDS 2321	Presentation Drawing	3
Semester Total		15

Second Semester - Spring

INDS 1349	Fundamentals of Space Planning	3
INDS 2307	Textiles for Interior Design	3
INDS 2305	Interior Design Graphics	3
INDS 2317	Rendering Techniques	3
Semester Total		12

Third Semester - Summer

ARTS 1303	Art History I	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

INDS 2313	Residential Design I	3
INDS 1315	Materials, Methods & Estimating	3
INDS 2271	Digital Presentation Methods	2
ARTS 1304	Art History II	3
Semester Total		11

Workforce Degrees and Certificates

Second Semester - Spring

INDS 1345	Commercial Design I	3
INDS 2325	Professional Practices for Interior Designers	3
INDS 2237	Portfolio Presentation (Capstone)	2
INDS 2264	Practicum (or Field Experience) - Interior Design	2

Semester Total **10**

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

INTERIOR DESIGN - INTERIOR DECORATING

Certificate - Level 1

SCH

Prerequisite Semester

TECM 1301 Industrial Mathematics 3

Semester Total 3

First Semester - Fall

INDS 1311 Fundamentals of Interior Design 3

INDS 1319 Technical Drawing for Interior Designers 3

INDS 1301 Basic Elements of Design 3

Semester Total 9

Second Semester - Spring

INDS 2307 Textiles For Interior Design 3

INDS 1315 Materials, Methods & Estimating 3

INDS 2325 Professional Practices for Interior Designers (Capstone) 3

Semester Total 9

Total Minimum Credits for the Level 1 Certificate 21

Workforce Degrees and Certificates

INTERIOR DESIGN - KITCHEN & BATH DESIGN PROFESSIONAL

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
INDS 1311	Fundamentals of Interior Design	3
INDS 1319	Technical Drawing for Interior Designers	3
INDS 2321	Presentation Drawing	3
Semester Total		12

Second Semester - Spring

INDS 2310	Kitchen & Bath Design	3
INDS 2305	Interior Design Graphics	3
INDS 1315	Materials, Methods & Estimating	3
INDS 2317	Rendering Techniques	3
Semester Total		12

SECOND YEAR

First Semester - Fall

INDS 2370	Digital Presentation Methods	3
INDS 2330	Interior Design Building Systems	3
INDS 1341	Color Theory & Appreciation	3
INDS 2315	Lighting for Interior Designers	3
Semester Total		12

Second Semester - Spring

INDS 2371	Advanced Kitchen & Bath Design	3
INDS 2325	Professional Practices for Interior Designers	3
INDS 2386	Internship - Interior Design (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 2 Certificate

45

Workforce Degrees and Certificates

INTERIOR DESIGN - INTERIOR DESIGN COMMUNICATION

Occupational Skills Award SCH

First Semester - Fall

INDS 1319 Technical Drawing for Interior Designers 3

INDS 2321 Presentation Drawing 3

Semester Total **6**

Second Semester - Spring

INDS 2305 Interior Design Graphics 3

INDS 2317 Rendering Techniques 3

Semester Total **6**

Total Minimum Credits for the Occupational Skills Award **12**

Workforce Degrees and Certificates

International Business

INTERNATIONAL BUSINESS

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
IBUS 1305	Introduction to International Business & Trade	3
IBUS 1354	International Marketing Management	3
BUSG 1301	Introduction to Business	3
Semester Total		15

Second Semester - Spring

IBUS 1301	Principles of Exports	3
IBUS 1300	Global Logistics Management	3
XXXX #3## ¹	General Education Elective	3
BUSG 1307	Entrepreneurship & Economic Development	3
IBUS 1341	Global Supply Chain Management	3
Semester Total		15

SECOND YEAR

First Semester - Fall

IBUS 2335	International Business Law	3
MATH 1324	Mathematics for Business & Social Sciences	3
IBUS 1370	Economic Geography	3
IBUS 1302	Principles of Imports	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

Second Semester - Spring

MRKG 2312	e-Commerce Marketing	3
IBUS 2339	International Banking & Trade Finance	3
IBUS 1191	Special Topics in International Business - Certified Global Business Professional Exam	1
ECON 2302	Principles of Microeconomics	3
IBUS 2280	Cooperative Education - International Business/Trade/Commerce OR	
IBUS 1291	Special Topics in International Business	2
IBUS 2341	Intercultural Management (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

INTERNATIONAL BUSINESS

Certificate - Level 1

SCH

First Semester - Fall

IBUS 1305	Introduction to International Business & Trade	3
IBUS 1354	International Marketing Management	3
IBUS 1301	Principles of Exports	3
IBUS 1341	Global Supply Chain Management	3

Semester Total

12

Second Semester - Spring

IBUS 2335	International Business Law	3
IBUS 1302	Principles of Imports	3
IBUS 1291	Special Topics in International Business	2
IBUS 2339	International Banking & Trade Finance	3
IBUS 1191	Special Topics in International Business - Certified Global Business	
	Professional Exam (Capstone)	1

Semester Total

12

Total Minimum Credits for the Level 1 Certificate

24

Workforce Degrees and Certificates

INTERNATIONAL BUSINESS - CERTIFIED GLOBAL BUSINESS SPECIALIST

Occupational Skills Award

SCH

First Semester - Fall

IBUS 1305	Introduction to International Business & Trade	3
IBUS 1301	Principles of Exports	3
IBUS 1354	International Marketing Management	3
IBUS 1191	Special Topics in International Business - Certified Global Business	3
	Professional Exam	1
Total Minimum Credits for the Occupational Skills Award		10

Workforce Degrees and Certificates

Interpreting/Sign Language

INTERPRETING/SIGN LANGUAGE - INTERPRETING TRANSLITERATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
SGNL 1401	Beginning American Sign Language I	4
SLNG 1317	Introduction to the Deaf Community	3
SLNG 1248	Vocabulary Development for Interpreters	2
ENGL 1301	Composition I	3
Semester Total		15

Second Semester - Spring

SGNL 1402	Beginning American Sign Language II	4
SLNG 1207	Intra-lingual Skills Development for Interpreters	2
SLNG 2315	Interpreting in Educational Settings	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		12

Third Semester - Summer

XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	General Education Elective	3
Semester Total		6

SECOND YEAR

First Semester - Fall

SGNL 2301	Intermediate American Sign Language I	3
SLNG 2301	Interpreting I	3
SLNG 1211	Fingerspelling & Numbers	2
PSYC 2301	General Psychology	3
SLNG 1321	Introduction to the Interpreting Profession	3
Semester Total		14

Second Semester - Spring

SLNG 2302	Interpreting II	3
SLNG 2371	Specialized Signs	3
SLNG 1350	Sign-to-Voice	3
SGNL 2302	Intermediate American Sign Language (ASL) II	3
SLNG 1166	Practicum - Sign Language Interpretation & Translation	1
Semester Total		13

Workforce Degrees and Certificates

Third Semester - Summer

SLNG 2331	Interpreting III	3
SLNG 2266	Practicum - Sign Language Interpretation & Translation (Capstone)	2
	Semester Total	5
	Total Minimum Credits for the AAS Degree	65

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Licensed Vocational Nursing

ALLIED HEALTH - VOCATIONAL NURSING

Associate of Applied Science SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
VNSG 1216	Nutrition	2
VNSG 1320	Anatomy & Physiology for Allied Health	3
Semester Total		8

FIRST YEAR

First Semester - Fall

VNSG 1400	Nursing in Health & Illness I	4
VNSG 1122	Vocational Nursing Concepts	1
VNSG 1227	Essentials of Medication Administration	2
VNSG 1423	Basic Nursing Skills	4
VNSG 1161	Clinical - Licensed Practical/Vocational Nurse Training I	1
Semester Total		12

Second Semester - Spring

VNSG 1330	Maternal - Neonatal Nursing	3
VNSG 1162	Clinical - Licensed Practical/Vocational Nurse Training II	1
VNSG 1266	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training I	2
VNSG 1409	Nursing in Health & Illness II	4
VNSG 2331	Advanced Nursing Skills	3
VNSG 1238	Mental Illness	2
Semester Total		15

Third Semester - Summer

VNSG 1219	Leadership & Professional Development	2
VNSG 1163	Clinical - Licensed Practical/Vocational Nurse Training III	1
VNSG 1334	Pediatrics	3
VNSG 2410	Nursing in Health & Illness III	4
VNSG 1267	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training II (Capstone)	2
Semester Total		12

Workforce Degrees and Certificates

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #4## ¹	Math/Natural Science Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
	Semester Total	13
	Total Minimum Credits for the AAS Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

LICENSED VOCATIONAL NURSING

Certificate - Level 1		SCH
Prerequisite Semester		
VNSG 1216	Nutrition	2
VNSG 1320	Anatomy & Physiology for Allied Health	3
Semester Total		5
First Semester - Fall		
VNSG 1400	Nursing in Health & Illness I	4
VNSG 1122	Vocational Nursing Concepts	1
VNSG 1227	Essentials of Medication Administration	2
VNSG 1423	Basic Nursing Skills	4
VNSG 1161	Clinical - Licensed Practical/Vocational Nurse Training I	1
Semester Total		12
Second Semester - Spring		
VNSG 1330	Maternal - Neonatal Nursing	3
VNSG 1162	Clinical - Licensed Practical/Vocational Nurse Training II	1
VNSG 1266	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training I	2
VNSG 1409	Nursing in Health & Illness II	4
VNSG 2331	Advanced Nursing Skills	3
VNSG 1238	Mental Illness	2
Semester Total		15
Third Semester - Summer		
VNSG 1219	Leadership & Professional Development	2
VNSG 1163	Clinical - Licensed Practical/Vocational Nurse Training III	1
VNSG 1334	Pediatrics	3
VNSG 2410	Nursing in Health & Illness III	4
VNSG 1267	Practicum (or Field Experience) - Licensed Practical/Vocational Nurse Training II (Capstone)	2
Semester Total		12
Total Minimum Credits for the Level 1 Certificate		44

Workforce Degrees and Certificates

Logistics & Global Supply Chain Management

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
LMGT 1319	Introduction to Business Logistics	3
IBUS 1341	Global Supply Chain Management	3
MATH 1324	Mathematics for Business & Social Sciences	3
ENGL 1301	Composition I	3
Semester Total		15

Second Semester - Spring

ETWR 1302	Introduction to Technical Writing OR	
ENGL 2311	Technical & Business Writing	3
IBUS 1301	Principles of Exports	3
BMGT 1301	Supervision	3
BMGT 1313	Principles of Purchasing	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		15

SECOND YEAR

First Semester - Fall

IBUS 2335	International Business Law	3
IBUS 1302	Principles of Imports	3
LMGT 1323	Domestic & International Transportation Management	3
LMGT 1345	Economics of Transportation & Distribution	3
ECON 2302	Principles of Microeconomics	3
Semester Total		15

Second Semester - Spring

LMGT 1325	Warehouse & Distribution Center Management	3
XXXX #3## ¹	General Education Elective	3
LMGT 1321	Introduction to Materials Handling	3
LMGT 1193	Special Topics in Logistics & Materials Management	1
LMGT 2288	Internship-Logistics & Materials Management	2
IBUS 2332	Global Business Simulation (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT

Certificate - Level 1		SCH
First Semester - Fall		
LMGT 1319	Introduction to Business Logistics	3
IBUS 1301	Principles of Exports	3
LMGT 1321	Introduction to Materials Handling	3
IBUS 1341	Global Supply Chain Management	3
Semester Total		12
Second Semester - Spring		
LMGT 1323	Domestic & International Transportation Management	3
LMGT 1325	Warehouse & Distribution Center Management	3
IBUS 1302	Principles of Imports	3
BMGT 1313	Principles of Purchasing	3
LMGT 1193	Special Topics in Logistics & Materials Management (Capstone)	1
Semester Total		13
Total Minimum Credits for the Level 1 Certificate		25

Workforce Degrees and Certificates

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT SPECIALIST

Certificate - Level 1

SCH

First Semester - Fall

LMGT 1319 Introduction to Business Logistics 3

IBUS 1301 Principles of Exports 3

Semester Total 6

Second Semester - Spring

LMGT 1323 Domestic & International Transportation Management 3

IBUS 1302 Principles of Imports 3

LMGT 1325 Warehouse & Distribution Center Management 3

LMGT 1193 Special Topics in Logistics & Materials Management (Capstone) 1

Semester Total 10

Total Minimum Credits for the Level 1 Certificate 16

Workforce Degrees and Certificates

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT - MARITIME TRANSPORTATION LOGISTICS SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MART 1370	Introduction to Maritime Shipping	3
IBUS 1341	Global Supply Chain Management	3
ENGL 1301	Composition I	3
MATH 1324	Mathematics for Business & Social Sciences	3
Semester Total		15

Second Semester - Spring

LMGT 1170	Certified Logistics Assistant	1
LMGT 1271	Certified Logistics Technician	2
ENGL 1302	Composition II OR	
ENGL 2311	Technical & Business Writing	3
OSHT 1301	Introduction to Safety & Health	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
IBUS 1301	Principles of Exports	3
Semester Total		15

SECOND YEAR

First Semester - Fall

IBUS 2335	International Business Law	3
ECON 2302	Principles of Microeconomics	3
LMGT 1345	Economics of Transportation & Distribution	3
IBUS 1302	Principles of Imports	3
LMGT 1323	Domestic & International Transportation Management	3
Semester Total		15

Second Semester - Spring

LMGT 1325	Warehouse & Distribution Center Management	3
LMGT 2389	Internship-Logistics & Materials Management (Capstone)	3
LMGT 1319	Introduction to Business Logistics	3
XXXX #3## ¹	General Education Elective	3
LMGT 1370	Equipment Operation	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

LOGISTICS & GLOBAL SUPPLY CHAIN MANAGEMENT - MARITIME

LOGISTICS SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

LMGT 1323	Domestic & International Transportation Management	3
MART 1370	Introduction to Maritime Shipping	3
LMGT 1170	Certified Logistics Associate	1
OSHT 1301	Introduction to Safety & Health	3

Semester Total

10

Second Semester - Spring

LMGT 1370	Equipment Operation	3
LMGT 1271	Certified Logistics Technician	2
LMGT 1325	Warehouse & Distribution Center Management (Capstone)	3

Semester Total

8

Total Minimum Credits for the Level 1 Certificate

18

Workforce Degrees and Certificates

MACHINING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 1305	Metals & Heat Treatment	3
Semester Total		15

SECOND YEAR

First Semester - Fall

MCHN 2333	Advanced Lathe Operations	3
MCHN 2337	Advanced Milling Operations	3
INMT 1370	Lean Manufacturing	3
MCHN 2331	Operation of CNC Turning Centers OR	
INMT 1345	Computer Numerical Controls	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
HUMA 1301	Introduction to Humanities OR	
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Third Semester - Summer

MCHN 2341	Advanced Machining I (Capstone)	3
Semester Total		3

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

MACHINING TECHNOLOGY

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
MCHN 1320	Precision Tools & Measurement	3
MCHN 1305	Metals & Heat Treatment	3
Semester Total		15

SECOND YEAR

First Semester - Fall

MCHN 2337	Advanced Milling Operations	3
MCHN 2333	Advanced Lathe Operations	3
INMT 1370	Lean Manufacturing	3
MCHN 2331	Operation of CNC Turning Centers OR	
INMT 1345	Computer Numerical Controls	3
Semester Total		12

Second Semester - Spring

MCHN 2341	Advanced Machining I (Capstone)	3
Semester Total		3

Total Minimum Credits for the Level 2 Certificate **45**

Workforce Degrees and Certificates

MACHINING TECHNOLOGY - BASIC MANUFACTURING/MACHINING

Certificate - Level 1

SCH

First Semester - Fall

ENTC 1347	Safety & Ergonomics	3
MCHN 1302	Print Reading for Machining Trades	3
MCHN 1338	Basic Machine Shop I	3
MCHN 1343	Machine Shop Mathematics	3

Semester Total

12

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations (Capstone)	3

Semester Total

9

Total Minimum Credits for the Level 1 Certificate

21

Workforce Degrees and Certificates

Manufacturing Engineering Technology

MANUFACTURING ENGINEERING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
ELPT 1311	Basic Electrical Theory	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
INMT 1370	Lean Manufacturing	3
Semester Total		15

SECOND YEAR

First Semester - Fall

INMT 1345	Computer Numerical Controls	3
INMT 1317	Industrial Automation	3
MCHN 2331	Operation of CNC Turning Centers	3
INMT 1343	Computer Aided Design/Computer Aided Manufacturing (CAD/CAM)	3
XXXX #3## ¹	Math/Natural Science Elective	3
Semester Total		15

Second Semester - Spring

HUMA 1301	Introduction to Humanities OR	
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	General Education Elective	3
XXXX #3## ¹	General Education Elective	3
MCHN 2335	Advanced CNC Machining (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

MANUFACTURING ENGINEERING TECHNOLOGY - TECHNICIAN

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MCHN 1343	Machine Shop Mathematics	3
MCHN 1302	Print Reading for Machining Trades	3
ENTC 1347	Safety & Ergonomics	3
MCHN 1338	Basic Machine Shop I	3
Semester Total		15

Second Semester - Spring

HYDR 1345	Hydraulics & Pneumatics	3
ELPT 1311	Basic Electrical Theory	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
INMT 1345	Computer Numerical Controls	3
INMT 1370	Lean Manufacturing (Capstone)	3
Semester Total		18

SECOND YEAR

First Semester - Fall

INMT 1345	Computer Numerical Controls	3
MCHN 2331	Operation of CNC Turning Centers	3
INMT 1343	Computer Aided Design/Computer Aided Manufacturing (CAD/CAM)	3
INMT 1317	Industrial Automation	3
Semester Total		12

Second Semester - Spring

MCHN 2335	Advanced CNC Machining (Capstone)	3
Semester Total		3

Total Minimum Credits for the Level 2 Certificate	45
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Workforce Degrees and Certificates

MANUFACTURING ENGINEERING TECHNOLOGY - HIGH VALUE MANUFACTURING		SCH
Certificate - Level 2		
First Semester - Fall		
ENTC 1347	Safety & Ergonomics	3
MATH 1314	College Algebra	3
MCHN 1302	Print Reading for Machining Trades	3
MCHN 1338	Basic Machine Shop I	3
PTRT 1301	Introduction to Petroleum Industry	3
Semester Total		15
Second Semester - Spring		
INCR 1302	Physics of Instrumentation	3
INMT 1345	Computer Numerical Controls	3
INMT 1371	Materials & Applications	3
MCHN 1308	Basic Lathe	3
MCHN 1313	Basic Milling Operations	3
PTRT 1470	Petroleum Data Management	4
Semester Total		19
Third Semester - Summer		
INMT 1343	Computer Aided Design/Computer Aided Manufacturing (CAD/CAM)	3
INMT 1372	Quality & Assessment	3
INMT 1373	Machine Shop Logistics	3
INMT 2370	Project Management (Capstone)	3
PTRT 2370	Petroleum Operations	3
Semester Total		15
Total Minimum Credits for the Level 2 Certificate		49

Workforce Degrees and Certificates

Marketing

MARKETING - GENERAL

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
MRKG 1311	Principles of Marketing	3
HRPO 1311	Human Relations	3
IBUS 1354	International Marketing Management	3

Semester Total 15

Second Semester - Spring

BMGT 1327	Principles of Management	3
MRKG 1302	Principles of Retailing	3
MRKG 2312	e-Commerce Marketing OR	
MRKG 2371	Services Marketing	3
MRKG 1391	Special Topics in Business Marketing & Marketing Management	3
MATH 1324	Mathematics for Business & Social Sciences	3

Semester Total 15

SECOND YEAR

First Semester - Fall

MRKG 2348	Marketing Research & Strategies	3
ECON 2302	Principles of Microeconomics	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
ACNT 1303	Introduction to Accounting I OR	
ACCT 2301	Principles of Financial Accounting	3

Semester Total 15

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
MRKG 2333	Principles of Selling	3
MRKG 2349	Advertising & Sales Promotion	3
MRKG 2380	Cooperative Education - Marketing/Marketing Management, General	3
MRKG 2374	Marketing Case Studies (Capstone)	3

Semester Total 15

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

MARKETING

Certificate - Level 1

SCH

First Semester - Fall

MRKG 1311	Principles of Marketing	3
IBUS 1354	International Marketing Management OR	
MRKG 1391	Special Topics in Business Marketing & Marketing Management	3
MRKG 2333	Principles of Selling	3
MRKG 2349	Advertising & Sales Promotion	3

Semester Total

12

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
MRKG 2312	e-Commerce Marketing OR	
MRKG 2371	Services Marketing	3
MRKG 2380	Cooperative Education - Marketing/Marketing Management, General (Capstone)	3

Semester Total

9

Total Minimum Credits for the Level 1 Certificate

21

Workforce Degrees and Certificates

MARKETING - RETAILING

Certificate - Level 1

SCH

First Semester - Fall

HRPO 1311	Human Relations	3
MRKG 1311	Principles of Marketing	3
MRKG 2333	Principles of Selling	3
MRKG 1302	Principles of Retailing	3
Semester Total		12

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
XXXX #3## ¹	Program Approved Elective	3
XXXX #3## ¹	Program Approved Elective	3
MRKG 2371	Services Marketing (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

24

¹ Program approved electives: Any BUSG, BMGT, HRPO, IBUS, MRKG, or LMGT course.

Workforce Degrees and Certificates

MARKETING - INNOVATION & ENTERPRISE SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MRKG 1311	Principles of Marketing	3
MRKG 1370	Enterprise Mindset	3
MATH 1332	Contemporary Mathematics	3
ENGL 1301	Composition I	3
Semester Total		15

Second Semester - Spring

MRKG 2372	Consumer Behavior	3
MRKG 2370	Creativity & Innovation	3
MRKG 2333	Principles of Selling	3
BUSG 2370	Legal Issues for Enterprise	3
MRKG 2312	e-Commerce Marketing OR	
MRKG 2371	Services Marketing	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
ECON 2302	Principles of Microeconomics	3
ACNT 1303	Introduction to Accounting I	3
MRKG 2377	Financial Management/Budgeting for Enterprise Marketing	3
BUSG 1307	Entrepreneurship & Economic Development	3
Semester Total		15

Second Semester - Spring

MRKG 2375	Social Enterprise	3
MRKG 2376	Enterprise Opportunity Analysis	3
BUSG 2309	Small Business Management/Entrepreneurship	3
BUSG 2382	Cooperative Education - Entrepreneurship/Entrepreneurial Studies (Capstone)	3
XXXX #3## ¹	General Education Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

MARKETING - ENTERPRISE DEVELOPMENT

Certificate - Level 1

SCH

First Semester - Fall

MRKG 1311	Principles of Marketing	3
BUSG 1307	Entrepreneurship & Economic Development	3
MRKG 2370	Creativity & Innovation	3
MRKG 2378	Franchising	3
MRKG 2376	Enterprise Opportunity Analysis (Capstone)	3
Total Minimum Credits for the Level 1 Certificate		15

Workforce Degrees and Certificates

MARKETING - SOCIAL ENTERPRISE

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

MRKG 1311	Principles of Marketing	3
BUSG 1307	Entrepreneurship & Economic Development	3
IBUS 1370	Economic Geography	3
MRKG 2372	Consumer Behavior	3
Semester Total		12

Second Semester - Spring

BUSG 2309	Small Business Management/Entrepreneurship	3
IBUS 2370	Global Issues for Enterprise	3
MRKG 2375	Social Enterprise	3
MRKG 2376	Enterprise Opportunity Analysis (Capstone)	3
Semester Total		12

Total Minimum Credits for the Level 1 Certificate

24

Workforce Degrees and Certificates

Medical Assistant

ALLIED HEALTH - MEDICAL ASSISTANT

Associate of Applied Science

SCH

Prerequisite Semester

XXXX #3## ¹	General Education Elective	3
HPRS 1201	Introduction to Health Professions	2
ENGL 1301	Composition I	3
	Semester Total	8

FIRST YEAR

First Semester - Fall

HPRS 1304	Basic Health Profession Skills	3
MDCA 1205	Medical Law & Ethics	2
MDCA 1213	Essentials of Medical Terminology	2
	Semester Total	7

Second Semester - Spring

MDCA 1409	Anatomy & Physiology for Medical Assistants	4
MDCA 1343	Medical Insurance	3
MDCA 1352	Medical Assistant Laboratory Procedures	3
MDCA 1417	Procedures in a Clinical Setting	4
	Semester Total	14

Third Semester - Summer

MDCA 1372	Electronic Medical Record Documentation for Scribes	3
MDCA 1321	Administrative Procedures	3
MDCA 1448	Pharmacology & Administration of Medications	4
MDCA 1310	Medical Assistant Interpersonal & Communication Skills	3
	Semester Total	13

SECOND YEAR

First Semester - Fall

MDCA 1254	Medical Assisting Credentialing Exam Review	2
MDCA 1264	Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone)	2
	Semester Total	4

Second Semester - Spring

XXXX #4## ¹	General Education Elective	4
XXXX #4## ¹	Math/Natural Science Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	General Education Elective	3
	Semester Total	14

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

MEDICAL ASSISTANT

Certificate - Level 2

SCH

FIRST YEAR

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
ENGL 1301	Composition I	3
Semester Total		5

First Semester - Fall

HPRS 1304	Basic Health Profession Skills	3
MDCA 1205	Medical Law & Ethics	2
MDCA 1213	Essentials of Medical Terminology	2
Semester Total		7

Second Semester - Spring

MDCA 1409	Anatomy & Physiology for Medical Assistants	4
MDCA 1343	Medical Insurance	3
MDCA 1352	Medical Assistant Laboratory Procedures	3
MDCA 1417	Procedures in a Clinical Setting	4
Semester Total		14

Third Semester - Summer

MDCA 1310	Medical Assistant Interpersonal & Communication Skills	3
MDCA 1321	Administrative Procedures	3
MDCA 1372	Electronic Medical Record Documentation for Scribes	3
MDCA 1448	Pharmacology & Administration of Medications	4
Semester Total		13

SECOND YEAR

First Semester - Fall

MDCA 1254	Medical Assisting Credentialing Exam Review	2
MDCA 1264	Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone)	2
Semester Total		4

Total Minimum Credits for the Level 2 Certificate

43

Workforce Degrees and Certificates

MEDICAL ASSISTANT - MEDICAL SCRIBE

Certificate - Level 1

SCH

Prerequisite Semester

HPRS 1201	Introduction to Health Professions	2
MDCA 1213	Essentials of Medical Terminology	2
ITSC 1309	Integrated Software Applications I	3
Semester Total		7

First Semester - Fall

MDCA 1409	Anatomy & Physiology for Medical Assistants	4
MDCA 1205	Medical Law & Ethics	2
MDCA 1372	Electronic Medical Record Documentation for Scribes	3
MDCA 1343	Medical Insurance	3
Semester Total		12

Second Semester - Spring

MDCA 1165	Practicum (or Field Experience) - Medical/Clinical Assistant (Capstone)	1
Semester Total		1

Total Minimum Credits for the Level 1 Certificate	20
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Workforce Degrees and Certificates

Medical Laboratory Technician

MEDICAL LABORATORY TECHNICIAN

Associate of Applied Science

SCH

Prerequisite Semester

MLAB 1101	Introduction to Clinical Laboratory Science	1
MATH 1314	College Algebra	3
ENGL 1301	Composition I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
Semester Total		11

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
CHEM 1405	Introductory Chemistry I OR	
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
MLAB 1235	Immunology/Serology	2
MLAB 1270	Hematology I	2
PLAB 1173	Phlebotomy	1
Semester Total		15

Second Semester - Spring

BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
MLAB 1127	Coagulation	1
MLAB 1271	Hematology II	2
MLAB 2331	Immunochemistry	3
MLAB 2270	Clinical Chemistry I	2
Semester Total		11

Third Semester - Summer

MLAB 1211	Urinalysis & Body Fluids	2
MLAB 2271	Clinical Chemistry II	2
Semester Total		4

SECOND YEAR

First Semester - Fall

MLAB 1166	Practicum (or Field Experience) - Clinical/Medical Laboratory Technician	1
MLAB 1167	Practicum (or Field Experience) - Clinical/Medical Laboratory Technician	1
MLAB 2434	Clinical Microbiology	4
Semester Total		6

Workforce Degrees and Certificates

Second Semester - Spring

MLAB 1231	Parasitology/Mycology	2
MLAB 1266	Practicum (or Field Experience)- Clinical/Medical Laboratory Technician	2
MLAB 1267	Practicum (or Field Experience)- Clinical/Medical Laboratory Technician	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Third Semester - Summer

MLAB 2232	Seminar in Medical Laboratory Technology	2
MLAB 2238	Advanced Topics in Medical Laboratory Technician/Assistant	2
Semester Total		4

Total Minimum Credits for the AAS Degree **60**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Music Business

MUSIC BUSINESS - ADMINISTRATION SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSI 1310	American Music	3
MUSB 1305	Survey of the Music Business	3
MUSC 1335	Commercial Music Software	3
MUSC 1270	Fundamentals of Music Production	2
Semester Total		14

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
MUSB 2309	The Record Industry	3
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSB #3## ²	Approved Music Business/Commercial Music Elective	3
MUSC 1305	Live Sound I	4
Semester Total		16

SECOND YEAR

First Semester - Fall

ACNT 1303	Introduction to Accounting I	3
MUSB 2345	Live Music & Talent Management	3
MUSB #3## ²	Approved Music Business Elective	3
XXXX #3## ¹	Math/Natural Science Elective	3
MUSB 1391	Special Topics in Music Business	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
MUSB #3## ²	Approved Music Business/Commercial Music Elective	3
MUSB 1341	Concert Promotion & Venue Management	3
MUSB #3## ²	Approved Music Business/Commercial Music Elective	3
MUSB 2381	Cooperative Education - Music Management (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

MUSIC BUSINESS - ADMINISTRATION SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSB 1305	Survey of the Music Business	3
MUSC 1270	Fundamentals of Music Production	2
MUSC 1335	Commercial Music Software	3
MUSB #3## ¹	Approved Music Business/Commercial Music	3
MUSB #3## ¹	Approved Music Business/Commercial Music	3
Semester Total		17

Second Semester - Spring

MUSB 2309	The Record Industry	3
MUSB 1391	Special Topics in Music Business	3
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSB 2345	Live Music & Talent Management	3
MUSB #3## ¹	Approved Music Business/Commercial Music Elective	3
Semester Total		15

Third Semester - Summer

ACNT 1303	Introduction to Accounting I	3
MUSB 1341	Concert Promotion & Venue Management	3
MUSB 2381	Cooperative Education-Music Management (Capstone)	3
MUSC 1405	Live Sound I	4
MUSB #3## ¹	Approved Music Business/Commercial Music Elective	3
Semester Total		16

Total Minimum Credits for the Level 2 Certificate

48

¹ Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

MUSIC BUSINESS - SONGWRITING/PRODUCTION SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
XXXX #3## ¹	General Education Elective	3
MUSI 1301	Fundamentals of Music	3
MUSC 1321	Songwriting I	3
MUSB 1305	Survey of the Music Business	3
Semester Total		15

Second Semester - Spring

MUAP 1292	Arranging & Composition	2
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSC 1335	Commercial Music Software	3
MUSC 1270	Fundamentals of Music Production	2
XXXX #3## ²	Approved Music Business/Commercial Music Elective	3
XXXX #3## ¹	Approved Math/Natural Science Elective	3
Semester Total		16

SECOND YEAR

First Semester - Fall

MUAP 2292	Arranging & Composition	2
MUSB 1341	Concert Promotion & Venue Management	3
MUSB 2309	The Record Industry	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
XXXX #3## ¹	Approved Music Business/Commercial Music Elective	3
Semester Total		14

Second Semester - Spring

MUAP 2293	Arranging & Composition	2
MUSI 1310	American Music	3
MUSB 2345	Live Music & Talent Management	3
MUSB 1391	Special Topics in Music Business	3
MUSC 2141	Forum/Recital (Capstone)	1
XXXX #3## ²	Approved Music Business/Commercial Music Elective	3
Semester Total		15

Total Minium Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

² Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

MUSIC BUSINESS - SONGWRITING/PRODUCTION SPECIALIZATION

Certificate - Level 2

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
MUSI 1301	Fundamentals of Music	3
MUSB 1305	Survey of the Music Business	3
MUSC 1321	Songwriting I	3
Semester Total		12

Second Semester - Spring

MUAP 1292	Arranging & Composition	2
MUSC 1335	Commercial Music Software	3
MUSB 2355	Legal Aspects of the Entertainment Industry	3
MUSC 1270	Fundamentals of Music Production	2
XXXX #2## ¹	Approved Music Business/Commercial Music Elective	2
Semester Total		12

SECOND YEAR

First Semester - Fall

MUAP #2## ¹	Approved Applied Music Elective	2
MUAP 2292	Arranging & Composition	2
MUSB 2309	The Record Industry	3
MUSB 1341	Concert Promotion & Venue Management	3
MUAP #2## ¹	Approved Music Business/Commercial Music Elective	2
Semester Total		12

Second Semester - Spring

MUAP 2292	Arranging & Composition	2
MUSC 2141	Forum/Recital (Capstone)	1
MUSB 1391	Special Topics in Music Business	3
MUSB 2345	Live Music & Talent Management	3
MUAB #3## ¹	Approved Music Business/Commercial Music Elective	3
Semester Total		12

Total Minimum Credits for the Level 2 Certificate

48

¹ Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

MUSIC BUSINESS

Certificate - Level 1

First Semester - Fall

	SCH
MUSB 1305 Survey of the Music Business	3
MUSB 2301 Music Marketing	3
MUSB 2309 The Record Industry	3
MUSB #3## ¹ Approved Music Business Elective	3
MUSB 2355 Legal Aspects of the Entertainment Industry	3
Semester Total	15
Total Minimum Credits for the Level 1 Certificate	15

¹ Consult with an advisor to select an appropriate elective.

Workforce Degrees and Certificates

Nuclear Medicine Technology

NUCLEAR MEDICINE TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

EDUC 1300	Learning Framework	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
CHEM 1305	Introductory Chemistry I (Lecture)	3
CHEM 1105	Introductory Chemistry I (Lab)	1
MATH 1314	College Algebra	3
SCIT 1320	Physics for Allied Health	3
Semester Total		21

First Semester - Fall

NMTT 1211	Nuclear Medicine Patient Care	2
NMTT 1301	Introduction to Nuclear Medicine	3
NMTT 1166	Practicum (or Field Experience) I - Nuclear Medical Technology/Technologist	1
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Second Semester - Spring

NMTT 1409	Nuclear Medicine Instrumentation	4
NMTT 1267	Practicum (or Field Experience) II - Nuclear	2
RADR 2340	Sectional Anatomy for Medical Imaging	3
NMTT 2201	Radiochemistry & Radiopharmacy	2
Semester Total		11

Third Semester - Summer

NMTT 2309	Nuclear Medicine Methodology I	3
NMTT 2167	Practicum (or Field Experience) III - Nuclear Medical Technology/Technologist	1
Semester Total		4

SECOND YEAR

First Semester - Fall

NMTT 2413	Nuclear Medicine Methodology II	4
NMTT 2266	Practicum (or Field Experience) IV - Nuclear Medical Technology/Technologist	2
ENGL 1301	Composition I	3
Semester Total		9

Second Semester - Spring

CTMT 2336	Computed Tomography Equipment & Methodology	3
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Workforce Degrees and Certificates

NMTT 2367	Practicum (or Field Experience) V - Nuclear Medical Technology/Technologist (Capstone)	3
	Semester Total	6
Total Minimum Credits for the AAS Degree		60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Nursing

NURSING

Associate of Applied Science

SCH

Prerequisite Semester

ENGL 1301	Composition I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
PSYC 2301	General Psychology	3
BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
Semester Total		14

FIRST YEAR

First Semester - Fall

RNSG 1413	Foundations for Nursing Practice	4
RNSG 1201	Pharmacology	2
RNSG 1360	Clinical - Registered Nursing/Registered Nurse-Foundations	3
RNSG 1105	Nursing Skills I	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
Semester Total		14

Second Semester - Spring

RNSG 1341	Common Concepts of Adult Health	3
RNSG 2360	Clinical - Registered Nursing/Registered Nurse	3
RNSG 2201	Care of Children & Families	2
RNSG 2261	Clinical - Registered Nursing/Registered Nurse	2
RNSG 2314	Integrated Care of the Patient with Complex Health Care Needs	3

Third Semester - Summer

RNSG 1160	Clinical - Registered Nursing/Registered Nurse	1
RNSG 1251	Care of the Childbearing Family	2
RNSG 2213	Mental Health Nursing	2
RNSG 2160	Clinical - Registered Nursing/Registered Nurse	1
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

Workforce Degrees and Certificates

SECOND YEAR

First Semester - Fall

RNSG 2221	Professional Nursing: Leadership & Management	2
RNSG 1144	Nursing Skills II	1
RNSG 1343	Complex Concepts of Adult Health	3
RNSG 2361	Clinical - Registered Nursing/Registered Nurse-Adult II	3
RNSG 2130	Professional Nursing Review & Licensure Preparation (Capstone)	1
	Semester Total	10
	Total Minimum Credits for the AAS Degree	60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

NURSING - LVN/ADN TRANSITION

Associate of Applied Science SCH

Prerequisite Year

VNSG 1400	Nursing in Health & Illness I	4
VNSG 1227	Essentials of Medication Administration	2
VNSG 1409	Nursing in Health & Illness II	4
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
ENGL 1301	Composition I	3
PSYC 2301	General Psychology	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
BIOL 2320	Microbiology for Non-Science Majors (Lecture)	3
BIOL 2120	Microbiology for Non-Science Majors (Lab)	1
PSYC 2314	Lifespan Growth & Development	3
Semester Total		34

First Semester - Fall

RNSG 1215	Health Assessment	2
RNSG 1327	Transition from Vocational Nursing to Professional Nursing	3
RNSG 1163	Clinical - Registered Nursing/Registered Nurse Transition	1
RNSG 2213	Mental Health Nursing	2
RNSG 2160	Clinical - Registered Nursing/Registered Nurse	1
Semester Total		9

Second Semester - Spring

RNSG 2201	Care of Children & Families	2
RNSG 2261	Clinical - Registered Nursing/Registered Nurse	2
RNSG 1144	Nursing Skills II	1
RNSG 1251	Care of the Childbearing Family	2
RNSG 1161	Clinical - Registered Nursing/Registered Nurse	1
Semester Total		8

Third Semester - Summer

RNSG 1343	Complex Concepts of Adult Health	3
RNSG 2361	Clinical - Registered Nursing/Registered Nurse-Adult II	3
RNSG 2221	Professional Nursing: Leadership & Management	2
RNSG 2130	Professional Nursing Review & Licensure Preparation (Capstone)	1
Semester Total		9

Total Minimum Credits for the AAS Degree 60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Occupational Therapy Assistant

OCCUPATIONAL THERAPY ASSISTANT

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

EDUC 1300	Learning Framework	3
PSYC 2301	General Psychology	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
OTHA 1201	Introduction to Occupational Therapy	2
Semester Total		12

First Semester - Fall

OTHA 1305	Principles of Occupational Therapy	3
OTHA 1309	Human Structure & Function in Occupational	3
OTHA 1315	Therapeutic Use of Occupations or Activities I	3
PSYC 2314	Lifespan Growth & Development	3
Semester Total		12

Second Semester - Spring

OTHA 2301	Pathophysiology in Occupational Therapy	3
OTHA 2311	Abnormal Psychology in Occupational Therapy	3
OTHA 1319	Therapeutic Interventions I	3
OTHA 1241	Occupational Performance from Birth through Adolescence	2
Semester Total		11

Third Semester - Summer

OTHA 2302	Therapeutic Use of Occupations or Activities II	3
OTHA 2305	Therapeutic Interventions II	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		9

SECOND YEAR

First Semester - Fall

OTHA 1253	Occupational Performance for Elders	2
OTHA 2331	Physical Function in Occupational Therapy	3
OTHA 2209	Mental Health in Occupational Therapy	2
OTHA 1161	Clinical - Occupational Therapy Assistant	1
OTHA 1162	Clinical - Occupational Therapy Assistant	1
Semester Total		9

Second Semester - Spring

OTHA 2330	Workplace Skills for Occupational Therapy Assistant	3
OTHA 2266	Practicum (or Field Experience) - Occupational Therapy Assistant	2
OTHA 2267	Practicum (or Field Experience) - Occupational Therapy Assistant (Capstone)	2
Semester Total		7

Workforce Degrees and Certificates

Total Minimum Credits for the AAS Degree

60

¹ *A list of electives appears in the Core Curriculum section of this catalog.*

Workforce Degrees and Certificates

PARALEGAL TECHNOLOGY - LEGAL ASSISTANT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
LGLA 1303	Legal Research	3
LGLA 1344	Texas Civil Litigation	3
LGLA 2307	Law Office Management	3
ACNT 1303	Introduction to Accounting I	3
Semester Total		15

Second Semester - Spring

LGLA 1305	Legal Writing	3
LGLA 1345	Civil Litigation	3
ENGL 1301	Composition I	3
XXXX #3## ¹	Paralegal Technology Elective	3
LGLA 1380	Cooperative Education - Legal Assistant/Paralegal	3
Semester Total		15

SECOND YEAR

First Semester - Fall

XXXX #3## ¹	Humanities/Fine Arts Elective	3
LGLA 1351	Contracts	3
LGLA 2309	Real Property	3
LGLA 2381	Cooperative Education-Legal Assistant/Paralegal (Capstone)	3
PSYC 2301	General Psychology	3
Semester Total		15

Second Semester - Spring

LGLA 1353	Wills, Trusts & Probate Administration	3
LGLA 2303	Torts & Personal Injury Law	3
XXXX #3## ¹	Paralegal Technology Elective	3
GOVT 2305	Federal Government OR	
GOVT 2306	Texas Government	3
MATH 1314	College Algebra OR	
XXXX #3## ²	Math/Natural Science Elective	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ Paralegal technology electives: LGLA 1355, 1370, 2311, 2313, 2315; MDCA 1313; or POFI 1301.

² A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

PARALEGAL TECHNOLOGY - LAW OFFICE CLERK

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

LGLA 1303	Legal Research	3
ACNT 1303	Introduction to Accounting I	3
LGLA 1344	Texas Civil Litigation	3
Semester Total		9

Second Semester - Spring

LGLA 1345	Civil Litigation	3
LGLA 2307	Law Office Management	3
LGLA 1380	Cooperative Education - Legal Assistant/Paralegal (Capstone)	3
Semester Total		9

Total Minimum Credits for the Level 1 Certificate

18

Workforce Degrees and Certificates

PARALEGAL TECHNOLOGY - LEGAL ASSISTANT - GENERAL

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

LGLA 1303	Legal Research	3
LGLA 1344	Texas Civil Litigation	3
LGLA 2309	Real Property	3
LGLA #3## ¹	Paralegal Technology Elective	3
ACNT 1303	Introduction to Accounting I	3
Semester Total		15

Second Semester - Spring

LGLA 1305	Legal Writing	3
LGLA 1345	Civil Litigation	3
LGLA 2303	Torts & Personal Injury Law	3
LGLA 2307	Law Office Management	3
LGLA 1380	Cooperative Education-Legal Assistant/Paralegal (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate

30

¹ Paralegal technology electives: LGLA 1355, 1370, 2311, 2313, 2315; MDCA 1313; or POFI 1301.

Workforce Degrees and Certificates

PARALEGAL TECHNOLOGY - LEGAL ASSISTANT - MEDICAL SPECIALIZATION

Certificate - Level 1

SCH

FIRST YEAR

First Semester - Fall

LGLA 1303	Legal Research	3
LGLA 1344	Texas Civil Litigation	3
LGLA #3## ¹	Paralegal Technology Elective	3
LGLA 2309	Real Property	3
MDCA 1313	Essentials of Medical Terminology	3
Semester Total		15

Second Semester - Spring

LGLA 1305	Legal Writing	3
LGLA 1345	Civil Litigation	3
LGLA 2303	Torts & Personal Injury Law	3
LGLA 2307	Law Office Management	3
LGLA 1380	Cooperative Education - Legal Assistant/Paralegal (Capstone)	3
Semester Total		15

Total Minimum Credits for the Level 1 Certificate

30

¹ Paralegal technology electives: LGLA 1355, 1370, 2311, 2313, 2315; MDCA 1313; or POFI 1301.

Workforce Degrees and Certificates

Petroleum Engineering Technology

PETROLEUM ENGINEERING TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PTRT 1301	Introduction to Petroleum Industry	3
MATH 1314	College Algebra	3
CPMT 1303	Introduction to Computer Technology	3
Semester Total		12

Second Semester - Spring

PTRT 1470	Petroleum Data Management I - Exploration	4
PTRT 1370	Petroleum Geology	3
ENGL 1301	Composition I	3
PTRT 1313	Industrial Safety	3
Semester Total		13

Third Semester - Summer

PTRT 1472	Petroleum Data Management II - Drilling & Production	4
Semester Total		4

SECOND YEAR

First Semester - Fall

PTRT 1473	Exploration & Production II	4
MATH 1325	Calculus for Business & Social Sciences	3
PTRT 2370	Petroleum Operations	3
XXXX #2## ¹	Program Approved Elective	2
Semester Total		12

Second Semester - Spring

PTRT 2331	Well Completions	3
XXXX #3## ²	Social/Behavioral Sciences Elective	3
PTRT 2323	Natural Gas Production	3
XXXX #3## ²	Humanities/ Fine Arts Elective	3
Semester Total		12

Third Semester - Summer

PTRT 2372	Internship-Petroleum Technology/Technician	3
PTRT 2470	Petroleum Data Management III - Facilities & Performance (Capstone)	4
Semester Total		7

Total Minimum Credits for the AAS Degree **60**

¹ Consult with an advisor to determine the appropriate elective.

² A list of electives appears in the Core Curriculum section of this catalog.

PETROLEUM ENGINEERING TECHNOLOGY

Certificate - Level 2

SCH

Workforce Degrees and Certificates

First Semester - Fall

EDUC 1300	Learning Framework	3
PTRT 1301	Introduction to Petroleum Industry	3
MATH 1314	College Algebra	3
PTRT 1313	Industrial Safety	3
CPMT 1303	Introduction to Computer Technology	3

Semester Total 15

Second Semester - Spring

ENGL 1301	Composition I	3
PTRT 1470	Petroleum Data Management I - Exploration	4
MATH 1325	Calculus for Business & Social Sciences	3
PTRT 1471	Exploration & Production I	4
PTRT 1370	Petroleum Geology	3

Semester Total 17

Third Semester - Summer

PTRT 1473	Exploration & Production II	4
PTRT 1472	Petroleum Data Management II - Drilling & Production	4
PTRT 2370	Petroleum Operations (Capstone)	3

Semester Total 11

Total Minimum Credits for the Level 2 Certificate 43

Workforce Degrees and Certificates

Pharmacy Technician

ALLIED HEALTH - PHARMACY TECHNICIAN

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

EDUC 1300	Learning Framework	3
HPRS 1201	Introduction to Health Professions	2
PHRA 1301	Introduction to Pharmacy	3
Semester Total		8

First Semester - Fall

PHRA 1305	Drug Classification	3
PHRA 1309	Pharmaceutical Mathematics I	3
PHRA 1413	Community Pharmacy Practice	4
PHRA 1272	Professional Practices for Pharmacy Technicians	2
Semester Total		12

Second Semester - Spring

PHRA 1449	Institutional Pharmacy Practice	4
PHRA 1445	Compounding Sterile Preparations	4
PHRA 1247	Pharmaceutical Mathematics II	2
PHRA 1304	Pharmacotherapy & Disease Process	3
Semester Total		13

Third Semester - Summer

PHRA 1261	Clinical - Pharmacy Technician/Assistant	2
PHRA 2260	Clinical - Pharmacy Technician/Assistant	2
PHRA 2261	Clinical - Pharmacy Technician/Assistant (Capstone)	2
PHRA 1243	Pharmacy Technician Certification Review	2
Semester Total		8

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
XXXX #4## ¹	Math/Natural Science Elective	4
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		13

Workforce Degrees and Certificates

Second Semester - Spring

ENGL 1302	Composition II	3
XXXX #3## ¹	General Education Elective	3
	Semester Total	6
	Total Minimum Credits for the AAS Degree	60
	¹ A list of electives appears in the Core Curriculum section of this catalog.	3

Workforce Degrees and Certificates

PHARMACY TECHNICIAN

Certificate - Level 2

SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
HPRS 1201	Introduction to Health Professions	2
PHRA 1301	Introduction to Pharmacy	3
Semester Total		8

First Semester - Fall

PHRA 1305	Drug Classification	3
PHRA 1309	Pharmaceutical Mathematics I	3
PHRA 1413	Community Pharmacy Practice	4
PHRA 1272	Professional Practices for Pharmacy Technicians	2
Semester Total		12

Second Semester - Spring

PHRA 1449	Institutional Pharmacy Practice	4
PHRA 1304	Pharmacotherapy & Disease Process	3
PHRA 1445	Compounding Sterile Preparations	4
PHRA 1247	Pharmaceutical Mathematics II	2
Semester Total		13

Third Semester - Summer

PHRA 1261	Clinical - Pharmacy Technician/Assistant	2
PHRA 2260	Clinical - Pharmacy Technician/Assistant	2
PHRA 2261	Clinical - Pharmacy Technician/Assistant (Capstone)	2
PHRA 1243	Pharmacy Technician Certification Review	2
Semester Total		8

Total Minimum Credits for the Level 2 Certificate

41

Workforce Degrees and Certificates

PHARMACY TECHNICIAN - RETAIL

Occupational Skills Award		SCH
First Semester - Fall		
PHRA 1309	Pharmaceutical Mathematics I	3
PHRA 1413	Community Pharmacy Practice	4
PHRA 1243	Pharmacy Technician Certification Review	2
PHRA 1260	Clinical - Pharmacy Technician/Assistant	2
PHRA 1272	Professional Practices for Pharmacy Technicians	2
Semester Total		13
Total Minimum Credits for the Occupational Skills Award		13

Workforce Degrees and Certificates

Physical Therapist Assistant

PHYSICAL THERAPIST ASSISTANT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

PTHA 1301	The Profession of Physical Therapy	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
PTHA 1405	Basic Patient Care Skills	4
PTHA 1413	Functional Anatomy	4
HPRS 1206	Essentials of Medical Terminology	2
Semester Total		17

Second Semester - Spring

PTHA 1321	Pathophysiology	3
PTHA 1431	Physical Agents	4
PTHA 2301	Essentials of Data Collection	3
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
Semester Total		14

Third Semester - Summer

PTHA 2205	Neurology	2
HPRS 2232	Health Care Communications	2
PTHA 2509	Therapeutic Exercise	5
Semester Total		9

SECOND YEAR

First Semester - Fall

PTHA 1266	Practicum (or Field Experience) - Physical Therapist Assistant I	2
PSYC 2301	General Psychology	3
PTHA 2435	Rehabilitation Techniques	4
PTHA 2431	Management of Neurological Disorders	4
Semester Total		13

Workforce Degrees and Certificates

Second Semester - Spring

PSYC 2314	Lifespan Growth & Development	3
PTHA 1267	Practicum (or Field Experience) - Physical Therapist Assistant II	2
PTHA 2266	Practicum (or Field Experience) - Physical Therapist Assistant III	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
PTHA 2339	Professional Issues (Capstone)	3
	Semester Total	13
	Total Minimum Credits for the AAS Degree	66

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Process Technology

PROCESS TECHNOLOGY

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
ENGL 1301	Composition I	3
MATH 1314	College Algebra	3
PTAC 1308	Safety, Health, & Environment I	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		18

Second Semester - Spring

SCIT 1418	Applied Physics OR	
PHYS 1401	College Physics I (Lecture & Lab)	4
SCIT 1414	Applied General Chemistry I OR	
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
PTAC 1410	Process Technology I - Equipment	4
PTAC 1332	Process Instrumentation I	3
Semester Total		15

SECOND YEAR

First Semester - Fall

SPCH 1311	Introduction to Speech Communication	3
PTAC 2314	Principles of Quality	3
PTAC 2420	Process Technology II - Systems	4
PTAC 1354	Industrial Processes	3
Semester Total		13

Second Semester - Spring

PTAC 2438	Process Technology III - Operations (Capstone)	4
PTAC 1350	Industrial Economics	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
PTAC 2446	Process Troubleshooting	4
Semester Total		14

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

PROCESS TECHNOLOGY - PROCESS OPERATOR

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
PTAC 1302	Introduction To Process Technology	3
PTAC 1308	Safety, Health, & Environment I	3
MATH 1314	College Algebra	3
Semester Total		12

Second Semester - Spring

PTAC 1410	Process Technology I - Equipment	4
PTAC 1332	Process Instrumentation I	3
PTAC 1354	Industrial Processes	3
SCIT 1414	Applied General Chemistry I OR	
CHEM 1311	General Chemistry I (Lecture)	3
CHEM 1111	General Chemistry I (Lab)	1
Semester Total		14

Third Semester - Summer

PTAC 2420	Process Technology II - Systems (Capstone)	4
PTAC 1350	Industrial Economics	3
PTAC 2314	Principles of Quality	3
SCIT 1418	Applied Physics OR	
PHYS 1401	College Physics I (Lecture & Lab)	4
Semester Total		14

Total Minimum Credits for the Level 2 Certificate

40

Workforce Degrees and Certificates

Radiography

RADIOGRAPHY

Associate of Applied Science

SCH

Prerequisite Semester

EDUC 1300	Learning Framework	3
MATH 1314	College Algebra	3
ENGL 1301	Composition I	3
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
Semester Total		13

FIRST YEAR

First Semester - Fall

RADR 1303	Patient Care	3
RADR 2309	Radiographic Imaging Equipment	3
RADR 1411	Basic Radiographic Procedures	4
RADR 1160	Clinical - Radiologic Technology/Science-Radiographer	1
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		14

Second Semester - Spring

RADR 1313	Principles of Radiographic Imaging I	3
RADR 2401	Intermediate Radiographic Procedures	4
RADR 1266	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	2
Semester Total		9

Third Semester - Summer

RADR 2260	Clinical - Radiologic Technology/Science - Radiographer	2
RADR 2331	Advanced Radiographic Procedures	3
Semester Total		5

SECOND YEAR

First Semester - Fall

RADR 2333	Advanced Medical Imaging	3
RADR 2366	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	3
PSYC 2301	General Psychology QB	
SOCI 1301	Introduction to Sociology	3
RADR 2340	Sectional Anatomy for Medical Imaging	3
Semester Total		12

Workforce Degrees and Certificates

Second Semester - Spring

RADR 2217	Radiographic Pathology	2
RADR 2367	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	3
RADR 2213	Radiation Biology & Protection	2
	Semester Total	7

Third Semester - Summer

RADR 2335	Radiologic Technology Seminar (Capstone)	3
RADR 2167	Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer	
	Semester Total	4

Total Minimum Credits for the AAS Degree **64**

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

RADIOGRAPHY - COMPUTED TOMOGRAPHY

Enhanced Skills Certificate

SCH

First Semester - Fall

RADR 2340	Sectional Anatomy for Medical Imaging	3
CTMT 2336	Computed Tomography Equipment & Methodology	3
CTMT 2360	Clinical - Radiologic Technology/Science - Radiographer	3
CTMT 2361	Clinical - Radiologic Technology/Science - Radiographer	3
Semester Total		12
Total Minimum Credits for the Enhanced Skills Certificate		12

Workforce Degrees and Certificates

Real Estate

REAL ESTATE

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
RELE 1201	Principles of Real Estate I	2
ENGL 1301	Composition I	3
RELE 2201	Law of Agency	2
RELE 1211	Law of Contracts	2
RELE 1323	Real Estate Computer Application	3
RELE 1325	Real Estate Mathematics	3
Semester Total		18

Second Semester - Spring

RELE 1321	Real Estate Marketing	3
RELE 1238	Principles of Real Estate II	2
RELE 1200	Contract Forms & Addenda	2
RELE 1219	Real Estate Finance OR	
RELE 1324	Loan Origination & Quality Control	2
RELE 1309	Real Estate Law	3
Semester Total		12

SECOND YEAR

First Semester - Fall

ECON 2301	Principles of Macroeconomics	3
RELE 1303	Real Estate Appraisal	3
RELE 1307	Real Estate Investments	3
RELE 2331	Real Estate Brokerage	3
RELE 1381	Cooperative Education - Real Estate	3
Semester Total		15

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
RELE 1329	Fundamentals of Environmental Issues OR	
RELE 1315	Property Management	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
GEOL 1305	Environmental Science	3
RELE 2381	Cooperative Education - Real Estate (Capstone)	3
Semester Total		15

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

REAL ESTATE - COMPARATIVE MARKET ANALYSIS

Certificate - Level 1

SCH

First Semester - Fall

RELE 1307	Real Estate Investments	3
RELE 1329	Fundamentals of Environmental Issues	3
RELE 1335	Real Estate Construction	3
RELE 1303	Real Estate Appraisal	3
RELE #3## ¹	Program Approved Elective	3
Semester Total		15

Second Semester - Spring

RELE 1381	Cooperative Education - Real Estate (Capstone)	3
Semester Total		3

Total Minimum Credits for the Level 1 Certificate

18

¹ Consult with an advisor to select an appropriate RELE elective.

Workforce Degrees and Certificates

REAL ESTATE - COMMERCIAL

Certificate - Level 1

SCH

First Semester - Fall

RELE 1307	Real Estate Investments	3
RELE 1391	Special Topics in Real Estate	3
RELE 1315	Property Management	3
RELE 1303	Real Estate Appraisal	3
Semester Total		12

Second Semester - Spring

RELE 1381	Cooperative Education - Real Estate (Capstone)	3
RELE 1238	Principles of Real Estate II OR	
RELE 1335	Real Estate Construction	2-3
Semester Total		5

Total Minimum Credits for the Level 1 Certificate

17

Workforce Degrees and Certificates

REAL ESTATE - PROPERTY MANAGEMENT

Certificate - Level 1

SCH

First Semester - Fall

RELE 1335	Real Estate Construction	3
RELE 1315	Property Management	3
RELE 1307	Real Estate Investments	3
RELE 1309	Real Estate Law	3
RELE 1238	Principles of Real Estate II	2
Semester Total		14

Second Semester - Spring

RELE 1381	Cooperative Education - Real Estate (Capstone)	3
Semester Total		3

Total Minimum Credits for the Level 1 Certificate 17

Workforce Degrees and Certificates

REAL ESTATE - RESIDENTIAL

Certificate - Level 1

SCH

First Semester - Fall

RELE 1201	Principles of Real Estate I	2
RELE 1238	Principles of Real Estate II	2
RELE 1211	Law of Contracts	2
RELE 2201	Law of Agency	2
RELE 1200	Contract Forms & Addenda	2
RELE 1219	Real Estate Finance	2

Semester Total

12

Second Semester - Spring

RELE 1381	Cooperative Education - Real Estate (Capstone)	3
RELE 1191	Special Topics in Real Estate	1

Semester Total

4

Total Minimum Credits for the Level 1 Certificate

16

Workforce Degrees and Certificates

REAL ESTATE - MORTGAGE LENDING SPECIALIZATION

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC 1300	Learning Framework	3
RELE 1201	Principles of Real Estate I	2
ENGL 1301	Composition I	3
RELE 1325	Real Estate Mathematics	3
RELE 1324	Loan Origination & Quality Control	3
RELE 1211	Law of Contracts	2
Semester Total		16

Second Semester - Spring

XXXX #3## ¹	Social/Behavioral Sciences Elective	3
RELE 2201	Law of Agency	2
RELE 1238	Principles of Real Estate II	2
RELE 1303	Real Estate Appraisal	3
RELE 1381	Cooperative Education - Real Estate	3
RELE 2331	Real Estate Brokerage	3
Semester Total		16

SECOND YEAR

First Semester - Fall

ECON 2301	Principles of Macroeconomics	3
RELE 2307	Real Estate Title & Settlement	3
RELE 1219	Real Estate Finance	2
GEOL 1305	Environmental Science	3
RELE 1371	Loan Processing	3
Semester Total		14

Second Semester - Spring

RELE 1309	Real Estate Law	3
RELE 2311	Fundamentals of Mortgage Lending	3
RELE 1291	Special Topics in Real Estate	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
RELE 2381	Cooperative Education - Real Estate (Capstone)	3
Semester Total		14

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

REAL ESTATE - MORTGAGE LENDING PROFESSIONAL

Certificate - Level 1

SCH

First Semester - Fall

RELE 1219	Real Estate Finance	2
RELE 1324	Loan Origination & Quality Control	3
RELE 1371	Loan Processing OR	
RELE 2307	Real Estate Title & Settlement	3
RELE 1303	Real Estate Appraisal	3
RELE 2311	Fundamentals of Mortgage Lending	3

Semester Total 14

Second Semester - Spring

RELE 1381	Cooperative Education - Real Estate (Capstone)	3
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Semester Total 3

Total Minimum Credits for the Level 1 Certificate 17

Workforce Degrees and Certificates

Respiratory Therapy

RESPIRATORY THERAPY - RESPIRATORY THERAPIST

Associate of Applied Science

SCH

FIRST YEAR

Prerequisite Semester

EDUC 1300	Learning Framework	3
RSPT 1201	Introduction to Respiratory Care	2
BIOL 2301	Anatomy & Physiology I (Lecture)	3
BIOL 2101	Anatomy & Physiology I (Lab)	1
BIOL 2302	Anatomy & Physiology II (Lecture)	3
BIOL 2102	Anatomy & Physiology II (Lab)	1
MATH 1314	College Algebra	3
Semester Total		16

First Semester - Fall

RSPT 2258	Respiratory Care Patient Assessment	2
RSPT 1310	Respiratory Care Procedures I	3
RSPT 1360	Clinical- Respiratory Care Therapy/Therapist	3
RSPT 1240	Advanced Cardiopulmonary Anatomy & Physiology	2
Semester Total		10

Second Semester - Spring

RSPT 1311	Respiratory Care Procedures II	3
RSPT 1361	Clinical - Respiratory Care Therapy/Therapist	3
RSPT 1225	Respiratory Care Sciences	2
RSPT 1213	Basic Respiratory Care Pharmacology	2
Semester Total		10

Third Semester - Summer

RSPT 1262	Clinical - Respiratory Care Therapy / Therapist	2
RSPT 2314	Mechanical Ventilation	3
Semester Total		5

SECOND YEAR

First Semester - Fall

RSPT 2361	Clinical - Respiratory Care Therapy/Therapist	3
RSPT 2255	Critical Care Monitoring	2
RSPT 2210	Cardiopulmonary Disease	2
XXXX #3## ¹	Humanities/Fine Arts Elective	3
Semester Total		10

Second Semester - Spring

RSPT 2362	Clinical - Respiratory Care Therapy/Therapist	3
RSPT 2325	Cardiopulmonary Diagnostics	3
RSPT 2353	Neonatal/Pediatric Cardiopulmonary Care	3
Semester Total		9

Workforce Degrees and Certificates

Third Semester - Summer

RSPT 2262	Clinical - Respiratory Care Therapy/Therapist	2
RSPT 2230	Respiratory Care Examination Preparation (Capstone)	2
RSPT 2239	Advanced Cardiac Life Support	2
Semester Total		6
Total Minimum Credits for the AAS Degree		66

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

Surgical Technology

ALLIED HEALTH - SURGICAL TECHNOLOGY

Associate of Applied Science

SCH

Prerequisite Semester

XXXX #3## ¹	General Education Elective	3
HPRS 1201	Introduction to Health Professions	2
Semester Total		5

FIRST YEAR

First Semester - Fall

HPRS 1206	Essentials of Medical Terminology	2
SRGT 1361	Clinical - Surgical Technology/Technologist	3
SRGT 1409	Fundamentals of Perioperative Concepts & Techniques	4
SRGT 1405	Introduction to Surgical Technology	4
SCIT 1407	Applied Human Anatomy & Physiology I	4
Semester Total		17

Second Semester - Spring

SCIT 1408	Applied Human Anatomy & Physiology II	4
SRGT 1441	Surgical Procedures I	4
SRGT 1463	Clinical - Surgical Technology/Technologist	4
Semester Total		12

Third Semester - Summer

SRGT 1442	Surgical Procedures II	4
SRGT 2463	Clinical - Surgical Technology/Technologist (Capstone)	4

SECOND YEAR

First Semester - Fall

ENGL 1301	Composition I	3
XXXX #3## ¹	Math/Natural Science Elective	3
XXXX #3## ¹	Humanities/Fine Arts Elective	3
XXXX #3## ¹	Social/Behavioral Sciences Elective	3
Semester Total		12

Second Semester - Spring

XXXX #3## ¹	General Education Elective	3
ENGL 1302	Composition II	3
Semester Total		6

Total Minimum Credits for the AAS Degree

60

¹ A list of electives appears in the Core Curriculum section of this catalog.

Workforce Degrees and Certificates

SURGICAL TECHNOLOGY

Certificate - Level 2

SCH

Prerequisite Semester

HPRS 1201 Introduction to Health Professions 2

Semester Total 2

First Semester - Fall

HPRS 1206 Essentials of Medical Terminology 2

SRGT 1361 Clinical - Surgical Technology/Technologist 3

SRGT 1409 Fundamentals of Perioperative Concepts & Techniques 4

SRGT 1405 Introduction to Surgical Technology 4

SRGT 1407 Applied Human Anatomy & Physiology I 4

Semester Total 17

Second Semester - Spring

SRGT 1408 Applied Human Anatomy & Physiology II 4

SRGT 1441 Surgical Procedures I 4

SRGT 1463 Clinical - Surgical Technology/Technologist 4

Semester Total 12

Third Semester - Summer

SRGT 1442 Surgical Procedures II 4

SRGT 2463 Clinical - Surgical Technology/Technologist (Capstone) 4

SRGT 2130 Professional Readiness 1

Semester Total 9

Total Minimum Credits for the Level 2 Certificate 40

Workforce Degrees and Certificates

SURGICAL TECHNOLOGY - ACCELERATED ALTERNATIVE DELIVERY (AAD)		
Occupational Skills Award		SCH
First Semester - Fall		
HPRS 1206	Essentials of Medical Terminology	2
SRGT 1372	Comprehensive Anatomy & Physiology for the Surgical Technologist	3
SRGT 1405	Introduction to Surgical Technology	4
SRGT 2130	Professional Readiness	1
Total Minimum Credits for the Occupational Skills Award		10

Workforce Degrees and Certificates

SURGICAL TECHNOLOGY - STERILE PROCESSING TECHNICIAN

Occupational Skills Award **SCH**

First Semester - Fall

HPRS 1201 Introduction to Health Professions 2

HITT 1305 Medical Terminology I 3

SRGT 1371 Sterile Processing 3

Semester Total 8

Second Semester - Spring

SRGT 1560 Clinical - Surgical Technology/Technologist 5

Semester Total 5

Total Minimum Credits for the Occupational Skills Award 13

Workforce Degrees and Certificates

Translation & Interpretation

TRANSLATION & INTERPRETATION

Certificate - Level 2

SCH

First Semester - Fall

EDUC 1300	Learning Framework	3
ENGL 1301	Composition I	3
TRAI 1371	Fundamentals of the Theory & Practice of Translation & Interpretation	3
TRAI 1372	Writing, Editing, & Revising for Translation	3
TRAI 1373	Intercultural Communication	3

Semester Total 15

Second Semester - Spring

HITT 1305	Medical Terminology I	3
TRAI 1271	Technology for Translation & Interpretation	2
POFL 1305	Legal Terminology	3
TRAI 1272	Terminology Management & Research	2
TRAI 2271	Fundamentals of Specialized Written Translation (Sci-Tech)	2
TRAI 2277	Fundamentals of Specialized Written Translation (Legal)	2

Semester Total 14

Third Semester - Summer

TRAI 2279	Introduction to Interpreting I (Legal)	2
TRAI 2275	Advanced Project in Translation	2
TRAI 2278	Fundamentals of Specialized Written Translation (Medical)	2
TRAI 2272	Introduction to Interpreting II (Medical)	2
TRAI 2273	Introduction to Interpreting III (Simultaneous)	2
TRAI 2376	Internship - Translation & Interpretation (Capstone)	3

Semester Total 13

Total Minimum Credits for the Level 2 Certificate 42

Workforce Degrees and Certificates

Welding Technology

WELDING TECHNOLOGY- BASIC WELDING HELPER

Certificate - Level 1

SCH

First Semester - Fall

TECM 1301	Industrial Mathematics	3
WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1413	Introduction to Blueprint Reading for Welders	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW) (Capstone)	4
WLDG 1191	Special Topics in Welder/Welding Technologist	1
Total Minimum Credits for the Level 1 Certificate		16

Workforce Degrees and Certificates

WELDING TECHNOLOGY - ADVANCED WELDING

Certificate - Level 1

SCH

First Semester - Fall

TECM 1301	Industrial Mathematics	3
WLDG 1407	Introduction to Welding Using Multiple Processes	4
WLDG 1413	Introduction to Blueprint Reading for Welders	4
WLDG 1428	Introduction to Shielded Metal Arc Welding (SMAW)	4
WLDG 1191	Special Topics in Welder/Welding Technologist	1

Semester Total

16

Second Semester - Spring

WLDG 1434	Introduction to Gas Tungsten Arc Welding (GTAW)	4
WLDG 1435	Introduction to Pipe Welding	4
WLDG 1457	Intermediate Shielded Metal Arc Welding (SMAW)	4

Semester Total

12

Third Semester - Summer

WLDG 2447	Advanced Gas Metal Arc Welding (GMAW)	4
WLDG 2451	Advanced Gas Tungsten Arc Welding (GTAW)	4
WLDG 2453	Advanced Pipe Welding (Capstone)	4

Semester Total

12

Total Minimum Credits for the Level 1 Certificate

40

Description of Courses

ABDR 1207 - Collision Repair Welding
Credits: 2. A study of collision repair welding and cutting procedures.

ABDR 1215 - Vehicle Trim and Hardware
Credits: 2 (2 lecture, 1 lab). An in depth study of vehicle trim and glass service. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1280 - Cooperative Education - Autobody / Collision and Repair Technology / Technician
Credits: 2 (1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: ABDR 1431,1441,1207, 1215,1458,1442, 2441; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1291 - Special Topics in Auto/Automotive Body Repairer
Credits: 2 (1 lecture, 2 lab). Advanced techniques in blending, matching and application in the refinishing process, including custom applications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1307 - Collision Repair Welding
Credits: 3 (2 lecture, 4 lab). A study of collision repair welding and cutting procedures. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1431 - Basic Refinishing
Credits: 4 (2 lecture, 4 lab). An introduction to current refinishing products, shop safety, and equipment used in the automotive refinishing industry. Emphasis on surface preparation, masking techniques, and refinishing of trim and replacement parts. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1441 - Structural Analysis and Damage Repair I
Credits: 4 (2 lecture, 4 lab). Expanded training in the roughing and shaping procedures on automotive sheet metal necessary to make satisfactory body repairs. Emphasis on the alignment of component parts such as doors, hood, front-end assemblies, and deck lids. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1442 - Structural Analysis and Damage Repair II
Credits: 4 (2 lecture, 4 lab). Continuation of general repair and replacement procedures for damaged structural parts and collision damage. Prerequisite: ABDR 1441. Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 1458 - Intermediate Refinishing
Credits: 4 (2 lecture, 4 lab). Expanded training in mixing and spraying of automotive topcoats. Emphasis on formula ingredient, reducing, thinning, and special spraying techniques. Introduction to partial panel refinishing techniques and current industry paint removal techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2431 - Structural Analysis and Damage Repair III
Credits: 4 (2 lecture, 4 lab). Advanced concepts in the application of theories of auto body repair and replacement of major body units. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2441 - Major Collision Repair and Panel Replacement
Credits: 4 (2 lecture, 4 lab). Instruction in preparation of vehicles for major repair processes. This course covers interpreting information from damage reports, planning repair sequences, selecting appropriate tools, and organizing removed parts for reinstallation. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ABDR 2449 - Advanced Refinishing
Credits: 4 (2 lecture, 4 lab). Skill development in multi-stage refinishing techniques. Further development in identification of problems and solutions in color matching and partial panel refinishing. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACCT 2301 - Principles of Financial Accounting
Credits: 3 (3 lecture). This course covers the fundamentals of financial accounting, including double-entry accounting and the accounting cycle. Other topics include cash, receivables, inventories, plant assets, liabilities, partnerships, corporation, investments, statement of cash flows and interpretation of financial statements. Prerequisite: Departmental Approval

Description of Courses

ACCT 2302 - Principles of Managerial Accounting
Credits: 3 (3 lecture). This course covers the fundamentals of managerial accounting including manufacturing operations and planning and control. Other topics include budgets, introduction to cost accounting, cost control techniques, methods of measuring performance and financial statement analysis.
Prerequisite: ACCT 2301

ACNT 1303 - Introduction to Accounting I
Credits: 3 (3 lecture). A study of analyzing, classifying, and recording business transactions in a manual and computerized environment. Emphasis on understanding the complete accounting cycle and preparing financial statements, bank reconciliations, and payroll. Coverage also includes the fundamental principles of double-entry bookkeeping, financial statements, trial balances, worksheets, special journals, adjusting entries and closing entries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1304 - Introduction to Accounting II
Credits: 3 (3 lecture). A study of accounting for merchandising, notes payable, notes receivable, valuation of receivables and equipment, and valuation of inventories in a manual and computerized environment. Prerequisite: ACNT 1303; Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1305 - Forensic Accounting
Credits: 3 (3 lecture). Accounting fraud and examination designed to provide a basic understanding of the impact that fraud has on an organization. (This course is intended to help students understand the role of the Forensic Accountant. Upon completion of this course the students will learn special skills in accounting, auditing, finance, quantitative methods, certain areas of the law, research, and investigative skills to collect, analyze, and evaluate evidential matter and to interpret and communicate findings. Finance and quantitative skills will be addressed since they are especially important to Forensic Accountants who calculate damages. The complexity of Forensic Accounting has gained considerable attention over the past five years and will continue to gain momentum.) Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1313 - Computerized Accounting Applications
Credits: 3 (2 lecture, 2 lab). A study of utilizing the computer to develop and maintain accounting record-keeping systems, make management decisions, record daily business transactions, and generate financial statements using Peachtree or QuickBooks. Prerequisite: ACNT 1303 or ACCT 2301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1329 - Payroll and Business Tax Accounting
Credits: 3 (3 lecture). A study of payroll procedures, taxing entities, and reporting requirements of local, state, and federal taxing authorities in a manual and computerized environment. Prerequisite: ACNT 1303 or ACCT 2301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1331 - Federal Income Tax : Individual
Credits: 3 (3 lecture). A study of the laws currently implemented by the IRS, providing a working knowledge of preparing taxes for the individual. Prerequisite: ACCT 2301; Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1335 - Accounting Ethics
Credits: 3 (3 lecture). Introduction to professional ethics in the accounting and business environments. This course may also be offered for qualifying education credit for CPA examination by Texas community colleges that meet Texas State Board of Accountancy standards. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1347 - Federal Income Tax for Partnerships and Corporations
Credits: 3 (3 lecture). Introduction to the tax laws as currently implemented by the Internal Revenue Service providing a working knowledge of preparing taxes for a partnership, sub chapter S, and corporation. Prerequisite: ACNT 1331; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

ACNT 1382 - Cooperative Education-Accounting Technology/Technician and Bookkeeping
Credits: 3 (1 lecture/seminar and 20-hours a week employment). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. Blend of academic and work-related activities in student's major. Prerequisite: Department Program Approval and 20 hours a week employment; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1391 - Special Topics in Accounting: Fraud Examinations
Credits: 3 (3 lecture). Course will provide an overview of how and why occupational fraud is committed, the principles and methodologies of prevention, detection and investigation of fraud using accounting, auditing and investigative skills. Prerequisite: Prerequisites: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1391 - Special Topics in Accounting : Oil and Gas Accounting
Credits: 3 (3 lecture). An introduction to particularities of recording and reporting cost and revenues incident to creation and realization of mineral interests. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1391 - Special Topics in Accounting : Ethics for Accountants
Credits: 3 (3 lecture). This course will serve as a general introduction to professional ethics in the accounting and business environments. We will discuss the fundamental ethical issues of business and society, the roles and responsibilities of accounting and auditing professionals, ethical behavior by management, and legal and professional guidelines that address the ethical concerns of society. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1392 - Special Topics in Accounting : Small Business Accounting
Credits: 3 (3 lecture). A course on how to start and operate a small business. Topics include essential management skills and how to prepare a business plan and marketing strategies. Practical guidance is provided for selecting and maintaining a cost-effective accounting system, records retention, budgets and cash flow projections. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 1491 - Special Topics in Accounting : Technical Writing and Research for Accountants
Credits: 4 (4 lecture). This course is intended to develop the necessary skills for effective accounting and tax research in the 21st Century. Professional accountants use online and electronic accounting, auditing and tax research tools. This class will use the Research Institute of America as its primary provider of tools to learn and execute professional research techniques, it includes the following databases: WGL Electronic Tax Payroll and Accounting Tax Library RIA Academic Advantage Essentials Library PPC FASB Reference Material on Checkpoint AICPA on CheckPoint PPC GASB Reference Material on Checkpoint The Research of America databases may be accessed from HCC's library. Proper tax and accounting research requires critical thinking skills and the ability to produce professional results. Other databases and techniques will be discussed in the class as well as the Research of America database. This class will address the technical skills necessary for professional research and will address CPA Exam related research issues. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2303 - Intermediate Accounting I
Credits: 3 (3 lecture). Critical analysis of general accepted accounting principles, concepts, and theory underlying the preparation of financial statements. Emphasis on current theory and practice. Covers the theoretical and practical basis for financial statements, present value applications, and the theory and practice of accounting for cash, receivables, inventories, liabilities, long-term investments, depreciable and depletable property, and intangible assets. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

ACNT 2304 - Intermediate Accounting II
Credits: 3 (3 lecture). Continued in-depth analysis of generally accepted accounting principles underlying the preparation of financial statements including comparative analysis and statement of cash flows. Topics also included are bonds, leases, pension plans, corporate paid-in capital, special purpose securities, retained earnings, tax allocation, inflation accounting, funds statement, and financial statement analysis. Prerequisite: ACNT 2303; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2309 - Cost Accounting
Credits: 3 (3 lecture). A study of budgeting and cost control systems including a detailed study of manufacturing cost accounts and reports, job order costing, and process costing. Includes introduction to alternative costing methods such as activity-based and just-in-time costing. Coverage also includes historical cost systems, work-in-process inventories, material and labor control, multiple products, budgeting, applying overhead, standard costs, direct costing, evaluating profit performance, and distribution costs. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2330 - Governmental and Not-for-Profit Accounting
Credits: 3 (3 lecture). Basic concepts and techniques of fund accounting, financial reporting for governmental and not-for-profit entities. Accounting cycle for funds and account groups and related financial statements. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2331 - Internal Control and Auditing
Credits: 3 (3 lecture). A study of internal control and auditing standards and processing used by internal auditors, managers, and independent public accountants. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2332 - Accounting Information Systems
Credits: 3 (3 lecture). A study of the role of accounting information systems and related subsystems, including data collection, retrieval, manipulation, filtering and sorting of data. Prerequisite: ACCT 2302; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2333 - Advanced Accounting
Credits: 3 (3 lecture). Methods of measuring and communicating economic information, including consolidated statements, partnerships, real estate, foreign operations, and fund units. Prerequisite: ACNT 2304; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ACNT 2382 - Cooperative Education-Accounting Technology/Technician and Bookkeeping
Credits: 3 (1 lecture/seminar and 20-hours a week employment). Continuation of ACNT 1382. Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. Blend of academic and work-related activities in student's major. Prerequisite: ACNT 1382; 20 hours a week employment & departmental approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AFSC 1201 - Foundations of the US Air Force I
Credits: 2 (2 lecture, 1 lab). Overall roles and missions of the USAF; career fields available. Emphasis on military customs and courtesies, appearance standards, core values, written and personal communication. Introduction to American military History, Civilization, . Cooperative program with the University of Houston Air Force ROTC department. Prerequisite: Contact UH Air Force ROTC

AFSC 1202 - Foundations of the US Air Force II
Credits: 2 (2 lecture, 1 lab). Continuation of AFSC 1201. Cooperative program with the University of Houston Air Force ROTC department. Prerequisite: AFSC 1201.

AFSC 2201 - Evolution of Air Power I
Credits: 2 (2 lecture, 1 lab). Key historical events and milestones in the development of air power as a primary instrument of United States national security. Core values and competencies of leaders in the United States Air Force. Tenets of leadership and ethics. Cooperative program with the University of Houston Air Force ROTC department. Prerequisite: AFSC 1202.

AFSC 2202 - Evolution of Air Power II
Credits: 2 (2 lecture, 1 lab). Continuation of AFSC 2201. Cooperative program with the University of Houston Air Force ROTC department. Prerequisite: AFSC 2201.

Description of Courses

AGRI 1131 - The Agricultural Industry

Credits: 1 (1 lecture). An overview of world agriculture, nature of the industry and resource conservation, insight regarding career opportunities in agriculture and natural resources.

AGRI 1307 - Agronomy

Credits: 3 (2 lecture, 2 lab). Principles and practices in development, production, and management of field crops, plant breeding, plant diseases, soils, insect control, and weed control.

AGRI 1309 - Computers in Agriculture

Credits: 3 (2 lecture, 2 lab). Use of computers in agricultural applications. Introduction to programming languages, word processing, electronic spreadsheets and agricultural software.

AGRI 1311 - Dairy Science

Credits: 3 (2 lecture, 2 lab). Survey of dairy industries: dairy breeds, standards for selecting and culling, herd replacements, feeding, management, physiology, and health maintenance. Food value of milk, tests for composition and quality, use and processing of market milk and dairy products.

AGRI 1315 – Horticulture (Lecture)

Credits: 3. Structure, growth, and development of horticultural plants. Examination of environmental effects, basic principles of reproduction, production methods ranging from outdoor to controlled climates, nutrition, and pest management. (Cross-listed as HORT 1301).

AGRI 1319 - Introductory Animal Science

Credits: 3 (2 lecture, 2 lab). Scientific methods of animal selection, reproduction, nutrition, management, and marketing of beef cattle, swine, sheep, goats, and horses. Evaluation and processing of meat, wool, and mohair. Importance of livestock and meat industries.

AGRI 1325 - Marketing of Agricultural Products

Credits: 3 (3 lecture). Introductory course covering the operations involved in the movement of agricultural commodities from producer to consumer. Essential marketing functions of buying, selling, transporting, storing, financing, standardizing, pricing and risk bearing.

AGRI 1327 - Poultry Science

Credits: 3 (2 lecture, 2 lab). Introduction to the poultry industry. Practices and principles in production and marketing of turkeys, layers, broilers, and specialized fowl. Management, automated equipment, product technology, incubation, and production economics are included.

AGRI 1329 - Principles of Food Science

Credits: 3 (3 lecture). Technological and scientific aspects of modern industrial food supply systems. Food classification, nutritional considerations, modern processing, and quality control.

AGRI 2301 - Agricultural Power Units

Credits: 3 (2 lecture, 2 lab). Fundamentals of internal combustion engines: gasoline, diesel, and liquefied petroleum. Maintenance and adjustments of the electrical, ignition, fuel, lubricating, and cooling systems.

AGRI 2303 - Agricultural Construction

Credits: 3 (2 lecture, 2 lab). Selection, use, and maintenance of hand and power tools, arc and oxyacetylene welding, construction materials and principles.

AGRI 2313 - Entomology

Credits: 3 (2 lecture, 2 lab). Principal orders of insects, relation of anatomy and physiology of insects to control methods: development habits and economic importance of more common insects with control methods for injurious species.

AGRI 2317 - Introduction to Agricultural Economics

Credits: 3 (3 lecture). Characteristics of our economic system and basic economic concepts. Survey of the farm and ranch, its organizational and management structure, and operation within the marketing system. Functional and institutional aspects of agricultural finance and government farm programs.

AGRI 2321 - Livestock Evaluation

Credits: 3 (2 lecture, 2 lab). Instruction in selecting, evaluating, and judging of beef cattle, sheep, swine and horses. The course will include the judging of both breeding and marketing animals with decisions being supported by oral reasons.

AGRI 2330 - Wildlife Conservation and Management

Credits: 3 (3 lecture). Principles and practices used in the production and improvement of wildlife resources for aesthetic, ecological, and recreational uses of public and private lands.

Description of Courses

ANTH 2101 - Physical Anthropology (Lab)

Credits: 1 (2 lab). ANTH 2101 is a 1-unit laboratory course. Students use physical anthropological methods and tools to solve problems in the areas of genetics, human variation, human osteology, primate biology and behavior, and human evolution. A problem solving approach is stressed in applying scientific fundamentals including the techniques of observation, measurement, and critical thinking. Core Curriculum Course.

ANTH 2301 - Physical Anthropology (Lecture)

Credits: 3 (3 lecture). Introduction to Physical Anthropology explores the relationship between culture and biology through the methods, theory and research of biological anthropology. Students learn about basic mechanisms of genetic change in populations and the relationships between humans and the other primates. The appearance of humans and their bipedal ancestors approximately four million years ago and their culture History, Civilization, through the Paleolithic age are examined in detail. Students learn about biological variation and adaptation in human populations, responses to the environment, race, and other issues and their applications. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ANTH 2302 - Introduction to Archaeology

Credits: 3 (3 lecture). Introduction to Archaeology provides a survey of the basic methods, theory and research of scientific archaeology. Human cultures and behaviors are identified and interpreted from material remains of over 2.5 million years of the human past. Students learn how anthropologists build cultural History, Civilization, from artifacts and material evidence of human activity, reconstruct past life ways, and explain similarities and differences of human cultures. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ANTH 2346 - General Anthropology

Credits: 3 (3 lecture). This introductory survey of the four subfields of anthropology focuses on the cultural and biological diversity of humans including hominid preHistory, Civilization, the emergence of Paleolithic cultures, and the agricultural and urban revolutions from an anthropological perspective. Past and present human adaptations and culture are surveyed and analyzed using the comparative and holistic approach of biological anthropology, archaeology, linguistics and ethnology. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ANTH 2351 - Cultural Anthropology

Credits: 3 (3 lecture). This course focuses on culture, the ways people live and give meaning, form and organization to their lives as they adapt to various environments and conditions both in and beyond the borders of the U.S. Study of the descriptions and analysis of cultural diversity provide the basis for evaluating cultural components of everyday life including recognition of ethnocentrism, intercultural communication and understanding local and global culture in a multicultural and transforming world. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ANTH 2389 - Academic Cooperative in Anthropology

Credits: 3 (1 lecture, 16 lab). An instructional program designed to integrate on-campus study with practical hands-on experience in anthropology. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human culture and social behavior and/or institutions and processes. Prerequisite: Must be placed into college-level reading and college-level writing.

ARAB 1411 - Beginning Arabic I

Credits: 4 (3 lecture, 2 lab). Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

Description of Courses

ARAB 1412 - Beginning Arabic II

Credits: 4 (3 lecture, 2 lab). Continuation of ARAB 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: ARAB 1411 or department approval. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

ARAB 2311 - Intermediate Arabic I

Credits: 4 (3 lecture, 2 lab). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning Arabic. Introduction of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in Arabic. Core Curriculum Course. Prerequisite: ARAB 1412 or departmental approval. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

ARAB 2312 - Intermediate Arabic II

Credits: 4 (3 lecture, 2 lab). Continuation of ARAB 2311, but with special emphasis on written communication. Readings, discussions and compositions. Class conducted mainly in Arabic. Core Curriculum Course Prerequisite: ARAB 2311 or departmental approval. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

ARCE 1303 - Architectural Materials and Methods of Construction

Credits: 3 (2 lecture, 4 lab). Properties, specifications, vendor references, and uses of materials as related to architectural systems of structures. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARCE 1352 - Structural Drafting

Credits: 3 (2 lecture, 4 lab). A study of structural systems including concrete foundations and frames, wood framing and trusses, and structural steel framing systems. Includes detailing of concrete, wood, and steel to meet industry standards including the American Institute of Steel Construction and The American Concrete Institute. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARCE 2352 - Mechanical and Electrical Systems

Credits: 3 (2 lecture, 4 lab). The properties of building materials (assemblies), specifications, codes, vendor references, and uses of mechanical, plumbing, conveying, and electrical systems as they relate to architecture for residential and commercial construction. Prerequisite: DFTG 1405, DFTG 1309 and DFTG 1317; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

ARTC 1302 - Digital Imaging I (Photoshop)

Credits: 3 (2 lecture, 4 lab). Digital imaging using raster image editing and/or image creation software: scanning, resolution, file formats, output devices, color systems, and image-acquisitions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1305 - Basic Graphic Design

Credits: 3 (2 lecture, 4 lab). Graphic design with emphasis on the visual communication process. Topics include basic terminology and graphic design principles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1309 - Basic Illustration

Credits: 3 (2 lecture, 4 lab). Introduction to drawing techniques as they pertain to the commercial illustration industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1313 - Digital Publishing I

Credits: 3 (2 lecture, 4 lab). The fundamentals of using digital layout as a primary publishing tool and the basic concepts and terminology associated with typography and page layout. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1317 - Design Communication I

Credits: 3 (2 lecture, 4 lab). Study of design development relating to graphic design terminology, tools and media, and layout and design concepts. Topics include integration of type, images and other design elements, and developing computer skills in industry standard computer programs. Prerequisite: ARTC 1325 and ARTC 1305 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

ARTC 1321 - Illustration Techniques I

Credits: 3 (2 lecture, 4 lab). A study of illustration techniques in various media. Emphasis on creative interpretation and the discipline of draftsmanship for visual communication of ideas. Prerequisite: ARTC 1309 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1325 - Introduction to Computer Graphics

Credits: 3 (2 lecture, 4 lab). A survey of computer design concepts, terminology, processes, and procedures. Topics include computer graphics hardware, electronic images, electronic publishing, vector-based graphics, and interactive multimedia. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1353 - Computer Illustration (Illustrator)

Credits: 3 (2 lecture, 4 lab). Use of the tools and transformation options of an industry-standard vector drawing program to create complex illustrations or drawings. Prerequisite: ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 1359 - Visual Design for New Media

Credits: 3 (2 lecture, 4 lab). Visual design elements as they relate to new media. Emphasizes aesthetics and visual problem solving such as typographic issues, color management, hierarchy of information, image optimization, and effective layout. Prerequisite: ARTC 1353, ARTV 2301

ARTC 2305 - Digital Imaging II

Credits: 3 (2 lecture, 4 lab). Principles of digital image processing and electronic painting. Emphasis on bit-mapped or raster-based image marking and the creative aspects of electronic illustration for commercial or fine art applications. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 2311 - History of Communication Graphics

Credits: 3. Survey of the evolution of graphic arts in relation to the history of art. Includes formal, stylistic, social, political, economic, and historical aspects. Emphasis on art movements, schools of thought, individuals, and technology as they interrelate with graphic arts.

ARTC 2313 - Digital Publishing II

Credits: 3 (2 lecture, 4 lab). Includes layout procedures from thumbnails and roughs to final comprehensive and print output. Emphasis on design principles for the creation of advertising and publishing materials and techniques for efficient planning and documenting projects. Prerequisite: ARTC 1305, ARTC 1313, ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTC 2317 - Typographic Design

Credits: 3 (2 lecture, 4 lab). Exploration of typographic design including computer generated letterforms as elements of design. Includes theory and techniques of traditional, contemporary, and experimental typography. Prerequisite: ARTC 1302, 1305, 1353, or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: ARTC 2313 or Department Approval

ARTC 2335 - Portfolio Development for Graphic Design

Credits: 3 (2 lecture, 4 lab). Preparation of a portfolio comprised of completed graphic design class projects. Evaluation and demonstration of portfolio presentation methods based on the student's specific area of study. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ARTC 2347 - Design Communication II

Credits: 3 (2 lecture, 4 lab). An advanced study of the design process and art direction. Emphasis on form and content through the selection, creation, and integration of typographic, photographic, illustrative, and design elements. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ARTC 2348 - Digital Publishing III

Credits: 3 (2 lecture, 4 lab). A project-based page layout course from concept to completion addressing design problems, preflight of files, color separations, and trapping techniques. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

Description of Courses

ARTS 1301 - Art Appreciation

Credits: 3 (3 lecture). A general introduction to the visual arts designed to create an appreciation of the vocabulary, media, techniques, and purposes of the creative process. Students will critically interpret and evaluate works of art within formal, cultural, and historical contexts. This introduction to the visual arts is a global investigation of artistic styles, methods of artistic production and media. Various works will be analyzed and defined in relation to the formal elements and the principles of design. Universal themes are studied within their historical, political, economic, theological, sociological, conceptual, and ethnic contexts. Students will also develop critical thinking and observational skills through the creation of hands-on art projects. This course satisfies the creative arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ARTS 1303 - Art History I (Prehistoric to the 14th Century)

Credits: 3 (3 lecture). A chronological analysis of the historical and cultural contexts of the visual arts from prehistoric times to the 14th century. This course is a global investigation of the styles and methods of artistic production covering Prehistoric through Gothic periods. Media studied include: drawing, painting, sculpture, architecture, printmaking, textiles, ceramics, and metal arts. Using this framework, universal themes are studied within their historical, political, economic, theological, sociological, and ethnic contexts. This course satisfies the fine arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

ARTS 1304 - Art History II (14th Century to the Present)

Credits: 3 (3 lecture). A chronological analysis of the historical and cultural contexts of the visual arts from the 14th century to the present day. This course is a global investigation of the styles and methods of artistic production covering the Renaissance period to Present. Media studied include: drawing, painting, sculpture, architecture, printmaking, textiles, ceramics, metal arts, photography, and digital arts. Using this framework, universal themes are studied within their historical, political, economic, theological, sociological, conceptual and ethnic contexts. ARTS 1303 is not a prerequisite. This course satisfies the fine arts or component area option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

ARTS 1311 - Design I (2-Dimensional Design)

Credits: 3 (2 lecture, 4 lab). An introduction to the fundamental terminology, concepts, theory, and application of two-dimensional design. This beginning studio course explores the fundamentals of two-dimensional design: line, shape, texture, value, color and composition. A variety of media will be used. Recommended but not required as a first studio course.

ARTS 1312 - Design II (3-Dimensional Design)

Credits: 3 (2 lecture, 4 lab). An introduction to the fundamental terminology, concepts, theory, and application of three-dimensional design. A beginning studio course that explores the fundamentals of three-dimensional design: line, plane, mass, surface, light and color in space. A variety of media will be used. Recommended but not required to be taken before Sculpture, Ceramics or Jewelry. Prerequisite: ARTS 1311

Description of Courses

ARTS 1316 - Drawing I

Credits: 3 (2 lecture, 4 lab). A foundation studio course exploring drawing with emphasis on descriptive, expressive and conceptual approaches. Students will learn to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will engage in critical analysis and begin to develop their understanding of drawing as a discipline. This beginning drawing course develops students' observation skills through experimentation with various approaches, styles, techniques, and media. Recommended but not required to be taken before Life Drawing, Painting or Printmaking. Foundation Drawing I is a pre-requisite for Foundation Drawing II.

ARTS 1317 - Drawing II

Credits: 3 (2 lecture, 4 lab). A studio course exploring drawing with continued emphasis on descriptive, expressive and conceptual approaches. Students will further develop the ability to see and interpret a variety of subjects while using diverse materials and techniques. Course work will facilitate a dialogue in which students will employ critical analysis to broaden their understanding of drawing as a discipline. This studio course builds upon the skills learned in Drawing I. Emphasis will be upon further media experimentation and development of a personal style. Drawing I is a prerequisite. Prerequisite: ARTS 1316

ARTS 2311 - Design III (2D & 3D)

Credits: 3 (2 lecture, 4 lab). Elements and principles of art using two- and three-dimensional concepts. This intermediate studio course further develops two and/or three-dimensional design skills in various media. Design skills may include: line, shape, texture, color, value, composition, plane, mass, surface, light and color in space. A variety of media will be used. Prerequisite: Department approval after instructor review of student design portfolio

ARTS 2313 - Design Communications I

Credits: 3. Communication of ideas through processes and techniques of graphic design and illustration.

ARTS 2314 - Design Communications II

Credits: 3. Communication of ideas through processes and techniques of graphic design and illustration.

ARTS 2316 - Painting I

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using painting media and techniques. A studio course which explores painting media with an emphasis on color, composition, subject matter and technique. Painting I is a prerequisite for Painting II.

ARTS 2317 - Painting II

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using painting media and techniques. This studio course builds upon skills developed in Painting I with an emphasis on the development of personal style, subject matter, and individual expression. Painting I is a prerequisite for Painting II. Prerequisite: ARTS 2316

ARTS 2323 - Life Drawing

Credits: 3 (2 lecture, 4 lab). Basic study of the human form. A drawing course focusing on the human form. Various media and techniques will be explored while drawing from a live model.

ARTS 2326 - Sculpture

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using sculpture media and techniques. This studio course will introduce the student to various materials, processes and elements of design. Media may include plaster, wood, clay, and found materials.

ARTS 2333 - Printmaking

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using various printmaking processes. An introduction to and exploration of various relief printing, mono-printing, and intaglio processes. Printmaking I is a prerequisite for Printmaking II.

Description of Courses

ARTS 2341 - Art Metals

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using basic techniques in jewelry and metal construction. Fundamentals of jewelry construction including design, fabrication, surface treatment, and stone setting.

ARTS 2346 - Ceramics I

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using basic ceramic processes. This studio course is an introduction to arts, using the clay medium. Sculptural approaches to clay (slab, pinch, coil wheel) as well as surface treatment will be investigated. Glaze making and kiln technology will be introduced. Ceramics I is a prerequisite for Ceramics II.

ARTS 2347 - Ceramics II

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using basic ceramic processes. This studio course builds on knowledge acquired in Ceramics I. Emphasis will be on form and surface experimentation, as well as development of personal expression. Traditional and nontraditional uses of clay will be explored. Ceramics I is a prerequisite for Ceramics II. Prerequisite: ARTS 2346

ARTS 2348 - Digital Arts I

Credits: 3 (2 lecture, 4 lab). Studio art course that explores the potential of the computer hardware and software medium for their visual, conceptual, and practical uses in the visual arts. This course introduces the student to Photoshop and will focus on manipulating images within a digital environment. Students will demonstrate the ability to critically talk about how digital manipulations affect interpretations of photographic imagery, in relationship to social, political and historical terms, as well as examine and explore the role of Digital Media in our changing visual culture.

ARTS 2356 - Photography I (Fine Arts Emphasis)

Credits: 3 (2 lecture, 4 lab). Introduction to the basics of photography. Includes camera operation, techniques, knowledge of chemistry, and presentation skills. Emphasis on design, history, and contemporary trends as a means of developing an understanding of photographic aesthetics. The focus of this class is on manual camera skills, making better photographs and becoming familiar with a Digital Single Lens Reflex Camera and the software Lightroom. Students will demonstrate the ability to critically talk about work in relationship to social, political and historical terms. Students will also demonstrate the ability to examine and explore photography's role in our changing visual culture. Photography I is a prerequisite for Photography II.

ARTS 2357 - Photography II (Fine Arts Emphasis)

Credits: 3 (2 lecture, 4 lab). Extends the students' knowledge of technique and guides them in developing personal outlooks toward specific applications of the photographic process. This course will build on previously acquired skills of black and white film exposure, processing and printing and guide students in developing personal outlooks toward specific applications of the photographic process. Photography I is a prerequisite for Photography II. Prerequisite: ARTS 2356

ARTS 2366 - Watercolor

Credits: 3 (2 lecture, 4 lab). Exploration of ideas using water-based painting media and techniques. A studio course that explores watercolor media with an emphasis on color, composition, self-expression, and technique.

ARTS 2389 - Academic Cooperative

Credits: 3 (1 lecture, 2 lab). An instructional program designed to integrate on-campus study with practical hands on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of studio art. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

ARTV 1111 - Storyboard

Credits: 1 (1 lecture, 1 lab). Determine a project's content; choose or create graphics; and sequence the content to convey the message.

Description of Courses

ARTV 1303 - Basic Animation

Credits: 3 (2 lecture, 4 lab). Examination of animation concepts, principles, and storyboard for basic production. Emphasizes creating movement and expression utilizing traditionally or digitally generated image sequences.

ARTV 1341 - 3-D Animation I

Credits: 3 (2 lecture, 4 lab). Intermediate level 3-D course introducing animation tools and techniques used to create movement. Emphasis on using the principles of animation. Prerequisite: ARTV 1345; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1345 - 3-D Modeling and Rendering I

Credits: 3 (2 lecture, 4 lab). Techniques of three-dimensional (3-D) modeling utilizing industry standard software. Includes the creation and modification of 3-D geometric shapes, use of a variety of rendering techniques, camera, light sources, texture, and surface mapping. Prerequisite: ARTC 1302 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1351 - Digital Video

Credits: 3 (2 lecture, 4 lab). Producing and editing video and sound for multimedia or web productions. Emphasizes capture, editing, and outputting of video using a desktop digital video workstation. Prerequisite: IMED 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 1371 - Introduction to 3D Printing Technology

Credits: 3 (2 lecture, 4 lab). The 3D Printing course is a hands-on, project-based learning (PBL) course which allows students to design and fabricate 3D objects using 3D computer applications and 3D printers. This course also focuses on prototyping an invention, creating a artwork, and building a customized product of their choice. Students will analyze real industry cases, and apply 3D printing technology appropriately while gaining hands-on experience with two leading 3D printing technologies employed in today's industry.

ARTV 2301 - 2-D Animation I

Credits: 3 (2 lecture, 4 lab). Skill development in the use of software to develop storyboards and two-dimensional animation including creating, importing, and sequencing media elements to create multimedia presentation. Emphasis on conceptualization, creativity, and visual aesthetics. Prerequisite: IMED 1316, IMED 1341, ITSE 2313, or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 2320 - Team Program Production I

Credits: 3 (2 lecture). Students assume roles in a production team using techniques and equipment to create short-form production(s).

ARTV 2322 - Team Program Production II

Credits: 3 (2 lecture, 4 lab). Develop an advanced level production while working in conjunction with a team; assume management production responsibilities.

ARTV 2330 - 2-D Animation II

Credits: 3 (2 lecture, 4 lab). Advanced study of technical aspects of animation. Emphasizes aesthetic design and completion of an animation project. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ARTV 2335 - Portfolio Development for Animation

Credits: 3 (2 lecture, 4 lab). A course in the development of a professional portfolio to showcase the student's skills in animation. Includes self-promotion, resumes, portfolio distribution, and interview techniques.

ARTV 2341 - Advanced Digital Video

Credits: 3 (2 lecture, 4 lab). Advanced digital video techniques for post-production. Emphasizes integration of special effects and animation for film, video, and the Internet. Exploration of new and emerging compression and video streaming technologies. Prerequisite: Must be placed into college-level reading, writing and math.

ARTV 2345 - 3-D Modeling and Rendering II

Credits: 3 (2 lecture, 4 lab). A studio course focused on advanced 3-D modeling and rendering techniques using industry standard software, modeling techniques, camera settings, lighting, and surfacing to develop detailed environments. Prerequisite: ARTC 1302 and ARTV 1345; must be placed into college-level reading, writing and math.

Description of Courses

ARTV 2351 - 3-D Animation II

Credits: 3. Advanced level 3-D course utilizing animation tools and techniques used to develop movement. Emphasis on advanced animation techniques.

ARTV 2355 - Character Rigging and Animation

Credits: 3. Advanced work in 3-D animation. Emphasis on character modeling, rigging and animation.

ASTR 1303 - Stars and Galaxies (Lecture)

Credits: 3 (3 lecture). An introduction to the present cosmological theories about the structure and evolution of the universe. A comparison with previous models since antiquity. A study of the celestial sphere and the constellations, the motions in the sky. A study of gravity, light, radiation, optics, telescopes and spacecraft. A survey of the stars, clusters, galaxies, superclusters, their properties, structure and evolution. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a co-requisite).

ASTR 1304 - Solar System (lecture)

Credits: 3 (3 lecture). An introduction to present theories about the structure and evolution of the solar system, compared to other models and theories since antiquity. A survey of the Sun, planets, moons, rings, asteroids, comets and debris in our solar system. The possibility of life in the Universe. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a co-requisite).

ASTR 1403 - Stars and Galaxies (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). An introduction to the present cosmological theories about the structure and evolution of the universe. A comparison with previous models since antiquity. A study of the celestial sphere and the constellations, the motions in the sky. A study of gravity, light, radiation, optics, telescopes and spacecraft. A survey of the stars, clusters, galaxies, superclusters, their properties, structure and evolution. Laboratory includes an introduction to observational techniques using telescopes, in-class projects/exercises on spectroscopy, stellar positions, solar heating, planetary motions, solar and astrophotography, star clusters, galaxies, and cosmology. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a co-requisite).

ASTR 1404 - Solar System (lecture + lab)

Credits: 4 (3 lecture, 3 lab). An introduction to present theories about the structure and evolution of the solar system, compared to other models and theories since antiquity. A survey of the Sun, planets, moons, rings, asteroids, comets and debris in our solar system. The possibility of life in the Universe. Laboratory topics include planetary, lunar and solar observations with telescopes and/or the naked eye; measurements of the gravitational constant, gravitational acceleration and the speed of light; analysis of spectra and spacecraft images; and impact cratering simulations. This course satisfies the Life and Physical Sciences or the Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and placed into MATH 0312 (or take MATH 0308 as a co-requisite).

AUMT 1305 - Introduction to Automotive Technology

Credits: 3 (2 lecture, 2 lab). An introduction to the automotive industry including automotive History, Civilization, , safety practices, shop equipment and tools, vehicle subsystems, service publications, fasteners, professional responsibilities, and automotive maintenance. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1306 - Automotive Engine Removal and Installation

Credits: 3 (2 lecture, 4 lab). Fundamentals of engine inspection, removal and installation procedures. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

AUMT 1307 - Automotive Electrical Systems
Credits: 3 (2 lecture, 4 lab). An overview of automotive electrical systems including topics in operational theory, testing, diagnosis, and repair of batteries, charging and starting systems, and electrical accessories. Emphasis on electrical schematic diagrams and service manuals. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1310 - Automotive Brake Systems
Credits: 3 (2 lecture, 4 lab). Operation and repair of drum/disc type brake systems. Emphasis on safe use of modern equipment. Topics include brake theory, diagnosis, and repair of power, manual, anti-lock brake systems, and parking brakes. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1316 - Automotive Suspension and Steering Systems
Credits: 3 (2 lecture, 4 lab). A study of automotive suspension and steering systems including tire and wheel problem diagnosis, component repair, and alignment procedures. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1319 - Automotive Engine Repair
Credits: 3 (2 lecture, 4 lab). Fundamentals of engine operation, diagnosis and repair including lubrication systems and cooling systems. Emphasis on overhaul of selected engines, identification and inspection, measurements, and disassembly, repair, and reassembly of the engine. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 1345 - Automotive Climate Control Systems
Credits: 3 (2 lecture, 4 lab). Theory of automotive air conditioning and heating systems. Emphasis on the basic refrigeration cycle and diagnosis and repair of system malfunctions. Covers EPA guidelines for refrigerant handling and new refrigerant replacements. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Corequisite: Prerequisite/Corequisite: AUMT 1307

AUMT 1380 - Cooperative Education - Automobile / Automotive Mechanics Technology / Technician
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2209 - Automotive Drive Train and Axle Theory
Credits: 2 (2 lecture, 1 lab). A study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials. Emphasis on theory and diagnosis of transmission/transaxle and drive line components. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2223 - Theory of Automatic Transmission and Transaxle
Credits: 2 (2 lecture, 1 lab). Theory of operation, hydraulic principles, and related circuits of modern automatic transmissions and transaxles. Discussion of diagnosing and repair techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2310 - Automotive Service Consultant
Credits: 3 (2 lecture, 2 lab). Automotive service consulting skills and procedures. Includes vehicle identification, product knowledge, shop operations, warranty service contracts, communications, customer relations, internal relations, and sales skills. Emphasizes courtesy, professionalism, and communications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2313 - Automotive Drive Train and Axles
Credits: 3 (2 lecture, 4 lab). A study of automotive clutches, clutch operation devices, manual transmissions/transaxles, and differentials with emphasis on the diagnosis and repair of transmissions/transaxles and drive lines. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

AUMT 2317 - Automotive Engine Performance Analysis I
Credits: 3 (2 lecture, 4 lab). Theory, operation, diagnosis, and repair of basic engine dynamics, ignition systems, and fuel delivery systems. Use of basic engine performance diagnostic equipment. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2321 - Automotive Electrical Diagnosis and Repair
Credits: 3 (2 lecture, 4 lab). Repair of automotive electrical subsystems, lighting, instrumentation, and accessories. Emphasis on accurate diagnosis and proper repair methods using various troubleshooting skills and techniques. May be taught manufacturer specific. Prerequisite: Prerequisite/Corequisite: AUMT 1307 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2325 - Automotive Automatic Transmission and Transaxle
Credits: 3 (2 lecture, 4 lab). A study of the operation, hydraulic principles, and related circuits of modern automatic transmissions and automatic transaxles. Diagnosis, disassembly, and assembly procedures with emphasis on the use of special tools and proper repair techniques. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2328 - Automotive Service
Credits: 3 (2 lecture, 4 lab). Mastery of automotive vehicle service and component systems repair. Emphasis on mastering current automotive competencies covered in related courses. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2334 - Automotive Engine Performance Analysis II
Credits: 3 (2 lecture, 4 lab). A study of diagnosis and repair of emission systems, computerized engine performance systems, and advanced ignition and fuel systems; and proper use of advanced engine performance diagnostic equipment. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2380 - Cooperative Education - Automobile/Automotive Mechanics Technology/Technician
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

AUMT 2437 - Automotive Electronics
Credits: 4 (2 lecture, 4 lab). Topics address electrical principles, semiconductor and integrated circuits, digital fundamentals, microcomputer systems, and electrical test equipment as applied to automotive technology. May be taught manufacturer specific. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Corequisite: Prerequisite/Corequisite: AUMT 1307

AUMT 2455 - Automotive Engine Machining
Credits: 4 (2 lecture, 4 lab). In-depth coverage of precision engine rebuilding, cylinder reconditioning, and crack repair. Instruction in machines and equipment necessary to complete an engine repair. May be taught with manufacturer specific instructions. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

BARB 1307 - Introduction to Hair Design
Credits: 3. Introduction to hair styling with emphasis on the fundamentals of haircutting and related skills.

BARB 1391 - Special Topics in Barber/Styling
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

Description of Courses

BARB 1402 - Barber Styling I

Credits: 4 (2 lecture, 7 lab). Continued development in haircutting techniques and implementation of basic styling. Introduction to chemical reformation. Perform haircutting techniques including shear, razor, and clipper. Demonstrate a variety of styling techniques; demonstrate techniques used in chemical reformation. Practice safety and sanitation. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 1404 - Introduction to Barber Styling

Credits: 4 (2 lecture, 7 lab). Basic techniques for hair cutting. Introduction to the related skills of shampooing and treatments, and of trimming beards and mustaches. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 1442 - Barber Styling II

Credits: 4 (2 lecture, 7 lab). Continuation of Barber Styling I with emphasis on intermediate hands-on application of skills. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2402 - Barber Styling III

Credits: 4 (2 lecture, 7 lab). Continued skill development in haircutting and styling. Emphasizes on advanced techniques in chemical procedures. Introduction to hairpieces and facials. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2431 - Advanced Barber Styling I

Credits: 4 (2 lecture, 7 lab). Advanced skills in all areas of haircutting hairstyling and skincare. Introduction to hair coloring techniques. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2432 - Barber Law and Shop Management I

Credits: 4 (2 lecture, 7 lab). Introduction to Texas barber law and business management. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2441 - Advanced Barber Styling II

Credits: 4 (2 lecture, 7 lab). Continuation of Advanced Barber Styling I with further refinement of all skills and theory for licensure. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2444 - Barber Law and Shop Management II

Credits: 4 (2 lecture, 7 lab). Continuation of Barber Law and Shop Management I. Includes advanced business management and preparation for the State Board Examination for a barber license. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BARB 2470 - Preparation for the State Licensing Examination

Credits: 4 (2 lecture, 7 lab). In depth preparation of the theory and practical skills to pass the state licensing examination for a class A barber. Topics include: sanitation, disinfection, hair coloring, hair cutting, shampooing, conditioning, hair styling, chemical reformation services and shaving services. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0308 or higher).

BCIS 1305 - Business Computer Applications

Credits: 3 (3 lecture, 3 lab). Computer terminology, hardware, software, operating systems, and information systems relating to the business environment. The main focus of this course is on business applications of software, including word processing, spreadsheets, databases, presentation graphics, and business-oriented utilization of the Internet. Prerequisite: Must be placed into college level reading & college level writing & developmental mathematics (0312 or higher).

BIOL 1106 - Biology for Science Majors I (Lab)

Credits: 1 (3 lab). Discussions focus on biological chemistry, biological processes, cellular morphology, metabolism, genetics and molecular biology. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college level reading and writing.

BIOL 1108 - Biology for Non-Science Majors I (Lab)

Credits: 1 (3 lab). Selected laboratory experiments related to topics in BIOL 1308 (Introductory Biology I) for non-majors. Prerequisite: Prerequisite/Corequisite: BIOL 1308

Description of Courses

BIOL 1109 - Biology for Non-Science Majors II
Credits: 1 (3 lab). Selected laboratory experiments related to topics in BIOL 1309 (Introductory Biology I) for non-majors. Prerequisite: Prerequisite/Co-requisite: BIOL 1309

BIOL 1306 - Biology for Science Majors I (Lecture)
Credits: 4 (3 lecture). Discussions focus on biological chemistry, biological processes, cellular morphology, metabolism, genetics and molecular biology. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: must be placed into college level reading and writing.

BIOL 1308 - Biology for Non-Science Majors I (Lecture)
Credits: 3 (3 lecture). Topics include basic chemistry, cell morphology and physiology, photosynthesis and respiration, cell division, and classical and molecular genetics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

BIOL 1309 - Biology for Non-Science Majors II (Lecture)
Credits: 3 (3 lecture). Topics include evolution, classification and ecological relationships, and organ systems of animals and plants. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: BIOL 1308, Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

BIOL 1322 - Nutrition & Diet Therapy
Credits: 3 (3 lecture). A course designed to teach the fundamentals of nutrition based on basic nutrition principles. Scientific standard recommendations of levels of nutrient intake for a healthy population are discussed. Sources and functions of carbohydrates, proteins, fats, vitamins and minerals are also studied. (cross listed with HECO 1322). This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 1407 - Biology for Science Majors II (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Topics include evolution, classification and ecological relationships, and organ systems of animals and plants. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: BIOL 1406, Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 1411 - General Botany (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Plant science including survey of the plant kingdom, photosynthesis, respiration, anatomy, reproduction, ecology, and vascular plant taxonomy. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 1413 - General Zoology (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). A general overview of the animal kingdom including principles, life histories, and classification. Emphasis is placed on the vertebrates. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2101 - Anatomy & Physiology I (lab)
Credits: 1 (3 lab). Study of the structure and function of human cells, tissues, and organ systems including integumentary skeletal, muscular, and nervous systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

BIOL 2102 - Anatomy & Physiology II (lab)
Credits: 1 (3 lab). Continuation of BIOL 2101 including the circulatory, respiratory, digestive, excretory, reproductive and endocrine systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

BIOL 2120 - Microbiology for Non-Science Majors (Lab)
Credits: 1 (3 lab). Study of microorganisms including morphology, metabolism, taxonomy, culture techniques, microbial genetics, immunology, bacteriology, virology, mycology, parasitology, and diseases. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2301 - Anatomy & Physiology I (Lecture)
Credits: 3 (3 lecture). Study of the structure and function of human cells, tissues, and organ systems including integumentary skeletal, muscular, and nervous systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

BIOL 2302 - Anatomy & Physiology II (Lecture)
Credits: 3 (3 lecture). Continuation of BIOL 2301 including the circulatory, respiratory, digestive, excretory, reproductive and endocrine systems. Prerequisite: Must have passed ENGL 1301 (or higher) or take ENGL 1301 as a co-requisite.

Description of Courses

BIOL 2320 - Microbiology for Non-Science Majors (Lecture)

Credits: 3 (3 lecture). Study of microorganisms including morphology, metabolism, taxonomy, culture techniques, microbial genetics, immunology, bacteriology, virology, mycology, parasitology, and diseases. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2406 - Environmental Biology (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Human interaction with and effect upon plant and animal communities. Conservation, pollution, energy, and other contemporary ecological problems. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2416 – Genetics (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Study of the principles of molecular and classical genetics and the function and transmission of hereditary material. May include population genetics and genetic engineering. Prerequisite: BIOL 1406; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOL 2421 - Microbiology for Science Majors (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Principles of microbiology, including metabolism, structure, function, genetics, and phylogeny of microbes. The course will also examine the interactions of microbes with each other, hosts, and the environment. Laboratory activities will reinforce principles of microbiology. Prerequisite: CHEM 1411 and BIOL 1406 and 1407 or BIOL 1411 and 1413.

BIOL 2428 - Vertebrate Zoology
Credits: 4 (3 lecture, 3 lab). Comparative studies of the evolution of the vertebrate body including morphology, physiology, embryology, taxonomy, and paleontology. Prerequisite: BIOL 1407; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

BIOM 1309 - Applied Biomedical Equipment Technology
Credits: 3 (2 lecture, 3 lab). Introduction to biomedical instrumentation as related to anatomy and physiology. Detailed coverage of anatomical systems that use medical equipment for monitoring, diagnosis, and treatment. Prerequisite: CETT 1403, CETT 1425 or Department Approval. Must be placed into college-level reading, writing and math.

BIOM 2331 - Biomedical Clinical Instrumentation
Credits: 3 (2 lecture, 3 lab). A study of theory, application, and principles of operation of instruments commonly used in a medical laboratory. Prerequisite: CETT 1403, CETT 1425, or Department Approval. Must be placed into college-level reading, writing and math.

BIOM 2389 - Internship - Biomedical Technology / Technician
Credits: 3 (20 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: 30 credit hours of CETT courses and Department Approval; must be placed into college-level reading, writing and math.

BIOS 1470 - Introduction to Biosafety and Biotechnology
Credits: 4 (3 lecture, 3 lab). Topics address the current development of the fields of biosafety and biotechnology. Covers the applications of biosafety and biotechnology as these relate to medical and pharmaceutical research, and health care entities. Explores biotechnology and nanotechnology unique applications, workplace environment, and occupational safety. Describes controlling mechanisms used in biotechnology and biosafety to assure a protective workplace environment. Prerequisite: Must be placed into college-level reading, writing and math.

Description of Courses

BIOS 1471 - Introduction to Laboratory Safety
Credits: 4 (3 lecture, 3 lab). Topics include safe handling of biological, chemical, radiation and nano materials in vivo or vitro. Focuses on safety, regulations, and proper materials handling in research, clinical laboratories, and petrochemical industries. Covers the classification levels of laboratories (i.e., Biosafety Level 1, 2, 3 and 4 requirements; topics include laboratory risk identification, medical surveillance requirements as part of an occupational health program, routine safety surveillance activities, identification of appropriate decontamination methods for biological, radiological, chemical or nano particle accidents and spills in research, clinical, and petrochemical laboratories and describing the instruction materials required to educate personnel in all areas of laboratory safety, including biological safety, chemical safety, recombinant DNA research activities and nanosafety. Prerequisite: Must be placed into college-level reading, writing and math.

BIOS 2370 - Internship - Biosafety
Credits: 3 (3 lecture). Participation in real-life applications of biosafety and nanosafety measures for research laboratories, clinical laboratories and/or petrochemical laboratory environments. A work based learning experience that enables the student to apply the specialized biosafety and nanosafety skills, knowledge, theory and concepts to laboratory and institutional environment. It includes oversight of biosafety and nanosafety regulations within a facility, including the performance of environmental monitoring for contamination and air quality related to contaminants by biohazard and nano particles among others. Prerequisite: Must be placed into college-level reading, writing and math.

BIOS 2470 - Industrial Hygiene Sampling Instrumentation Laboratory
Credits: 4 (3 lecture, 3 lab). Covers applications of industrial hygiene air and environmental sampling instrumentation including biosafety, radiation safety, chemical safety and nanosafety functions for research laboratories, clinical laboratories and/or petrochemical laboratory environments. Safe practices in the use of handling hazardous materials including shipping of infectious substances, radioactive materials, and nanoparticles and disposal of hazardous wastes are also addressed. Topics also include performing the environmental monitoring for contamination and air quality related to contaminants by biohazard and nano particles to gain experience in this area. Prerequisite: Must be placed into college-level reading, writing and math.

BITC 1311 - Introduction to Biotechnology
Credits: 3 (3 lecture). An introduction to biotechnology including career exploration, History, Civilization, and applications of DNA/RNA technology, molecular biology, bioethics, and laboratory safety practices. Prerequisite: Must be placed into college-level reading, college-level writing and Math 0312.

BITC 1370 - Introduction to Biochemistry
Credits: 3 (3 lecture). The study of the knowledge of the structure, function, and cellular metabolism of various biomolecules. The course will deal with the intra- and intermolecular conversion of biomolecules. Knowledge in this area is directly applicable to the fields of analysis and processing of biomolecules and their pertinence to biotechnology as it relates to biopharmaceuticals, biodiagnostics, fermentation, and bio-manufacturing. Prerequisite: Must be placed into college-level reading, writing and math.

BITC 1402 - Biotechnology Laboratory Methods and Techniques
Credits: 4 (3 lecture, 3 lab). Laboratory operations, management, equipment, instrumentation, quality control techniques, and safety procedures. Includes laboratory practice in using pH meters, mixing buffers, performing measurements, preparing solutions, and performing separatory techniques. Prerequisite: Prerequisite/Corequisite: BITC 1311 or Department Approval; must be placed into college-level reading, writing and math

BITC 1403 - Principles of Biochemistry
Credits: 4 (3 lecture, 3 lab). Structure, function, and cellular metabolism of various bio-molecules. Concentrates on the intra- and intermolecular conversion of bio-molecules. Knowledge in this area is directly applicable to analysis and processing of bio-molecules and their pertinence to biotechnology as it relates to biopharmaceuticals, biodiagnostics, fermentation, and bio-manufacturing. Prerequisite: BIOL 1406, CHEM 1414, and MATH 1314. Must be placed into college-level reading, writing and math.

BITC 1491 - Special Topics in Biological Technology/Technician
Credits: 4 (3 lecture, 3 lab). Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into college-level reading, college-level writing and Math 0312

Description of Courses

BITC 2386 - Internship - Biology Technician/Biotechnology Laboratory Technician

Credits: 3 (1 lecture, 20 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

Prerequisite: BITC 1402 and Department Approval; must be placed into college-level reading, writing and math.

BITC 2411 - Biotechnology Laboratory Instrumentation

Credits: 4 (3 lecture, 3 lab). Theory, applications, and operation of various analytical instruments. Addresses separation and identification techniques including electrophoresis, spectrophotometry, and chromatography. Prerequisite: BITC 1402 or Department Approval; must be placed into college-level reading, writing and math.

BITC 2431 - Cell Culture Techniques

Credits: 4 (3 lecture, 3 lab). Theory and applications of cell culture techniques. Laboratory emphasis on the principles and practices of initiation, cultivation, maintenance, preservation of cell lines and applications. Prerequisite: BITC 1402 or Department Approval; must be placed into college-level reading, writing and math.

BITC 2441 - Molecular Biology Techniques

Credits: 4 (3 lecture, 3 lab). In depth coverage of the theory and laboratory techniques in molecular biology with an emphasis on gene expression and regulation, recombinant DNA, and nucleic acids. Prerequisite: BITC 2411 or Department Approval; must be placed into college-level reading, writing and math.

BITC 2445 - Medical Biotechnology

Credits: 4 (2 lecture, 4 lab). Biotechnology as it applies to medicine and medical research. Includes molecular mechanisms underlying diseases such as cancer, diabetes, heart disease, and AIDS. Covers the applications of biotechnology to the diagnosis and treatment of disease as well as the development of drugs and therapeutic agents. Emphasizes research and medical-related biotechnology methods and laboratory procedures. Prerequisite: BITC 1311 or Departmental Approval; must be placed into college-level reading, writing and math.

BITC 2472 - Immunological Methods and Techniques

Credits: 4 (3 lecture, 3 lab). Study of the principles and practices of modern immunology including the interactions among the various cellular and chemical components of immune response. Emphasis on the techniques used in the biotechnology industry involved in manufacturing of immunotherapeutic agents and biopharmaceuticals. Knowledge in this area is directly applicable to the fields of biopharmaceuticals, bio-diagnostics, fermentation and bio manufacturing.

Prerequisite: BITC 1402 or Department Approval; must be placed into college-level reading, writing and math.

BMGT 1301 - Supervision

Credits: 3 (3 lecture). A study of the role of the supervisor. Managerial functions as applied to leadership, counseling, motivation, and human skills are examined. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1313 - Principles of Purchasing

Credits: 3 (3 lecture). The purchasing process as it relates to such topics as inventory control, price determination, vendor selection, negotiation techniques, and ethical issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1325 - Office Management

Credits: 3 (3 lecture). Systems, procedures, and practices related to organizing and planning office work, supervising employee performance, and exercising leadership skills. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1327 - Principles of Management

Credits: 3 (3 lecture). Concepts, terminology, principles, theories, and issues in the field of management. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1331 - Production and Operations Management

Credits: 3 (3 lecture). Fundamentals of the various techniques used in the practice of production management to include location, design, and resource allocation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

BMGT 1341 - Business Ethics

Credits: 3 (3 lecture). Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 1370 - Introduction to HR / PeopleSoft Applications

Credits: 3 (2 lecture, 3 lab). A hands-on overview of the major areas of human resources/PeopleSoft, as illustrated by PeopleSoft software applications. Some topics will cover accessing PeopleSoft, navigating the PeopleSoft interface, understanding PeopleSoft panels, using PeopleSoft panels, and creating queries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BMGT 1371 - Intermediate HR / PeopleSoft Applications

Credits: 3 (2 lecture, 3 lab). A continuation of Introduction to Human Resources/PeopleSoft with intermediate PeopleSoft applications. Additional topics will include: understanding PeopleSoft processes, PeopleSoft HRMS (Human Resource Management Systems), PeopleSoft HRMS modules, and advanced query topics. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BMGT 2303 - Problem Solving and Decision Making

Credits: 3 (3 lecture). Discussion of ethical issues, the development of a moral frame of reference, and the need for an awareness of social responsibility in management practices and business activities. Includes ethical corporate responsibility. Prerequisite: ENGL 0300 or 0347, GUST 0342 (9th -11th Grade Reading, MATH 0306 (Basic Math Pre-Algebra)

BMGT 2305 - Advanced Communications in Management

Credits: 3 (2 lecture, 2 lab). Putting it all together/PeopleSoft: group projects, team applications, and implementation of results Prerequisite: BMGT 1371; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Computer Lab required)

BMGT 2310 - Financial Management

Credits: 3 (2 lecture, 3 lab). Emphasis on the development and use of accounting information to support managerial decision-making processes in manufacturing, service, and for-profit settings. Topics include managerial concepts and systems, various analysis for decision making, and planning and control. Prerequisite: BMGT 1394; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. (Computer Lab required)

BMGT 2331 - Principles of Quality Management

Credits: 3 (2 lecture, 3 lab). Quality of productivity in organizations using PeopleSoft Applications. Includes planning for quality PeopleSoft reports, implementation of reports, development of reports for business decision-making. Additional topics will include accessing and setting up queries, aggregating totals, using SQR with PeopleSoft, and reporting tables. Prerequisite: BMGT 2310; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. (Computer Lab required)

BNKG 1303 - Principles of Bank Operation

Credits: 3 (3 lecture). Overview of the fundamental banking functions and the role of regulation in the banking industry. Explanation of financial products and services to various markets. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1305 - Teller Training

Credits: 3 (3 lecture). Application of the functions related to negotiable instruments, cash control, handling money, and balancing. Explanation of compliance and regulation issues affecting bank tellers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1340 - Money and Financial Markets

Credits: 3 (3 lecture). Monetary policy and its related effects on financial intermediaries. Includes financial markets, regulatory functions, and structures. Addresses investment and funds management. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1343 - Law and Banking

Credits: 3 (3 lecture). Sources of law and banking regulation. Emphasis on the laws relating to contracts, negotiable instruments, secured transactions, and consumer credit. Prerequisite: BNKG 1303, Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

BNKG 1345 - Consumer Lending

Credits: 3 (3 lecture). A study of the different types of consumer loans. Identify the federal regulations and state laws pertaining to collection and serving of a consumer loan and relate consumer credit to the lending process. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1349 - Commercial Lending

Credits: 3 (3 lecture). Overview of the commercial lending market and process with an emphasis on credit analysis, evaluation, federal regulation, and state laws related to business and industrial lending. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1351 - Selling Bank/Financial Products and Services

Credits: 3 (3 lecture). Characteristics and benefits of bank products and services. Emphasis on the personal selling process and quality customer service. Application of personal selling, cross-selling, and related product benefits to individual customer needs. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1353 - Mortgage Lending

Credits: 3 (3 lecture). Overview of the mortgage lending market and process with an emphasis on documentation, credit evaluation, federal regulation, and state laws related to mortgage loans. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1356 - Analyzing Financial Statements

Credits: 3 (3 lecture). A study of the process of evaluating financial statements, cash flow, and ratio analysis of individuals and businesses with an emphasis on the relationship of comparative analysis and industry standards. Prerequisite: ACCT 2301; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1373 - Teller Training Lab

Credits: 3 (2 lecture, 2 lab). An alternate continuation of BNKG 1305 Teller Training, this course affords the student practical, hands-on experience in paying and receiving teller operations. Students develop skills such as cash handling, cash drawer setup, maintenance, security and daily balancing, processing of basic paying and receiving customer transactions, quoting funds availability, implementing security precautions, operating ten-key terminal, and using automated teller machines via daily practice in a lab setting. Prerequisite: BNKG 1305; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 1380 - Cooperative Education - Banking and Financial Support Services

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 2374 - Financial Business Administration

Credits: 3 (3 lecture). Course emphasizes the managerial responsibility of coordinating the many facets of a financial institution. The course covers administration in a regulatory environment, portfolio mix, and the various changes that are happening in this fast paced industry. Special attention is placed on investment areas in which customers are allowed to participate, which banks must have a working knowledge of but are not allowed to invest in. Prerequisite: BNKG 1340; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BNKG 2380 - Cooperative Education - Banking and Financial Support Services

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

BNKG 2381 - Cooperative Education - Banking and Financial Support Services
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

BUSG 1301 - Introduction to Business
Credits: 3 (3 lecture). Fundamental business principles including structure, functions, resources, and operational processes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1303 - Principles of Finance
Credits: 3 (3 lecture). Financial dynamics of a business. Includes monetary and credit theory, cash inventory, capital management, and consumer and government finance. Emphasizes the time value of money. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1307 - Entrepreneurship and Economic Development
Credits: 3 (3 lecture). Overview of entrepreneurship as an economic development strategy. Includes community support systems for entrepreneurs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1315 - Small Business Operation
Credits: 3. Operating a small business. Emphasizes management functions including planning, leading, organizing, staffing, and controlling operations.

BUSG 1370 - Personal Financial Planning
Credits: 3 (3 lecture). An exploration of financial planning that emphasizes topics of personal interest but also have application to business financial planning topics. Topics include budgeting, bank accounts and account reconciliation, individual retirement accounts, loans, investments, debt management, real estate, insurance, wills, trusts, and taxes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1371 - Principles of Securities Operations
Credits: 3 (3 lecture). An overview of the fundamental functions and the role of regulation in the securities industry. Explanation of securities products and services to a variety of markets. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1372 - Communications for Securities Professionals
Credits: 3 (3 lecture). An overview of the fundamental functions and the role of regulation in the securities industry. Explanation of securities products and services to a variety of markets. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1373 - Entrepreneurship & Economic Development
Credits: 3 (3 lecture). Overview of entrepreneurship as an economic development strategy. Includes community support systems for entrepreneurs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1374 - Business Writing Essentials
Credits: 3 (3 lecture). An interactive study of critical business writing elements. The course goal is to help students develop business writing skills to incorporate in their work environments. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 1375 – Small Business Operations II
Credits: 3. Operating and growing a small business. Emphasizes strategic, technical and operational management functions including planning, leading, organizing, staffing, and controlling operations.

BUSG 1380 - Cooperative Education - Business / Commerce - General
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312.

Description of Courses

BUSG 1382 - Cooperative Education - Entrepreneurship / Entrepreneurial Studies
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 1391 - Special Topics in Business - General
Credits: 3 (3 lecture). Topic addresses recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2305 - Business Law / Contracts
Credits: 3 (3 lecture). Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2309 - Small Business Management/Entrepreneurship
Credits: 3 (3 lecture). A course on how to start and operate a small business. Topics include facts about a small business, essential management skills, how to prepare a business plan, financial needs, marketing strategies, and legal issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2317 - Business Law/Commercial
Credits: 3 (3 lecture). The relationship of law and business as they relate to commercial transactions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

BUSG 2370 - Legal Issues for Enterprise
Credits: 3 (3 lecture). Legal Aspects of Enterprise explores both the for-profit and not-for-profit legal requirements and provides applications activities to help the beginning business entrepreneur or social entrepreneur actually set up a new enterprise. Topics include: types of business structures, types of not-for-profit structures, legal forms and paperwork required to set up each type of structure, resources for assistance in setting up enterprises (such as legal clinics, lawyers who provide pro bono services for social enterprise); important considerations in retaining a lawyer, and legal pitfalls for the beginning entrepreneur to avoid. Prerequisite: Prerequisites: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

BUSG 2380 - Cooperative Education - Business / Commerce - General
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312.

BUSG 2381 - Cooperative Education - Business / Commerce - General
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: Department Approval or BMGT 1301 and BMGT 1303, BUSG 1301; must be placed into college-level reading, college-level writing and MATH 0312 in math.

BUSG 2382 - Cooperative Education - Entrepreneurship / Entrepreneurial Studies
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math

Description of Courses

BUSI 1301 - Business Principles

Credits: 3 (3 lecture). Fundamental business principles including structure, functions, resources, and operational processes.

BUSI 2301 - Business Law I

Credits: 3 (3 lecture). Principles of law which form the legal framework for business activity including applicable statutes, contracts, and agency.

CDEC 1313 - Curriculum Resources for Early Childhood Programs

Credits: 3 (2 lecture, 3 lab). A study of the fundamentals of curriculum design and implementation in developmentally appropriate programs for children. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1317 - Child Development Associate Training I

Credits: 3 (2 lecture, 2 lab). Based on the requirements for the Child Development Associate National Credential (CDA). Topics on CDA overview, general observational skills, and child growth and development overview. The four functional areas of study are creative, cognition, physical and communication. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1319 - Child Guidance

Credits: 3 (2 lecture, 2 lab). An exploration of guidance strategies for promoting prosocial behaviors with individual and groups of children. Emphasis on positive guidance principles and techniques, family involvement, and cultural influences. Practical application through direct participation with children. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1321 - The Infant and Toddler

Credits: 3 (2 lecture, 3 lab). A study of appropriate infant and toddler (birth to 3), including an overview of development, quality care giving routines, appropriate environments, materials and activities, and teaching/guidance techniques. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1323 - Observation and Assessment

Credits: 3 (3 lecture). A study of observation skills, assessment techniques, and documentation of children's development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1339 - Early Childhood Development 0-3 Years

Credits: 3 (2 lecture, 3 lab). Principles of normal growth and development from conception through three years of age. Emphasizes physical, intellectual, and social/emotional development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1356 - Emergent Literacy for Early Childhood

Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching young children language and literacy through a play-based, integrated curriculum. Prerequisite: Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1358 - Creative Arts for Early Childhood

Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching young children music, movement, visual arts and dramatic play through process-oriented experiences to support divergent thinking. Prerequisite: Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1359 - Children with Special Needs

Credits: 3 (2 lecture, 2 lab). A survey of information regarding children with special needs including possible causes and characteristics of exceptionality, educational intervention, available resources, referral processes, the advocacy role and legislative issues. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1391 - Special Topics in Family Life and Relations Studies

Credits: 3 (3 lecture). A study of infants and toddlers and their families. Includes appropriate assessment strategies and communication techniques to be used with families. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 1393 - Special Topics in Family Life and Relations Studies

Credits: 3 (3 lecture). A study of the contemporary parenting issues facing both parents and professionals who work with them. Prerequisite: Prerequisite: CDEC 1356, 1358 or 2307; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

Description of Courses

CDEC 2186 - Internship - Child Care Provider / Assistant
Credits: 1 (6 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. (Lab hours must be completed in a NAEYC accredited center). Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0308 in math.

CDEC 2280 - Cooperative Education - Early Childhood Provider / Assistant
Credits: 2 (1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. (Lab hours must be completed in a NAEYC accredited center). Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0308 in math.

CDEC 2307 - Math and Science for Early Childhood
Credits: 3 (2 lecture, 3 lab). An exploration of principles, methods, and materials for teaching children math and science concepts and process skills through discovery and play. Prerequisite: Prerequisite/Corequisite: CDEC 1313; must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2315 - Diverse Cultural/Multilingual Education
Credits: 3. An overview of diverse cultural and multilingual education including familial relationships, community awareness, diversity, and the needs of each and every child.

CDEC 2322 - Child Development Associate Training II
Credits: 3 (2 lecture, 2 lab). A continuation of the study of the requirements for the Child Development Associate National Credential (CDA). The six functional areas of study include safe, healthy, learning environment, self, social, and guidance. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2324 - Child Development Associate Training III
Credits: 3 (2 lecture, 2 lab). A continuation of the requirements for the Child Development Associate National Credential (CDA). Three of the 13 functional areas of study include family, program management, and professionalism. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2326 - Administration of Programs for Children I
Credits: 3 (3 lecture). Application of management procedures for early child care education programs. Includes planning, operating, supervising, and evaluating programs. Topics cover philosophy, types of programs, policies, fiscal management, regulations, staffing, evaluation, and communication. Prerequisite: CDEC 1356, 1358 or 2307; must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0308 in math.

CDEC 2328 - Administration of Programs for Children II
Credits: 3 (3 lecture). An in-depth study of the skills and techniques in managing early care and education programs, including legal and ethical issues, personal management, team building, leadership, conflict resolution, stress management advocacy, professionalism, fiscal analysis and planning parent education/partnerships, and technical applications in programs. Prerequisite: CDEC 2326; must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0308 in math.

CDEC 2341 - The School Age Child
Credits: 3 (2 lecture, 3 lab). A study of appropriate programs for the school age child (5 to 13 years), including an overview of development, appropriate environments, materials, and activities and teaching/guidance techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0347 in writing and MATH 0306 in math.

CDEC 2380 - Cooperative Education - Early Childhood Provider/Assistant
Credits: 3 (1 lecture, 15 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. (Lab hours must be completed in a NAEYC accredited center). Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0308 in math.

CEC 1024 - Facebook for Business
Credits: . Find out what goes on behind the scenes on Facebook Pages and how to increase the chances that your message is seen and acted on. Discover new tools and proven techniques to increase business and expand your reach.

Description of Courses

CEC 9508 - Natural Health & Healing, Introduction
Credits: . We will discuss the various stages of health and illness, and you will discover that true health means wholeness of the mind, body, and spirit. You will start a personal health journal to evaluate your current lifestyle and observe how your behaviors can affect your health.

CETT 1321 - Electronic Fabrication
Credits: 3 (2 lecture, 4 lab). Formerly CPMT 1407 A study of electronic circuit fabrication techniques including printed circuit boards, wire wrapping, bread boarding, and various soldering techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math or Department Approval.

CETT 1357 - Linear Integrated Circuits
Credits: 3 (2 lecture, 4 lab). A study of the characteristics, operations, stabilization, testing, and feedback techniques of linear integrated circuits. Applications include computation, measurements, instrumentation, and active filtering. Prerequisite: CETT 1429 or Department Approval; must be placed into college-level reading, writing and math.

CETT 1402 - Electricity Principles
Credits: 4 (2 lecture, 2 lab). Principles of electricity including proper use of test equipment, A/C and D/C circuits, and component theory and operations.

CETT 1403 - DC Circuits
Credits: 4 (3 lecture, 3 lab). A study of the fundamentals of direct current including Ohm's law, Kirchhoff's laws and circuit analysis techniques. Prerequisite: Prerequisite/Corequisite: Math 1314; must be placed into college-level reading, writing and math or Department Approval.

CETT 1405 - AC Circuits
Credits: 4 (3 lecture, 3 lab). A study of the fundamentals of alternating current including series and parallel AC circuits, phasors, capacitive and inductive networks, transformers, and resonance; introduction to filters. Prerequisite: CETT 1403 Corequisite: Prerequisite/Corequisite: MATH 1316 or Departmental Approval. Must be placed into college-level reading, writing and math.

CETT 1409 - DC-AC Circuits
Credits: 4 (2 lecture, 4 lab). Fundamentals of DC circuits and AC circuits operation including Ohm's law, Kirchoff's laws, networks, transformers, resonance, phasors, capacitive and inductive and circuit analysis techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308. Departmental Approval

CETT 1415 - Digital Applications
Credits: 4 (2 lecture, 4 lab). An investigation of combinational and sequential logic elements and circuits with emphasis on design and troubleshooting of combinational and sequential circuits. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Departmental Approval

CETT 1425 - Digital Fundamentals
Credits: 4 (3 lecture, 3 lab). An entry level course in digital electronics to include numbering systems, logic gates, Boolean algebra, and combinational logic. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: Corequisite: CETT 1403 or Departmental Approval

CETT 1429 - Solid State Devices
Credits: 4 (3 lecture, 3 lab). A study of diodes and bipolar semiconductor devices, including analysis of static and dynamic characteristics, biasing-techniques, and thermal considerations of solid state devices. Prerequisite: Prerequisite/Corequisite: CETT 1405; must be placed into college-level reading, writing and math or Departmental Approval

CETT 1431 - Programming for Discrete Electronic Devices
Credits: 4 (3 lecture, 3 lab). Introduction to a high level programming language .Includes structured programming and problem solving applicable to discrete electronic devices. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

CETT 1445 - Microprocessor
Credits: 4 (3 lecture, 3 lab). An introductory course in microprocessor software and hardware, its architecture, timing sequence, operation, and programming, and discussion of appropriate software diagnostic language and tools. Prerequisite: CETT 1425 or Department Approval; must be placed into college-level reading, writing and math.

Description of Courses

CETT 2435 - Advanced Microprocessor
Credits: 4 (3 lecture, 3 lab). An advanced course utilizing the microprocessor in control systems and interfacing. Emphasis on microprocessor hardware and implementation of peripheral interfacing. Prerequisite: CETT 1445, CETT 1457 or Department Approval; must be placed into college-level reading, writing and math.

CETT 2449 - Research and Project Design
Credits: 4 (2 lecture, 4 lab). Principles of electrical/electronic design, encompassing schematics wiring diagrams, materials lists, operating characteristics, completion schedules, and cost estimates. Prerequisite: CETT 1445, CETT 1457 or Department Approval; must be placed into college-level reading, writing and math.

CHEF 1205 - Sanitation and Safety
Credits: 2 (2 lecture). A study of personal cleanliness; sanitary practices in food preparation; causes, investigation, control of illness caused by food contamination (Hazard Analysis Critical Control Points); and work place safety standards. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1301 - Basic Food Preparation
Credits: 3 (2 lecture, 4 lab). A study of the fundamental principles of food preparation and cookery to include Brigade System, cooking techniques, materials handling, heat transfer, sanitation, safety, nutrition, and professionalism. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CHEF 2201 and 2231

CHEF 1302 - Principles of Healthy Cuisine
Credits: 3 (2 lecture, 4 lab). Introduction to the principles of planning, preparation, and presentation of nutritionally balanced meals. Adaptation of basic cooking techniques to lower the fat and caloric content. Alternative methods and ingredients will be used to achieve a healthier cooking style. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1310 - Garde Manger
Credits: 3 (2 lecture, 4 lab). A study of specialty foods and garnishes. Emphasis on design, techniques, and display of fine foods. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1313 - Food Service Operation/Systems
Credits: 3 (3 lecture). An overview of the information needs of food and lodging properties. Emphasis on both front, back, and material management utilizing computer systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1314 - A La Carte Cooking
Credits: 3 (2 lecture, 4 lab). A course in a la carte or cooking to order concepts. Topics include menu and recipe interpretation and conversion, organization of work station, employment of appropriate cooking methods, plating, and saucing principles. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1341 - American Regional Cuisine
Credits: 3 (2 lecture, 4 lab). A study of the development of regional cuisines in the United States with emphasis on the similarities in production and service systems. Application of skills to develop, organize, and build a portfolio of recipe strategies and production systems. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1345 - International Cuisine
Credits: 3 (2 lecture, 4 lab). The study of classical cooking skills associated with the preparation and service of international and ethnic cuisines. Topics include similarities between food production systems used in the United States and other regions of the world. Prerequisite: CHEF 1301, 1305, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 1381 - Cooperative Education - Culinary Arts / Chef Training
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: CHEF 1301, 1305, 2201 and 2231, Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

CHEF 1391 - Special Topics in Culinary Arts / Chef Training
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge's, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.
Prerequisite: CHEF 1301, 1305, 2201 and 2231, Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

CHEF 1471 - Introduction to Food Preparation for Hospitality
Credits: 2 (1 lecture, 4 lab). A study of the fundamental principles of food preparation to introduce hospitality students to basic culinary skills. Topics will include kitchen professionalism, proper station set up, basic knife skills, basic cooking techniques, proper handling and storage of various food items, and appropriate portions and plating techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2171 - Culinary Capstone Projects Laboratory
Credits: 1. Open laboratory for reinforcement of specific culinary skills and selected culinary projects based on an individualized learning plan.

CHEF 2201 - Intermediate Food Preparation
Credits: 2 (1 lecture, 4 lab). Continuation of previous food preparation course. Topics include the concept of precooked food items, as well as scratch preparation. Covers full range of food preparation techniques.
Prerequisite: CHEF 1301 and 2231; Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2231 - Advanced Food Preparation
Credits: 2 (1 lecture, 4 lab). Topics include the concept of pre-cooked food items and the preparation of canapés, hors d'oeuvres, and breakfast items. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CHEF 1301 and 2201

CHEF 2265 - Practicum (or Field Experience) - Culinary Arts /Chef Training
Credits: 2 (18 Lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: CHEF 1301, 1305, 2201 and 2231, Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEF 2302 - Saucier
Credits: 3 (2 lecture, 4 lab). Instruction in the preparation of stocks, soups, classical sauces, contemporary sauces, accompaniments, and the pairing of sauces with a variety of foods. Prerequisite: CHEF 1301, 2201 and 2231; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CHEM 1105 – Introductory Chemistry Laboratory I (lab)
Credits: 1. Survey course introducing chemistry. Topics may include inorganic, organic, biochemistry, food / physiological chemistry, and environmental/consumer chemistry. Designed for non-science and allied health students.

CHEM 1111 - General Chemistry I (Lab)
Credits: 1 (3 lab). Science and engineering majors study atomic structure, chemical reactions, thermodynamics, electronic configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core.
Prerequisite: One year of high school Chemistry; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 1305 - Introductory Chemistry I (lecture)
Credits: 3 (3 lecture). General introduction to fundamental principles of chemistry includes atomic structure, chemical formulas, molecules, reactions, and elementary thermodynamics. This course is intended to be preparatory to CHEM 1411 for science majors who have no prior knowledge of chemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

CHEM 1307 - Introductory Chemistry II
Credits: 3 (3 lecture). Continuation of CHEM 1305. The organic chemistry of aliphatic and aromatic hydrocarbons, oxygen and nitrogen-containing organic compounds, and biochemistry is introduced. Prerequisite: Prerequisite: CHEM 1305, Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

Description of Courses

CHEM 1311 - General Chemistry I (Lecture)
Credits: 3 (3 lecture). Science and engineering majors study atomic structure, chemical reactions, thermodynamics, electronic configuration, chemical bonding, molecular structure, gases, states of matter, and properties of solutions. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: One year of high school Chemistry; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 1405 - Introductory Chemistry I (lecture & lab)
Credits: 4 (3 lecture, 3 lab). A general introduction to the properties of matter. Topics include atomic structure, energy, chemical bonding, reactions, gas laws and elementary thermodynamics. This is a preparatory course to CHEM 1411 for science majors who have no prior knowledge of chemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

CHEM 1407 - Introductory Chemistry II
Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 1405. The chemistry of carbon compounds. Topics include aliphatic and aromatic hydrocarbons, alcohols, ethers, aldehydes, ketones, carboxylic acids, acid derivatives, amines and biochemistry is introduced. Prerequisite: Prerequisite: CHEM 1405; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

CHEM 1412 - General Chemistry II (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 1411. Topics include solutions, chemical kinetics, equilibrium and equilibrium phenomena in aqueous solution, acids and bases, pH, thermodynamics, electrochemistry, nuclear chemistry, organic chemistry, and biochemistry. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: CHEM 1411; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 1413 - College Chemistry I
Credits: 4 (3 lecture, 3 lab). Nursing and allied health science majors study atomic structure, electron configuration, periodic law, radioactivity and its effects on living organisms, chemical bonding, molecules, gases, solutions, solution concentration, acids and bases, and buffers. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 1414 - College Chemistry II
Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 1413. Topics include the organic chemistry of hydrocarbons, alcohols, ethers, aldehydes, ketones, carboxylic acids, esters, amines, and amides; biochemistry topics include amino acids and proteins, enzymes, carbohydrates, and lipids. Prerequisite: CHEM 1413, Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into MATH 0312 (or higher) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

CHEM 2423 - Organic Chemistry I (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Study of compounds of carbon. Topics include alkanes, alkenes, alkynes, alcohols, alkyl halides, stereochemistry, nucleophilic substitution, reaction mechanisms and synthesis. Study of the properties and behavior of hydrocarbon compounds and their derivatives. Designed for students in science or pre-professional programs. Prerequisite: CHEM 1412; must be placed into college-level reading and be placed into MATH 1314 (or higher) and be placed into college-level writing.

CHEM 2425 - Organic Chemistry II (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Continuation of CHEM 2423. Topics include aromaticity, benzene and EAS reactions, aldehydes, ketones, carboxylic acids and their derivatives, condensation reactions, amines, phenols, and infrared and NMR spectroscopy. Prerequisite: CHEM 2423; must be placed into college-level reading and be placed into MATH 1314 (or higher) and be placed into college-level writing.

Description of Courses

CHIN 1411 - Beginning Chinese I

Credits: 4 (3 lecture, 2 lab). Introduction to Chinese language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

CHIN 1412 - Beginning Chinese II

Credits: 4 (3 lecture, 2 lab). Continuation of Chinese 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Chinese 1411 or satisfactory score on advanced placement examination or at least 2 years of high school Chinese within the last two years. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

CHLT 1266 - Practicum (or Field Experience) - Community Health Services / Liaison/Counseling

Credits: 2 (14 external hours). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1291 - Special Topics in Community Health Liaison

Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1302 - Wellness and Health Promotion

Credits: 3 (3 lecture). Overview of wellness theory and its application throughout the life span. Focus is on attitude development, impact of cultural beliefs, and communication of wellness. Includes health behavior theories and approaches to behavior modification. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1342 - Community Health Field Methods

Credits: 3 (3 lecture). Preparation for field work with individuals, families, and groups emphasizing teaching and capacity-building skills. Topics include outreach methods, area canvassing, home visiting, group work, community events, and community organizing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 038 in math.

CHLT 1401 - Introduction to Community Health

Credits: 4 (4 lecture). Designed to provide a basic understanding of variables that affect health sectors in the community. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

CJCR 1304 - LE-Probation and Parole

Credits: 3 (3 lecture). A survey of the structure, organization, and operation of probation and parole services. Emphasis on applicable state statutes and administrative guidelines. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJCR 2325 - Legal Aspects of Corrections

Credits: 3 (3 lecture). A study of the operation, management, and legal issues affecting corrections. Analysis of constitutional issues involving rights of the convicted, as well as civil liability of correctional agencies and staff. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 1506 - Basic Peace Officer I

Credits: 5 (3 lecture, 8 lab). Introduction to fitness and wellness, History, Civilization, of policing, professionalism and ethics, United States Constitution and Bill of Rights, criminal justice system, Texas Penal Code, Texas Code of Criminal Procedure, civil process, and stress management. This course taken in conjunction with Basic Peace Officer II, III, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Training Academy. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

Description of Courses

CJLE 1512 - Basic Peace Officer II

Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Covers field note taking, report writing, use of force? law and concepts, problem solving, multiculturalism, professional policing approaches, patrol procedures, victims of crime, family violence, MHMR, crowd management, HAZMAT, and criminal investigation. This course taken in conjunction with Basic Peace Officer I, III, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 1518 - Basic Peace Officer III

Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Covers laws pertaining to controlled substances, crowd management, personal property, and crime scene investigation. This course taken in conjunction with Basic Peace Officer I, II, and IV will satisfy the TCLEOSE-approved Basic Peace Officer Academy. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 1524 - Basic Peace Officer IV

Credits: 5 (3 lecture, 8 lab). Basic preparation for a new peace officer. Should be taken in conjunction with Basic Peace Officer I, II, and III to satisfy the Texas Commission on Law Enforcement (TCLEOSE) approved Basic Peace Officer Training Academy. THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A POLICE ACADEMY BY TCLEOSE. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 2420 - Texas Peace Officer Procedures

Credits: 4 (3 lecture, 4 lab). Study of the techniques and procedures used by police officers on patrol. Includes controlled substance identification, handling abnormal persons, traffic collision investigation, note taking and report writing, vehicle operation, traffic direction, crowd control, and jail operations. The student will demonstrate relevant law enforcement techniques and procedures required of Texas peace officers as mandated by the Texas Commission on Law Enforcement Officer Standards and education; identify and explain required forms and documents; and explain the applicable procedures to various situations as they relate to the enforcement of law. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 2421 - Texas Peace Officer Law

Credits: 4 (3 lecture, 4 lab). Study of laws directly related to police field work. Topics include Texas Transportation Code, intoxicated driver, Texas Penal Code, elements of crimes, Texas Family Code, Texas Alcoholic Beverage Code, and civil liability. The student will identify relevant sections of Texas law as mandated for this course by the Texas Commission on Law Enforcement Officer Standards and Education, discuss the Texas Penal Code, identify violations of the Texas Family Code and the Texas Alcoholic Beverage Code, define and illustrate civil liability, and discuss the transportation code, intoxicated drivers and elements of crimes. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 2484 - Cooperative Education - Criminal Justice / Police Science

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: CRIJ 2328, Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJLE 2522 - Texas Peace Officer Skills

Credits: 5 (3 lecture, 4 lab). Requires the demonstration and practice of the skills of a police officer including patrol, driving, traffic stop skills, use of force, mechanics of arrest, firearm safety, and emergency medical care. The student will evaluate and explain an appropriate response for a situational scenario, demonstrate the proper and effective application of physical skill while using police equipment, and demonstrate other skills expected of Texas peace officer as mandated for this course by the Texas Commission on Law Enforcement Officer Standards and Education. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

CJSA 1393 - Special Topics In Criminal Justice Studies

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

Description of Courses

CJSA 2364 - Practicum - Criminal Justice Studies
Credits: 3 (21 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. As outlined in the learning plan, the student will master the theory, concepts, and skills involving the tools, materials, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, and legal systems associated with the workplace; demonstrate ethical behavior, safety practices, interpersonal and teamwork skills, appropriate verbal and written communications in the workplace. Prerequisite: Prerequisite/Corequisite: CRIJ 2301, Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

CMSW 1266 - Practicum-Clinical and Medical Social Worker
Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1267 - Practicum-Clinical and Medical Social Worker
Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1313 - Assessment and Service Delivery
Credits: 3 (3 lecture). A study of interviewing and assessment instruments and approaches for working with multicultural population. Emphasis on service delivery systems. Topics include awareness of commonly used assessments, ethical standards of practice, awareness of multicultural issues and competence in service delivery. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 1353 - Family Intervention Strategies
Credits: 3 (3 lecture). Study of current family intervention strategies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

CMSW 2266 - Practicum-Clinical and Medical Social Worker
Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CMSW 2303 - Community Organization
Credits: 3 (3 lecture). Addresses community problem-solving and development procedures, including issue development and planning, and the tactics involved in community change. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

CNBT 1300 - Residential and Light Commercial Blueprint Reading
Credits: 3 (2 lecture, 2 lab). Introductory blueprint reading for residential and light commercial construction. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1301 - Introduction to the Construction Industry
Credits: 3 (3 lecture). Identify types of construction and organizational structures; explain purposes for various construction documents; describe the responsibilities of the construction office and field operations; identify environmental health and safety agency requirements; identify the various construction crafts and trades; and describe green and sustainable building practices and standards. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1302 - Mechanical, Plumbing, & Electrical Systems in Construction I
Credits: 3 (3 lecture). A presentation of the basic mechanical, plumbing, and electrical components in construction and their relationship. Prerequisite: Prerequisite: CNBT 1201 or ELPT 1221 and TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1311 - Construction Methods and Materials I
Credits: 3 (3 lecture). Introduction to construction materials and methods and their applications. Prerequisite: Prerequisite/Corequisite: CNBT 1201, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

CNBT 1316 - Construction Technology I

Credits: 3 (3 lecture). Introduction to site preparation, foundations, form work, safety, tools, and equipment. Prerequisite: Prerequisite: TECM 1301 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: CNBT 1311

CNBT 1318 - Construction Tools and Techniques

Credits: 3 (2 lecture, 2 lab). Comprehensive study of the selection and use of hand tools, portable and stationary power tools and related construction equipment. Emphasis on safety in the use of tools and equipment. Prerequisite: Prerequisites/Corequisites: CNBT 1201, TECM 1301: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 1342 - Building Codes and Inspections

Credits: 3 (3 lecture). Building codes and standards applicable to building construction and inspection processes. Prerequisite: TECM 1301, CNBT 1300; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 1346 - Construction Estimating I

Credits: 3 (2 lecture, 2 lab). Fundamentals of estimating materials and labor costs in construction. Prerequisite: TECM 1301, CNBT 1300; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisites/Corequisite: CNBT 1311

CNBT 1391 - Special Topics in Construction/Building Technology/Technician

Credits: 3 (3 lecture). An introduction to the process of career decision-making and the foundation skills required for a variety of trades in construction and manufacturing technologies including Air Conditioning and Refrigeration, Building Maintenance, Carpentry, Construction, Industrial Electricity, Machining and Manufacturing, and Welding. Topics include educational planning and vocational requirements including analyzing personal career interests, values, and aptitudes; surveying and researching career fields with related educational and training requisites; appraising career opportunities, prevailing wages, employment outlook, advantages, challenges and limitations. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CNBT 2335 - Computer Aided Construction Scheduling

Credits: 3 (2 lecture, 2 lab). Advanced construction scheduling utilizing computer scheduling software to perform various scheduling procedures. Prerequisite: Prerequisites/Corequisites: ITSC 1309 CNBT 1346; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 2337 - Construction Estimating II

Credits: 3 (2 lecture, 2 lab). Advanced estimating concepts using computer software programs for construction and crafts. Prerequisite: Prerequisites/Corequisites: ITSC 1309 CNBT 1346; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

CNBT 2342 - Construction Management I

Credits: 3 (3 lecture). Management skills on the job site. Topics include written and oral communications, leadership and motivation, problem solving, and decision making. Prerequisite: CNBT 1302, TECM 1301, CNBT 1300, CNBT 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

COMM 1307 - Introduction to Mass Communication

Credits: 3 (3 lecture). Analyzes communication theory and mass media in 21st century society. Surveys History, Civilization, , operation, and structure of the American communication system. Identifies major legal, ethical, and sociocultural issues, studies basic communication theory, and the interrelations between media and the individual, media and society, and media and the future. Examines career potential and job prospects in today's and tomorrow's electronic culture. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

COMM 1335 - Introduction to Electronic Media

Credits: 3 (3 lecture). A survey and analysis of History, Civilization, and principles of radio and television broadcasting and production, including programming for varied audience segments and sponsorship. Studies History, Civilization, , technology, regulation, audience, and economics of radio, television, and related electronic media. Studies basic skills and theories of image and sound, equips student to communicate through audio/visual media. Includes public cable, closed-circuit television, production workshops, and individualized instructional modules. Field trip and community media guest lectures included.

Description of Courses

COMM 1336 - Video Production I

Credits: 3 (2 lecture, 2 lab). A concentrated course in the theory and application of principles, procedures, and techniques of television production. Uses lecture and laboratory setting with supervision by faculty.

Prerequisite: COMM 1335

COMM 1337 - Video Production II

Credits: 3 (2 lecture, 2 lab). The preparation and directing of television programs with emphasis on the creative application of broadcast principles and informational techniques. Uses lecture and laboratory setting with supervision by faculty. Prerequisite: COMM 1335

COMM 2129 - News Publication III

Credits: 1 (1 lecture). Work on the staff of one of the college publications. Students are required to work on the staff of at least one of the official college publications for prescribed periods under faculty supervision.

COMM 2289 - Academic Cooperative

Credits: (2 lecture). An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of communication.

COMM 2300 - Media Literacy

Credits: 3 (3 lecture). Criticism and analysis of the function, role, and responsibility of the mass media in modern society from the consumer perspective. Includes the ethical problems and issues facing each media format, with the effect of

political, economic, and cultural factors on the operation of the media.

COMM 2302 - Principles of Journalism

Credits: 3 (3 lecture). Exploration of ethical and legal boundaries as well as issues and problems facing today's journalist. Prerequisite: Must be placed at college level reading and writing skills.

COMM 2303 - Audio / Radio Production

Credits: 3 (3 lecture). Concepts and techniques of sound production, including the coordinating and directing processes. Hands-on experience with equipment, sound sources, and direction of talent.

COMM 2304 - Introduction to Cinematic Production

Credits: 3 (3 lecture). Basic single-camera production concepts and techniques.

COMM 2305 - Editing and Layout

Credits: 3 (3 lecture). Trains students in basic copy editing for publication and in handling production copy from manuscript to finished publication, including photography choice, sizing, cropping and/or handling of various types of graphic illustrations. Covers publication layout (rough, finished), type choice, color, and black/white rendering.

COMM 2309 - News Editing and Copy Reading I

Credits: 3 (2 lecture, 2 lab). Trains students in writing newspaper and magazine feature articles and editorials. Examines topic selection and location of background source material, plus market and reader analysis. Discusses free-lance market and adapting style to different audiences and publications. (formerly COMM 2310).

COMM 2311 - Media Writing

Credits: 3 (2 lecture, 2 lab). Provides training in news gathering, news writing, and editing. Develops skills in headline writing, layout, and newspaper production with experience on student newspaper or area print publications. Field trips and careers are explored. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: ENGL 1301

COMM 2315 - News Reporting

Credits: 3 (2 lecture, 2 lab). Continuation of COMM 2311. Prerequisite: ENGL 1301, COMM 2311

COMM 2324 - Practicum in Electronic Media

Credits: 3 (3 lecture). Lecture and laboratory instruction and participation.

COMM 2327 - Introduction to Advertising

Credits: 3 (3 lecture). Enables student to conceive ideas, tailor and lay out advertisements geared for TV commercials, radio, magazines, and newspapers. Assignments are based on goals, objectives, product/service fact sheets, and marketing considerations. Course integrates vital ingredients that enhance or impede advertising outcomes: product research, consumer behavior, semantics, social science knowledge, copy research and copywriting, visualization, media strategy, advertising agency knowledge, handling of client relations, and preparation of a portfolio. Field trip.

Description of Courses

COMM 2330 - Introduction to Public Relations
Credits: 3 (3 lecture). Studies principles and practices of public relations. Provides hands-on techniques to influence positive public opinion within and outside of companies. Requires creation of feature and news articles, press releases, press kit, brochure, and brief work plan utilizing the four-step planning process for resolving PR problems. Trains students to write good copy, construct PR goals and objectives, conduct practical research to determine public attitudes and opinion, arrange and conduct press conferences, and develop positive media relationships. (formerly COMM 2328).

COMM 2331 - Radio and Television Announcing
Credits: 3 (2 lecture, 2 lab). The development of skills required for efficient announcing, acting, newscasting, and other speaking before microphone and camera. Students write and present radio, TV, audiovisual announcements and assignments. Utilize lectures, lab setting with supervision by faculty.

COMM 2332 - Radio / Television News
Credits: 3 (2 lecture, 2 lab). Studies fundamentals of broadcast news. Covers broadcast writing, performing, and standard broadcasting formats. Uses lecture and laboratory setting with supervision by both sponsoring commercial studio and faculty.

COMM 2339 - Writing for Radio , Television and Film
Credits: 3 (3 lecture). Writing for production of programs and various documentaries, training materials slide/tape sets, and other situations requiring a production script.

COMM 2366 - Introduction to Cinema
Credits: 3 (3 lecture). Emphasis on the analysis of the visual and aural aspects of selected motion pictures, dramatic aspects of narrative films, and historical growth and sociological effect of film as an art(Cross-listed as DRAM 2366). This course satisfies the Creative Arts or Component Area Option of the HCC core.

COMM 2389 - Academic Cooperative
Credits: 3 (1 lecture, 8 lab). An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of communication.

COSC 1436 - Programming Fundamentals I
Credits: 4 (3 lecture, 3 lab). Introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing, and debugging. This course assumes computer literacy. This course is included in the Field of Study Curriculum for Computer Science. Core curriculum course. Prerequisite: Must be at college-level skills in reading and writing, place into MATH 1314 College Algebra or higher, and have had high school computer literacy or equivalent.

COSC 1437 - Programming Fundamentals II
Credits: 4 (3 lecture, 3 lab). This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. Prerequisite: COSC 1436 or ITSE 1402, and MATH 2412 and ENGL 1301.

COSC 2425 - Computer Organization
Credits: 4 (3 lecture, 3 lab). The organization of computer systems is introduced using assembly language. Topics include basic concepts of computer architecture and organization, memory hierarchy, data types, computer arithmetic, control structures, interrupt handling, instruction sets, performance metrics, and the mechanics of testing and debugging computer systems. Embedded systems and device interfacing are introduced. Prerequisite: COSC 1436, MATH 1314 and ENGL 1301.

COSC 2436 - Programming Fundamentals III
Credits: 4 (3 lecture, 3 lab). Further applications of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Prerequisite: MATH 2413 and COSC 1437

CPMT 1303 - Introduction to Computer Technology
Credits: 3 (2 lecture, 4 lab). A fundamental computer course that provides in-depth explanation of the procedures to utilize hardware and software. Emphasis on terminology, acronyms, and hands-on activities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Department Approval.

Description of Courses

CPMT 1411 - Introduction to Computer Maintenance
Credits: 4 (3 lecture, 3 lab). Introduction to the installation, configuration, and maintenance of a microcomputer system. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Department Approval.

CPMT 1449 - Computer Networking Technology
Credits: 4 (3 lecture, 3 lab). Networking fundamentals, terminology, hardware, software, and network architecture. Includes local and wide area networking concepts and networking installations and operations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Department Approval.

CRIJ 1301 - Introduction to Criminal Justice
Credits: 3 (3 lecture). History, Civilization, , philosophy, and ethical considerations of criminal justice; the nature and impact of crime; and an overview of the criminal justice system, including law enforcement and court procedures. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 1306 - Court Systems & Practices
Credits: 3 (3 lecture). Study of the judiciary in the American criminal justice system and the adjudication processes and procedures. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 1307 - Crime in America
Credits: 3 (3 lecture). American crime problems in historical perspective, social and public policy factors affecting crime, impact and crime trends, social characteristics of specific crimes, and prevention of crime. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 1310 - Fundamentals of Criminal Law
Credits: 3 (3 lecture). Study of criminal law, its philosophical and historical development, major definitions and concepts, classifications and elements of crime, penalties using Texas statutes as illustrations, and criminal responsibility. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 1313 - Juvenile Justice System
Credits: 3 (3 lecture). A study of the juvenile justice process to include specialized juvenile law, role of the juvenile law, role of the juvenile courts, role of police agencies, role of correctional agencies, and theories concerning delinquency. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 2301 - Community Resources in Corrections
Credits: 3 (3 lecture). An introductory study of the role of the community in corrections; community programs for adults and juveniles; administration of community programs; legal issues; future trends in community treatment. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 2313 - Correctional Systems and Practices
Credits: 3 (3 lecture). Corrections in the criminal justice system; organization of correctional systems; correctional role; institutional operations; alternatives to institutionalization; treatment and rehabilitation; current and future issues. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CRIJ 2314 - Criminal Investigation
Credits: 3 (3 lecture). Investigative theory; collection and preservation of evidence; sources of information; interview and interrogation; uses of forensic sciences; case and trial preparation. Prerequisite: Must be placed into college-level reading and writing or higher.

CRIJ 2323 - Legal Aspects of Law Enforcement
Credits: 3 (3 lecture). Police authority; responsibilities; constitutional constraints; laws of arrest, search, and seizure; police liability. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Prerequisite/Corequisite: CRIJ 1301; must also be placed in college-level reading and writing or higher.

CRIJ 2328 - Police Systems and Practices
Credits: 3 (3 lecture). The police profession; organization of law enforcement systems; the police role; police discretion; ethics; police-community interaction; current and future issues. Designated as Criminal Justice Transfer Curriculum. Prerequisite: Must be placed into college level reading and writing or higher.

CSME 1308 - Principles of Eyelash Extension
Credits: 3 (2 lecture, 4 lab). This course provides the student with the practical skills necessary to safely and effectively apply eyelash extensions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

CSME 1391 - Special Topics in Cosmetology/Cosmetologist, General
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.
Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1405 - Fundamentals of Cosmetology
Credits: 4 (2 lecture, 7 lab). A course in the basic fundamentals of cosmetology. Topics include safety and sanitation, service preparation, manicure, facial, chemical services, shampoo, haircut, wet styling, and comb out.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.
Corequisite: CSME 1410

CSME 1409 - Application of Eyelash Extensions
Credits: 4 (2 lecture, 6 lab). This course provides the student with the skills necessary to perform client services using current techniques and business practices.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1410 - Introduction to Haircutting and Related Theory
Credits: 4 (2 lecture, 7 lab). Introduction to the theory and practice of hair cutting. Topics include terminology, implements, sectioning and finishing techniques.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.
Corequisite: CSME 1405, CSME 1453

CSME 1420 - Orientation to Facial Specialist
Credits: 3 (3 lecture, 4 lab). An overview of the skills and knowledge necessary for the field of facials and skin care.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.
Corequisite: CSME 1421, CSME 1447

CSME 1421 - Principles of Facial and Skin Care Technology I
Credits: 4 (2 lecture, 7 lab). An introduction to the principles of facial and skin care technology. Topics include anatomy, physiology, theory, and related skills of facial and skin care technology. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1420, CSME 1447

CSME 1447 - Principles of Skin Care / Facials and Related Theory
Credits: 3 (3 lecture, 4 lab). An in-depth coverage of the theory and practice of skin care, facials, and cosmetics.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.
Corequisite: CSME 1420, CSME 1421, CSME 1545

CSME 1451 - Artistry of Hair, Theory and Practice
Credits: 4 (2 lecture, 6 lab). Instruction in the artistry of hair design. Topics include theory, techniques, and application of hair design. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2410

CSME 1452 - Orientation to Hair Weaving & Braiding
Credits: 4 (2 lecture, 7 lab). An overview of the skills and knowledge necessary for the field of hair weaving and braiding. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1457

CSME 1453 - Chemical Reformation and Related Theory
Credits: 4 (2 lecture, 7 lab). Presentation of the theory and practice of chemical reformation, including terminology, application, and workplace competencies.
Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.
Corequisite: CSME 2401

CSME 1491 - Special Topics in Cosmetology/Cosmetologist, General
Credits: 4 (2 lecture, 4 lab). This course is designed to introduce the student to the principles of client relations dealing with diverse populations of clients and attitudes and behaviors pertinent to the occupation of cosmetology and relevant to the professional development of the student. This course is a 2 lecture and 4 lab hours (96 contact hours) course upon successful completion of the course, the student will be awarded 4 semester credit hours. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2343 CSME 2531

Description of Courses

CSME 1507 - Orientation to Eyelash Extensions
Credits: 5 (2 lecture, 7 lab). An overview of the skills and knowledge necessary for the field of eyelash extensions. Topics include the basic knowledge of chemistry, eyelash growth cycles, proper selection and application, supplies and equipment of the industry, safety, sanitation, and laws and rules of the state licensing agency as they relate to eyelash extensions. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 1534 - Cosmetology Instructor I
Credits: 5 (3 lecture, 5 lab). The fundamentals of instruction of cosmetology students. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1535, CSME 2514

CSME 1535 - Orientation to the Instruction of Cosmetology
Credits: 5 (3 lecture, 5 lab). An overview of the skills and knowledge necessary for the instruction of cosmetology students. Prerequisite: A current Texas Cosmetology Operator License. Must have 3 years recent verifiable work experience. Must obtain department approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1534, CSME 2514

CSME 1545 - Principles of Facials and Skin Care Technology II
Credits: 5 (3 lecture, 6 lab). A continuation of the concepts and principles in skin care and other related technologies. Topics include advanced instruction in anatomy, physiology, theory, and related skills of facial and skin care technology. Prerequisite: Prerequisite: CSME 1447; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2531, CSME 1491, CSME 1447

CSME 1557 - Applications of Hair Weaving & Braiding
Credits: 4 (2 lecture, 7 lab). Emphasis on the application of hair weaving and braiding techniques and preparation for the Texas Department of Licensing and Regulation (TDLR) examination. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1452

CSME 2204 - Introduction to the Theory and Chemistry of Hair Color
Credits: 3 (3 lecture, 1 lab). The introduction of basic theory and chemistry of hair color. Topics include the Law of Color, terminology and chemical composition of hair color products. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

CSME 2337 - Advanced Cosmetology Techniques
Credits: 3 (1 lecture, 8 lab). Mastery of advanced cosmetology techniques including hair designs, professional cosmetology services, and workplace competencies Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2439

CSME 2343 - Salon Development
Credits: 3 (2 lecture, 4 lab). Exploration of salon development. Topics include professional ethics and goals, salon operation, and record keeping. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1491

CSME 2410 - Advanced Haircutting and Related Theory
Credits: 4 (2 lecture, 7 lab). Advanced concepts and practice of haircutting. Topics include haircuts utilizing scissors, razor, and/or clippers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1451

CSME 2439 - Advanced Hair Design
Credits: 4 (2 lecture, 6 lab). Advanced concepts in the theory and practice of hair design Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2337

CSME 2501 - The Principles of Hair Coloring and Related Theory
Credits: 4 (2 lecture, 7 lab). Presentation of the theory, practice, and chemistry of hair color. Topics include terminology, application, and workplace competencies related to hair color. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1453

Description of Courses

CSME 2514 - Cosmetology Instructor II

Credits: 5 (3 lecture, 5 lab). A continuation of the fundamentals of instructing cosmetology students. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1534, CSME 1535, CSME 2515

CSME 2531 - Principles of Facial / Skin Care Technology III

Credits: 5 (3 lecture, 6 lab). Advanced concepts and principles of skin care and other related technologies. Prerequisite: CSME 1447; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 1491, CSME 1545

CSME 2541 - Preparation for the State Licensing Examination

Credits: 5 (3 lecture, 6 lab). Preparation for the state licensing examination. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME1451

CSME 2544 - Cosmetology Instructor IV

Credits: 5 (3 lecture, 5 lab). Advanced concepts of instruction in a cosmetology program. Topics include demonstration, development, and implementation of advanced evaluation and assessment techniques. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2515, CSME 2545,

CSME 2545 - Instructional Theory and Clinic Operation

Credits: 5 (3 lecture, 5 lab). An overview of the objectives required by the Texas Department of Licensing and Regulation Instructor Examination. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2515, CSME 2544

CSME 2549 - Cosmetology Instructor III

Credits: 5 (3 lecture, 5 lab). Presentation of lesson plan assignments and evaluation techniques. Prerequisite: CSME 1534, CSME 1535, CSME 2514; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: CSME 2544, CSME 2545, CSME 2514

CTEC 1213 - Introduction to Chemical Technology

Credits: 2 (2 lecture). Introduction to the educational and professional requirements of the chemical technician. Topics include safety, industrial site visits, chemical literature, and computer applications. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0312 or 0349 in writing and MATH 0312 in math.

CTEC 1345 - Chemical Laboratory Safety

Credits: 3 (3 lecture). Study of the safety problems encountered in the operation of a chemical laboratory. Topics include chemical and safety regulations, chemical hygiene plans, the Lab Standard, and safe laboratory procedures. Prerequisite: Must be placed into college-level reading, writing and math.

CTEC 1349 - Environmental Chemistry

Credits: 3 (2 lecture, 3 lab). Instruction in laboratory operations for the analysis of environmental contaminants according to current federal, state, and local standards. Prerequisite: SCIT 1414 or CHEM 1411 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0312 or 0349 in writing and MATH 0312 in math.

CTEC 1391 - Special Topics in Chemical Technology / Technician

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

CTEC 1401 - Applied Petrochemical Technology

Credits: 4 (3 lecture, 3 lab). Instruction in the basic principles of physics and their application to process facilities. Topics include units of measurement; gas laws; thermodynamics; temperature; pressure; and the properties of solids, liquids, and gases and how these properties relate to the operation of process equipment. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0312 or 0349 in writing and MATH 0312 in math.

CTEC 1441 - Applied Instrumental Analysis

Credits: 4 (2 lecture, 4 lab). Principles of instrumental chemical analysis. Topics include chromatography, spectroscopy, and electroanalytical chemistry. Prerequisite: Must be placed into college-level reading, writing and math.

Description of Courses

CTEC 1470 - Principles of Pipeline Technology

Credits: 4 (3 lecture, 3 lab). Topics include: reliable operations of pumps and compressors, calculation of flow, requirements for flow control valves and mechanics, pressure relief devices, turbo-expanders, pumps, water hammer, valve noise, calculation of pressure drops in single and two phase systems, transport maintenance and troubleshooting, transport material safety and operations, corrosion of piping systems, pipe sizing, and solids fluidization. Students will learn pipe design and manufacturing material along with economics associated with transporting of material through piping systems. Students will use software and actual pipeline systems for level and flow control and operations. Prerequisite: PTAC 1410 or Department Approval; must be placed into college-level reading, writing and math.

CTEC 2333 - Comprehensive Studies in Chemical Technology

Credits: 3 (1 lecture, 5 lab). Course requiring a special laboratory research project. Prerequisite: Department Approval; must be placed into college-level reading and into ENGL 0312 or 0349 in writing and MATH 0312 in math.

CTEC 2381 - Cooperative Education - Chemical Technology / Technician

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: SCIT 1414 or Department Approval; must be placed into college-level reading, writing and math.

CTEC 2386 - Internship - Chemical Technology / Technician

Credits: 3 (18 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

CTEC 2431 - Applied Instrumental Analysis II

Credits: 4 (2 lecture, 4 lab). Advanced topics in instrumental analysis. Topics include atomic absorption, inductively coupled plasma, nuclear magnetic resonance, gas chromatography/mass spectrometry, liquid chromatography, and infrared spectroscopy. Prerequisite: CTEC 1441 or Departmental Approval; must be placed into college-level reading, writing and math.

CTEC 2441 - Polymers I

Credits: 4 (3 lecture, 2 lab). Study of the concepts of polymer science. Topics include classification, structure, properties, synthesis, characterization, and industrial application. Prerequisite: SCIT 2401 or Concurrent Enrollment or Department Approval; must be placed into college-level reading, writing and math.

CTEC 2443 - Polymers II

Credits: 4 (3 lecture, 2 lab). Continuation of Polymers I with emphasis on polymeric materials. Prerequisite: CTEC 2441 or Department Approval; must be placed into college-level reading, writing and math.

CTEC 2445 - Unit Operations

Credits: 4 (3 lecture, 2 lab). Instruction in the principles of chemical engineering and process equipment with emphasis on scale-up from laboratory bench to pilot plant. Prerequisite: PTAC 2420 or Department Approval; must be placed into college-level reading, writing and math.

CTEC 2470 - Process Control and Design

Credits: 4 (3 lecture, 3 lab). Develop knowledge and skills on practical chemical/industrial process control. Understand control room functions and operation. Identify process dynamics using real-time plant data. Understand industrial controllers_PID/feed-forward/model-based controller, dead-time compensators and non-linear controllers. Design, build and tune controllers. Optimize tuning parameters. Simulate controllers and optimize them in a simulated plant environment. Students will use software for dynamics identification and controller tuning optimizations and conduct numerous hands-on exercises to prepare them for the industrial environment. Prerequisite: PTAC 1410 or Department Approval; must be placed into college-level reading, writing and math.

CTMT 2336 - Computer Tomography Equipment and Methodology

Credits: 3 (3 lecture). Skill development in the operation of computed tomographic equipment, focusing on routine protocols, image quality, quality assurance and radiation protection. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: RADR 2340

Description of Courses

CTMT 2360 - Clinical-Radiologic Technology / Science-Radiographer
Credits: 3 (12 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: RADR 2340, CTMT 2336, CTMT 2461

CTMT 2361 - Clinical-Radiologic Technology / Science-Radiographer
Credits: 3 (12 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Registered and in good standing with ARRT or NMTCB; must be placed into college-level reading, writing and math. Corequisite: RADR 2340, CTMT 2336, CTMT 2460

CTMT 2362 - Clinical - Radiologic Technology/Science - Radiographer
Credits: 3 (12 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This course is assigned to Nuclear Medicine Technology students only. Prerequisite: Must be placed into college-level reading, writing and math.

CTMT 2363 - Clinical - Radiologic Technology/Science - Radiographer
Credits: 3 (12 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. This course is assigned to Nuclear Medicine Technology students only. Prerequisite: Must be placed into college-level reading, writing and math.

DAAC 1264 - Practicum (or Field Experience) - Substance Abuse/Addiction Counseling
Credits: 2. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

DAAC 1304 - Pharmacology of Addiction
Credits: 3 (3 lecture). Describes the psychological, physiological, and sociological effects of mood altering substances and behaviors. Emphasizes pharmacological effects of tolerance, dependency/withdrawal, cross addiction, and drug interaction. Prerequisite: Must be

placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 1305 - Co-Occurring Disorders
Credits: 3 (3 lecture). Provides students with an understanding of co-occurring psychiatric and substance abuse disorders and their impact on the individual, family, and community. Includes an integrated approach to address the issues accompanying the illness. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

DAAC 1311 - Counseling Theories
Credits: 3 (3 lecture). An examination of the major theories and current treatment modalities used in the field of counseling. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0308 in math.

DAAC 1319 - Substance-Related and Addictive Disorders
Credits: 3 (3 lecture). An overview of causes and consequences of substance-related and addictive disorders, the major drug classifications, and the counselor's code of ethics. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 1417 - Basic Counseling Skills
Credits: 4 (2 lecture, 8 lab). Presents the basic counseling skills necessary to develop an effective helping relationship with clients. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 2267 - Practicum (or Field Experience) - Substance Abuse / Addiction Counseling
Credits: 2 (19 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0308 in math.

DAAC 2306 - Substance Abuse Prevention I
Credits: 3 (3 lecture, 1 lab). Focuses on aspects of substance abuse prevention from a public health model. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

DAAC 2353 - Substance Abuse Prevention II
Credits: 3 (3 lecture, 1 lab). Focuses on the incorporation of research and evaluation methods into advanced program designs and outcomes, and research and application of ethics as applied to substance abuse prevention. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DAAC 2354 - Dynamics of Group Counseling
Credits: 3 (3 lecture). Exploration of group counseling skills, techniques, and stages of group development. Prerequisite: DAAC 1417; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

DANC 1110 - Tap Dance
Credits: 1 (3 lab). Instruction in the fundamental techniques and concepts associated with Tap dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1112 - Dance Practicum
Credits: 1 (0 lecture, 3 lab). Practicum in dance related topics with emphasis on practical skills necessary for the field. May be repeated for credit once. Prerequisite: Department Approval required.

DANC 1128 - Ballroom and Social Dance
Credits: 1 (0 lecture, 2 lab). Introductory instruction in the fundamental techniques and concepts associated with Ballroom and Social

Dance. May be repeated for credit once.

DANC 1151 - Freshman Dance Performance
Credits: 1 (1 lecture, 3 lab). Instruction in dance performance through experiential projects at the freshman level. May be repeated for credit once. Prerequisite: Prerequisites: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1201 - Dance Composition - Improvisation
Credits: 2 (2 lecture). This introductory course in improvisation will investigate spontaneous problem solving as a means of generating movement for dance composition. Students will be called upon to explore and respond to various forms of stimuli in a safe and supportive learning environment within solo and group work. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1241 - Beginning Ballet
Credits: 2 (1 lecture, 3 lab). Instruction in the fundamental techniques and concepts associated with ballet. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1245 - Beginning Modern Dance
Credits: 2 (1 lecture, 3 lab). Instruction in the intermediate techniques and concepts associated with the concert form of modern dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1247 - Beginning Jazz Dance
Credits: 3 (1 lecture, 2 lab). Instruction in the fundamental techniques and concepts associated with jazz dance. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1301 - Dance Composition - Choreography
Credits: 3 (3 lecture). This course is an examination of the principles of movement generation, phrasing, choreographic structure, and manipulation. Integration of choreographic principles will foster the growth of personal artistic style. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 1305 - World Dance
Credits: 3 (2 lecture, 2 lab). Students will learn cultural dances of Africa and the African Diaspora, with emphasis on rhythmic awareness and movement development. The cultural origins, significance, and motivation, as well as the use of costumes and music, will be explored in lecture and research through live performances, guest artists, and the use of multi-media sources. Instruction will include experiential and written assignments. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DANC 2151 - Sophomore Dance Performance
Credits: 1(1 lecture, 3 lab). Instruction in dance performance through experiential projects at the sophomore level. May be repeated for credit once. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

Description of Courses

DANC 2241 - Intermediate Ballet

Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with ballet. May be repeated for credit once.

DANC 2245 - Intermediate Modern Dance

Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with the concert form of modern dance.

DANC 2247 - Intermediate Jazz Dance

Credits: 2 (2 lecture, 2 lab). Instruction in the intermediate techniques and concepts associated with jazz dance. May be repeated for credit once. Prerequisite: DANC 1348 Jazz II or instructor's approval.

DANC 2303 - Dance Appreciation

Credits: 3 (3 lecture). A general survey of dance forms designed to create an appreciation of the vocabulary, techniques, and purposes of the creative process. This course includes critical interpretation and evaluations of choreographic works and dance forms within cultural and historical contexts. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

DANC 2389 - Academic Cooperative in Dance

Credits: 3 (1 lecture, 16 lab). An instructional program designed to integrate on-campus study with practical hands-on experience in dance. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of dance. Prerequisite: Must be placed into college-level reading and college-level writing.

DEMR 1301 - Shop Safety and Procedures

Credits: 3 (2 lecture, 2 lab). A study of shop safety, rules, basic shop tools, and test equipment. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1305 - Basic Electrical Systems

Credits: 3 (2 lecture, 4 lab). Basic principles of electrical systems of diesel powered equipment with emphasis on starters, alternators, and batteries. Prerequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1306 - Diesel Engine I

Credits: 3 (2 lecture, 4 lab). An introduction to the basic principles of diesel engines and systems. Prerequisite: Prerequisite/Corequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1310 - Diesel Engine Testing and Repair I

Credits: 3 (2 lecture, 4 lab). An introduction to testing and repairing diesel engines including related systems specialized tools. Prerequisite: Prerequisite/Corequisite: DEMR 1313; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1316 - Basic Hydraulics

Credits: 3 (1 lecture, 4 lab). Fundamentals of hydraulics including components and related systems. Prerequisite: Prerequisite/Corequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1317 - Basic Brake Systems

Credits: 3 (2 lecture, 4 lab). Basic principles of brake systems of diesel powered equipment. Emphasis on maintenance, repairs, and troubleshooting. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1323 - Heating, Ventilation, and Air Conditioning (HVAC) Troubleshooting and Repair

Credits: 3 (2 lecture, 4 lab). Introduction to heating, ventilation, and air conditioning theory, testing, and repair. Emphasis on refrigerant reclamation, safety procedures, specialized tools, and repairs. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1329 - Preventative Maintenance

Credits: 3 (2 lecture, 2 lab). An introductory course designed to provide the student with basic knowledge of proper servicing practices. Content includes record keeping and condition of major systems. Prerequisite: DEMR 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1330 - Steering and Suspension I

Credits: 3 (2 lecture, 4 lab). A study of design, function, maintenance, and repair of steering and suspension systems. Emphasis on troubleshooting and repair of failed components. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

DEMR 1342 - Power Train Applications I

Credits: 3 (2 lecture, 4 lab). In-depth coverage of the mechanics and theory of power trains. Emphasis on disassembly, inspection, and repair of power train components. Prerequisite: Prerequisite/Corequisite: DEMR 1349; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 1381 - Cooperative Education - Diesel Mechanics Technology/Technician

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite/Corequisite: DEMR 2312 and Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2312 - Diesel Engine Testing and Repair II

Credits: 3 (2 lecture, 4 lab). Coverage of testing and repairing diesel engines including related systems specialized tools. Prerequisite: Prerequisite/Corequisite: DEMR 1342; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2332 - Electronic Controls

Credits: 3 (2 lecture, 4 lab). Advanced skills in diagnostic and programming techniques of electronic control systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DEMR 2439 - Advanced Electrical Systems

Credits: 4 (2 lecture, 4 lab). A continuation of basic electrical systems to include lighting, computer controls and accessories. Emphasis on diagnosis, testing, and repair using the various diagnostic tools and procedures for current electronic systems. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1302 - Introduction to Technical Animation and Rendering

Credits: 3 (2 lecture, 4 lab). Basic terminology and concepts associated with the development of computer modules used in technical computer animation. Topics include basic animation principles, model creation, light sources, camera positioning, rendering, importing and modification of external files. Prerequisite: DFTG 2319; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1305 - Technical Drafting

Credits: 3 (2 lecture, 4 lab). Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1309 - Basic Computer-Aided Drafting

Credits: 3 (2 lecture, 4 lab). An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems and plot/print to scale. Corequisite: Co-requisite: DFTG 1405 or Departmental Approval; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1310 - Specialized Basic Computer Aided Drafting (CAD)

Credits: 3 (2 lecture, 4 lab). A supplemental course to Basic Computer Aided Drafting using an alternative computer-aided drafting (CAD) software to create detail and working drawings. Prerequisite: DFTG 1405 and DFTG 1309 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1313 - Drafting for Specific Occupations

Credits: 3 (2 lecture, 2 lab). Discussion of theory and practice with drafting methods and the terminology required to prepare working drawings in specific or various occupational fields. Prerequisite: CNBT 1300; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1315 - Architectural Blueprint Reading

Credits: 3 (2 lecture). The fundamentals of blueprint reading for the construction industry will be examined. Prerequisite: CNBT 1201; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

DFTG 1317 - Architectural Drafting - Residential
Credits: 3 (2 lecture, 4 lab). Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1329 - Electro - Mechanical Drafting
Credits: 3 (2 lecture, 4 lab). A basic course including layout and design of electro-mechanical equipment from engineering notes and sketches. Emphasis on drawing of electronics enclosures, interior hardware, exterior enclosure, detailed and assembly drawings with a parts list, and flat-pattern layouts. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1333 - Mechanical Drafting
Credits: 3 (2 lecture, 4 lab). Detail drawings with proper dimensioning and tolerances, use of sectioning techniques, common fasteners, pictorial drawings, including bill of materials. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1358 - Electrical / Electronic Drafting
Credits: 3 (2 lecture, 4 lab). Electrical and electronic drawings stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuit board layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1370 - Basic CAD-Microstation
Credits: 3 (2 lecture, 3 lab). A study of process plant design and layout while developing the basic knowledge of pipe fittings, symbols, specifications, and their applications in the piping process systems. The learner will demonstrate the use of piping symbols and the processes used to develop flow diagrams, piping plans, elevations, and isometrics. Prerequisite: DFTG 1405 and DFTG 1309 or Department Approval.

DFTG 1372 – Smart Print 3D Drafting
Credits: 3. Use process, power and marine design software for 3D modeling design. Learn to define a workspace that opens a new 3D intelligent design world. Manipulate designed equipment, specialty items, piping and refining where required.

DFTG 1376 - Revit Residential
Credits: 3 (2 lecture, 4 lab). Use architectural design software for 2D and 3D modeling design and drafting. Prerequisite: DFTG 1405, DFTG 1309, and DFTG 1317. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1391 - Special Topics Pro-E or PDMS in Drafting
Credits: 3 (2 lecture, 4 lab). Use parametric feature-based solid modeling tool which unites 3D parametric features with 2D tools. Work in 3D environments and calculate mass properties directly from the created geometry. Design, analyze, test, and build prototypes by using high end CAD/CAM/CAE tools. Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1392 - Special Topics in Architectural Drafting and Architectural CAD/CADD
Credits: 3 (2 lecture, 4 lab). The total method of building construction, focused on energy conservation, green and sustainable building, improved construction practices, accessibility, and whole-building design techniques. Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Prerequisite: DFTG 2319, DFTG 1317.

Description of Courses

DFTG 1393 - Special Topics in Civil Drafting and Civil Engineering ; Civil 3D
Credits: 3 (2 lecture, 4 lab). Use Civil 3D software to enhance alignment layout of civil engineering projects. Use tools that enable easier sharing of drafting and design standards across organizations. Prerequisite: DFTG 2330. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1394 - Special Topics in Electrical / Electronics Drafting and Electrical / Electronics CAD / CADD
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 1358. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1395 - Special Topics in Mechanical Drafting and Mechanical Drafting CAD / CADD AutoPlant Isometrics
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2323 and DFTG 2371. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1396 - Special Topics in Computer Graphics : Smart Plant 3D Drafting SmartPlant
Credits: 3 (2 lecture, 4 lab). Use process, power & marine design software for 3D modeling design. Define a workspace in a 3D intelligent design world. Manipulate designed equipment, specialty items, valves and route sloped pipe and insert splits where required. Prerequisite: DFTG 2323 and DFTG 2308; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 1396 - Special Topics in Computer Graphics : Piping Design Systems
Credits: 3 (2 lecture, 4 lab). Provides training in 3D modeling. Create walk throughs allowing operations and maintenance personnel to interactively view the plant before it is constructed.

DFTG 2300 - Intermediate Architectural Drafting - Residential
Credits: Credit 3 (2 lecture, 4 lab). Continued application of principles and practices used in residential construction. Prerequisite: DFTG 1317; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2302 - Machine Drafting
Credits: 3 (2 lecture, 4 lab). Production of detail and assembly drawings of machine, threads, gears, cams, tolerances and limit dimensioning, surface finishes, and precision drawings. Prerequisite: DFTG 1333; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2305 - Printed Circuit Board Design
Credits: 3 (2 lecture, 4 lab). Course includes single-sided and double-sided printed circuit board design, emphasizing the drawings, standards, and processes required to layout printed circuit board and manufacturing documentation. Prerequisite: DFTG 1358. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2306 - Machine Design
Credits: 3 (2 lecture, 4 lab). Theory and practice of design. Projects in problem solving, including press fit, bolted and welded joints, and transmission components. Prerequisite: DFTG 2302. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2307 - Electrical Drafting
Credits: 3. A study of area lighting, control systems and power layouts, electrical and safety codes, load factors and distribution requirements.

DFTG 2308 - Instrumentation Drafting
Credits: 3 (2 lecture, 4 lab). Principles of instrumentation as applicable to industrial applications; fundamentals of measurements and control devices; currently used ISA (Instrument Society of America) symbology; basic flow sheet layout, and drafting practices. Prerequisite: DFTG 2323. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2317 - Descriptive Geometry
Credits: 3 (2 lecture, 4 lab). Graphical solutions to problems involving points, lines, and planes in space. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

DFTG 2319 - Intermediate Computer-Aided Drafting
Credits: 3 (2 lecture, 4 lab). A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3-dimensional drawings, interfacing 2-D and 3-D environments and extracting data. Prerequisite: DFTG 1309 and DFTG 1405. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2321 - Topographical Drafting
Credits: 3. Plotting of surveyor's field notes. Includes drawing elevations, contour lines, plan and profiles, and laying out traverses.

DFTG 2323 - Pipe Drafting
Credits: 3 (2 lecture, 4 lab). A study of pipe fittings, symbols, specifications, and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. Prerequisite: DFTG 1405 and DFTG 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2328 - Architectural Drafting - Commercial
Credits: 3 (2 lecture, 4 lab). Architectural drafting procedures, practices, and symbols including the preparation of detailed working drawings for a commercial building, with emphasis on commercial construction methods. Prerequisite: DFTG 1317. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2330 - Civil Drafting
Credits: 3 (2 lecture, 4 lab). An in-depth study of drafting methods and principles used in civil engineering. Prerequisite: DFTG 1405 and DFTG 1309. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2331 - Advanced Technologies in Architectural Design and Drafting
Credits: 3 (2 lecture, 4 lab). Use of architectural specific software to execute the elements required in designing standard architectural exhibits utilizing custom features to create walls, windows and specific design requirements for construction in residential/commercial and industrial architecture. Prerequisite: DFTG 1376. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2332 - Advanced Computer-Aided Drafting
Credits: 3 (2 lecture, 4 lab). Advanced techniques, including the use of a customized system. Presentation of advanced drawing applications, such as three-dimensional solids modeling and linking graphic entities to external non-graphic data. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2335 - Advanced Technologies in Mechanical Design and Drafting
Credits: 3 (2 lecture, 4 lab). Use parametric based mechanical design software for mechanical assembly design and drafting. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2338 - Final Project - Advanced Drafting
Credits: 3 (2 lecture, 4 lab). A drafting course in which students participate in a comprehensive project from conception to conclusion. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 1405 and DFTG 1309. Must be at the last semesters before obtaining Drafting Certificate or AAS Degree.

DFTG 2340 - Solid Modeling/Design
Credits: 3 (2 lecture, 4 lab). A computer-aided modeling course. Development of three-dimensional drawings and models from engineering sketches and orthographic drawings and utilization of three-dimensional models in design work. This course is designed to be repeated multiple times to improve student proficiency. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2345 - Advanced Pipe Drafting
Credits: 3 (2 lecture, 4 lab). A continuation of pipe drafting concepts building on the basic principles acquired in pipe drafting. Prerequisite: DFTG 2323. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2358 - Advanced Machine Design
Credits: 3 (2 lecture, 4 lab). Design process skills for the production of complete design package, which includes jig and fixture design, extrusion dies, and injection mold design. Prerequisite: DFTG 2306; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

DFTG 2370 - Intermediate CAD (Microstation)
Credits: 3 (2 lecture, 4 lab). A continuation of practices and techniques used in the basic computer-aided drafting (Microstation), emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of three (3) dimensional drawings, interfacing 2D and 3D environments and extracting data. Prerequisite: DFTG 1310. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2371 - Advanced Technologies in Process Plant Design - (AutoPlant)
Credits: 3 (2 lecture, 4 lab). Use process plant based mechanical design software for specific applications in industrial design and drafting. Prerequisite: Prerequisite: DFTG 2323, DFTG 2319 or 2370; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2372 - Piping Plans and Process Equipment
Credits: 3 (2 lecture, 4 lab). A continuation of process pipe design concepts, building on the principles acquired in Process Plant Layout. Prerequisite: DFTG 2319 or DFTG 2370 or Departmental Approval. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2373 - Piping Design Management System (PDMS)
Credits: 3 (2 lecture, 4 lab). Uses process plant management systems based Piping design software for 2D and 3D modeling design and drafting. Prerequisite: DFTG 2319. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2374 - Civil 3-D
Credits: 3 (2 lecture, 4 lab). DFTG 2374 Civil 3D covers the essentials of Autodesk Civil 3D. Students learn how to work with point data in Autodesk Civil 3D, how to create and analyze a surface, how to develop a site, how to model roads, corridors, and pipe networks, how to work with survey data, and how to import and export data. Hands-on exercises throughout the course explore how to create 2D and 3D drawings. Prerequisite: DFTG 1405, DFTG 1309, DFTG 2330; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2375 - Introduction to GIS
Credits: 3 (2 lecture, 4 lab). DFTG 2375 Introduction to GIS is designed to teach students: general application of GIS software, acquire qualitative methods skills in data and document gathering, analyzing information, and presenting results. Prerequisite: DFTG 1405 and DFTG 1309. Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

DFTG 2380 - Cooperative Education - Drafting and Design Technology / Technician, General
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: Completed at least 12 semester hours in Drafting Certificate Program and Departmental Approval.

DFTG 2381 - Cooperative Education - Drafting and Design Technology / Technician, General
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: Completed at least 32 semester hours in Drafting Certificate Program and Departmental Approval.

DHYG 1207 - General & Dental Nutrition
Credits: 2 (2 lecture). General nutrition and nutritional biochemistry emphasizing the effect nutrition has on oral health. Prerequisite: BIOL 2301, 2101, CHEM 1305, ENGL 1301, SOCI 1301; Completion of the prerequisites and first semester of the dental hygiene curriculum with 75% or higher in all dental hygiene courses. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1211 - Periodontology
Credits: 2 (2 lecture). Normal and diseased periodontium including the structural, functional, and environmental factors. Emphasis on etiology, pathology, treatment modalities, and therapeutic and preventive periodontics. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

Description of Courses

DHYG 1215 - Community Dentistry

Credits: 2 (1 lecture, 3 lab). The principles and concepts of community public health and dental health education emphasizing community assessment, educational planning, implementation, and evaluation including methods and materials used in teaching dental health education in various community settings. Prerequisite: Completion of first year of dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1227 - Preventive Dental Hygiene Care

Credits: 2 (2 lecture, 1 lab). The role of the dental hygienist as a therapeutic oral health care provider with emphasis on concepts of disease management, health promotion, communication, and behavior modification. Prerequisite: BIOL 2301, 2101; CHEM 1305, ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1235 - Pharmacology For The Dental Hygienist

Credits: 2 (2 lecture). Classification of drugs and their uses, actions, interactions, side effects, contraindications, with emphasis on dental applications. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1260 - Clinical - Dental Hygiene / Hygienist

Credits: 2 (12 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1261 - Clinical - Dental Hygiene / Hygienist

Credits: 2 (12 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1301 - Orofacial Anatomy , Histology & Embryology

Credits: 3 (2 lecture, 4 lab). The histology and embryology of oral tissues, gross anatomy of the head and neck, tooth morphology, and individual tooth identification. Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1304 - Dental Radiology

Credits: 3 (2 lecture, 4 lab). Fundamentals of oral radiography, including techniques, interpretation, quality assurance, and ethics. Prerequisite: BIOL 2301, 2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1319 - Dental Materials

Credits: 3 (2 lecture, 3 lab). Physical and chemical properties of dental materials including the application and manipulation of the various materials used in dentistry. Prerequisite: Completion of first/second semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 1331 - Preclinical Dental Hygiene

Credits: 3 (1 lecture, 7 lab). Foundational knowledge for performing clinical skills on patients with emphasis on procedures and rationale for performing dental hygiene care. Introduction to ethical principles as they apply to dental hygiene care. Prerequisite: BIOL 2301,2101; CHEM 1305; ENGL 1301; SOCI 1301; Admission to the Dental Hygiene Program. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

DHYG 1339 - General And Oral Pathology

Credits: 3 (3 lecture). Disturbances in human body development, diseases of the body, and disease prevention measures with emphasis on the oral cavity and associated structures. Prerequisite: Completion of first semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2153 - Dental Hygiene Practice

Credits: 1 (1 lecture, 1 lab). Emphasis on the laws governing the practice of dentistry and dental hygiene, moral standards, and the ethical standards established by the dental hygiene profession. Practice settings for the dental hygienist, office operations, and preparation for employment. Explain the Dental Practice Act governing the dental and dental hygiene profession; evaluate ethical and moral issues affecting dental hygiene practice; describe traditional and non-traditional dental hygiene practice settings; and prepare for employment. Prerequisite: DHYG 2201; Completion of first semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

Description of Courses

DHYG 2201 - Dental Hygiene Care I

Credits: 2 (2 lecture, 1 lab). Dental hygiene care for the medically or dentally compromised patient including supplemental instrumentation techniques. Prerequisite: Completion of first semester dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2231 - Dental Hygiene Care II

Credits: 2 (2 lecture). A continuation of Dental Hygiene Care I. Dental hygiene care for the medically or dentally compromised patient including advanced instrumentation techniques. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2260 - Clinical - Dental Hygiene/Hygienist

Credits: 1 (12 lab). Intermediate Level: A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DHYG 2261 - Clinical - Dental Hygiene/ Hygienist (#Capstone Course)

Credits: 3 (12 lab). Advanced Level: A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Completion of first year dental hygiene curriculum with 75% or higher in all dental hygiene courses.

DMSO 1202 - Basic Ultrasound Physics

Credits: 2 (1 lecture, 3 lab). Basic acoustical physics and acoustical waves in human tissue. Emphasis is on ultrasound transmission in soft tissues, attenuation of sound energy, parameters affecting sound transmission and resolution of sound beams. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

DMSO 1210 - Introduction to Sonography

Credits: 2 (1 lecture, 2 lab). An introduction to the profession of sonography and the role of the sonographer. Emphasis on medical terminology, ethical/legal aspects, written and verbal communication, and professional issues relating to registry, accreditation, professional organizations and History, Civilization, of the profession. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

DMSO 1266 - Practicum (or Field Experience) - Diagnostic Medical Sonography / Sonographer and Ultrasound Technician

Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 1302, 1355, 1441,1451; must be placed into college-level reading, writing and math.

DMSO 1342 - Intermediate Ultrasound Physics

Credits: 3 (3 lecture, 1 lab). Continuation of Basic Ultrasound Physics. Includes interaction of ultrasound with tissues, mechanics of ultrasound production and display, various transducer designs and construction, quality assurance, bioeffects, and image artifacts. May introduce methods of Doppler flow analysis. Prerequisite: DMSO 1302; must be placed into college-level reading, writing and math.

DMSO 1355 - Sonographic Pathophysiology

Credits: 3 (2 lecture; 2 lab). Pathology and pathophysiology of the abdominal structures visualized with ultrasound. Includes abdomen, pelvis, and superficial structures. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 1441 - Abdominopelvic Sonography

Credits: 4 (3 lecture, 4 lab). Normal anatomy and physiology of the abdominal and pelvic cavities as related to scanning techniques, transducer selection, and scanning protocols. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 1451 - Sonographic Sectional Anatomy

Credits: 4 (3 lecture, 2 lab). Sectional anatomy of the male and female body. Includes anatomical relationships of organs, vascular structures, and body planes and quadrants. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

DMSO 2130 - Advanced Ultrasound and Review

Credits: 1 (3 lab). Knowledge, skills, and professional values within a legal and ethical framework addressing emerging technologies and professional development. Prerequisite: Admission to program; must be placed into college-level reading, writing and math.

Description of Courses

DMSO 2243 - Advanced Ultrasound Physics
Credits: 2 (2 lecture). Theory and application of ultrasound principles. Includes advances in ultrasound technology. Prerequisite: DMSO 1302, DMSO 1342 and DMSO 2351; must be placed into college-level reading, writing and math.

DMSO 2253 - Sonography of Superficial Structures
Credits: 2 (1 lecture, 2 lab). Detailed study of normal and pathological superficial structures as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection and scanning protocols. Prerequisite: DMSO 2405; must be placed into college-level reading, writing and math.

DMSO 2266 - Practicum (or Field Experience) - Diagnostic Medical Sonography / Sonographer and Ultrasound Technician
Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DMSO 1266; must be placed into college-level reading, writing and math.

DMSO 2342 - Sonography of High Risk Obstetrics
Credits: 3 (3 lecture). Maternal disease and fetal abnormalities. Includes scanning techniques, patient History, Civilization, and laboratory data, transducer selection, and scanning protocols. Prerequisite: DMSO 2405; must be placed into college-level reading, writing and math.

DMSO 2351 - Doppler Physics
Credits: 3 (3 lecture). Doppler and hemodynamic principles relating to arterial and venous imaging and testing. Prerequisite: DMSO 1342; must be placed into college-level reading, writing and math.

DMSO 2405 - Sonography of Obstetrics / Gynecology
Credits: 4 (4 lecture, 1 lab). Detailed study of the pelvis and obstetrics/gynecology as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection and scanning protocols. Prerequisite: DMSO 1355, DMSO 1451; must be placed into college-level reading, writing and math.

DMSO 2441 - Sonography of Abdominopelvic Pathology
Credits: 4 (3 lecture, 2 lab). Pathologies and disease states of the abdomen and pelvis as related to scanning techniques, patient History, Civilization, and laboratory data, transducer selection, and scanning protocols. Emphasizes endocavitary sonographic anatomy and procedures including pregnancy. Prerequisite: DMSO 1355, DMSO 1441, DMSO 1451; must be placed into college-level reading, writing and math.

DMSO 2467 - Practicum (or Field Experience) - Diagnostic Medical Sonography / Sonographer and Ultrasound Technician
Credits: 4 (32 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All DMSO courses; must be placed into college-level reading, writing and math. Corequisite: Corequisites: DMSO 2243, DMSO 2245

DNTA 1102 - Communication and Behavior in the Dental Office
Credits: 1 (1 lecture). The study of human interaction and communication in the dental office. Prerequisite: DNTA 1167; ENGL 1301, MATH 0306

DNTA 1167 - Practicum (or Field Experience) - Dental Assisting/Assistant
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DNTA 1305, DNTA 1245, DNTA 1401, DNTA 1411, DNTA 1415, ENGL 1301, MATH 0306

DNTA 1245 - Preventive Dentistry
Credits: 2 (2 lecture, 1 lab). The study of nutrition and preventable dental disease and community dental health. Prerequisite: Program Admittance, ENGL 1301, MATH 0306

DNTA 1305 - Dental Radiology
Credits: 3 (2 lecture, 3 lab). Introduction to radiation physics, radiation protection, and the operation of radiographic equipment. Instruction in exposure, processing and mounting of dental radiographs, and study of federal and state safety and standard practices. Prerequisite: Program Admittance, ENGL 1301

DNTA 1349 - Dental Radiology in the Clinic
Credits: 3 (2 lecture, 3 lab). The practical application of exposing, processing, and mounting diagnostically acceptable radiographs obtained by utilizing various radiographic techniques. Prerequisite: DNTA 1305, ENGL 1301

Description of Courses

DNTA 1351 - Dental Office Management
Credits: 3 (3 lecture). Use computers and or manual systems to process dental information and interpret and practice learned dental office management skills.
Prerequisite: DNTA 1415, ENGL 1301

DNTA 1401 - Dental Materials
Credits: 4 (3 lecture, 2 lab). Composition, properties, procedures and safety standards related to dental materials. Prerequisite: Program Admittance, ENGL 1301

DNTA 1411 - Dental Science
Credits: 4 (4 lecture). A fundamental study of anatomical systems with emphasis placed on head and neck anatomy. Topics include embryology of the teeth along with basic dental terminology. Prerequisite: Program Admittance, ENGL 1301

DNTA 1415 - Chairside Assisting
Credits: 4 (3 lecture, 3 lab). A study of pre-clinical chairside assisting procedures, instrumentation, OSHA and other regulatory agencies? standards. Prerequisite: Program Admittance, ENGL 1301

DNTA 1447 - Advanced Dental Science
Credits: 4 (4 lecture). An advanced study of anatomical systems, pharmacology, oral pathology, and developmental abnormalities. Prerequisite: DNTA 1411, ENGL 1301

DNTA 1453 - Dental Assisting Applications
Credits: 4 (3 lecture, 3 lab). Course Description should be: An extended study of dental assisting techniques with emphasis on four-handed dentistry and utilization of armamentarium for general practice and specialty procedures. Prerequisite: DNTA 1401, DNTA 1415, ENGL 1301

DNTA 2130 - Seminar for the Dental Assistant
Credits: 1 (1 lecture). Analysis of case studies during the clinical phase of practicum/clinical. Prerequisite: DNTA 1167, DNTA 1349, DNTA 1351, DNTA 1447, DNTA 1453, ENGL 1301

DNTA 2267 - Practicum (or Field Experience) -Dental Assisting/Assistant
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: DNTA 1167, DNTA 1349, DNTA 1351, DNTA 1447, DNTA 1453; ENGL 1301

DRAM 1120 - Theater Practicum I
Credits: 1 (0 lecture, 4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1121 - Theater Practicum II
Credits: 1 (0 lecture, 4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained in play productions. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1161 - Musical Theatre I
Credits: 1 (0 lecture, 4 lab). Focus on the study and performance of works from the musical theatre repertory, including musical comedy, reviews, operetta, and basic vocal and movement skills. Theatre attendance and/or assistance in college productions required.(formerly DRAM 1172) Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1162 - Musical Theatre II
Credits: 1 (0 lecture, 4 lab). Focus on the study and performance of works from the musical theatre repertory, including musical comedy, reviews, operetta, and basic vocal and movement skills. Theatre attendance and/or assistance in college productions required. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1310 - Introduction to Theater
Credits: 3 (3 lecture). Basic principles of theatre, including the various styles of theatrical production and present practices in the theatre. Required of majors. Open to non-majors. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1320 - Performance
Credits: 3 (2 lecture, 4 lab). This class is devoted to the rehearsal and performance of one or more plays and is designed to give the student experience in applying his performance techniques for an audience. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

Description of Courses

DRAM 1322 - Stage Movement

Credits: 3 (2 lecture, 2 lab). A course to develop the actor's expressive use of the body through pantomime, tumbling, acrobatics, fencing, and stage fighting. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1330 - Stagecraft I

Credits: 3 (2 lecture, 2 lab). Stagecraft, stage properties, and makeup. Practical experience on technical crews is provided. Laboratory hours may be arranged. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1341 - Makeup

Credits: 3 (3 lecture). Principles of straight and character makeup. Student must purchase basic makeup kit. Theatre attendance and/or assistance in college productions required. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1351 - Acting I

Credits: 3 (2 lecture, 2 lab). An introduction to the problems of internal acting technique, creation of visual images, reaction to stimulus, and creation of inner life of character. Scene work: finding beats, developing subtext, and playing intentions. Theatre attendance and/or assistance in college productions required. Required of majors. Open to non-majors. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 1352 - Acting II

Credits: 3 (2 lecture, 2 lab). An introduction to the problems of external acting technique with emphasis on characterization using animal, color and inanimate object improvisational techniques. Scene work focuses on comedic technique including analyzing incongruities, playing opposites, and timing. Theatre attendance and/or assistance in college productions required. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing. DRAM 1351

DRAM 2120 - Theater Practicum III

Credits: 1 (0 lecture, 4 lab). Practicum in theater open to all students with emphasis on technique and procedures with experience gained

in play productions. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2331 - Stagecraft II

Credits: 3 (2 lecture, 2 lab). A continuation of DRAM 1330. Required of majors. Open to non-majors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2336 - Voice for the Theater

Credits: 3 (3 lecture). Emphasis on vocal production: breathing and support, resonance, pitch, range, quality projection. Emphasis on oral interpretation skills. SPCH 1342 recommended. Prerequisite: Recommended Prerequisite: SPCH 1342; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2337 - Voice for the Actor I

Credits: 3 (3 lecture). Acting with voice: combining proper production techniques and correct pronunciation and articulation, the actor learns to be expressive vocally. Analysis of the emotional potential of vowel and consonant sounds and combinations. Scansion, phrasing, rhythm and dynamics. Prerequisite: SPCH 1342, DRAM 2336, or Department Approval; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2338 - Voice for the Actor II

Credits: 3 (3 lecture). Accents and dialects. Using the International Phonetic Alphabet (IPA) students learn the alterations from English needed to produce correctly the sounds of most needed foreign accents, including standard British, Cockney, French, German, American New York, and Southerners, among others. Prerequisite: SPCH 1342 or a demonstrable knowledge of the IPA; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2351 - Acting III

Credits: 3 (2 lecture, 2 lab). A study of classical acting style with an emphasis on Shakespeare. Special attention is paid to movement and vocal technique dealing with the problems of period movement and heightened language. Prerequisite: DRAM 1351, 1352 or Department Approval. Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

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DRAM 2361 - History of the Theater I

Credits: 3 (3 lecture). Survey of the theatre from its beginning. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2366 - Introduction to Cinema

Credits: 3 (3 lecture). Emphasis on the analysis of the visual and aural aspects of selected motion pictures, dramatic aspects of narrative films, and historical growth and sociological effect of film as an art. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2367 - The Art of Film Making

Credits: 3 (3 lecture). The analysis of key masterworks of American and international films with particular emphasis on works by famed and influential directors. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

DRAM 2389 - Academic Cooperative in Drama

Credits: 3 (1 lecture, 16 lab). An instructional program designed to integrate on-campus study with practical hands-on experience in drama. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of drama. Prerequisite: Must be placed into college-level reading and college-level writing.

ECON 1301 - Introduction to Economics

Credits: 3 (3 lecture). Examination of the structure and operation of the American economic system. Introduction to selected economic principles essential to the understanding of contemporary issues. May not be substituted for ECON 2301 or ECON 2302.

ECON 2289 - Academic Cooperative in Economics

Credits: 2 (1 lecture, 16 lab). An instructional program designed to integrate on-campus study with practical hands-on experience in economics. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. Prerequisite: Department Approval

ECON 2301 - Principles of Macroeconomics

Credits: 3 (3 lecture). Macroeconomics examines the fundamentals of the American economy as it relates to social welfare. Emphasis is on basic concepts and theories as they affect domestic and international markets. This course integrates behavioral social sciences to present solutions to real world problems. Macroeconomics includes measurements of GDP, fiscal and monetary policy. Core Curriculum Course. Prerequisite: Must be placed into college-level reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

ECON 2302 - Principles of Microeconomics

Credits: 3 (3 lecture). Microeconomics examines the fundamentals of the American economy as it relates to business and individual welfare. Emphasis is on basic concepts and theories as they affect domestic and international markets. Microeconomics includes cost and production decisions and discusses the role of competition, monopolies and oligopolies. Core Curriculum Course. Prerequisite: Must be placed into college-level reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

ECON 2389 - Academic Cooperative in Economics

Credits: 3 (1 lecture, 16 lab). An instructional program designed to integrate on-campus study with practical hands-on experience in economics. In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. Prerequisite: Department Approval

ECRD 1211 - Electrocardiography

Credits: 2 (1 lecture, 3 lab). Fundamentals of cardiovascular anatomy and physiology. Includes basic electrocardiography procedures, interpretation of basic dysrhythmias, and appropriate treatment modalities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

EDUC 1300 - Learning Framework

Credits: 3 (3 lecture). EDUC 1300 is a study of the research and theory in the psychology of learning, cognition, and motivation; factors that impact learning; and application of learning strategies. Theoretical models of strategic learning, cognition, and motivation serve as the conceptual basis for the introduction of college-level student academic strategies. In addition, the course focuses on numerous college, career, and life management topics necessary for students to make the most of their college investment. Core curriculum course. Prerequisite: Must be placed into GUST 0341 (or higher).

EDUC 1301 - Introduction to the Teaching Profession

Credits: 3 (3 lecture). An enriched, integrated pre-service course and content experience that provides active recruitment and institutional support of students interested in a teaching career, especially in high need fields. The course provides students with opportunities to participate in early field observations at all levels of P-12 schools with varied and diverse student populations and provides students with support from college and school faculty, preferably in small cohort groups, for the purpose of introduction to and analysis of the culture of schooling and classrooms. Course content should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards; and the course must include a minimum of 16 contact hours of field experience in P-12 classrooms. Prerequisite: Must be placed into college-level reading and college-level writing.

EDUC 1325 - Multicultural Education

Credits: 3 (3 lecture). An examination of cultural diversity found in society and reflected in the classroom. Topics will include the study of major cultures and their influence on lifestyle, behavior, learning, intercultural communication and teaching, as well as psychosocial stressors encountered by diverse cultural groups. Prerequisite: Prerequisite/Corequisite: EDUC 1301; must be placed into college-level reading and college-level writing.

EDUC 2301 - Introduction to Special Populations

Credits: 3 (3 lecture). An enriched, integrated pre-service course and content experience that provides an overview of schooling and classrooms from the perspectives of language, gender, socioeconomic status, ethnic and academic diversity, and equity with an emphasis on factors that facilitate learning. The course provides students with opportunities to participate in early field observations of P-12 special populations and should be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards. Must include a minimum of 16 contact hours of field experience in P-12 classrooms with special populations. Prerequisite: EDUC 1301, Must be placed into college-level reading and college-level writing.

EECT 1440 - Telecommunications Transmission Media

Credits: 4 (3 lecture, 2 lab). Fundamentals of telecommunications media, including installation, maintenance, and troubleshooting. Topics address media characteristics and connectorization. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math or Department Approval.

EECT 2337 - Wireless Telephony Systems

Credits: 3 (2 lecture, 4 lab). Principles of wireless/cellular telephony systems to include call processing, hand-off, site analysis, antenna radiation patterns, commonly used test/maintenance equipment and access protocol. Prerequisite: EECT 2439; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math or Department Approval.

EECT 2433 - Telephone Systems

Credits: 4 (3 lecture, 3 lab). Study of installation and maintenance systems including telephone set, public switched networks, local exchanges, networks, two- and four-wire systems, tip and ringing requirements, and digital transmission techniques. Prerequisite: CETT 1409 or Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

EECT 2439 - Communications Circuits

Credits: 4 (3 lecture, 3 lab). A study of communications systems with emphasis on amplitude modulation, frequency modulation, phase modulation, and digital pulse modulation. Discussion of several types of modulators, demodulators, receivers, transmitters, and transceivers. Prerequisite: CETT 1429 or Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

Description of Courses

EEIR 1307 - Introductory Security Systems

Credits: 3 (2 lecture, 3 lab). A study of the security system components, maintenance, troubleshooting, and repair procedures. Emphasis on the installation of security systems as directed. Prerequisite: ELPT 1311; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EEIR 1345 - Intermediate Security Systems

Credits: 3 (2 lecture, 3 lab). A study of maintenance, troubleshooting, and repair of security systems of moderate complexity. Emphasis on the maintenance of security systems with limited instructor direction. Prerequisite: EEIR 1307; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

ELMT 1301 - Programmable Logic Controllers

Credits: 3 (2 lecture, 3 lab). An introduction to programmable logic controllers as used in industrial environments including basic concepts, programming, applications, troubleshooting of ladder logic, and interfacing of equipment. Prerequisite: Prerequisite/Corequisite: ELPT 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELMT 1305 - Basic Fluid Power

Credits: 3 (3 lecture, 0 lab). Basic fluid power course covering pneumatic and hydraulic systems, fluid power symbols, operating theory, components, and basic electrical and manual controls.

ELMT 1311 - Solar Fundamentals

Credits: 3 (2 lecture, 3 lab). Study of heat transference, motors, pumps and other mechanical devices; solid state switches; photovoltaic plates and energy conversion; thermal dynamics; and solar energy.

ELMT 1402 - Solar Photovoltaic Systems

Credits: 4 (3 lecture, 4 lab). Design and installation of solar photovoltaic systems and their applications. Prerequisite: Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1221 - Introduction to Electrical Safety and Tools

Credits: 2. Safety rules and regulations. Includes the selection, inspection, use, and maintenance of common tools for electricians

ELPT 1311 - Basic Electrical Theory

Credits: 3 (2 lecture, 3 lab). Basic theory and practice of electrical circuits. Includes calculations as applied to alternating and direct current. Prerequisite: Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1315 - Electrical Calculations I

Credits: 3 (3 lecture). Introduction to mathematical applications utilized to solve problems in the electrical field. Topics include fractions, decimals, percentages, simple equations, ratio and proportion, unit conversions, and applied geometry Prerequisite: Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1321 - Introduction to Electrical Safety and Tools

Credits: 3 (2 lecture, 2 lab). A comprehensive overview of safety rules and regulations and the selection, inspection, use, and maintenance of common tools for electricians. Emphasis is given to safety rules and accepted safety practices in the workplace, the use of hand tools, power tools and the proper selection, function and operation of common electrical measuring instruments. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1325 - National Electrical Code I

Credits: 3 (3 lecture). An introductory study of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring design, protection, methods, and materials; equipment for general use; and basic calculations. Prerequisite: Prerequisite/Corequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1329 - Residential Wiring

Credits: 3 (2 lecture, 3 lab). Wiring methods for single family and multi-family dwellings. Includes load calculations, service entrance sizing, proper grounding techniques, and associated safety procedures. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: ELPT 1221 or CNBT 1201;

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ELPT 1341 - Motor Control

Credits: 3 (2 lecture, 3 lab). Operating principles of solid-state and conventional controls along with their practical applications. Includes braking, jogging, plugging, safety interlocks, wiring, and schematic diagram interpretations. Prerequisite: Prerequisite/Corequisite: ELPT 1311 or HART 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1345 - Commercial Wiring

Credits: 3 (2 lecture, 3 lab). Commercial wiring methods. Includes overcurrent protection, raceway panel board installation, proper grounding techniques, and associated safety procedures. Prerequisite: Prerequisites/Corequisites: ELPT 1221 and ELPT 1329; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: ELPT 1325

ELPT 1355 - Electronic Applications

Credits: 3 (2 lecture, 3 lab). Electronic principles and the use of electronic devices. Includes diodes, transistors, and rectifiers Prerequisite: Prerequisite: ELPT 1311, TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 1451 - Electrical Machines

Credits: 4 (3 lecture, 3 lab). Direct current (DC) motors, single-phase and polyphase alternating current (AC) motors, generators, and alternators. Emphasis on construction, characteristics, efficiencies, starting, and speed control. Prerequisite: Prerequisite/Corequisite: CETT 1405; must be placed into college-level reading, writing and math or Department Approval.

ELPT 1457 - Industrial Wiring

Credits: 4. Wiring methods used for industrial installations. Includes motor circuits, raceway and bus way installations, proper grounding techniques, and associated safety procedures.

ELPT 2301 - Journeyman Electrician Exam Review

Credits: 3 (3 lecture). Preparation for journeyman electrician licensure with emphasis on calculations and the National Electrical Code (NEC). Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ELPT 2325 - National Electrical Code II

Credits: 3 (3 lecture). In-depth coverage of the National Electric Code (NEC) for those employed in fields requiring knowledge of the Code. Emphasis on wiring protection and methods, special conditions, and advanced calculations. Topics include hazardous location classifications and divisions, wiring methods and materials for electrical installations in special occupancies. Prerequisite: Prerequisite/Corequisite: TECM 1301 and ELPT 1325; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ELPT 2337 - Electrical Planning and Estimating

Credits: 3. Planning and estimating for residential, commercial, and industrial wiring systems. Includes a variety of electrical techniques.

ELPT 2419 - Programmable Logic Controllers I

Credits: 4 (3 lecture, 2 lab). Fundamental concepts of programmable logic controllers, principles of operation, and numbering systems as applied to electrical controls. Prerequisite: Prerequisite: ELMT 1301, TECM 1301 Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ELPT 2449 - Industrial Automation

Credits: 4 (3 lecture, 2 lab). Electrical control systems, applications, and interfacing utilized in industrial automation. Prerequisite: Prerequisite/Corequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ELPT 2455 - Programmable Logic Controllers II

Credits: 4 (3 lecture, 2 lab). Advanced concepts in programmable logic controllers and their applications and interfacing to industrial controls. Prerequisite: ELPT 2419; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

EMSP 1160 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)

Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 1501; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1191 - Special Topics in Emergency Medical Technology/Technician

Credits: 1. The course will examine the role of EMS in the US health care delivery system including current and past

Description of Courses

issues and topics that framed the current practice of emergency medical services profession. Topics will include recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the delivery of health care and relevant to the professional development of the student and in preparation for the Associate Degree in EMS to assume a leadership role in with EMS with the US health care system. This is a Hybrid program – students will be doing the majority of the coursework online – using computers, reading and interpreting information, and show responsibility + self-management to be successful in the course.

EMSP 1263 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Credits: 2 (9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 1355; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1338 - Introduction to Advanced Practice
Credits: 3 (2 lecture, 3 lab). An exploration of the foundations necessary for mastery of the advanced topics of clinical practice out of the hospital. Prerequisite: EMSP 1160; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1355 - Trauma Management
Credits: 3 (2 lecture, 4 lab). A detailed study of the knowledge and skills in the assessment and management of patients with traumatic injuries. Prerequisite: EMSP 1356; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1356 - Patient Assessment and Airway Management
Credits: 3 (2 lecture, 3 lab). A detailed study of the knowledge and skills required to perform patient assessment and airway management. Prerequisite: EMSP 1338; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1491 - Special Topics in Emergency Medical Technology/Technician
Credits: 1 (3 lab). Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: EMSP 2243; Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 1501 - Emergency Medical Technician - Basic
Credits: 5 (3 lecture, 8 lab). Preparation for certification as an Emergency Medical Technician (EMT)-Basic. Includes all the skills necessary to provide emergency medical care at a basic life support level with an emergency service or other specialized services. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

EMSP 2160 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Credits: 1 (6 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2444; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite:

EMSP 2205 - EMS Operations
Credits: 2 (2 lab). Knowledge and skills to safely manage multi-casualty incidents and rescue situations; utilize air medical resources; identify hazardous materials and other specialized incidents. Prerequisite: EMSP 1356; Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2243 - Assessment Based Management
Credits: 2 (1 lecture, 4 lab). A capstone course covering comprehensive, assessment based patient care management. Includes specific care when dealing with pediatric, adult, geriatric, and special-needs patients. Prerequisite: EMSP 2262; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

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EMSP 2252 - Emergency Medical Services Research
Credits: 2 (1 lecture, 3 lab). Primary and/or secondary research in current and emerging issues in EMS. Basic research principles, scientific inquiry, and interpretation of professional literature are emphasized. Prerequisite: EMSP 2243; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2261 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Credits: 2 (9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2434; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: EMSP 2430

EMSP 2262 - Clinical - Emergency Medical Technology/Technician (EMT Paramedic)
Credits: 2 (9 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: EMSP 2330; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite:

EMSP 2306 - Emergency Pharmacology
Credits: 3 (2 lecture, 4 lab). A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages. Prerequisite: EMSP 1263; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2330 - Special Populations
Credits: 3 (2 lecture, 2 lab). A detailed study of the knowledge and skills necessary to assess and manage ill or injured patients in diverse populations. Prerequisite: EMSP 2261; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2434 - Medical Emergencies
Credits: 4 (3 lecture, 4 lab). A detailed study of the knowledge and skills in the assessment and management of patients with medical emergencies. Prerequisite: EMSP 2160; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2444 - Cardiology
Credits: 4 (3 lecture, 4 lab). Assessment and management of patients with cardiac emergencies. Includes single and multi-lead ECG interpretation. Prerequisite: EMSP 2348; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

EMSP 2553 - Emergency Medical Services Certification for Health Care Professionals
Credits: 5. An equivalency course for Emergency Medical Services (EMS) certification under Texas Administrative Code for EMS Personnel Certification.

ENGL 0100 - Development Writing
Credits: 1 (1 lecture). An individualized curriculum for students whose test scores demonstrate high proficiency but do not meet state requirements for placement into college level course work. This course will present a concentrated review of the Writing Process and basic grammar and sentence structure. Department Chair approval required. Prerequisite: Prerequisite: Department Chair approval

ENGL 0310 - Fundamentals of Grammar and Composition II
Credits: 3 (3 lecture). A course designed to prepare students for ENGL 1301. Students will ordinarily proceed to ENGL 0310 after taking ENGL 0300. Some students may, however, test directly into ENGL 0310 (ENGL 0300 is not a prerequisite for ENGL 0310). ENGL 0310 provides a basic review of the principles of grammar, usage and mechanics and utilizes the writing process to teach the students to write short essays (350-500 words). Prerequisite: Must be placed into ENGL 0310 or completion of ENGL 0300.

ENGL 0340 - English Grammar and Conversation for Foreign Speakers I
Credits: 3 (3 lecture, 1 lab). A course in English grammar and conversation. This course is intended to aid foreign students in acquiring fluency in spoken English. The approach is communicative, involving grammar study, oral exercises, dialogues, and role playing. All four language skills (listening, speaking, reading, and writing) are developed. Prerequisite: A satisfactory score on the CELSA Test

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ENGL 0341 - English Grammar and Conversation for Foreign Speakers II
Credits: 3 (3 lecture, 2 lab). An intermediate course in English grammar and conversation. This course is a continuation of the skills acquired in ENGL 0340 and uses the same approach. It should be taken prior to ENGL 0346, although some students whose assessment score qualifies them for ENGL 0346 may be advised to take ENGL 0341 as a companion course. Prerequisite: A satisfactory score on the CELSA Test or completion of ENGL 0340

ENGL 0343 - Advanced Conversation for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). Students discuss current events and cultural topics in English. Pronunciation, vocabulary development, and group discussion skills are stressed. May be taken concurrently with other English courses. Prerequisite: English 0341 or sufficient assessment score for English 0346 or above

ENGL 0346 - Grammar and Composition for Foreign Speakers I
Credits: 3 (3 lecture, 1 lab). An intermediate course in English grammar and composition designed to help the student acquire a greater facility in written English. This course is designed for the student who already possesses adequate conversational skill and is pursuing a college career. This course emphasizes grammar, vocabulary, sentence composition, and paragraph writing. It may be taken with ENGL 0341 or 0343 if the student placed into 0346 wishes more proficiency in conversation. Important: This course is now offered as ESOL 0351/0354. Prerequisite: A satisfactory score on the CELSA Test or completion of ENGL 0341

ENGL 1301 - Composition I
Credits: 3 (3 lecture). Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Note: ENGL 1301 is a pre-requisite for all 2000-level literature courses. Core Curriculum Course. Prerequisite: Appropriate score on TSI/ACT/SAT/STAAR, INRW 0420, Grade of C or better in ELA College Prep course from participating ISDs

ENGL 1302 - Composition II
Credits: 3 (3 lecture). Intensive study of and practice in the strategies and techniques for developing research-based expository and persuasive texts. Emphasis on effective and ethical rhetorical inquiry, including primary and secondary research methods; critical reading of verbal, visual, and multimedia texts; systematic evaluation, synthesis, and documentation of information sources; and critical thinking about evidence and conclusions. Core Curriculum Course. Prerequisite: Composition 1301 or its equivalent

ENGL 2307 - Creative Writing
Credits: 3 (3 lecture). Practical experience in the techniques of imaginative writing. May include fiction, nonfiction, poetry, screenwriting, or drama. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: ENGL 1301

ENGL 2311 - Technical & Business Writing
Credits: 3 (3 lecture). Intensive study of and practice in professional settings. Focus on the types of documents necessary to make decisions and take action on the job, such as proposals, reports, instructions, policies and procedures, e-mail messages, letters, and descriptions of products and services. Practice individual and collaborative processes involved in the creation of ethical and efficient documents. Core Curriculum Course. Prerequisite: Prerequisite: ENGL 1301

ENGL 2322 - British Literature I
Credits: 3 (3 lecture). A survey of the development of British literature from the Anglo-Saxon period to the Eighteenth Century. Students will study works of prose, poetry, drama, and fiction in relation to their historical, linguistic, and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2323 - British Literature II
Credits: Credit 3 (3 lecture). A survey of the development of British literature from the Romantic period to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

Description of Courses

ENGL 2327 - American Literature I

Credits: 3 (3 lecture). A survey of American literature from the period of exploration and settlement through the Civil War. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2328 - American Literature II

Credits: 3 (3 lecture). A survey of American literature from the Civil War to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from among a diverse group of authors for what they reflect and reveal about the evolving American experience and character. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2332 - World Literature I

Credits: 3 (3 lecture). A survey of world literature from the ancient world through the sixteenth century. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2333 - World Literature II

Credits: 3 (3 lecture). A survey of world literature from the seventeenth century to the present. Students will study works of prose, poetry, drama, and fiction in relation to their historical and cultural contexts. Texts will be selected from a diverse group of authors and traditions. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2342 - Forms of Literature I

Credits: 3 (3 lecture). The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2343 - Forms of Literature II

Credits: 3 (3 lecture). The study of one or more literary genres including, but not limited to, poetry, fiction, drama, and film. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2351 - Mexican - American Literature

Credits: 3 (3 lecture). A survey of Mexican-American/Chicano/a literature including fiction, non-fiction, poetry, and drama. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Prerequisite: ENGL 1301

ENGL 2389 - Technical Writing Cooperative Education

Credits: 3 (3 lecture, minimum 20 hours career-related work experience per week). A cooperative study effort integrating classroom study with work experience that enables students to learn more about organizational functions. Students also have the opportunity to learn about occupational roles in their fields as their supervising employers cooperate with the College to insure a blend of work and study. Prerequisite: ENGL 1301, minimal GPA of 2.5 overall and/or approval of the instructor or department chair; must be placed into college-level reading and college-level writing.

ENGR 1201 - Introduction to Engineering

Credits: 2 (2 lecture). Introduction to engineering as a discipline and a profession. Includes instruction in the application of mathematical and scientific principles to the solution of practical problems for the benefit of society. Prerequisite: MATH 1314 or higher with a grade of C or higher.

ENGR 1204 - Engineering Graphics I

Credits: 2 (2 lecture, 1 lab). Introduction to basic engineering graphics using the latest version of AutoCAD. Basic AutoCAD commands will be introduced and emphasized throughout this course. Development of technical drawing skills including: freehand sketching, text, orthographic projection, dimensioning, sectional views, and other viewing conventions. Required for all ASES degrees. Prerequisite: Prerequisite: MATH 1314 or equivalent academic preparation

ENGR 2301 - Engineering Mechanics - Statics

Credits: 3 (3 lecture, 1 lab). Composition and resolution of forces, free body diagrams, analysis of forces acting on structures and machines, friction, centroids, and moments of inertia. Prerequisite: PHYS 2425 and MATH 2414

Description of Courses

ENGR 2302 - Engineering Mechanics - Dynamics
Credits: 3 (3 lecture, 1 lab). Dynamics of rigid bodies, force-mass acceleration, work-energy, impulse momentum and introduction of mechanical vibrations. Prerequisite:
Prerequisite: ENGR 2301

ENGR 2304 - Programming for Engineers
Credits: 3 (2 lecture, 2 lab). Course designed for students who intend to obtain a degree in an engineering discipline. Course covers problem solving, algorithm development for advanced topics in engineering and mathematics Prerequisite: Prerequisite: MATH 2413; Recommended co-enrollment in MATH 2414.

ENGR 2332 - Mechanics of Material
Credits: 3 (3 lecture). Concepts of stresses and strains, engineering properties of materials including thin-walled pressure vessels, torsional and flexural members, shear, moment, equation of elastic curve, deflection of members, combined loadings, column behavior.
Prerequisite: MATH 2414 and ENGR 2302

ENGR 2405 - Electrical Circuits I
Credits: 4 (3 lecture, 3 lab). Principles of electrical circuits and systems. Basic circuit elements (resistance, inductance, mutual inductance, capacitance, independent and dependent controlled voltage, and current sources). Topology of electrical networks; Kirchhoff's laws; node and mesh analysis; DC circuit analysis; operational amplifiers; transient and sinusoidal steady-state analysis; AC circuit analysis; first- and second-order circuits; Bode plots; and use of computer simulation software to solve circuit problems. Prerequisite: MATH 2414 or higher and PHYS 2326/2126 (or 2426) with grades of C or higher.

ENTC 1343 - Statics
Credits: 3 (3 lecture). A study of the composition and resolution of forces and the equilibrium of forces acting on structures. Includes the concepts of friction, moments, couples, centroids, and moment of inertia.
Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ENTC 1347 - Safety and Ergonomics
Credits: 3 (2 lecture, 2 lab). Occupational Safety and Health Administration (OSHA) safety guidelines including electrical, chemical, and hazardous material safety. Ergonomic considerations to include repetitive motion, plant layout, and machine design. Industrial safety awareness, accident cost and prevention, and workman's compensation issues. Prerequisite:
Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ENTC 1423 - Strength of Materials
Credits: 4 (3 lecture, 3 lab). Study of the relationship between externally applied forces and internally induced stresses and the resulting deformations in structural members. The student will identify the principle behind moments of inertia and explain the relationship between that principle and the shape's cross-sectional geometry and reference axis; and calculate the torsional shearing stress on a solid round shaft subjected to various torques and horsepower requirements. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ENTC 1491 - Special Topics in Engineering Technology , General
Credits: 4 (2 lecture, 5 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.
Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ENTC 2314 - Facility Operations and Maintenance
Credits: 3 (2 lecture, 2 lab). Interaction of facility, people, equipment, operation, service, and maintenance. Topics include building structure and interior elements, air conditioning, furniture, grounds, and waste management. Prerequisite: TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ENTC 2331 - Manufacturing Materials
Credits: 4 (2 lecture, 3 lab). Identification of various materials used in manufacturing including metals, plastics, composite materials, concrete, ceramics, and wood. Examination of the properties of these materials and standards for quality measurement. Prerequisite: TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

ENTC 2381 - Cooperative Education - Engineering Technology / Technician, General
Credits: 3 (1 lecture, 20 lab). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

ENTC 2410 - Machine Design
Credits: 4 (2 lecture, 6 lab). Design considerations for machinery. Includes selection of mechanical components and machine construction principles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

ENVR 1301 - Environmental Science
Credits: 3. A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. (Cross-listed with ENVR 1301) Recommended Co-requisite: GEOL 1105 Environmental Science (lab).

ESOL 0307 - Integrated Reading & Writing Course for ENGL 1301
Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301 for ESOL students:
Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis. Prerequisite: ESOL 0353, 0354 and 0355 with a C grade or better or have a satisfactory score.

ESOL 0349 - Advanced Intermediate Conversation for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0345. This course is designed to further develop conversational skills by incorporating more complicated vocabulary and grammatical structures. Students are also required to present oral reports at various times during the semester. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0345. Corequisite: ESOL 0350, ESOL 0351 and ESOL 0352

ESOL 0350 - Advanced Intermediate Reading for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0346. An advanced intermediate course in reading academically oriented English. This course further develops reading comprehension skills and expands vocabulary. Emphasis is on distinguishing main ideas from supporting details and drawing conclusions. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0346. Corequisite: ESOL 0349, ESOL 0351 and ESOL 0352

ESOL 0351 - Advanced Intermediate Composition for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0347. This course concentrates on the development of writing skills, reviews the paragraph and its essential elements, and introduces the multi-paragraph essay. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0347. Corequisite: ESOL 0349, ESOL 0350 and ESOL 0352

ESOL 0352 - Advanced Intermediate Grammar for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0348. This course provides a review of essential grammatical and structural features while introducing their finer points. Emphasis is placed on compound and complex sentence structures and is designed to lead students toward active mastery of the patterns and principles of formal written English. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0348. Corequisite: ESOL 0349, ESOL 0350 and ESOL 0351

ESOL 0353 - Advanced Reading for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0350. An advanced course designed to develop reading and critical thinking skills for college-bound students. Reading skills are refined to guide students towards mastery of deduction, inference, and figurative language. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0350. Corequisite: ESOL 0354, ESOL 0355 and ESOL 0356

Description of Courses

ESOL 0354 - Advanced Composition for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0351. This course concentrates on elements of essay organization. Students are required to produce well-organized, well-substantiated essays. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0351. Corequisite: ESOL 0353, ESOL 0355 and ESOL 0356

ESOL 0355 - Advanced Grammar for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0352. This course provides a review of both essential and finer points of the grammatical structural features of formal written English. Emphasis is placed on active production and error analysis of standard English. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0352. Corequisite: ESOL 0353, ESOL 0354 and ESOL 0356

ESOL 0356 - Advanced Conversation for Foreign Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0349. This course is designed to encourage students' use of high-level grammatical structures and vocabulary skills. Students are required to present an oral book report, an oral report of a personal, off-campus interview, and an oral research report. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0349. Corequisite: ESOL 0353, ESOL 0354 and ESOL 0355

ESOL 0360 - Integrated Reading/Writing for Non-Native Speakers
Credits: 3 (3 lecture, 2 lab). A continuation of ESOL 0345. This course is designed to further develop conversational skills by incorporating more complicated vocabulary and grammatical structures. Students are also required to present oral reports at various times during the semester. Prerequisite: A satisfactory score on the COMPASS-ESL. Test or successful completion of ESOL 0345. Corequisite: ESOL 0350, ESOL 0351 and ESOL 0352

ESOL 0370 - ESL Integrated Read/Write Course for ENGL 1301
Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301 for ESOL students: Intensive study of and practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and style. Focus on writing the academic essay as a vehicle for learning, communicating, and critical analysis.

ETWR 1302 - Introduction to Technical Writing

Credits: 3. Introduction to the principles, techniques, and skills needed for scientific, technical, and business writing.

FIRS 1191 - Special Topics Fire Fighting
Credits: 1 (1 lecture). The activities involved in live fire training techniques including fire ground organization, water supply, ventilation, ladder raises, and attack line advancement for the suppression of fire. This course is designed to be used multiple times. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1203 - Firefighter Agility and Fitness Preparation
Credits: 2 (1 lecture, 2 lab). Physical ability testing methods. Rigorous training in skills and techniques needed in typical fire department physical ability tests. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1301 - Fire Fighter Certification I
Credits: 3 (2 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification II, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1313 - Fire Fighter Certification III
Credits: 3 (2 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1407; must be placed into college-level reading, college-level writing and MATH 0306 in math.

Description of Courses

FIRS 1319 - Fire Fighter Certification IV

Credits: 3 (2 lecture, 2 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1313; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1329 - Fire Fighter Certification VI

Credits: 3 (2 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1423; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1407 - Fire Fighter Certification II

Credits: 4 (3 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, III, IV, V, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1301; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1423 - Fire Fighter Certification V

Credits: 4 (3 lecture, 3 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, VI, and VII to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1319; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRS 1433 - Fire Fighter Certification VII

Credits: 4 (3 lecture, 4 lab). One in a series of courses in basic preparation for a new firefighter. Should be taken in conjunction with Firefighter Certification I, II, III, IV, V, and VI to satisfy the Texas Commission on Fire Protection (TCFP) curriculum for Basic Structural Fire Suppression, Course #100. ***THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS LICENSED AS A FIRE ACADEMY BY THE TEXAS COMMISSION ON FIRE PROTECTION*** Prerequisite: Prerequisite or Corequisite: FIRS 1329; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1202 - Plan Examiner I

Credits: 2 (2 lecture). Examination of plans submitted for approval by businesses, industry, or other regulated entities. Includes applicable codes and/or standards that meet certification requirements of the Texas Commission on Fire Protection. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1301 - Fundamentals of Fire Protection

Credits: 3 (3 lecture). Orientation to the fire service, career opportunities, related fields. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1303 - Fire and Arson Investigation I

Credits: 3 (2 lecture, 3 lab). Basic fire and arson investigation practices. Emphasis on fire behavior principles related to fire cause and origin determination. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1305 - Public Education Programs

Credits: 3 (3 lecture). Preparation of fire fighters and fire officers to develop public fire safety awareness. Emphasis on implementation of fire and public safety programs in an effort to reduce the loss of life. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1307 - Fire Prevention Codes and Inspections

Credits: 3 (3 lecture). Local building and fire prevention codes. Fire prevention inspections, practices, and procedures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

Description of Courses

FIRT 1309 - Fire Administration I

Credits: 3 (3 lecture). Introduction to the organization and management of a fire department and the relationship of government agencies to the fire service. Emphasis on fire service leadership from the perspective of the company officer. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1311 - Fire Service Hydraulics

Credits: 3 (3 lecture). The use of water in fire protection. Application of hydraulic principles to analyze and solve water supply problems. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1315 - Hazardous Materials I

Credits: 3 (3 lecture). The chemical characteristics and behavior of various materials. Storage, transportation, handling hazardous emergency situations, and the most effective methods of hazard mitigation. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1319 - Firefighter Health and Safety

Credits: 3 (3 lecture). Firefighter occupational safety and health in emergency and non-emergency situations. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1327 - Building Construction in the Fire Service

Credits: 3 (3 lecture). Components of building construction that relate to life safety. Includes relationship of construction elements and building design impacting fire spread in structures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1329 - Building Codes and Construction

Credits: 3 (3 lecture). Examination of building codes and requirements, construction types, and building materials. Includes walls, floorings, foundations, and various roof types and the associated dangers of each. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1338 - Fire Protection Systems

Credits: 3 (3 lecture). Design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection, and portable fire extinguishers. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1340 - Fire Inspector II

Credits: 3 (2 lecture, 3 lab). Fire inspection rules, procedures, and inspection practices to meet the Texas Commission on Fire Protection requirements for Fire Inspector II. Prerequisite: FIRT 1408; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1342 - Fire Officer I

Credits: 3 (3 lecture). Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer I certification. ****THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION**** Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1343 - Fire Officer II

Credits: 3 (3 lecture). Meets the curriculum requirements of the Texas Commission on Fire Protection (TCFP) for Fire Officer II certification. ****THIS COURSE MAY BE OFFERED ONLY BY INSTITUTIONS CERTIFIED AS A TRAINING FACILITY BY THE TEXAS COMMISSION ON FIRE PROTECTION**** Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1345 - Hazardous Materials II

Credits: 3 (3 lecture). Mitigation practices and techniques to effectively control hazardous material spills and leaks. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1347 - Industrial Fire Protection

Credits: 3 (3 lecture). Industrial emergency response teams and specific needs related to hazards in business and industrial facilities. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

Description of Courses

FIRT 1349 - Fire Administration II

Credits: 3 (3 lecture). In depth study of fire service management as pertaining to budgetary requirements, administration, organization of divisions within the fire service and relationships between the fire service and outside agencies. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1353 - Legal Aspects of Fire Protection

Credits: 3 (3 lecture). Study of the rights, duties, liability concerns, and responsibilities of public fire protection agencies while performing assigned duties. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1391 - Special Topics in Fire Protection and Safety Technology / Technician

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1392 - Special Topics in Fire Services Administration

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1408 - Fire Inspector I

Credits: 4 (2 lecture, 4 lab). Fire inspection including rules, codes, and field inspection practices to meet certification requirements of the Texas Commission on Fire Protection. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 1433 - Fire Chemistry I

Credits: 4 (2 lecture, 4 lab). Chemical nature and properties of inorganic compounds as related to the fire service. Fundamental laws of chemistry, states of matter, gas laws, chemical bonding, and thermodynamics. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2188 - Internship-Emergency Management

Credits: 1. A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2305 - Fire Instructor I

Credits: 3 (3 lecture, 1 lab). Preparation of fire and emergency services personnel to deliver instruction from a prepared lesson plan. Includes the use of instructional aids and evaluation instruments to meet the Texas Commission on Fire Protection requirements for Fire Instructor I certification. Prerequisite: Prerequisite: FIRS 1433 or proof of Firefighter II level certification; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2307 - Fire Instructor II

Credits: 3 (3 lecture, 1 lab). Development of individual lesson plans for a specific topic including learning objectives, instructional aids, and evaluation instruments. Includes techniques for supervision and coordination of activities of other instructors to meet Texas Commission on Fire Protection requirements for Fire Instructor II certification. Prerequisite: Prerequisite: FIRT 2305, or proof of Fire Instructor I certification; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2309 - Fire Fighting Strategies and Tactics I

Credits: 3 (3 lecture). Analysis of the nature of fire problems and selection of initial strategies and tactics including an in-depth study of efficient and effective use of manpower and equipment to mitigate the emergency. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2333 - Fire & Arson Investigation II

Credits: 3 (2 lecture, 3 lab). Fire Investigation techniques and defense of findings in a court room setting. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

Description of Courses

FIRT 2351 - Company Fire Officer

Credits: 3 (3 lecture). A capstone course covering fire ground operations and supervisory practices. Includes performance evaluation of incident commander, safety officer, public information officer, and shift supervisor duties. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2380 - Cooperative Education Fire Protection and Safety Technology / Technician

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: 15 semester hours of FIRT/FIRS and Department Approval; must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2419 - Fire Chemistry II

Credits: 4 (2 lecture, 4 lab). Chemical compounds related to the fire service. Includes effective selection of extinguishing agents and method of application. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

FIRT 2459 - Fire Instructor III

Credits: 4 (3 lecture, 2 lab). Development of comprehensive training curriculum and programs. Includes organization of needs analysis and development of training goals and implementation strategies to meet Texas Commission on Fire Protection requirements for Fire Instructor III. Prerequisite: Prerequisite: FIRT 2307, or proof of the Fire Instructor II Certification

FLMC 1292 - Special Topics in Film - Video Making / Cinematography and Production

Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: RTVB 1321; must be placed into GUST 0342 in reading, ENGL 0310 in writing and MATH 0312 in math.

FLMC 1300 - Production Management

Credits: 3 (2 lecture, 4 lab). Managing above- and below-the-line film or video production costs. Emphasizes analysis of scripts and treatments to determine production costs, crewing requirements, location needs, equipment rentals, and associated production costs. Prerequisite: RTVB 1321; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FLMC 1304 - Lighting for Film or Video

Credits: 3 (2 lecture, 4 lab). Lighting techniques for 16mm film or video production. (This class demonstrates advanced lighting techniques for 16mm film and video productions. Using a variety of lab projects and location settings, students will use lights, filters, in-camera special effects and mood setting techniques to enhance shot composition and camera movement. Topics also include operating film cameras, light meters and selecting film stock. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 2337; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0312 in math.

FLMC 1311 - Survey of the Motion Picture

Credits: 3 (2 lecture, 4 lab). Overview of film History, Civilization, and techniques including introduction to cinematic elements and approaches to analysis and criticism. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 1331 - Video Graphics and Visual Effects I

Credits: 3 (2 lecture, 4 lab). A course in the applications of computers for video production. Design of computer graphic workstations and development of a rationale for selecting software, hardware, and peripherals. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 1371 - Film and New Media

Credits: 3 (2 lecture, 4 lab). This interdisciplinary and multimedia course explores the origins, dynamics, and innovation of new media involvement/inclusion in filmmaking. This course will cover the history and importance of evolving technology (smartphones, wearable cameras, digital cameras) and its applications in social communication platforms. The course is designed as an entry-level, general interest class open to all students who have an interest in the roles of New Media in communication, information, and commerce. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 in writing and MATH 0312 in math.

Description of Courses

FLMC 1391 - Special Topics in Film / Cinema Studies
Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.
Prerequisite: RTVB 1321; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2305 - Film-Style 3-D Animation Production
Credits: 3 (2 lecture, 4 lab). Techniques in 3-D animation for film-style and live action production. Topics include animations fundamentals, 3D modeling, splines and lofts, keyframing, particle effects, rendering. Prerequisite: RTVB 2331; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.
Corequisite: Co-requisite: FLMC 2370

FLMC 2308 - Film Business and Marketing
Credits: 3 (2 lecture, 4 lab). The fundamentals of budgeting, financial records, and the distribution and marketing of films. (The course will introduce the fundamentals of budgeting, financial records, and the distribution of films. Starting with a brief historical review of the American film industry, the course will describe the major film corporations and their subsidiaries and the rise of the independent film industry. Additional topics include basic accounting issues, marketing concepts, distribution, advertising, the Internet, publicity, finding a distribution partner, negotiation tactics and strategies, and establishing a paper trail for financial transactions.)
Prerequisite: MUSB 2355 and FLMC 1300; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2310 - Film - style Production
Credits: 3 (2 lecture, 4 lab). Writing, directing, and producing film-style productions. Prerequisite: RTVB 1321; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

FLMC 2330 - Audio Post Production
Credits: 3 (2 lecture, 4 lab). The technology, creative application and requirements for producing audio soundtracks for film and video. (This course explores the technology, creative application and requirements for producing audio soundtracks for film and video projects. Topics include time code, synchronization, mixing, Foley, dialog replacement, sound effects and location sound. The students will work on computerized workstations to produce finished audio tracks for various projects. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 2337 and RTVB 2330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2331 - Video Graphics and Visual Effects II
Credits: 3 (2 lecture, 4 lab). Advanced concepts of designing vector and raster graphics, executing rendering techniques, designing and producing three-dimensional (3-D) materials, and selecting hardware, software, and peripherals for video production. Prerequisite: FLMC 1331; must be placed into college-level reading, writing and math.

FLMC 2333 - Cinematography
Credits: 3 (2 lecture, 4 lab). Theoretical elements and practical applications of cinematography. (This class teaches theoretical elements and practical application of cinematography. While learning techniques of film production, students study historical and contemporary trends and styles. Theoretical topics include differences in film stocks, exposure, color theory and filters. Professional techniques that alter an image's character are demonstrated and discussed. Practical tests and scenes are shot using color and black and white film stocks. Students are required to attend additional lab hours outside of class.) Prerequisite: FLMC 1304; Must be placed into college-level reading, writing and math.

FLMC 2334 - Directing for Film or Video
Credits: 3 (2 lecture, 4 lab). Directing to lead a production team. (This course teaches the craft of directing to students who aspire to lead a production team. By analyzing the work of classic and contemporary directors, the class investigates the art and language of filmmaking. Topics include framing and composition, camera angles, camera movement, blocking of actors, visualizing action, and creating a sequence, script breakdown, and techniques for establishing mood, character, and conflict.) Prerequisite: FLMC 1300; must be placed into college-level reading, writing and math.

Description of Courses

FLMC 2335 - Screenwriting for Features , Shorts and Documentaries

Credits: 3 (2 lecture, 4 lab). Screenwriting for the principle genres of film. (This class emphasizes screenwriting for the principle genres of film. Students will create treatments from dramatic concepts, turn these treatments into screenplays and complete full shooting scripts by the course's end. Topics include scriptwriting, formatting conventions and structural analysis of comedies, dramas, documentaries and short films. At the conclusion of the course students will submit an original script to a scriptwriting contest. Students are required to attend additional lab hours outside of class.) Prerequisite: RTVB 1429; must be placed into college-level reading, college-level writing and MATH 0308 in math.

FLMC 2336 - Production Development - Producing

Credits: 3 (2 lecture, 4 lab). Sequential steps of supervision in all phases of film production and distribution. Includes resource acquisition and allocation. (During this class the student will address three primary questions posed when developing an idea for a film: What are you going to film? How are you going to film it? How are you going to structure the production? This class will teach students how to explore these questions fully before production begins. Class discussions, student projects and instructor analysis will emphasize the pre-production process: storyboarding shot lists, scheduling, location scouting, stock footage and budgeting. The class will also address design and aesthetic decisions in costuming, makeup and set design. Students are required to attend additional lab hours outside of class.) Prerequisite: FLMC 1300, RTVB 2337; must be placed into college-level reading, writing and math.

FLMC 2342 - Film Editing and Sound Synchronization

Credits: 3 (2 lecture, 4 lab). Design and theory of film editing from raw footage to a final release print. Includes preparing film for the lab, setting up opticals, making and shooting titles, hot splicing, sound track dubbing, and obtaining a final release print. Also may include special effects and sync vs. non-sync sound. Prerequisite: RTVB 2337; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2344 - Advanced Film and Video Editing

Credits: 3 (2 lecture, 4 lab). Exploration of the creative possibilities of non-linear film and video editing. Includes editing aesthetics, titles, graphic design, compositing, and special effects. Prerequisite: FLMC 1331, RTVB 2330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

FLMC 2380 - Cooperative Education / Cinematography and Film / Video Production

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: FLMC 2336 and Department Approval; must be placed into college-level reading, writing and math.

FMKT 1301 - Floral Design

Credits: 3 (2 lecture, 2 lab). Principles of floral art with an emphasis on commercial design. Topics include basic design styles and color harmonies; identification, use, and care of processing of cut flowers and foliages; mechanical aids and containers; personal flowers; holiday designs; and plant identification and care. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FMKT 2331 - Advanced Floral Design

Credits: 3 (2 lecture, 2 lab). An in-depth coverage of advanced floral design practices for the retail floral industry. Topics include contemporary floral arrangement styles and trends. Prerequisite: FMKT 1301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FMKT 2335 - Flower Shop Management

Credits: 3 (3 lecture). Modern principles and practices used in management and operations of retail florist shops. Topics include structure of the industry, shop location, business plan organization, marketing methods and management practices. Prerequisite: FMKT 1301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FREN 1300 - Conversational French I

Credits: 3 (3 lecture). An introductory French course that emphasizes listening comprehension and speaking skills. Reading and writing may be done as reinforcement to oral communication skills. The course is slower-paced and less comprehensive than French 1411. It is highly recommended for students without previous experience in the French language. This course is not open to students whose first language is French. Generally, does not transfer as foreign language credit, but may transfer as elective credit.

Description of Courses

FREN 1411 - Beginning French I

Credits: 4 (3 lecture, 2 lab). Introduction to the French language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

FREN 1412 - Beginning French II

Credits: 4 (3 lecture, 2 lab). Continuation of FREN 1411. Further development of listening comprehension, speaking, reading and writing skills and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: FREN 1411 or satisfactory score on an advanced placement examination or at least two years of high school French within the last two years; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing. Corequisite: Or take ENGL 0310/0349 as a co-requisite

FREN 2311 - Intermediate French I

Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning French. Introduction of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in French. Prerequisite: FREN 1412 or equivalent; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

FREN 2312 - Intermediate French II

Credits: 3 (3 lecture). Continuation of FREN 2311 but with special emphasis on written communication. Readings, discussions and compositions. Class conducted mainly in French. Prerequisite: FREN 2311 or equivalent; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing. Corequisite: Or take ENGL 0310/0349 as a co-requisite

FSHD 1191 - Special Topics in Fashion Design and Illustration

Credits: 1 (1 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be

placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1233 - Fashion Study Tour

Credits: 2 (2 lecture). A course which combines the study of fashion with travel. Exploration of fashion, art, architecture, textiles, costume, business, and cultural activities in major art and fashion cities. Examination of the most current work in the industry from a global perspective. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1235 - Millinery

Credits: 2 (2 lecture, 1 lab). A study of the basic skills and methods used to create hats. An application of the techniques used to design and produce hats for fashion, theater, historic reproduction and educational instruction purposes. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1291 - Special Topics in Fashion Design and Illustration: Knitwear

Credits: 2 (2 lecture). An introductory course in the construction of masks through several techniques. The students will use their creativity to put their own spin on a traditional craft. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 1292 - Special Topics in Fashion Design and Illustration: Knitware

Credits: 2 (1 lecture, 3 lab). Fundamentals of mass production of knit apparel, focusing on the operation of an Industrial Straight Stitch machine, Commercial Merrow machine and a Coverstitch machine. Introduction of stretch knit fabrics, elastic, elastic thread, mass production sewing techniques and finishes used in the knitwear industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

FSDH 1302 - Introduction to Fashion

Credits: 3 (3 lecture). Survey of the world of fashion businesses. Introduction to the creation and merchandising of fashion through the study of fashion vocabulary, the fashion process, fashion publications and career opportunities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSDH 1308 - Fashion Trends

Credits: 3 (3 lecture). A study of the effects of Eastern and Western cultures on the development of fashion. Examination of the relationship of social, psychological, economic, demographic and life-style trends to fashion trends. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSDH 1311 - Fashion History

Credits: 3 (3 lecture). Survey of the evolution of fashion change traced through garment development from ancient times to present day. A study of customs and silhouettes of each historical period and their modern day adaptations. Examination of twentieth century fashion designers. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSDH 1313 - Art for Fashion

Credits: 3. A study of the basic elements and principles of art applied to the design of clothing for the human form. Emphasis on the basic body types; clothing silhouettes; fabric weights; and the use of line, movement, proportion, and color to achieve flattering, marketable fashion design.

FSDH 1318 - Apparel Computer Systems

Credits: 3 (3 lecture, 1 lab). An introduction to apparel computer systems used in wholesale and retail fashion businesses. Applications demonstrated include computer-aided garment and textile design, fashion illustration, pattern making, pattern grading, marker making, newsletters, brochures, advertisements and catalogs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSDH 1322 - Fashion Sketching

Credits: 3 (3 lecture, 1 lab). Fundamentals of quick sketching to communicate design ideas. Instruction in drawing the male and female fashion figure. Emphasis on simple methods for making quick sketches to illustrate style information. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSDH 1324 - Ready-To-Wear Construction

Credits: 3 (2 lecture, 4 lab). Fundamentals of mass production of apparel, focusing on the operation of industrial sewing and pressing equipment. Survey of materials selection and construction techniques used at all price levels of mass produced apparel. Introduction to industry seam allowances. Identification of differences between ready-to-wear and couture construction. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSDH 1328 - Flat Pattern Design I

Credits: 3 (2 lecture, 3 lab). An introduction to the creative design of clothing through the flat pattern method. General principles of pattern making using the basic five-piece dress sloper. A study of dart manipulation, slashing and spreading the pattern and contouring sew lines. Prerequisite: Prerequisite: FSDH 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSDH 1332 - Custom Patterns

Credits: 3 (2 lecture, 3 lab). Skill development in taking body measurements. Instruction in developing custom fittings for customized patterns. In depth coverage of the process of transferring a custom body fitted canvas to a basic dress form and padding it for custom sizing. Prerequisite: FSDH 1328 and FSDH 2306; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSDH 1333 - Fashion Study Tour

Credits: 3 (3 lecture). A course which combines the study of fashion with travel. Exploration of fashion, art, architecture, textiles, costume, business, and cultural activities in major art and fashion cities. Examination of the most current work in the industry from a global perspective. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSDH 1351 - Design Construction Techniques

Credits: 3 (2 lecture, 4 lab). A continuation of Ready-to-Wear Construction with emphasis on design details. Instruction in basic manipulation of a commercial pattern to create individual design details, dressmaking and fully lined unstructured garments in intermediate level fabrics. Prerequisite: Prerequisite: FSDH 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

FSHD 1355 - Flat Pattern Design II

Credits: 3 (2 lecture, 3 lab). A continuation of Flat Pattern Design I with emphasis on patterns for tailored garments. Instruction in creating a jacket sloper with a two piece suit sleeve to make patterns for a variety of jacket silhouettes. Adding shoulder pad allowance, drafting patterns for jacket linings and interfacing pieces, lapel and collar variations and various pants shapes. Prerequisite: Prerequisite: FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 1391 - Special Topics in Fashion Design and Illustration : Advanced Fashion Sketching

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2215 - Bustier Construction

Credits: 2 (1 lecture, 3 lab). Instruction in the skills and techniques for creating a boned bodice. Production of strapless bodices from fashion and theatrical sources through the pattern-making and construction process. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2305 - Computer Aided Apparel Design

Credits: 3 (3 lecture, 3 lab). Fundamentals of computerized pattern design and marker making, as they pertain to the industrial production of apparel products. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2306 - Draping

Credits: 3 (2 lecture, 3 lab). A study of three-dimensional fashion design conceptualizing by draping in muslin or fashion fabric directly on the dress form. Skill development in observing grain of fabric, identifying drapable fabrics and creating designs suitable for draping. Presentation of major fashion designers? draping techniques. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2310 - Fabric Design

Credits: 3 (2 lecture, 3 lab). Fundamentals of fabric design. Instruction in silk screen, batik, tie-dye, painting, resist dye, block print, stenciling and weaving. Skill development in fabric design and production suitable for fashion apparel. Prerequisite: FSHD 1324, FSHN 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2312 - Theatrical Costume Design

Credits: 3 (2 lecture, 3 lab). A study of garment design for the theater in which costumes are researched and designed for theatrical productions. Instruction in the effect of lighting and staging in relationship to costuming. Prerequisite: Prerequisite: DRAM 1310; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2337 - Couture Dressmaking

Credits: 3 (2 lecture, 4 lab). A study of advanced apparel construction addressing couture dressmaking techniques, the traditional highest-quality methods for planning, cutting, sewing and pressing garments. Instruction in designing and producing couture fashion garments in advanced level fabrics. Prerequisite: Prerequisite: FSHD 1351; Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHD 2341 - Pattern Grading

Credits: 3 (3 lecture, 1 lab). Instruction in sizing standard patterns larger and smaller for the mass production of apparel. A study of 1", 1-1/2", and 2" and S-M-L-XL grade rules and their applications. Skill development in grading basic and fashion patterns with the ruler, the grading machine, and the computer. Prerequisite: Prerequisite: FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2343 - Fashion Collection Design

Credits: 3 (2 lecture, 3 lab). Advanced concepts in designing a collection of marketable apparel. Instruction in developing a design work board for a specific target market and selecting the most marketable ideas for the collection. Projects in resource development, fabric selection, estimating wholesale costs and initial pattern and garment production. Prerequisite: FSHD 1351, FSHD 1328; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

FSHD 2344 - Fashion Collection Production
Credits: 3 (2 lecture, 3 lab). A continuation of the Fashion Collection Design course. Emphasis on the production, costing and marketing of a cohesive collection of fashion apparel. Instruction in completing production patterns for all collection garments. Prerequisite: Prerequisite: FSHD 2343; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHD 2388 - Internship - Fashion / Apparel Design
Credits: 3 (16 lab) (256 hours work experience). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Prerequisite: Department Approval; must be placed into GUST 0341 in reading, college-level writing and MATH 0306 in math.

FSHN 1301 - Textiles
Credits: 3 (3 lecture, 1 lab). A general study of textiles with emphasis on factors that affect the hand, appearance and performance in clothing use. Examination of the properties of natural and man-made fibers, how yarn is formed, methods of production and the properties of a wide variety of fabrics. Application of textiles used in the apparel industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

FSHN 1305 - Apparel Alterations
Credits: 3 (2 lecture, 3 lab). Skill development in fitting, altering, conserving and restyling apparel for men, women and children. Preparation for fitting, alterations, conservation and restoration work for a retail store, dry cleaning establishment, wedding gown business or historical costume collection. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

FSHN 1320 - Fashion Selling
Credits: 3 (3 lecture). Examination of selling techniques for fashion apparel and accessories in retail and wholesale settings. Identification of buying motives, sales psychology, customer approach and closure. Instruction in product analysis, building a regular clientele, developing a fashion vocabulary and training and motivating a sales staff. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHN 1329 - Basic Men's Tailoring
Credits: 3 (2 lecture, 3 lab). An introduction to tailoring men's structured apparel including fundamentals of sewing machine operations, fabric preparation and cutting, machine and hand sewing techniques, and pressing proficiency including instruction in pattern and alterations, assembling men's jackets, vests and pants, and fitting and alterations procedures. Prerequisite: Prerequisite: FSHD 1324; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHN 2301 - Fashion Promotion
Credits: 3 (3 lecture). A survey of fashion direction, publicity and fashion event coordination. Emphasis on fashion show production from idea to runway, including theme development, stage/set design, choreography, music coordination, lighting, lineup, model fittings, rehearsal and press kit development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2303 - Fashion Buying
Credits: 3 (3 lecture). Fundamentals of fashion buying with instruction in planning, pricing, and purchasing retail fashion inventories. Identification of wholesale merchandise resources. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

FSHN 2305 - Fashion Retailing
Credits: 3 (3 lecture). An overview of fashion retailing procedures used in various types of retail fashion companies. A study of profit and loss, pricing, markup, inventory control, shortages, forecasting, store organization, and events. Examination of the wide variety of job opportunities available in the retail fashion industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

FSHN 2307 - Fashion Advertising
Credits: 3 (3 lecture). General principles and practices of fashion advertising and consumer directed communication. A study of persuasive media approaches for public relations induced publicity and advertising produced sales promotions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

FSHN 2309 - Fashion Image

Credits: 3 (3 lecture). Instruction in the techniques used to analyze the fashion image of individual clients. Emphasis on personal coloring, color harmonies, appropriate fabric textures, body proportion and silhouette, figure, facial and hair analysis, and wardrobe coordination. Study of fashion image consultant business practices and job qualifications. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2320 - Visual Merchandising

Credits: 3 (2 lecture, 3 lab). Skill development in the creation of showroom or retail store window/interior displays that sell merchandise. Study of the basic techniques of store planning, mannequin dressing, alternate form design, and display space conceptualization and implementation. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

FSHN 2388 - Internship - Fashion Merchandising

Credits: 3 (16 lab) (256 hours work experience). Principles and practices in resume and cover letter A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, college-level writing and MATH 0308 in math.

FSHN 2432 - Advanced Pattern Drafting

Credits: 4 (4 lecture, 1 lab). Advanced techniques for drafting patterns.) Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0301 or 0349 in writing and MATH 0308 in math.

GAME 1212 - Game Theory

Credits: 2 (1 lecture, 3 lab). Game and simulation design. Application of design theories to production-based projects from the conceptual stage to a completed project. Prerequisite: GAME1306; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1302 - Interactive Storyboarding

Credits: 3 (2 lecture, 4 lab). In-depth coverage of storyboarding for the development of interactive media. Addresses target audience analysis, purpose, goals and objectives, content outline, flow chart, and interactive storyboarding. Prerequisite: Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1303 - Introduction to Game Design and Development

Credits: 3. Introduction to electronic game development and game development careers. Includes examination of history and philosophy of games, the game production process, employee factors for success in the field, and current issues and practices in the game development industry.

GAME 1304 - Level Design

Credits: 3 (2 lecture, 4 lab). Introduction to the tools and concepts used to create levels for games and simulations. Incorporates level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1306 - Design and Creation of Games

Credits: 3 (2 lecture, 4 lab). Introduction to game and simulation development. Includes analysis of existing applications and their play elements. In-depth coverage of the elements of the application and examination of social issues, genres, and trends. Also covers creation of design documents, investigation of why people play games, review of technological and cultural History, Civilization, of electronic games, survey of the major innovators and historical figures of the industry, and examination of the trends and taboos that motivate game design. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1314 - Character Sculpting

Credits: 3 (2 lecture, 4 lab). Creation of original characters from the drawing stage to sculpting clay status. Explores a variety of poses using clay and aluminum armatures. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1334 - Video Game Art I

Credits: 3 (2 lecture, 4 lab). Explores the role of the artist in the gaming industry. Introduces tools and techniques used in the creation of assets for a game engine. Covers art pipeline, team integration and communication.

Description of Courses

GAME 1335 - Interactive Writing I
Credits: 3 (2 lecture 4 lab). Instruction in writing plot, story, setting, and description for every game element and verbal communication based on game concept. Includes the study of traditional narrative practices and interactive fiction requiring creative writing. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0306 in math.

GAME 1336 - Introduction to 3D Game Modeling
Credits: 3 (2 lecture, 4 lab). Architectural spaces and modeling in a real-time game editor. Includes techniques for building, texturing, and lighting a game level to function in realtime. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1371 - Introduction to 2D Game Art
Credits: 3 (2 lecture 4 lab). Introduce industry software tools used in the creation of 2D game and simulation art. Includes the concepts, commands and interfaces of industry standard raster and vector graphics. Learn to edit and manipulate existing art. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1372 - Game Programming for Non-Programmers
Credits: 3 (2 lecture 4 lab). Examines the role of a programmer in the development of a game and translation of game design to code. Includes hands-on programming using a high level language. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1373 - Introduction to Perspective Drawing
Credits: 3. An introduction to perspective drawing, lighting and object shading for the purpose of producing art for games and simulations.

GAME 1374 - Introduction to 3D Game Animation
Credits: 3 (2 lecture 4 lab). Introduce industry software tools used in creating game and simulation animation. Introduce techniques used to create movement of game assets; covers the principles of animation and their application in 3D space. Introduces animation issues such as animation hierarchies, game combat timing, and in-game storytelling. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

GAME 1375 - Principles of Game Concept Art
Credits: 3 (2 lecture, 4 lab). A study of traditional art techniques and its applications to game concept art. Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 1378 - Art For 2D Games
Credits: 3 (2 lecture, 4 lab). Introduction to industry tools for the purpose of creating 2D game assets for gaming and simulation. Includes the art of spriting, 2D animation, 2D texturing, color theory, image manipulation, custom user interface, weapon designs, character design, heads up display, game user interface, file formatting , proper importing and exporting for games, understanding of design principles for games and marketing for games

GAME 1379 - Introduction to Game Programming
Credits: 3 (2 lecture, 4 lab. Examines the role of a programmer in the development of a game and translation of game design to code. Includes hands-on programming using a high level language. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

GAME 2302 - Mathematical Applications for Game Development
Credits: 3 (2 lecture 4 lab). Presents applications of mathematics and science in game and simulation programming. Includes the utilization of matrix and vector operations, kinematics, and Newtonian principles in games and simulations. Also covers code optimization. Prerequisite: GAME 1306 and programming; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2304 - Level Design II
Credits: 3 (2 lecture, 4 lab). Intermediate approach to the tools and concepts used to develop levels of games and simulations. Incorporates an intermediate exploration of level design, architecture theory, concepts of critical path and flow, balancing, play testing and storytelling. Includes utilization of toolsets from industry titles. Prerequisite: GAME 1304; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 2305 - Interactive Writing II
Credits: 3 (2 lecture, 4 lab). Dialog, story, and character development in writing for video games. Prerequisite: GAME 1335; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

Description of Courses

GAME 2308 - Portfolio for Game Development
Credits: 3 (2 lecture, 4 lab). Design and management of an industry standard portfolio. Includes techniques in self-promotion, resume writing, portfolio distribution systems, and interviewing. Prerequisite: GAME 2332; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2309 - Video Game Art II
Credits: 3 (2 lecture, 4 lab). Explores the role of the artist in the gaming industry. Introduces tools and techniques used in the creation of assets for a game engine. Covers art pipeline, team integration and communication.

GAME 2319 - Game Engine
Credits: 3 (2 lecture, 4 lab). Commercial and open source gaming engines. Includes discussions and recommendations for game engines to fit industry specifications. Prerequisite: Prerequisites: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2325 - 3D Animation II-Character Setup
Credits: 3 (2 lecture, 4 lab). Skinning and weighting, forward kinematics, inverse kinetics, constraints, expressions, scripting and driven keys, mesh deformers, morph targets/blend shapes, and animation user interfaces. Prerequisite: GAME 1374; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2332 - Project Development I
Credits: 3 (2 lecture, 4 lab). Skill development in an original modification based on a current game engine. Includes management of version control; development of project timeliness; integration of sound, models, and animation; production of demos; and creation of original levels, characters, and content for a real-time multiplayer game. Applies skills learned in previous classes in a simulated real-world design team experience. Prerequisite: GAME 1371, GAME 1372, GAME 1212; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2334 - Project Development II
Credits: 3 (2 lecture, 4 lab). Continuation of an original modification based on a current game engine with an emphasis on new content and significant changes in game play over the base game experience. Includes creation of original levels, characters, and content for a real-time multiplayer game applying skills learned in previous classes. (formerly GAME 2375) Prerequisite: GAME 1336, GAME 2332; must be placed into college-level reading, college-level writing and MATH 0308 in math.

GAME 2336 - Lighting, Shading and Texture
Credits: 3 (2 lecture, 4 lab). Lighting, shading, and texture painting for 3D models using digital painting techniques. Emphasizes lighting, shading, and texture creation of limited resolution to increase system performance for digital games and simulation training models. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

GAME 2338 - Game Testing
Credits: 3 (2 lecture, 4 lab). Testing and debugging gaming and simulation applications in the alpha and beta stages of production. Includes critiques of the product and written documentation of the testing and debugging processes. Prerequisite: Prerequisites: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2341 - Game Scripting
Credits: 3 (2 lecture, 4 lab). Scripting languages with emphasis on game concepts and simulations. Prerequisite: GAME 1372; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2342 - Game Development Using C++
Credits: 3 (2 lecture, 4 lab). Skill development in C++ programming for games and simulations. Examines real-world C++ development issues. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2344 - DirectX Programming
Credits: 3 (2 lecture, 4 lab). Exploration of the advanced suite of multimedia application programming interfaces (API) built into the Microsoft Windows operating system. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

Description of Courses

GAME 2347 - Advanced Game Programming
Credits: 3 (2 lecture, 4 lab). Optimization of student-created games. Includes performance tuning, debugging, designing for test, software architecture design, object-oriented practices for game play, asset management, and coding best practices. Prerequisite: GAME 2347; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2371 - Level Design III
Credits: 3 (2 lecture, 4 lab). Advanced approach to the tools and concepts used to create levels for games and simulations. Incorporates an advanced exploration of level design, architecture theory, concepts of critical path and flow, balancing, play testing, and storytelling. Includes utilization of toolsets from industry titles. Prerequisite: GAME 2304; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 2372 - Emerging Game Technology
Credits: 3 (2 lecture, 4 lab). Explore significant developments within the gaming and simulation field. Research emerging technologies and systems recently developed in the gaming and simulation industry. Prerequisite: GAME 1336; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2373 - 2D Game Programming
Credits: 3 (2 lecture, 4 lab). Design and development of 2D games and simulations. Includes the design of the user interface, animation, and software development techniques using industry standard development tool. Prerequisite: GAME 1372; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GAME 2374 - 3D Rigging for Games and Simulation
Credits: 3 (2 lecture, 4 lab). An introduction to bone rigs and morph targets to properly set up a character for animation. In addition, rig bipedal characters, quadrupedal characters and props. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GAME 2378 - Techniques of Game Art
Credits: 3 (2 lecture, 4 lab). A study of industry-used, game-art techniques and its applications of 3D game art assets. Prerequisite: GAME 1371; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

GAME 2386 - Internship
Credits: 3 (15 external lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: GAME 2334; must be placed into college-level reading, college-level writing and MATH 0312 in math.

GEOG 1301 - Physical Geography
Credits: 3 (3 lecture). An introduction to the earth's physical elements. Emphasis is placed on the interrelationships within and between the atmosphere, hydrosphere, lithosphere, and biosphere. Map applications and other tools are used to help understand topics such as weather and climate, soils, ecosystems, and natural resources(Non Lab Natural Science). This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

GEOG 1302 - Human Geography
Credits: 3 (3 lecture). A survey of the cultural diversity found on earth. Topics include population, language, religion, ethnicity, and popular culture, with a special focus on spatial attributes and expressions of culture. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

GEOG 1303 - World Regional Geography
Credits: 3 (3 lecture). A study of the world's regions with an emphasis on prevailing conditions and developments. Using a spatial lens, the course looks at cultural, physical, and historical characteristics of regions around the world, and develops awareness of the diversity of ideas and practices found in these regions. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

GEOL 1301 - Earth Sciences for Non-Science Majors I (Lecture)
Credits: 3 (3 lecture). Survey of geology, meteorology, oceanography, and astronomy. Prerequisite: Must qualify to take GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing or INRW 0420 or ESOL 0360.

Description of Courses

GEOL 1305 - Environmental Science (Lecture)
Credits: 3 (3 lecture). A survey of the forces, including humans, that shape our physical and biologic environment, and how they affect life on Earth. Introduction to the science and policy of global and regional environmental issues, including pollution, climate change, and sustainability of land, water, and energy resources. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing or INRW 0420 or ESOL 0360.

GEOL 1345 – Oceanography (Lecture)
Credits: 3 (3 lecture). An introduction to the world's oceans, emphasizing the geological, physical, biological, chemical, and ecological aspects of the marine environment. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or iNRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1347 – Meteorology (Lecture)
Credits: 3 (3 lecture). The study of basic principles of weather and climate and the pervasive effects of weather conditions on daily lives, commerce, agriculture, urban planning and other human activity. The course offers basic scientific theory with applications familiar to the student. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or iNRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1403 - Physical Geology (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Introduction to the study of the materials and processes that have modified and shaped the surface and interior of Earth over time. These processes are described by theories based on experimental data and geologic data gathered from field observations. Laboratory activities will cover methods used to collect and analyze earth science data. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take GUST 0342 or iNRW 0420 (or higher) in reading and qualify to take MATH 0312 (or higher) in mathematics and qualify to take ENGL 0310/0349 or INRW 0420 (or higher) in writing.

GEOL 1404 - Historical Geology (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). A comprehensive survey of the History, Civilization, of life and major events in the physical development of Earth as interpreted from rocks and fossils. Laboratory activities will introduce methods used by scientists to interpret the History, Civilization, of life and major events in the physical development of Earth from rocks and fossils. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: GEOL 1403

GERM 1300 - Beginning German Conversation I
Credits: 3 (3 lecture). An introductory German course which emphasizes listening comprehension and speaking skills. Reading and writing may be done as reinforcement to oral communication skills. The course is slower-paced and less comprehensive than German 1411. It is highly recommended for students without previous experience in the German language. This course is not open to students whose first language is German. Generally, does not transfer as foreign language credit, but may transfer as elective credit.

GERM 1411 - Beginning German I
Credits: 4 (3 lecture, 2 lab). Introduction to German language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

GERM 1412 - Beginning German II
Credits: 4 (3 lecture, 2 lab). Continuation of GERM 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: GERM 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school German within the last two years; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

Description of Courses

GERM 2311 - Intermediate German I

Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning German. Introduction of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in German. Prerequisite: GERM 1412 or equivalent; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

GERM 2312 - Intermediate German II

Credits: 3 (3 lecture). Continuation of GERM 2311. Special emphasis on writing. Readings, discussions and compositions. Class conducted mainly in German. Prerequisite: GERM 2311 or equivalent; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

GERS 1301 - Introduction to Gerontology

Credits: 3 (3 lecture). Overview of the social, psychological, and biological changes that accompany aging and an overview of the implications of these changes for the individual, as well as for the larger society. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

GISC 1401 - Cartography and Geography in Geographical Information Systems (GIS) and Global Positioning Systems

Credits: 4 (2 lecture, 4 lab). Introduction to the principles of cartography and geography. Emphasis on global reference systems and the use of satellites for measurements and navigation. Prerequisite: GISC 1411 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GISC 1411 - Introduction to Geographic Information Systems (GIS)

Credits: 4 (2 lecture, 4 lab). Introduction to basic concepts of vector GIS using several industry specific software programs including nomenclature of cartography and geography. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

GISC 1421 - Introduction to Raster - Based Geographic Information Systems (GIS)

Credits: 4 (2 lecture, 4 lab). Instruction in GIS data sets including raster- based information such as images or photographs, acquisition of such data, and processing and merging with vector data. Prerequisite: GISC 1411 or Department Approval; must be placed into college-level reading, writing and math.

GISC 1491 - Special Topics in Cartography

Credits: 4 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2250 - Scripting for Geographic Information Systems (GIS)

Credits: 2 (1 lecture, 2 lab). Using scripting languages (Python) to automate tasks in Geographic Information Systems (GIS) environments. Introduces scripting and model building techniques used to enhance and customize GIS applications Prerequisite: GISC 1401, GISC 1411; must be placed into college-level reading, writing and math.

GISC 2359 - Web-Served Geographic Information Systems (GIS)

Credits: 3 (2 lecture, 3 lab). Delivery of geographic data via the Internet. Includes composition of the map features distributed and introduction on the use of markup languages to customize web-based Geographic Information Systems (GIS). Prerequisite: GISC 1401, GISC 1491; must be placed into college-level reading, writing and math.

GISC 2364 - Practicum (or Field experience) - Cartography

Credits: 3 (2 lecture, 3 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

Description of Courses

GISC 2380 - Cooperative Education - Cartography
Credits: 3 (1 lecture, 20 external hours). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

GISC 2401 - Data Acquisition and Analysis in Geographic Information Systems (GIS)
Credits: 4 (2 lecture, 4 lab). Study of the management of geographic information, system life cycles, and costs and benefits. Includes institutional issues such as data providers, data management, combination of attribute and graphical data, information storage and access, Texas and national standards for spatial data; and applications of GIS for data modeling and analysis. Prerequisite: GISC 1401 or Department Approval; must be placed into college-level reading, writing and math.

GISC 2411 - Geographic Information Systems (GIS) Applications
Credits: 4 (2 lecture, 4 lab). Application of GIS technology to real workplace applications from public and private sectors. Completion of Global Positioning Systems (GPS) fieldwork required for lab exercises. Prerequisite: GISC 1401,1421, or Department Approval; must be placed into college-level reading, writing and math.

GOVT 2107 - Federal and Texas Constitutions
Credits: 1 (1 lecture). A study of the United States and state constitutions, with special emphasis on Texas. Prerequisite: Pre-requisite: By permission only. Enrollment limited to students who have already completed a minimum of 6 SCH of GOVT courses but have not satisfied the statutory requirement for study of the federal and state constitutions.

GOVT 2304 - Introduction to Political Science
Credits: 3 (3 lecture). An introduction to the History, Civilization, , scope, and methods of political science. Among the topics covered are the different conceptions of politics and science and the relationships between them, the major controversies over the possibility and shape of political science, and the different approaches employed in the study of politics. Prerequisite: Must be placed into college-level reading and college-level writing.

GOVT 2305 - Federal Government
Credits: 3 (3 lecture). Origin and development of the U.S. Constitution, structure and powers of the national government including the legislative, executive, and judicial branches, federalism, political participation, the national election process, public policy, civil liberties and civil rights. Core Curriculum Course. Prerequisite: Must have passed ENGL 1301 (Composition I) or co-enrolled in ENGL 1301 as a co-requisite.

GOVT 2306 - Texas Government
Credits: 3 (3 lecture). Origin and development of the Texas constitution, structure and powers of state and local government, federalism and inter-governmental relations, political participation, the election process, public policy, and the political culture of Texas. Core Curriculum Course. Prerequisite: Must have passed ENGL 1301 (Composition I) or co-enrolled in ENGL 1301 as a co-requisite.

GOVT 2311 – Mexican American and Latinx Politics
Credits: 3. The study of Mexican American and Latinx politics within the American political experience. Topics include historical, cultural, socioeconomic, and constitutional issues that pertain to the study of Mexican Americans and other Latinx populations in the United States. Other topics such as political participation, governmental institutions, electoral politics, political representation, demographic trends, and other contemporary public policy debates will also be addressed.

GOVT 2389 - Academic Cooperative in Government
Credits: 3 (1 lecture, 16 lab). An experiential-learning instruction program designed to integrate textbook and classroom knowledge with practical hands-on experience in an applied area of political science. Primary implementation of student activities will occur in pre-selected legislative institutions or other related governmental organizations. Prerequisite: Completion of GOVT 2305 or GOVT 2306 with a grade of "B" or better, a grade point average of at least 3.0, and the written recommendation of an HCC government instructor. Must be placed into college-level reading and college-level writing.

GUST 0100 - Developmental Reading
Credits: 1 (1 lecture). An individualized curriculum for students whose test scores demonstrate high proficiency but do not meet state requirements for placement into core course work. This course will present a concentrated review of basic Reading and Vocabulary Skills. Department Chair approval is required. Prerequisite: Department Approval

Description of Courses

GUST 0339 - Introduction to Reading
Credits: 3 (3 lecture, 1 lab). A basic reading course designed to improve students' overall reading skills. Emphasis is on reading comprehension, vocabulary development, study techniques, career planning and critical reading. Classroom instruction is enhanced by a variety of self-paced activities. Prerequisite: Must be placed into GUST 0339 (or higher) in reading.

GUST 0341 - Developmental Reading I
Credits: 3 (3 lecture, 1 lab). Developmental Reading I is designed to address the developmental reader's need for direct instruction in basic reading behaviors that are essential to the acquisition of knowledge in the content areas. Instruction is based on an interactive reading method with emphasis on learning to learn. These key skills include previewing chapters, selecting and organizing the information read and critical reading, making informed decisions about that information. Prerequisite: Must be placed into GUST 0341 in reading or completion of GUST 0339 or 0340.

GUST 0342 - Developmental Reading II
Credits: 3 (3 lecture, 1 lab). Developmental Reading II is a continuation of reading skills introduced in GUST 0341. Stronger emphasis is on critical reading and thinking skills. The goal of GUST 0342 is to teach students to analyze materials thoughtfully, synthesize materials from various sources, and apply this information to their reading. Prerequisite: Must be placed into GUST 0342 in reading or completion of GUST 0341.

GUST 3040 - Developmental Reading for Non - Native Speakers of English
Credits: 3 (3 lecture, 1 lab). A basic reading course for non-native English speakers designed to improve students' overall reading skills. Emphasis on reading comprehension, vocabulary development, study techniques, and critical reading. Classroom instruction is enhanced by a variety of self-paced activities. Recommended on the basis of CELSA test scores. Prerequisite: Satisfactory score on CELSA test

HALT 1211 - Shrubs , Vines and Groundcovers
Credits: 2 (1 lecture, 3 lab). In-depth coverage of the shrubs, vines and groundcovers used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and use in the landscape. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1301 - Principles of Horticulture
Credits: 3 (3 lecture). An overview of the horticulture industry, plant science, terminology, classification, propagation, environmental responses, and careers and opportunities in the field of horticulture. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1306 - Introduction to Landscape Maintenance
Credits: 3. An introductory course related to the care of landscapes, including the selection, installation, care and maintenance of plants.

HALT 1307 - Plant Diseases
Credits: 3 (2 lecture, 2 lab). An overview of the factors causing plant diseases. Topics include physiological disorders, fungi, bacteria, viruses, nematodes, parasitic plants, nonpathogenic factors, and control methods. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1309 - Interior Plants
Credits: 3 (2 lecture, 2 lab). Instruction in the identification and classification of the plants used in home and commercial interior landscapes. Topics include design characteristics for interiorscapes and environmental requirements of the plants. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1319 - Landscape Construction
Credits: 3 (2 lecture, 2 lab). Exploration of landscape construction materials and methods of installation. Topics on soil preparation, including wood, concrete, masonry construction and landscape lighting including pools, spas, and general construction details. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1322 - Landscape Design
Credits: 3 (2 lecture, 2 lab). A study of the principles and elements of landscape design. Topics include client interview, site analysis, plan view, scale, plant selection, basic drawing and drafting skills, and plan preparation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

HALT 1324 - Turfgrass Science & Management
Credits: 3 (2 lecture, 2 lab). Coverage of various species of warm and cool season grasses including their uses, application, adaptability, environmental tolerances, anatomy, and physiological responses. Discuss turfgrass quality, selection, and adaptation; describe cultural practices of major cool and warm season turfgrasses; examine turfgrass responses to different environmental conditions; and identify cultural practices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1325 - Landscape Plant Material
Credits: 3 (2 lecture, 2 lab). Study of the identification, characteristics, cultural requirements, and landscape uses of native and adapted plants. Identify plants; select plants for various landscape situations; list characteristics of plants; and describe cultural requirements of plants. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1327 - Horticultural Equipment Management
Credits: 3 (2 lecture, 2 lab). Application of various types of powered equipment used in the horticulture industry. Presentation of functions, operations, troubleshooting techniques, and repair of equipment. Describe the functions, operations, and maintenance of various types of equipment; and troubleshoot problems. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1331 - Woody Plant Materials
Credits: 3 (2 lecture, 2 lab). Study of woody plant materials used in the horticulture industry. Topics include identification, characteristics, adaptation, cultural requirements, pest and disease problems, and use in the landscape. Identify woody plants in various growth stages; describe morphological, anatomical, or other botanical features; and explain cultural requirements of woody plants. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1333 - Landscape Irrigation
Credits: 3 (2 lecture, 2 lab). In-depth coverage of irrigation systems including equipment, design, performance, and maintenance. Topics include residential and commercial applications, troubleshooting, repair, and technological advances in irrigation systems. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1351 - Landscape Business Operations
Credits: 3 (2 lecture, 2 lab). Instruction in the structure of the landscape business including cost estimation; organization; equipment needs; interpretation of financial reports; and material, labor, and equipment management. Emphasis on the types of landscape operations, marketing, legal forms, construction law, and safety. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1370 - Introduction to Aquaponics
Credits: 3 (2 lecture, 2 lab). This course provides instruction in the principles and practical applications of Aquaponics and Hydroponics culture systems. Students will be introduced to the History, Civilization, as well as a variety of system designs that maintain water quality by various solids removal techniques. In-depth coverage of fish production, plant production, economics and fingerling production. Participants will learn the technology through presentation of the theory and practical skill development. Water quality labs will cover the methods of analysis and the use of water quality test kits. Field work will include fish handling, vegetable production and system operation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1371 - Introduction to Landscape Maintenance
Credits: 3 (3 lecture). An introductory course related to the care of landscapes, including the selection, installation, care and maintenance of plants. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1380 - Cooperative Education - Applied Horticulture/Horticultural Operations, General
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. As outlined in the learning plan, apply the theory, concepts, and skills involving specialized materials, tools, equipment, procedures, regulations, laws, and interactions within and among political, economic, environmental, social, and legal systems associated with the occupation and the business/industry; and will demonstrate legal and ethical behavior, safety practices, interpersonal and teamwork skills, and appropriate written and verbal communication skills using the terminology of the occupation and the business/industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

HALT 1381 - Cooperative Education - Applied Horticulture/Horticultural Operations, General Credits: 3 (1 lecture, 20 hours per week employment). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1382 - Cooperative Education - Applied Horticulture/Horticultural Operations Credits: 3 (1 lecture/seminar and 20 hrs a week employment). Career-related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1396 - Special Topics in Nursery Operations and Management Credits: 3 (2 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 1491 – Special Topics in Horticulture Services Operations and Management, General Credits: 4. Topics address recently identified current events, skills, knowledge's, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

HALT 2307 - Horticulture Food Crops Credits: 3 (2 lecture, 2 lab). A study of commercial and home cultivated food crops including various vegetables, fruits, and nuts. Topics address planting, maintenance, harvest, and storage of the various crops. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2308 - Greenhouse Management Credits: 3 (2 lecture, 2 lab). Fundamentals of greenhouse construction and operation. Topics include architectural styles, construction materials, environmental systems and controls, growing media, fertilizers, post harvest handling, marketing, and business management. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2312 - Turfgrass Maintenance Credits: 3 (3 lecture). Instruction in common turfgrass cultural practices. Topics include calculations, application of materials, and the operation and maintenance of equipment. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2314 - Plant Propagation Credits: 3 (2 lecture, 2 lab). A study of the sexual and asexual propagation of plants used in horticulture. Topics include propagation by seeds, cuttings, grafting, budding, layering, division separation, and tissue culture, and environmental factors of propagation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2315 - Landscape Management Credits: 3 (2 lecture, 2 lab). A study of the procedures and practices used in the horticulture industry for proper landscape maintenance. Topics include landscape installation, lawn maintenance, shrub and tree care, and management practices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2318 - Soil Fertility and Fertilizers Credits: 3 (2 lecture, 2 lab). An in-depth study of the chemistry, soil interaction, plant uptake, and utilization of essential plant nutrients. Topics include deficiency and toxicity symptoms, and the selection, application, and characteristics of fertilizer materials. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2320 - Nursery Production and Management Credits: 3 (2 lecture, 2 lab). An overview of the procedures for establishing and operating a commercial nursery. Topics include site selection, structures, equipment, stock selection, production practices, harvesting, marketing, and management practices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HALT 2323 - Horticultural Pest Control

Description of Courses

Credits: 3. Examination of federal, state, and local laws and regulations governing the control of horticultural pests. Topics include procedures; methods; safety requirements; integrated pest management (IPM); and chemical, natural, and biological controls.

HALT 2331 - Advanced Landscape Design
Credits: 3 (2 lecture, 2 lab). In-depth coverage of advanced practices in landscape planning for commercial and residential landscapes. Topics include advanced design analysis, architectural elements, space articulation, and land engineering concepts. Prerequisite: HALT 1322; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1166 - Practicum (or Field Experience) – Hospitality Administration/Management, General Credits: 1. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

HAMG 1313 - Front Office Management
Credits: 3 (3 lecture, 1 lab). A study of the flow of activities and functions in today's lodging operation. Topics include a comparison of manual, machine assisted, and computer based methods for each front line function. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1321 - Introduction to Hospitality Industry
Credits: 3 (3 lecture). Introduction to the elements of the hospitality industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1324 - Hospitality Human Resources Management
Credits: 3 (3 lecture). A study of the principles and procedures of managing people in the hospitality workplace. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1340 - Hospitality Legal Issues
Credits: 3 (3 lecture). A course in legal and regulatory requirements that impact the hospitality industry. Topics include Occupational Safety and Health Administration (OSHA), labor regulations, tax laws, tip reporting, franchise regulations, and product liability laws. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 1342 - Guest Room Maintenance
Credits: 3 (2 lecture, 3 lab). Demonstrates the working relationship in the lodging industry between housekeeping and maintenance. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2307 - Hospitality Marketing and Sales
Credits: 3 (3 lecture). Identification of the core principles of marketing and their impact on the hospitality industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2332 - Hospitality Financial Management
Credits: 3 (3 lecture). Methods and application of financial management within the hospitality industry. Primary emphasis on sales accountability, internal controls, and reports analysis. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2337 - Hospitality Facilities Management
Credits: 3 (3 lecture). Identification of building systems, facilities management, security and safety procedures. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HAMG 2380 - Cooperative Education - Hospitality Administration/Management, General
Credits: 3 (1 lecture, 20 hours work experience). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math. Corequisite: Corequisite: 20 hours or more a week of approved hotel or restaurant related employment

Description of Courses

HAMG 2381 - Cooperative Education II - Hospitality Administration and Management
Credits: 3 (1 lecture, 20 hours work experience). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Prerequisite: HAMG 2380; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math Corequisite: Corequisite: 20 hours or more a week of approved hotel or restaurant related employment

HART 1301 - Basic Electricity for HVAC
Credits: 3 (2 lecture, 3 lab). Principles of electricity as required by HVAC, including proper use of test equipment, electrical circuits, and component theory and operation. Prerequisite: Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1303 - Air Conditioning Control Principles
Credits: 3 (2 lecture, 3 lab). A basic study of HVAC and refrigeration controls; troubleshooting of control components; emphasis on use of wiring diagrams to analyze high and low voltage circuits; a review of Ohm's law as applied to air conditioning controls and circuits. Prerequisite: Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1307 - Refrigeration Principles
Credits: 3 (2 lecture, 3 lab). An introduction to the refrigeration cycle, basic thermodynamics, heat transfer, temperature/pressure relationship, safety, refrigeration containment, and refrigeration components. Prerequisite: Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HART 1341 - Residential Air Conditioning
Credits: 3 (2 lecture, 3 lab). A study of components, applications, and installation of mechanical air conditioning systems including operating conditions, troubleshooting, repair, and charging of air conditioning systems. Prerequisite: Prerequisite: HART 1301,1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: TECM 1301

HART 1345 - Gas and Electric Heating
Credits: 3 (2 lecture, 3 lab). A study of components, applications and installation of mechanical air conditioning systems including operating conditions, troubleshooting repair, and charging of air conditioning systems. Prerequisite: Prerequisite: HART 1301, HART 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: HART 1341

HART 1356 - EPA Recovery Certification Preparation
Credits: 3 (2 lecture, 3 lab). Certification training for HVAC refrigerant recovery and recycling. Instruction will provide a review of EPA guidelines for refrigerant recovery and recycling during the installation, service, and repair of all HVAC and refrigeration systems. Prerequisite: Prerequisite: HART 1301, HART 1307; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: TECM 1301;

HART 2301 - Air Conditioning and Refrigeration Codes
Credits: 3 (2 lecture, 3 lab). HVAC standards and concepts with emphasis on the understanding, and documentation of the codes and regulations required for the state mechanical contractors license and local codes. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2302 - Commercial Air Conditioning System Design
Credits: 3. Advanced study in essential elements of commercial air conditioning contracting including duct systems design; equipment selection using manufacturers' data; and preparation of shop drawings and submittals.

HART 2334 - Advanced Air Conditioning Controls
Credits: 3 (2 lecture, 3 lab). Theory and application of electrical control devices, electromechanical controls, and/or pneumatic controls. Prerequisite: HART 1341, HART 1345, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2336 - Air Conditioning Troubleshooting
Credits: 3 (2 lecture, 3 lab). An advanced course in application of troubleshooting principles and use of test instruments to diagnose air conditioning and refrigeration components and system problems including conducting performance tests. Prerequisite: Prerequisite: HART 1341, HART 1345, HART 2342; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

HART 2341 - Commercial Air Conditioning
Credits: 3 (2 lecture, 3 lab). Apply and describe the sequence of operation for commercial air conditioning systems and their accessories; identify components relative to commercial air conditioning; and explain energy efficient and renewable energy technologies. Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisites/Corequisite: HART 1345

HART 2342 - Commercial Refrigeration
Credits: 3 (2 lecture, 3 lab). Theory of and practical application in the maintenance of commercial refrigeration; medium and low temperature applications and ice machines. Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisites/Corequisite: HART 1345

HART 2345 - Residential Air Conditioning System Design
Credits: 3 (2 lecture, 3 lab). Study of the properties of air and results of cooling, heating, humidifying or dehumidifying; heat gain and heat loss calculations including equipment selection and balancing the air system. Prerequisite: HART 1341, HART 1345, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2349 - Heat Pumps
Credits: 3 (2 lecture, 3 lab). A study of heat pumps, heat pump control circuits, defrost controls, auxiliary heat, air flow, and other topics related to heat pump systems. Prerequisite: Prerequisite: HART 1341; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Prerequisite/Corequisite: HART 1345

HART 2357 - Specialized Commercial Refrigeration
Credits: 3 (2 lecture, 3 lab). An advanced course covering the components, accessories, and service of specialized refrigeration units such as ice machines, soft-serve machines, cryogenics, and cascade systems. Prerequisite: HART 2342, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

HART 2374 - Building Control Systems and Automation
Credits: 3. Theory and application of building control systems and automation, components, hardware and software.

HIST 1301 - United States History I
Credits: 3 (3 lecture). The American nation from the English colonization to the close of the Civil War through Reconstruction. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.

HIST 1302 - United States History II
Credits: 3 (3 lecture). The American nation from the end of the Reconstruction Era to the present. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.?

HIST 2301 - Texas History
Credits: 3 (3 lecture). A survey of the political, economic, social, cultural, and intellectual development of Texas from the period of Spanish discovery to the present. History, Civilization, of Texas may be substituted for either HIST 1301 or HIST 1302. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301(Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.?

HIST 2311 - Western Civilization I
Credits: 3 (3 lecture). Development of ancient, medieval, and early modern civilizations to 1660. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2312 - Western Civilization II
Credits: 3 (3 lecture). Development of modern western civilization from 1660 to 1945. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

Description of Courses

HIST 2321 - World Civilizations I

Credits: 3 (3 lecture). A survey of the major western and non-western civilizations which developed from Sumeria to the end of the Middle Ages. Centered around a series of themes, particular emphasis is placed on the commonality of the human experience as illustrated in Europe, the Middle East, Asia and Sub-Saharan Africa. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2322 - World Civilizations II

Credits: 3 (3 lecture). This course analyzes the effect on the world of the changing relationship between the West and the non-West over the past 500 years. Emphasis will be placed on the social, political and economic dynamics of this interchange. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2327 - Mexican-American History I

Credits: 3 (3 lecture). A survey of the role of the Mexican-American in United States history. Emphasis will be placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.

HIST 2328 - Mexican-American History II

Credits: 3 (3 lecture). A survey of the role of the Mexican-American in United States History, Civilization, . Emphasis will be placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.?

HIST 2371 - Women in American History, Civilization, Credits: 3 (3 lecture). The course explores the History, Civilization, of women's experience in American Society. The course will introduce students to the field of American women's History, Civilization, . Women's History, Civilization, is the study of women in past times and across cultures. Its goals are to find women missing from the pages of our History, Civilization, books; to analyze and understand their experience as lived, felt, and understood; to integrate that knowledge into the History, Civilization, of particular times, places, and societies; and to develop from that knowledge conceptual frameworks with which to understand the role and significance of gender in American culture and society. Prerequisite: Must be placed into college-level reading and college-level writing.

HIST 2381 - African-American History

Credits: 3 (3 lecture). A survey of the role of the Afro-American in United States History, Civilization, . Emphasis will be placed on economic, social, and cultural development with particular focus on contributions to American society. This course satisfies the History or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading and college-level writing. Must have passed ENGL 1301 (Composition I) or be co-enrolled in ENGL 1301 as a co-requisite.

HIST 2389 - Academic Cooperative in History, Civilization, Credits: 3 (3 lecture, 0 lab). An experiential-learning instruction program designed to integrate textbook and classroom knowledge with practical hands-on experience in an applied area of History, Civilization, . In conjunction with class seminars, the individual student will set specific goals and objectives in the study of human social behavior and/or social institutions. Prerequisite: Must be placed into college-level reading and college-level writing.

HITT 1166 – Practicum (or Field Experience) – Health Information/Medical Records Technology/Technician

Credits: 1 (8 lab). Practical general training and experiences in the workplace. The college with the employer develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

Description of Courses

HITT 1167 - Practicum (or Field Experience) – Health Information/Medical Records Technology/Technician Credits: 1 (8 Lab). Practical general training and experiences in the workplace. The college, with the employer, develops and documents an individualized plan for the student. The plan relates the workplace training and experiences to the student's general and technical course of study. The guided external experiences may be paid or unpaid. This course may be repeated if topics and learning outcomes vary. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1205 - Medical Terminology I Credits: 2. Study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures.

HITT 1211 - Health Information Systems Credits: 2 (2 lecture, 1 lab). Concepts of computer technology related to health care data. Prerequisite: POFI 1301 or ITSC 1309; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1249 - Pharmacology Credits: 2 (2 lecture). Overview of the basic concepts of the pharmacological treatment of various diseases affecting major body systems. Prerequisite: HITT 1305, HITT 1345, BIOL 2302, 2102; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1253 - Legal and Ethical Aspects of Health Information Credits: 2 (2 lecture, 1 lab). Apply local, state, and federal standards and regulations for the control and use of health information; demonstrate appropriate health information disclosure practices; and identify and discuss ethical issues in health care. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1255 - Health Care Statistics Credits: 2 (1 lecture, 3 lab). General principles of health care statistics with emphasis in hospital statistics. Skill development in computation and calculation of health data with overview of guidelines for Texas Department of Health Vital Statistics and Studies Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1301 - Health Data Content and Structure Credits: 3 (2 lecture, 2 lab). Introduction to system and processes for collecting, maintaining and disseminating primary and secondary health related information. Introduction in delivery and organizational structure to include content of health record, documentation requirements, registries, indices, licensing, regulatory agencies, forms, and screens. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1305 - Medical Terminology I Credits: 3 (2 lecture, 4 lab). Study of word origin and structure through the introduction of prefixes, suffixes, root words, plurals, abbreviations and symbols, surgical procedures, medical specialties, and diagnostic procedures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1307 - Cancer Data Management I Credits: 3 (3 lecture). Introduction to Cancer Data Management. Includes cancer program requirements, the American College of Surgeons Cancer Program survey process, and data collection/retrieval-abstracting, coding, staging, and reporting. Prerequisite: HITT 1301, HITT 1355, HITT 1305; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1341 - Coding and Classification Systems Credits: 3 (2 lecture, 4 lab). Application of basic coding rules, principles, guidelines, and conventions. Prerequisite: HPRS 2301, HITT 1349; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 1345 - Health Care Delivery Systems Credits: 3 (3 lecture). Examination of delivery systems including organization, financing, accreditation, licensure, and regulatory agencies. Prerequisite: HITT 1301; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2149 - RHIT Competency Review Credits: 1 (3 lab). Review of HIT competencies, skills, and knowledge base pertinent to the technology and relevant to the professional development of the student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

Description of Courses

HITT 2166 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician Credits: 1. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

HITT 2167 - Practicum (or Field Experience) - Health Information/Medical Records Technology/Technician Credits: 1 (8 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2239 - Health Information Organization and Supervision Credits: 2. Principles of organization and supervision of human, financial, and physical resources.

HITT 2267 - Practicum (or Field Experience) - Health Information / Medical Records Technology /Technician Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2307 - Cancer Data Management II Credits: 3 (3 lecture). A continuation of Cancer Data Management I. Application of cancer registry data. Prerequisite: HITT 1307; must be placed into college-level reading, college-level writing and MATH 0312.

HITT 2335 - Coding and Reimbursement Methodologies Credits: 3 (2 lecture, 3 lab). Advanced coding techniques with emphasis on case studies, health records, and federal regulations regarding prospective payment systems and methods of reimbursement. Prerequisite: HITT 1341; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2339 - Health Information Organization and Supervision Credits: 3 (3 lecture). Principles of organization and supervision of human, fiscal and capital resources. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2340 - Advanced Medical Billing and Reimbursement Credits: 3 (2 lecture, 2 lab). Health insurance and reimbursement in various health care settings. Includes application of coding skills to prepare insurance forms for submission to third party payers. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2343 - Quality Assessment and Performance Improvement Credits: 3. Study of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, compilation and presentation of data in statistical formats, quality management and performance improvement functions, utilization management, risk management, and medical staff data quality issues. Approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems and approaches to assessing patient safety issues and implementation of quality management and reporting through electronic systems.

HITT 2367 - Practicum (or Field Experience) - Health Information / Medical Records Technology / Technician Credits: 3 (21 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

HITT 2443 - Quality Assessment and Performance Improvement Credits: 4 (4 lecture, 1 lab). Study of the many facets of quality standards and methodologies in the health information management environment. Topics include licensing, accreditation, computation and presentation of data in statistical formats, quality improvement functions, quality tools, utilization management, risk management, and medical staff data quality issues. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

HLAB 1266 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

Description of Courses

HLAB 1267 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: HLAB 1266; Department Approval; must be placed into college-level reading, writing and math.

HLAB 1268 - Practicum (or Field Experience) - Histologic Technology/Histotechnologist
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: HLAB 1267; Department Approval; must be placed into college-level reading, writing and math.

HLAB 1301 - Introduction to Histotechnology
Credits: 3 (3 lecture, 1 lab). Introduction to the healthcare environment and the histology laboratory. Includes laboratory safety and infection control; healthcare professionals; medical terminology; basic anatomy and physiology; laboratory mathematics; communication; and ethics, legal, and professional issues. Prerequisite: Must be placed into college-level reading, writing and math.

HLAB 1305 - Functional Histology I
Credits: 3 (3 lecture, 1 lab). Recognition, composition, and function of cells, cell life cycles, blood, and basic tissue types. Prerequisite: HLAB 1401; must be placed into college-level reading, writing and math.

HLAB 1346 - Functional Histology II
Credits: 4 (4 lecture). A continuation of Functional Histology I. Emphasis on the recognition, composition, and function of organ systems. Includes skeletal tissues, central nervous system, circulatory system, endocrine glands, and reproductive system. Prerequisite: HLAB 1405; must be placed into college-level reading, writing and math.

HLAB 1402 - Histotechnology I
Credits: 4 (3 lecture, 3 lab). Introduction to the basic theories and practices of histotechnology. Includes laboratory safety, fixation, tissue processing, embedding, microtomy and cryotomy, and routine staining. Prerequisite: HLAB 1401; must be placed into college-level reading, writing and math.

HLAB 1443 - Histotechnology II
Credits: 4 (3 lecture, 3 lab). A continuation of Histotechnology I. Introduces both theory and practice of common histochemical staining techniques. Topics include laboratory safety; laboratory mathematics and reagent preparation; basic tissue/dye bonding; differentiation and quality control; and nuclear, connective tissue, and carbohydrate staining techniques. Prerequisite: HLAB 1402; must be placed into college-level reading, writing and math.

HLAB 2341 - Registry Review
Credits: 3 (3 lecture). Review of the major theoretical/practical applications in histotechnology. Includes fixation, processing, embedding, microtomy, frozen cryotomy, routine and special stains, tissue identification, immunohistochemistry, enzyme histochemistry, and electron microscopy. Emphasis on employment skills, review of ethical and legal behavior, and professional development. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

HLAB 2434 - Histotechnology III
Credits: 4 (3 lecture, 3 lab). A continuation of Histotechnology II. Further introduces theory and practice of routine histochemical staining techniques. Techniques include microorganisms, tissue pigments and minerals, and neural tissue. Includes specialized techniques such as electron microscopy, immunohistochemistry, and muscle enzyme histochemistry. Prerequisite: HLAB 1443; must be placed into college-level reading, writing and math.

Description of Courses

HMSY 1391 - Border Security and Transportation
Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. This course will also provide an overview of modern border and transportation security challenges, as well as different methods employed to address these challenges. The course explores topics associated with border security and security for transportation infrastructure, to include: seaports, ships, aircraft, airports, trains, train stations, trucks, bridges, rail lines, pipelines, and buses. The course will include an exploration of technological solutions employed to enhance security of borders and transportation systems. Students will be required to discuss the legal economic, political, and cultural concerns and impacts associated with transportation and border security. The course provides students with a knowledge level understanding of the variety of challenges inherent in transportation and border security. Prerequisite: HMSY 1337, HMSY 1340

HPRS 1106 - Essentials of Medical Terminology
Credits: 1 (1 lecture). A study of medical terminology, word origin, structure, and application. Prerequisite: Must be placed into college-level reading, writing and math.

HPRS 1201 - Introduction to Health Professions
Credits: 2 (2 lecture, 1 lab). An overview of roles of various members of the health care system, educational requirements, and issues affecting the delivery of health care. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HPRS 1206 - Essentials of Medical Terminology
Credits: 2 (2 lecture). A study of medical terminology, word origin, structure, and application. Prerequisite: Must be placed into college-level reading, writing and math.

HPRS 1304 - Basic Health Profession Skills
Credits: 3 (2 lecture, 3 lab). A study of concepts that serve as the foundation for health profession courses, including client care and safety issues, basic client monitoring and health documentation. Includes CPR, OSHA safety guidelines, universal health precautions, emergency preparedness and response to basic medical emergencies. Prerequisite: Must be placed into college-level reading, writing and math.

HPRS 2201 - Pathophysiology
Credits: 2 (2 lecture). Study of the pathology and general health management of diseases and injuries across the life span. Topics include etiology, symptoms, and the physical and psychological reaction to diseases and injuries. Prerequisite: Prerequisite: BIOL 2402; must be placed into college-level reading, writing and math.

HPRS 2232 - Health Care Communications
Credits: 2. Methods of communication with clients, client support groups, health care professionals, and external agencies. Prerequisite: PTHA 1305, PTHA 1413, PTHA 1229, PTHA 1201, HPRS 1106; must be placed into college-level reading, writing and math.

HRPO 1302 - Human Resources Training and Development
Credits: 3 (3 lecture). An overview of the human resource development function specifically concentrating on the training and development component. Topics include training as related to organizational mission and goals; budgeting; assessment; design, delivery, evaluation, and justification of training. Included are new trends in training, including distance and virtual education. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 1305 - Management and Labor Relations
Credits: 3 (3 lecture). The development and structure of the labor movement including labor legislation, collective bargaining, societal impact, labor/management relationships and international aspects. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 1311 - Human Relations
Credits: 3 (3 lecture). Practical application of the principles and concepts of the behavioral sciences to interpersonal relationships in the business and industrial environment. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 1392 - Special Topics in Labor / Personnel Relations and Studies
Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

HRPO 2301 - Human Resources Management
Credits: 3 (3 lecture). Behavioral and legal approaches to the management of human resources in organizations.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306.

HRPO 2303 - Employment Practices
Credits: 3(3 lecture). A study of employment issues including techniques for human resource forecasting, selection, and placement including interview techniques, pre-employment testing and other predictors. Topics include recruitment methods, the selection process, Equal Employment Opportunity (EEO), EEO recordkeeping, and Affirmative Action Plans.

HRPO 2306 - Benefits and Compensation
Credits: 3 (3 lecture). An overview of employee compensation systems. Topics include compensation systems, direct and indirect compensation, internal and external determination of compensation, benefits administration, managing and evaluating for effectiveness, legal and regulatory issues, pay equity, job analysis affecting job compensation and competencies.
Prerequisite: Must be placed into college-level reading, writing and MATH 0312 in math.

HRPO 2307 - Organizational Behavior
Credits: 3 (3 lecture). The analysis and application of organizational theory, group dynamics, motivation theory, leadership concepts and the integration of interdisciplinary concepts from the behavioral sciences.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HRPO 2371 - Recruiting, Interviewing and Placement of Human Resources
Credits: 3 (3 lecture). A study of the concepts, techniques and regulations that apply to employment, recruitment, interviewing, selection and placement of human resources. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

HUMA 1301 - Introduction to Humanities I
Credits: 3 (3 lecture). This stand-alone course is an interdisciplinary survey of cultures focusing on the philosophical and aesthetic factors in human values with an emphasis on the historical development of the individual and society and the need to create. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed at or passed appropriate coursework to qualify for college-level reading and college-level writing requirements.

HUMA 1305 - Introduction to Mexican American Studies
Credits: 3 (3 lecture). This interdisciplinary survey examines the different cultural, artistic, economic, historical, political, and social aspects of the Mexican-American/Chicano/a communities. It also covers issues such as dispossession, immigration, transnationalism, and other topics that have shaped the Mexican-American experience. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: Must qualify to take college-level reading and writing OR take INRW 0420 (or GUST 0349 and ENGL 0310) as a co-requisite.

HUMA 1311 - Mexican American Fine Arts Appreciation
Credits: 3 (3 lecture). This course is an exploration of the purposes and processes in the visual and performing arts (such as music, painting, drama, and dance) and the ways in which they express the values of the Mexican-American/Chicano/a experience. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Prerequisite Engl. 0310/0349, GUST 0342

HUMA 2319 - American Minority Studies
Credits: 3 (3 lecture). This interdisciplinary survey examines the diverse cultural, artistic, economic, historical, political, and social aspects of American minority communities. Topics may include race/ethnicity, gender, socioeconomic class, sexual orientation, national origin, age, disability, and religion. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or higher

HUMA 2323 - World Cultures
Credits: 3 (3 lecture). This course is a general study of diverse world cultures. Topics include cultural practices, social structures, religions, arts, and languages. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or higher

HYDR 1345 - Hydraulics and Pneumatics
Credits: 3 (2 lecture, 2 lab). Discussion of the fundamentals of hydraulics and pneumatics, components of each system and the operations, maintenance, and analysis of each system. Prerequisite: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

IBUS 1191 - Special Topics in International Business
Credits: 1 (1 lecture). This course prepares students to sit for the Certified Global Business Professional (CGBP) credential exam. The CGBP designation is recognized internationally as a professional credential for people who work in all fields related to international trade. This course must be taken in the last semester of any International Business program and it was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1291 - Special Topics in International Business
Credits: 2 (1 lecture, 10 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. (This course substitutes for IBUS 2280.) Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

IBUS 1300 - Global Logistics Management
Credits: 3. Global logistics, management processes, procedures, and regulations used in transportation, physical distribution, warehousing, inventory control, materials handling, packaging, plant and warehouse location, risk management, customer service, and networks for logistics, suppliers, and information. Includes decision making and case resolution techniques to solve problems and to develop logistical and information networks for supply chain management appropriate for global corporations.

IBUS 1301 - Principles of Exports
Credits: 3 (3 lecture). Export management processes and procedures. Includes governmental controls and compliance, licensing of products, documentation, commercial invoices, and traffic procedures. Emphasizes human and public relations, management of personnel, finance, and accounting procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1302 - Principles of Imports
Credits: 3 (3 lecture). Practices and processes of import management operations. Includes government controls and compliance. Emphasizes the preparation and understanding of import documents such as customs invoices, packing lists, and commercial invoices. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1305 - Introduction to International Business and Trade
Credits: 3 (3 lecture). The techniques for entering the international marketplace. Emphasis on the impact and dynamics of sociocultural, demographic, economic, technological, and political-legal factors in the foreign trade environment. Topics include patterns of world trade, internationalization of the firm, and operating procedures of the multinational enterprise. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1341 - Global Supply Chain Management
Credits: 3 (3 lecture). International purchasing or sourcing. Includes the advantages and the barriers of purchasing internationally, global sourcing, procurement technology, and purchasing processes. Emphasizes issues of contract administration, location, and evaluation of foreign suppliers, total cost approach, exchange fluctuations, customs procedures, and related topics. Prerequisite: LMGT 1319; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

IBUS 1354 - International Marketing Management
Credits: 3 (3 lecture). Analysis of international marketing strategies using market trends, costs, forecasting, pricing, sourcing and distribution factors. Development of an international export/import marketing plan. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 1370 - Economic Geography
Credits: 3 (3 lecture). A study of material management, government regulations and distribution systems throughout the world as related to economic factors regarding agriculture, manufacturing, and materials utilization. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2280 - Cooperative Education - International Business / Trade / Commerce
Credits: 2 (1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. **Requires Departmental approval Prerequisite: IBUS 1305; must be placed into college-level reading, college-level writing and MATH 0312 in math. **Requires Departmental approval.

Description of Courses

IBUS 2332 - Global Business Simulation

Credits: 3 (3 lecture). A simulation of a global environment. Students will engage in business practice and theory. The simulation may include researching foreign business cultures and importing and exporting products. Emphasizes participation in all business decisions related to running a simulated company. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2335 - International Business Law

Credits: 3 (3 lecture). A course in law as it applies to international business transactions in the global political-legal environment. Study of inter-relationships among laws of different countries and the legal effects on individuals and business organizations. Topics include agency agreements, international contracts and administrations, regulations of exports and imports, technology transfers, regional transactions, intellectual property, product liability, and legal organization. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Must complete IBUS 1301 & 1302 OR IBUS 1305.

IBUS 2339 - International Banking and Trade Finance

Credits: 3 (3 lecture). A course in international monetary systems, financial markets, flow of capital, foreign exchange, and financial institutions. Topics include export-import payments and financing the preparation of letters of credit, related shipping documentation, and electronic transfers. An introduction to multinational financial decisions, such as financing foreign investment or working capital. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

IBUS 2341 - Intercultural Management

Credits: 3 (3 lecture). Cross-cultural comparisons of management and communications processes. Emphasizes cultural geographic distinctions and antecedents that affect individual, group, and organizational behavior. May include sociocultural demographics, economics, technology, political-legal issues, negotiations, and processes of decision making in the international cultural environment. Prerequisite: IBUS 1305; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IBUS 2370 - Global Issues for Enterprise

Credits: 3 (3 lecture). Global Issues in Enterprise provides an overview of the challenges and opportunities that exist in different countries for creating social enterprise organizations. Topics include: lack of resources, lack of infrastructure, differing legal systems, cultural and social taboos on certain products or means of earning a living, corruption, lack of education as well as upcoming changes such as the impact of the Internet on education in lesser developed countries. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1301 - Digital Media

Credits: 3 (2 lecture, 4 lab). A survey of the theories, elements, and hardware/software components of digital media. Emphasis on conceptualizing and producing digital media presentations. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: ARTC 1325

IMED 1305 - Digital Media Courseware Development II

Credits: 3 (2 lecture, 4 lab). Instruction in courseware development. Topics include interactivity, branching, navigation, evaluation techniques and interface/information design using industry standard authoring software. Prerequisite: Associate Degree in Digital Communication or Departmental Approval, IMED 1316, IMED 1341.

IMED 1316 - Web Design I

Credits: 3 (2 lecture, 4 lab). Instruction in web design and related graphic design issues including mark-up languages, web sites, and browsers. Prerequisite: Prerequisites/corequisite: ARTC 1325; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 1341 - Interface Design

Credits: 3 (2 lecture, 4 lab). Interface design process including selecting interfaces that are relative to a project's content and delivery system. Emphasis on aesthetic issues such as iconography, screen composition, colors, and typography. Prerequisite: Prerequisites/corequisite: ARTC 1325 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

IMED 1345 - Interactive Digital Media I

Credits: credit3 (2 lecture, 4 lab). Exploration of the use of graphics and sound to create interactive digital media applications and/or animations using industry standard authoring software. Prerequisite: ARTC 1302/1325
Corequisite: IMED 1341

IMED 1359 - Writing for Digital Media

Credits: 3 (2 lecture, 4 lab). Written communication for digital media environments including professional websites or other digital content. Prerequisite: Prerequisites/corequisite: ARTC 1325; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

IMED 2301 - Instructional Design

Credits: 3 (2 lecture, 4 lab). An in-depth study of the instructional design process based on learning theories, including evaluation of models and design examples. Prerequisite: Associate Degree in Digital Communication or Departmental Approval.

IMED 2309 - Internet Commerce

Credits: 3 (2 lecture, 4 lab). An overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 2312 - Interactive Audio

Credits: 3 (2 lecture, 4 lab). Music and sound effects. Includes formats, working within memory budgets, interactive systems, and foley libraries. Addresses a range of practical audio-related areas. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 2313 - Project Analysis and Design

Credits: 3 (2 lecture, 4 lab). Application of the planning and production processes for digital media projects. Emphasis on copyright and other legal issues, content design and production management. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

IMED 2315 - Web Design II

Credits: 3. Mark-up language and advanced layout techniques for creating web pages. Emphasis on identifying the target audience and producing web sites, according to accessibility standards, cultural appearance, and legal issues.

IMED 2351 - Digital Media Programming

Credits: 3 (2 lecture, 4 lab). Advanced topics in digital media programming including custom scripts for data tracking. Emphasis on developing digital media programs customized to the client's needs. Prerequisite: IMED 1316 or Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

IMED 2359 - Interactive Web Elements

Credits: 3 (2 lecture, 4 lab). Production of projects using current web development tools that may incorporate dynamic data, web graphics, animation, video and audio streaming.

Select and utilize web animation and graphic programs applicable to specified business conditions and applications, create and add animation to a website; stream a video segment to/from a website; and utilize World Wide Web Consortium (W3C) standards.

IMED 2371 - Content Management System (Joomla and Wordpress)

Credits: 3. An advanced class in Web Design that explores designing and developing server-side web pages that incorporate text, graphics, and other supporting elements using current technologies (content management systems) and authoring tools.

IMED 2388 - Internship - Digital Communication and Media / Multimedia

Credits: 3 (13 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INCR 1302 - Physics of Instrumentation

Credits: 3 (2 lecture, 2 lab). An introduction to a simple pneumatic control loop. Introduction to pressure, temperature, level, and flow transmitters and the various transducers used in the detection of changes in process variables. This course is designed to familiarize the student with the instrumentation devices utilized in industrial automation and process control environments. Prerequisite: Prerequisite/Corequisite: ELPT 1311; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

INDS 1301 - Basic Elements of Design

Credits: 3 (2 lecture, 3 lab). A study of basic design concepts with projects in shape, line, value, texture, pattern, spatial illusion, and form. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1311 - Fundamentals of Interior Design

Credits: 3 (1 lecture, 3 lab). An introduction to the elements and principles of design, the interior design profession, and the interior design problem-solving process. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1315 - Materials, Methods and Estimating

Credits: 3 (2 lecture, 3 lab). A study of materials, methods of construction and installation, and estimating for interior design applications. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1319 - Technical Drawing for Interior Designers

Credits: 3 (2 lecture, 4 lab). An Introduction to reading and preparing technical construction drawings for interior design, including plans, elevations, details, schedules, dimensions and lettering. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1341 - Color Theory and Application

Credits: 3 (2 lecture, 3 lab). A study of color theory and its application to interior design. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1345 - Commercial Design I

Credits: 3 (2 lecture, 4 lab). A study of design principles applied to furniture layout and space planning for commercial interiors. Prerequisite: INDS 2313; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1349 - Fundamentals of Space Planning

Credits: 3 (2 lecture, 3 lab). The study of residential and light commercial spaces, including programming, codes, standards, space planning, drawings and presentations. Prerequisite: INDS 1301, INDS 1319 and INDS 1311 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1351 - History, Civilization, of Interiors I

Credits: 3 (3 lecture, 1 lab). A historical survey of design in architecture, interiors, furnishings, and decorative elements from the ancient cultures through the Italian Renaissance time period. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1352 - History, Civilization, of Interiors II

Credits: 3 (3 lecture, 1 lab). A multi-cultural historical survey of design in architecture, interiors, furnishings, and decorative elements from the post-Renaissance period to present time. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1370 - History of Interiors

Credits: 3 (3 lecture, 1 lab). The course is a multi-cultural, historical survey of various styles and periods of antiquities, architecture, interiors, and furnishings with consideration of Asia, Egypt, Greece, Italy, Spain, France, post-Renaissance through the present. It offers a critical overview of the History, Civilization, of interior design, its connection to different periods and cultures, and its integral relationship with architecture and decorative arts. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 1391 - Special Topics /Interior Design

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Associate Degree in Interior Design or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2237 - Portfolio Presentation

Credits: 3 (2 lecture, 3 lab). A course in the preparation and presentation of a comprehensive interior design portfolio, including resume preparation, employment interview skills, and goal setting. Prerequisite: Approval of course instructor or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2264 - Practicum (or Field Experience) - Interior Design

Credits: 2 (0 lecture, 18 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

Description of Courses

INDS 2270 - Photoshop for Interior Design

Credits: 3 (2 lecture, 6 lab). An exploration of Adobe Photoshop and its application to the practice of interior design to create visual design communication materials, renderings, and presentations. Prerequisite: Prerequisite: INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2271 - Digital Presentation Methods

Credits: 2. An exploration of Adobe Illustrator, Adobe InDesign, Adobe Photoshop, Google SketchUp and their application to the practice of interior design to create visual design communication materials, renderings, and presentations.

INDS 2305 - Interior Design Graphics

Credits: 3 (2 lecture, 4 lab). Skill development in computer-generated graphics and technical drawings for interior design applications. Prerequisite: INDS 1319 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2307 - Textiles for Interior Design

Credits: 3 (2 lecture, 3 lab). The study of interior design textiles including characteristics, care, codes, and applications. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2310 - Kitchen and Bath Design

Credits: 2 (0 lecture, 5 lab). The study and application of the National Kitchen and Bath Association's Guideline and Planning Standards and Safety Criteria for residential kitchens and bathrooms including Universal Design concepts. Also includes the study and selection of kitchen and bath materials, equipment and cabinetry. Computer aided kitchen and bath design software is introduced. Prerequisite: Prerequisite: INDS 1349, INDS 2305 and INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2311 - Interior Environment Factors

Credits: 3 (2 lecture, 4 lab). A study of human factors affecting the interior environment, including proxemics, ergonomics, and universal design. Prerequisite: Associate Degree in Interior Design or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2313 - Residential Design I

Credits: 3 (2 lecture, 4 lab). The study of residential spaces, including the identification of client needs, programming, standards, space planning, drawings, and presentations. Prerequisite: INDS 1311, INDS 1341, INDS 1349, INDS 2330 and INDS 2317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2315 - Lighting for Interior Designers

Credits: 3 (2 lecture, 3 lab). Fundamentals of lighting design, including lamps, luminaries, lighting techniques, and applications for residential and commercial projects. Prerequisite: INDS 1319 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2317 - Rendering Techniques

Credits: 3 (2 lecture, 3 lab). A study of rendering techniques for formal interior design presentation, using a variety of media. Prerequisite: INDS 2321; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2321 - Presentation Drawing

Credits: 3 (2 lecture, 3 lab). An introduction to two- and three-dimensional presentations, including drawings with one- and two-point perspectives, plans, and elevations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2325 - Professional Practices for Interior Designers

Credits: 3 (3 lecture, 1 lab). A study of business practices and procedures for interior designers, including professional ethics, project management, marketing, and legal issues. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2330 - Interior Design Building Systems

Credits: 3. An overview of building materials, mechanical systems, and construction techniques as applied to interior design. Discussion of codes, project sequencing and the interpretation of detailed working drawings.

INDS 2331 - Commercial Design II

Credits: 3 (2 lecture, 4 lab). Advanced concepts of specialized commercial interior design projects, including hospitality, corporate, retail, health care, institutional or other specialized commercial design projects. Prerequisite: Associate Degree in Interior Design or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

Description of Courses

INDS 2335 - Residential Design II

Credits: 3 (2 lecture, 4 lab). A comprehensive study of complex residential interior design problems, including advanced space planning, documentation, specifications, budgets, and presentation renderings. Prerequisite: Prerequisite: Associate Degree in Interior Design or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INDS 2370 - Digital Presentation Methods

Credits: 2 (2 lecture, 4 lab). An exploration of Adobe Illustrator, Adobe InDesign, Adobe Photoshop, Google SketchUp and their application to the practice of interior design to create visual design communication materials, renderings, and presentations. Prerequisite: Prerequisite: INDS 2321

INDS 2371 - Advanced Kitchen and Bath Design

Credits: 3. Kitchen and bath design students upon completion of this course demonstrate the knowledge of advanced approaches to their solutions including knowledge of NKBA Planning Guidelines for the kitchen and bath, and NKBA Access Planning Guidelines used in universal design projects. Upon completion students acquire mastery of solving problems, mastery of developing a concept and theme design, mastery of producing professional working documents, mastery of presenting the idea, and mastery of processing NKBA forms through development of an advanced kitchen project and an advanced bathroom project from inception to completion.

INDS 2386 - Internship - Interior Design

Credits: 3 (18 lab) (288 hours Work Experience). An experience external to the college for an advanced student in the specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Internship is done the final semester upon completion of the program. Consent of program advisor is required. Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306.

INDS 2387 - Internship - Interior Design

Credits: 3 (18 lab) (288 hours Work Experience). An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: Associate Degree in Interior Design or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

INEW 1340 - ASP.NET Programming

Credits: 3 (2 lecture, 4 lab). Theory of server side web programming concepts to implement solutions for common web programming tasks. Includes Basic ASP.Net web controls, user management and authentication, state management, and development of database-driven web applications. Prerequisite: ITSE 1447 or ITSE 1430; must be placed into college-level reading, writing and math.

INEW 2320 - Web Analytics

Credits: 3 (2 lecture, 4 lab). Web monitoring and analytical tools to improve and report site functionality. Prerequisite: Departmental approval

INEW 2332 - Comprehensive Software Project: Coding, Testing, and Implementation

Credits: 3 (2 lecture, 4 lab). A comprehensive application of skills learned in previous semesters in a simulated workplace. Includes coding, testing, maintenance, and documentation of a complete software and/or hardware solution. This course may be used as a capstone course for a certificate or degree. Prerequisite: Must be placed into college-level reading, writing and math.

INEW 2418 - Web Programming Using Java Server Pages and Servlets

Credits: 4 (2 lecture, 4 lab). Web application development using Java, HTML, Java Servlets, Java Server Pages (JSPs), and a web server. Prerequisite: ITSE 1356 and ITSE 2417; must be placed into college-level reading, writing and math.

INEW 2434 - Advanced Web Programming

Credits: 3 (2 lecture, 4 lab). Web programming using industry-standard languages and data stores. Prerequisite: Must be placed into college-level reading, writing and math.

Description of Courses

INEW 2438 - Advanced Java Programming
Credits: 4 (2 lecture, 4 lab). A continuation of advanced JAVA programming techniques such as servlets and advanced graphical functions. Prerequisite: ITSE 2417 or COSC 1437 and ITSE 1356; must be placed into college-level reading, writing and math.

INEW 2475 - SharePoint Administration I
Credits: 4. Plan, design, and deploy SharePoint farm. Create Web applications, site collections, libraries, content types, and workflows. Design sites. Manage SharePoint security and permissions. Configure search feature.

INEW 2476 – SharePoint Administration II
Credits: 4. A continuation of SharePoint technology: administer SharePoint farm, security, and performance. Create new site, content types, and list & library templates. Develop Workflows. Design Document Set. Administer SharePoint with SharePoint Designer.

INMT 1311 - Computer Integrated Manufacturing
Credits: 3 (2 lecture, 3 lab). A study of the principles and application of computer integrated manufacturing. Employs all aspects of a system including but not limited to integration of material handling, manufacturing, and computer hardware and programming. Prerequisite: TECM 1301, ITSC 1309; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1317 - Industrial Automation
Credits: 3 (2 lecture, 3 lab). A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of set-up, maintenance, and testing of the automated system. Prerequisite: TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1343 - Computer Aided Design / Computer Aided Manufacturing (CAD/CAM)
Credits: 3 (2 lecture, 3 lab). Computer-assisted applications in integrating engineering graphics and manufacturing. Emphasis on the conversion of a working drawing using computer aided design/computer aided manufacturing (CAD/CAM) software and related input and output devices to translate into machine code. Prerequisite: MCHN 1302, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Corequisite: Prerequisites/Corequisite: ITSC 1309

INMT 1345 - Computer Numerical Controls
Credits: 3 (2 lecture, 3 lab). A study of numerical controlled machine operations. Emphasis on standard and computer numerical controlled (CNC) procedures for planning, preparing, and operating a computer-assisted program. Prerequisite: Prerequisites/Corequisites: TECM 1301, MCHN 1302, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

INMT 1370 - Lean Manufacturing
Credits: 3 (2 lecture, 3 lab). Study of principles of lean manufacturing - manufacturing engineering; including a systematic approach to reducing costs and lead-time. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1371 - Materials and Applications
Credits: 3 (2 lecture, 3 lab). Introduction to metallic and non-metallic materials assessment and characterization. Examination of the selection and applications of materials, and processing characteristics on materials properties. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1372 - Quality and Assessment
Credits: 3 (2 lecture, 3 lab). Introduction to statistical tools and techniques required for solving industrial problems and for the continuous improvement of processes. The laboratory component provides hands-on experience with modern metrology tools and techniques. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INMT 1373 - Machine Shop Logistics
Credits: 3 (3 lecture). Study of concepts, issues, and techniques used to plan, analyze, and maximize the productivity of machine shop logistics; examination of key production planning decision making areas such as inventories, layout, capacity, and supply chain management. Particular interest will be the study of techniques and technologies for managing and optimizing the materials supply chain in a manufacturing domain. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

INMT 2370 - Project Management

Credits: 3 (3 lecture). Provide principles of project management directed toward supervisory and project management duties and responsibilities in technology based organizations and the methods required to fulfill these functions. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

INRW 0100 - INRW 0410 Companion Course

Credits: 1 (1 lecture). This course is a combined 1 hour lecture/ lab performance-based companion course designed to develop students' critical reading and academic writing skills. Students who enroll in this course are required to enroll in INRW 0410. INRW 0100 is a companion course to INRW 0410. The content of this course is based upon the needs of the accompanying INRW 0410 course. The focus is to prepare, support, and enable students to successfully perform in INRW 0410. The course integrates complementary reading and writing assignments with special emphasis given to reasoning and responding to issues arising from class readings. Students who successfully complete this course and INRW 0410 will qualify to take INRW 0420.

INRW 0300 - Integrated Reading & Writing Course for ENGL 1301

Credits: 3 (3 lecture). A corequisite course in support of ENGL 1301: Intensive study of and

practice in writing processes, from invention and researching to drafting, revising, and editing, both individually and collaboratively. Emphasis on effective rhetorical choices, including audience, purpose, arrangement, and

style. Focus on writing the academic essay as a vehicle for learning,

communicating, and critical analysis.

INRW 0410 - Integrated Read & Write I

Credits: 4 (3 lecture, 2 lab). This course is a combined 3 hour lecture/ 2 hour lab (1 hour technology lab & 1 hour writing lab), performance-based course designed to develop student's critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates intermediate reading skills with intermediate writing skills needed in writing a variety of academic essays and written assignments. This course is designed to prepare students for advanced integrated reading and writing and provide the framework to excel in writing intensive courses. Lab required. Students who successfully complete this course will qualify to take INRW 0420.

INRW 0420 - Integrated Read and Write II

Credits: 4 (3 lecture, 2 lab). This course is a combined 3 hour lecture/ 2 hour lab (1 hour technology lab & 1 hour writing lab), performance-based course designed to develop students critical reading and academic writing skills. The focus of the course will be on applying critical reading skills for organizing, analyzing, and retaining material and developing written work appropriate to the audience, purpose, situation, and length of the assignment. The course integrates intermediate reading skills with intermediate writing skills needed in writing a variety of academic essays and written assignments. This course is designed to prepare students for advanced integrated reading and writing and provide the framework to excel in writing intensive courses. Lab required.

INSR 1117 - Insurance Customer Service Representative

Credits: 1. Fundamental front-line customer service support for the delivery of information and quality service. Includes information about general insurance policies, terminology, and customer service procedures. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance.

INSR 1191 - Special Topics in Insurance

Credits: 1 (1 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

Description of Courses

INSR 1205 - Personal Insurance

Credits: 2 (2 lecture). Introduction to personal loss exposures and personal insurance policies for handling these exposures including auto, homeowners, life, health, marine, and various government insurance programs. At the end of the course the student would be able to describe the types of property loss exposures, the financial consequences of a property loss, and the insurance available for each; describe liability loss exposures and the insurance available for these losses; describe human loss exposures and the life, health, and disability insurance available; and identify covered losses and calculate the amount of insurance payable in various situations. This course helps prepare for the Insurance (INS) 22 exam.

INSR 1209 - Principles of Insurance

Credits: 2 (2 lecture). Organization of insurance companies, state regulations, types of policies, and career opportunities in the field. Topics include concepts of risk, insurance protection, and prohibited practices. Discuss the differences between the types of insurance companies; describe the state regulatory environment for the insurance industry; explain the concept of risk and risk management; differentiate between the types of insurance coverage; and describe the professional career opportunities in the insurance industry. This course helps prepare for the Insurance (INS) 21 exam. Corequisite: INSR 1205

INSR 1217 - Insurance Customer Service Representative

Credits: 2 (2 lecture). Prepares participants to work in insurance agencies as entry-level customer service representatives. Includes information about policies, terminology, and customer service procedures. May prepare students to take the licensing exam sponsored by the Texas Department of Insurance. Define insurance terms and concepts; identify and explain violations of insurance regulations; and explain applicable policy provisions.

INSR 1301 - Commercial Insurance

Credits: 3 (3 lecture). Introduction to personal loss exposures and personal insurance policies for handling these exposures including auto, homeowners, life, health, marine, and various government insurance programs. Describe the types of property loss exposures, the financial consequences of a property loss, and the insurance available for each; describe liability loss exposures and the insurance available for these losses; describe human loss exposures and the life, health, and disability insurance available; and identify covered losses and calculate the amount of insurance payable in various situations. This course helps prepare for the Insurance (INS) 22 exam.

INSR 1371 - Sales and Marketing/Multiline Insurance Sales

Credits: 3 (3 lecture). For agents who market property and/or casualty insurance. Includes prospecting and presentation, types of coverage, identifying client needs, terminology, and analyzing homeowners coverage. Also covers sales transitions, analyzing automobile and specialized coverage, tax implications, loss ratios and agent responsibilities. Basic telemarketing including selling strategies, prompters, and communication skills. Development of a positive attitude to create a personal selling style. A study of marketing, sales techniques, promotions, and advertising theories as applied to the insurance industry.

INSR 2340 - Multiline Insurance Sales and Marketing

Credits: 3 (3 lecture). Prospecting and presentation, types of coverage, identifying client needs, terminology, and analyzing homeowners coverage. Includes information related to sales transitions, analyzing automobile and specialized coverage, tax implications, loss ratios and agent responsibilities.

INTC 1312 - Instrumentation and Safety

Credits: 3 (3 lecture). An overview of industries employing instrument technicians. Includes instrument safety techniques and practices as applied to the instrumentation field. Prerequisite: Must be placed into college-level reading, writing and math.

INTC 1343 - Application of Industrial Automatic Controls

Credits: 3 (3 lecture). Automatic process control including measuring devices, analog and digital instrumentation, signal transmitters, recorders, alarms, controllers, control valves, and process and instrument drawings. Includes connection and troubleshooting of loops. Prerequisite: INTC 1441 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 1356 - Instrumentation Calibration

Credits: 3 (2 lecture, 4 lab). Techniques for configuring and calibrating transmitters, controllers, recorders, valves, and valve positioners. Prerequisite: Must be placed into college-level reading, writing and math.

INTC 1441 - Principles of Automatic Control

Credits: 4 (3 lecture, 3 lab). Basic measurements, automatic control systems and design, closed loop systems, controllers, feedback, control modes, and control configurations. Prerequisite: CETT 1403, INTC 1312, INTC 1456, MATH 1314 or Departmental Approval; must be placed into college-level reading, writing and math.

Description of Courses

INTC 2330 - Instrumentation Systems Troubleshooting
Credits: 3 (2 lecture, 4 lab). Techniques for troubleshooting instrumentation systems in a process environment. Includes troubleshooting upsets in processes
Prerequisite: INTC 1441 or Departmental Approval; must be placed into college-level reading, writing and math.

INTC 2336 - Distributed Control and Programmable Logic
Credits: 3 (2 lecture, 2 lab). An overview of distributed control systems including configuration of programmable logic controllers, smart transmitters, and field communicators. Functions of digital systems in a process control environment. Prerequisite: INTC 1343 or Department Approval; must be placed into college-level reading, writing and math.

INTC 2370 - Linking Process Control Systems
Credits: 3 (2 lecture, 4 lab). An introduction to linking controls systems, including Distributed Control Systems and Programmable Logic Controllers, using OPC (Ole for Process Control) server systems. Prerequisite: INTC 1441, Must be placed into college-level reading, writing and math.

INTC 2380 - Cooperative Education - Instrumentation Technology / Technician
Credits: 3 (1 lecture, 14 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: INTC 1343 or Department Approval; must be placed into college-level reading, writing and math.

ITCC 1309 - CISCO Voice and Data Cabling
Credits: 3 (2 lecture, 4 lab). Introduces the physical aspects of CISCO voice and data network cabling and installation; skills development in reading network design documentations, part list setup and purchase, pulling and mounting cable, cable management, choosing wiring closets and patch panel installation and termination, installing jacks and testing cable. Prerequisite: Must be placed into college-level reading, writing and math.

ITCC 1408 - Introduction to Voice over Internet Protocol (VOIP)
Credits: 4 (2 lecture, 4 lab). Basic concepts of voice over internet protocol (VoIP). Focuses on technology integration of and data transmission in network communications. Prerequisite: ITCC 1401

ITCC 1414 - CCNA 1: Introduction to Networks
Credits: 4 (2 lecture, 4 lab). This course covers networking architecture, structure, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum. Prerequisite: Prerequisites: Must be placed into college-level reading, writing and math.

ITCC 1440 - CCNA 2: Routing and Switching Essentials
Credits: 4 (2 lecture, 4 lab). Describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks. Prerequisite: Prerequisites: ITCC 1414; must be placed into college-level reading, writing and math.

ITCC 2359 - Advanced Voice Over Internet Protocol (VOIP)
Credits: 3 (2 lecture, 4 lab). Voice Over Internet Protocol (VOIP) architecture, components, and functionality. Includes VOIP signaling, call control, voice dial plans, configuring voice interfaces, dial peers, and quality of service (QoS) technologies. Prerequisite: Prerequisite: ITCC 1401; must be placed into college-level reading, writing and math.

ITCC 2412 - CCNA 3: Scaling Networks
Credits: 4 (2 lecture, 4 lab). CCNA R&S: Scaling Networks (Scan) covers the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches using advanced protocols. Prerequisite: Prerequisites: ITCC 1414; must be placed into college-level reading, writing and math.

ITCC 2413 - CCNA 4: Connecting Networks
Credits: 4 (2 lecture, 4 lab). WAN technologies and network services required by converged applications in a complex network; enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Prerequisite: Prerequisites: ITCC 1414, ITCC 2412; must be placed into college-level reading, writing and math.

ITCC 2441 - CCNA Security
Credits: 4 (3 Lecture, 3 Lab). Overall security processes with particular emphasis on hands-on skills in the following areas: security policy design and management; security technologies, products, and solutions; and secure router design, installation, configuration, and maintenance; AAA and VPN implementation using routers and firewalls.

Description of Courses

ITCC 2454 - CCNP R & S ROUTE

Credits: 4 (2 lecture, 4 lab). How to implement, monitor, and maintain routing services in an enterprise network. How to plan, configure, and verify the implementation of complete enterprise LAN and WAN routing solutions using a range of routing protocols in IPv4 and IPv6 environments. Configuration of secure routing solutions to support branch offices and mobile workers.

ITCC 2455 - CCNP R & S SWITCH

Credits: 4 (2 lecture, 4lab). How to implement, monitor, and maintain switching in converged enterprise campus networks. How to plan, configure, and verify the implementation of complex enterprise switching solutions. How to secure integration of VLANs, WLANs, voice and video into campus networks.

ITCC 2456 - CCNP R & S TSHOOT

Credits: 4 (2 Lecture, 4 Lab). How to monitor and maintain complex, enterprise and switched IP networks. Skills learned include the planning and execution of regular network maintenance, as well as support and troubleshooting using technology-based processes and best practices based on systematic and industry recognized approaches.

ITMT 1305 - Configuring Advanced Window Server Operating Systems

Credits: 3 (2 lecture, 4 lab). Advanced configuration tasks required to deploy, manage, and maintain a Windows Server operating system infrastructure. Additional topics include fault tolerance, certificate services, and identity federation. Prerequisite: must be placed into college-level reading, writing and math.

ITMT 1340 - Managing and Maintaining a Microsoft Windows Server 2003 Environment

Credits: 3 (2 lecture, 4 lab). Managing accounts and resources, maintaining server resources, monitoring server performance, and safeguarding data in a Microsoft Windows Server 2003 environment. Prerequisite: ITMT 1300; must be placed into college-level reading, writing and math.

ITMT 1350 - Implementing , Managing , and Maintaining a Microsoft Windows Server 2003 Network Infrastructure Network Services

Credits: 3 (2 lecture, 4 lab). Implementing routing; implementing, managing, and maintaining Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), and Windows Internet Name Service (WINS); securing Internet Protocol (IP) traffic with Internet Protocol security (IPSec) and certificates; implementing a network access infrastructure by configuring the connections for remote access clients; and managing and monitoring network access. Prerequisite: Prerequisite: ITMT 1300; must be placed into college-level reading, writing and math.

ITMT 1357 - Administering a Windows Server Operating System

Credits: 3 (2 lecture, 4 lab). A study of administrative tasks needed to maintain a Windows Server operating system including user and group management, network assess and data security. Topics include how to implement, configure and manage Group Policy infrastructure, Group Policy objects (GPOs) using links, security groups, WMI filters, loopback processing, preference targeting and troubleshooting policy application. Prerequisite: must be placed into college-level reading, writing and math.

ITMT 1358 - Windows Client Operating System

Credits: 3 (2 lecture, 4 lab). A study of Windows operating system; installation, configuration, and troubleshooting; file management; users accounts and permissions; security features; network connectivity; setup of external devices; optimization and customization; and deployment of application, with hand-on experience. Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 1371 - Windows 7 Configuration

Credits: 3 (2 lecture, 4 lab). A study of Windows 7 operating system; installation, configuration, and troubleshooting; file management; users accounts and permissions; security features; network connectivity; setup of external devices; optimization and customization; and deployment of application, with hands-on experience. Prerequisite: ITNW 1358: Network+ or ITNW 1425 or Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

Description of Courses

ITMT 2301 - Windows Server 2008 Network Infrastructure Configuration

Credits: 3 (2 lecture, 4 lab). A course in Windows Server 2008 networking infrastructure to include installation, configuration, and troubleshooting of Internet Protocol (IP) addressing, network services and security.

Prerequisite: ITMT 1371, ITMT 2302 (70-640); must be placed into college-level reading, writing and math.

ITMT 2302 - Windows Server 2008 Active Directory Configuration

Credits: 3 (2 lecture, 4 lab). A study of Active Directory Service on Windows Server 2008. Concepts of resource management within an enterprise network environment. Prerequisite: ITMT 1371; must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITMT 2304 - Implementing an Advanced Server Infrastructure

Credits: 3 (2 lecture, 4 lab). This course covers managing and maintaining a server infrastructure, planning and implementing a highly available enterprise infrastructure, planning and implementing a server virtualization infrastructure, and designing and implementing identity and access solutions. Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 2305 - Designing and Implementing a Server Infrastructure

Credits: 3 (2 lecture, 4 lab). This course covers planning and deploying a server infrastructure; designing and implementing network infrastructure services; designing and implementing network access services and Active Directory infrastructure. Prerequisite: Must be placed into college-level reading, writing and math.

ITMT 2351 - Windows Server 2008 Server Administrator

Credits: 3 (2 lecture, 4 lab). Knowledge and skills for the entry-level server administrator or information technology (IT) professional to implement, monitor and maintain Windows Server 2008 servers. Prerequisite: ITMT 2301; must be placed into college-level reading, college-level writing and MATH 0312 in math. Itnw138

ITMT 2374 - Storage Area Network (SAN)

Credits: 3 (2 lecture, 4 lab). Foundational knowledge necessary to perform essential job duties in a Storage Area Network (SAN) environment. Students learn the architecture and components of a SAN and the technology underpinning that make SANs work. Prerequisite: must be placed into college-level reading, writing and math.

ITMT 2403 - Administering a Microsoft SQL Server Database

Credits: 3 (2 lecture, 4 lab). In-depth coverage of the knowledge and skills required to install, configure, administer, and troubleshoot the client-server database management system of Microsoft SQL Server databases.

Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

ITNW 1308 - Implementing & Supporting Client Operating Systems

Credits: 3 (2 Lecture, 4 lab). The fundamentals of managing and configuring network clients. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITNW 1313 - Computer Virtualization

Credits: 3 (2 lecture, 4 lab). Implement and support virtualization of clients of servers in a networked computing environment. This course explores installation, configuration, and management of computer virtualization workstation and servers. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITNW 1351 - Fundamentals of Wireless LANs

Credits: 3 (2 Lecture, 4 ab). Designing, planning, implementing, operating, and troubleshooting wireless LANs (WLANs). Includes WLAN design, installation, and configuration; and WLAN security issues and vendor interoperability strategies. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITNW 1358 - Network+

Credits: 3 (2 lecture, 4 lab). Prepares individuals for a career as a Network Engineer in the Information Technology support industry. Includes the various responsibilities and tasks required for service engineer to successfully perform in a specific environment. Prepares individuals to pass the Computing Technology Industry Association (CompTIA) Network+ certification exam. Prerequisite: ITNW 1425 or Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in math. Corequisite: MATH 1314

ITNW 1380 - Cooperative Education - Computer Systems Networking & Telecommunications

Credits: 3. Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component.

Description of Courses

ITNW 1425 - Fundamentals of Networking Technologies
Credits: 4 (2 lecture, 4 lab). Instruction in networking technologies and their implementation. Topics include the OSI reference model, network protocols, transmission media, and networking hardware and software. Prerequisite: College ready for English and math (i.e. no remediation needed) and high school computer literacy or equivalent.

ITNW 1492 - Special Topics in Computer Systems Networking and Telecommunications
Credits: 4 (4 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to technology or occupation and relevant to the professional development of the student. Prerequisite: Prerequisite: Department Approval

ITNW 2335 - Network Troubleshooting and Support
Credits: 3 (2 Lecture, 4 ab). Troubleshoot and support networks with emphasis on solving real world problems in a hands-on environment. Topics include troubleshooting and research techniques, available resources, and network management hard/software. Prerequisite: ITMT 2301 with a minimum grade of C or better or

ITCC 2408 with a minimum grade of C or better or

ITSY 2300 with a minimum grade of C or better

Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0312 in mat Corequisite: Department Approval

ITNW 2380 - Cooperative Education - Computer Systems Networking and Telecommunications
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

ITNW 2432 - UNIX Network Integration
Credits: 4 (2 lecture, 4 lab). Installation, configuration, management, and support of a network infrastructure in a large computing environment that uses a version of the UNIX server operating system. Includes connectivity requirements, network services, and applications including file, print, database, messaging, proxy server, firewall, Dynamic Host Configuration Protocol, Network Time Protocol, Domain Name Service, and Internet Protocol Version 6 configuration and use. Prerequisite: ITSC 1458 Must be college-level in reading, writing and math.

ITSC 1301 - Introduction to Computers
Credits: 3 (2 lecture, 2 lab). Overview of computer information systems. Introduces computer hardware, software, procedures, and human resources. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ITSC 1302 - Computer Control Language
Credits: 3 (2 lecture, 4 lab). Skill development in the use of system control language on mid-range/mainframe computers. Topics include command formats, file management, job scheduling, resource management, and utilities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

ITSC 1307 - UNIX Operating System I
Credits: 3 (2 lecture, 4 lab). A study of the UNIX operating system including multi-user concepts, terminal emulation, use of system editor, basic UNIX commands, and writing script files. Topics include introductory systems management concepts. Prerequisite: Prerequisite/Corequisite: COSC 1436 or Department Approval; must be placed into college-level reading, writing and math.

ITSC 1309 - Integrated Software Applications I
Credits: 3 (2 lecture, 2 lab). Integration of applications from popular business productivity software suites. Instruction in embedding data, linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Emphasis is on developing end-user proficiency skills for the workplace. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

ITSC 1316 - LINUX Installation and Configuration

Credits: 3 (2 lecture, 4 lab). Open-source Linux operating system. Includes Linux installation, basic administration, utilities and commands, upgrading, networking, security, and application development. Emphasizes hands-on setup, administration, and management of Linux. Also covers maintaining and securing reliable Linux systems. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

ITSC 1319 - Internet / Web Page Development

Credits: 3 (2 lecture, 4 lab). Instruction in the use of Internet concepts and the introduction to web page design and web site development. Prerequisite: BCIS 1405 or ITSC 1309 or ITSC 1301; must be placed into college-level reading, writing and math.

ITSC 1321 - Intermediate PC Operating Systems

Credits: 3 (2 lecture, 4 lab). Continued study in advanced installation and configuration troubleshooting, advanced file management, memory and storage management. Update peripheral device drivers, and use of utilities to increase system performance. Prerequisite: BCIS 1405 or ITSC 1309; must be placed into college-level reading, writing and math.

ITSC 1342 - Shell Programming

Credits: 3 (2 lecture, 4 lab). Reading, writing, and debugging shell scripts. Development of scripts to automate frequently executed sequences of commands. Covers conditional logic, user interaction, loops, and menus to enhance the productivity and effectiveness of the user. Intended for programmers who are familiar with operating environments and reading and writing various shell scripts. Prerequisite: ITSC 1307; must be placed into college-level reading, writing and math.

ITSC 1358 - UNIX System Administration I

Credits: 4 (2 lecture, 4 lab). Provide new system administrators the basics of administering UNIX workstations. Students will perform basic system administration tasks, such as installing a standalone system, adding users, backing up and restoring file systems, and adding new printer support. Emphasis on the procedures needed to perform these system administration tasks. Introduces the concept of the system and disk management. Prerequisite: ITSC 1307; must be placed into college-level reading, writing and math.

ITSC 1380 - Cooperative Education - Computer and Information Sciences, General

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

ITSC 1425 - Personal Computer Hardware

Credits: 4 (2 lecture, 4 lab). Current personal computer hardware including assembly, upgrading, setup, configuration, and troubleshooting. Prerequisite: Must be placed into college-level reading, writing and math.

ITSC 1447 - UNIX System Administration II

Credits: 4 (2 lecture, 4 lab). Provides students with the necessary skills to administer UNIX workstations in a network environment. System security features will be presented. Prerequisite: ITSC 1458; must be placed into college-level reading, writing and math.

ITSC 1458 - UNIX System Administration I

Credits: 4. Basic UNIX administration. Includes installing a standalone system, adding users, backing up and restoring file systems, and adding printer support. Perform system administration tasks. Introduces the concept of system and disk management.

ITSC 2321 - Integrated Software Applications II

Credits: 3 (2 lecture, 2 lab). Continued study of computer applications from business productivity software suites. Instruction in embedding data and linking and combining documents using word processing, spreadsheets, databases, and/or presentation media software. Prerequisite: ITSC 1309 or BCIS 1405 or Department Approval; must be placed into college-level reading, writing and math.

ITSC 2339 - Personal Computer Help Desk Support

Credits: 3 (2 lecture, 4 lab). Diagnosis and solution of user hardware and software related problems with on-the-job projects in either a Help Desk lab or in short-term assignments for local business. Topics include planning, diagnostic techniques, problem resolution, call tracking, staffing, training, knowledge engineering, work orders, service level agreements, metrics, telephony, scheduling, management issues, customer expectation, selling your services.

Description of Courses

ITSC 2425 - Advanced Linux

Credits: 4 (2 lecture, 4 lab). Provides instruction in advance open-source Linux operating system. Develops directory services for clients, support users remotely, and install and configure network services. Prerequisite: ITSC 1458, ITSC 1447

ITSE 1301 - Web Design Tools

Credits: 3 (2 lecture, 4 lab). Designing and publishing Web documents. Includes graphic design issues and exploration of tools available for creating and editing Web documents. Prerequisite: BCIS 1405, ITSC 1309 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0312 in math.

ITSE 1306 - PHP Programming

Credits: 3 (2 lecture, 4 lab). Introduction to PHP including the design of web-based applications, arrays, strings, regular expressions, file input/output, e-mail and database interfaces, stream and network programming, debugging, and security. Prerequisite: IMED 2309, IMED 2351; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0312 in math.

ITSE 1345 - Introduction to Oracle SQL

Credits: 3 (2 lecture, 4 lab). An introduction to the design and creation of relational databases using Oracle. Topics include storing, retrieving, updating, and displaying data using Structured Query Language (SQL). Prerequisite: COSC 1436, ENGL 1301, and MATH 1314; must be placed into college-level reading, writing and math.

ITSE 1346 - Database Theory and Design

Credits: 3 (2 lecture, 4 lab). Introduction to the analysis and utilization of data requirements and organization into normalized tables using the four normal forms of database design. Prerequisite: BCIS 1405 or ITSC 1309; must be placed into college-level reading, writing and math.

ITSE 1350 - System Analysis and Design

Credits: 3 (2 lecture, 2 lab). Comprehensive introduction to the planning, design, and construction of computer information systems using the systems development life cycle and other appropriate design tools. Prerequisite: COSC 1436 or Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and college-level math.

ITSE 1380 - Cooperative Education - Computer Programming/Programmer , General

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

ITSE 1391 - Special Topics in Computer Programming: Oracle 10g New Features

Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: ITSE 1345; must be placed into college-level reading, writing and math.

ITSE 1402 - Computer Programming-Swift I

Credits: 4 (2 lecture, 4 lab). Introduction to computer programming with emphasis on the fundamentals of structured design, development, testing, implementation, and documentation. Includes language syntax, data and file structures, input/output devices, and files. Prerequisite: Must be placed into college-level reading, writing and math.

ITSE 1430 - Introduction to C# Programming

Credits: 4 (2 lecture, 4 lab). Data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling. Prerequisite: COSC 1437 or Department Approval; must be placed into college-level reading, writing and math.

ITSE 1432 - Introduction to Visual Basic.Net Programming

Credits: 4 (2 lecture, 4 lab). Introduction to Visual Basic.NET (VB.NET) including data types, control structures, functions, syntax, and semantics of the language, classes, class relationships, and exception handling. Prerequisite: COSC 1437 or Department Approval; must be placed into college-level reading, writing and math.

Description of Courses

ITSE 1447 - Programming with Visual Basic.Net
Credits: 4 (2 lecture, 4 lab). Designing and developing enterprise applications using Microsoft Visual Basic.Net in the Microsoft.Net Framework. Includes reference types, class relationships, polymorphism, operators overloading, and creating and handling exceptions.
Prerequisite: ITSE 1432; must be placed into college-level reading, writing and math.

ITSE 1456 - Extensible Markup Language (XML)
Credits: 4 (2 lecture, 4 lab). Introduction of skills and practices related to Extensible Markup Language (XML). Includes Document Type Definition (DTD), well-formed and valid XML documents, XML schemes, and Extensible Style Language (XSL). Prerequisite: BCIS 1405, ITSC 1309, or ITSE 1301; must be placed into college-level reading, writing and math.

ITSE 2309 - Database Programming
Credits: 3 (2 lecture, 4 lab). Database development using database programming techniques emphasizing database structures, modeling, and database access.
Prerequisite: Departmental approval

ITSE 2313 - Web Authoring
Credits: 3 (2 lecture, 4 lab). Instruction in designing and developing web pages that incorporate text, graphics, and other supporting elements using current technologies and authoring tools. Prerequisite: ARTC 1325, IMED 1316; must be placed into college-level reading, writing and math.

ITSE 2333 - Implementing a Database on Microsoft SQL Server
Credits: 3. Skills development in the implementation of a database solution using Microsoft SQL Server client/server database management system.

ITSE 2337 - Assembly Language Programming
Credits: 3 (2 lecture, 4 lab). Comprehensive coverage of low-level computer operations and architecture. Includes design, development, testing, implementation, and documentation of programs; language syntax; data manipulation; input/output devices and operations; and file access. Prerequisite: COSC 1436, ITSC 1302, or ITSE 1402; must be placed into college-level reading, writing and math.

ITSE 2343 - Advanced Mobile Programming
Credits: 3 (2 lecture, 4 lab). Programming for mobile devices including file access methods, data structures, modular programming, program testing and documentation. Design, write, and document mobile programs. Prerequisite: ITSE 2005, ITSE 2305/2405

ITSE 2346 - Oracle: Applications I
Credits: 3 (2 lecture, 4 lab). Forms in a Developer environment. Topics include the use of Object Navigator and Virtual Graphics System (VGS), Layout Editor and Menu options. Prerequisite: ITSE 1345, COSC 1436 and ITSE 1346; must be placed into college-level reading, writing and math.

ITSE 2348 - Oracle: Applications II
Credits: 3 (2 lecture, 4 lab). A continuation of Oracle Forms: Application I. Includes creating multiple form applications, managing multiple transactions across modules, and enhancing applications with custom menus, and charts. Prerequisite: ITSE 2346; must be placed into college-level reading, writing and math.

ITSE 2354 - Advanced Oracle PL/SQL
Credits: 3 (2 lecture, 4 lab). A continuation of Oracle SQL. Topics include hierarchical queries, set based queries, correlated subqueries, scripting, and scripting generation. Prerequisite: ITSE 1402 or COSC 1436 and ITSE 1346; must be placed into college-level reading, writing and math.

ITSE 2357 - Advanced Object - Oriented Programming
Credits: 3 (2 lecture, 4 lab). Application of advanced object-oriented programming techniques such as abstract data structures, class inheritance, polymorphism, and exception handling. Prerequisite: ITSE 1430, INEW 2438; must be placed into college-level reading, writing and math.

ITSE 2359 - Advanced Computer Programming
Credits: 3 (2 lecture, 4 lab). Advanced programming techniques including file access methods, data structures, modular programming, program testing and documentation. This course covers theory and application of the methodology of Object-Oriented Analysis and Design, emphasizing static and dynamic system decomposition into objects and classes. Students may use either C++, C# or Java for the project's programming language.

ITSE 2402 - Intermediate Web Programming
Credits: 4 (2 lecture, 4 lab). Server-side and client-side techniques for Web development.

Description of Courses

ITSE 2417 - JAVA Programming

Credits: 4 (2 lecture, 4 lab). Introduction to Java programming with object-orientation. Emphasis is on the fundamental syntax and semantics of Java for applications and web applets. Prerequisite: COSC 1437; must be placed into college-level reading, writing and math.

ITSE 2421 - Object - Oriented Programming

Credits: 4 (2 lecture, 4 lab). Introduction to object-oriented programming. Emphasis on the fundamentals of structured design with classes, including development, testing, implementation, and documentation. Includes object-oriented programming techniques, classes, and objects. Prerequisite: COSC 1437; must be placed into college-level reading, writing and math.

ITSE 2434 - Advanced Visual Basic.NET Programming

Credits: 4 (2 lecture, 4 lab). Continuation of Visual Basic.NET programming using advanced features. Prerequisite: ITSE 1447; must be placed into college-level reading, writing and math.

ITSE 2444 - Oracle Database Structure and Data Warehousing

Credits: 4 (2 lecture, 4 lab). A practical application course for modeling and designing an Oracle data warehouse using case studies. Prerequisite: ITSE 2456; must be placed into college-level reading, writing and math.

ITSE 2453 - Advanced C# Programming

Credits: 4 (2 lecture, 4 lab). Continuation of C# programming using advanced features of the .NET Framework Class Library. Prerequisite: ITSE 1430 and ITSE 1356; must be placed into college-level reading, writing and math.

ITSE 2456 - Oracle Database Administration I

Credits: 4 (2 lecture, 4 lab). Fundamentals of the tasks and functions required of a database administrator using Oracle. Prerequisite: ITSE 1345; must be placed into college-level reading, writing and math. Corequisite: ITSC 1307

ITSE 2458 - Oracle Database Administration II

Credits: 4 (2 lecture, 4 lab). A continuation of Oracle Database Administration I. Topics include recovery procedures, logical backups, standby database capabilities, and performance tuning of the Oracle Server. Common performance problems and the use of diagnostic tools to troubleshoot and optimize throughout will be discussed. Prerequisite: ITSE 2456; must be placed into college-level reading, writing and math.

ITSE 2471 - Mobile Application Programming I

Credits: 4. Install and configure development tools, identify and follow different phase of mobile application development life cycle, use appropriate programming language and API to develop apps for one or more mobile device platforms, and test and deploy apps using emulator and physical devices.

ITSE 2472 - Mobile Application Programming II

Credits: 4. Develop mobile apps focusing on features, such as Location Services API, SQLite for data intensive problems, Connectivity for the Cloud, Media and Camera for multimedia experience, and Voice Typing, Speech, and multi-touch for input.

ITSW 1391 - Special Topics in Data Processing Technology / Technician

Credits: 3 (2 lecture, 4 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into college-level reading, writing and math.

ITSW 2334 - Advanced Spreadsheets

Credits: 3 (2 lecture, 2 lab). Advanced techniques for developing and modifying spreadsheets. Includes macros and data analysis functions. Prerequisite: ITSC 1309 or BCIS 1405; must be placed into college-level reading, writing and math.

ITSW 2337 - Advanced Database

Credits: 3 (2 lecture, 2 lab). Advanced concepts of database design and functionality. Prerequisite: ITSC 1309 or BCIS 1405; must be placed into college-level reading, writing and math.

ITSY 1300 - Fundamentals of Information Security

Credits: 3 (2 lecture, 4 lab). An introduction to information security including vocabulary and terminology, ethics, the legal environment, and risk management. Identification of exposures and vulnerabilities and appropriate countermeasures are addressed. The importance of appropriate planning, policies and controls is also discussed. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

ITSY 1342 - Information Technology Security
Credits: 3 (2 lecture, 4 lab). Instruction in security for network hardware, software, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Prerequisite: ITMT 2301; must be placed into college-level reading, writing and math.

ITSY 1371 - Security+
Credits: 3 (2 lecture, 4 lab). Introduction to security systems that will provide the student a solid foundation of understanding the different computer security concepts, functions, and applications. The course maps to CompTIA Security+ exam objectives which cover general security concepts, communication security, and infrastructure security, basics of cryptography, and operations/organizational security. Upon completion of this course, the student will be prepared to sit for the CompTIA Security+ certification exam.

ITSY 1491 - Special Topics in Computer Systems Network & Telecommunications
Credits: 4. Topics address recently identified current events, skills, knowledges, and/or attitudes and behaviors pertinent to the information security technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

ITSY 2300 - Operating System Security
Credits: 3 (2 lecture, 4 lab). Safeguard computer operating systems by demonstrating server support skills and designing and implementing a security system. Identify security threats and monitor network security implementations. Use best practices to configure operating systems to industry security standards. Prerequisite: ITSY 1342; must be placed into college-level reading, writing and math.

ITSY 2330 - Intrusion Detection
Credits: 3 (2 lecture, 4 lab). Computer information systems security monitoring, intrusion detection, and crisis management. Includes alarm management, signature configuration, sensor configuration, and troubleshooting components. Emphasizes identifying, resolving, and documenting network crises and activating the response team. Prerequisite: Prerequisite: ITSY 1342; must be placed into college-level reading, writing and math.

ITSY 2345 - Network Defense and Countermeasures
Credits: 3 (2 lecture, 4 lab). This is a practical application and comprehensive course that includes the planning, design, and construction of a complex network that will sustain an attack, document events, and mitigate the effects of the attack. This is a capstone course.

ITSY 2401 - Firewalls and Network Security
Credits: 4. Identify elements of firewall design, types of security threats and responses to security attacks. Use Best Practices to design, implement, and monitor a network security plan. Examine security incident postmortem reporting and ongoing network security activities.

ITSY 2443 - Computer System Forensics
Credits: 4 (3 lecture, 3 lab). In-depth study of system forensics including methodologies used for analysis of computer security breaches. Gather and evaluate evidence to perform postmortem analysis of a security breach. Prerequisite: Prerequisite: ITCC 1401; must be placed into college-level reading, writing and math.

ITSY 2471 - Cyber Competitions
Credits: . This course provides an in-depth understanding of how to effectively protect computer networks. Students will learn the tools and penetration testing methodologies used by ethical hackers. Prerequisite: Departmental Approval

JAPN 1300 - Beginning Japanese Conversation I
Credits: 3 (3 lecture). An introductory Japanese course that emphasizes listening comprehension and speaking skills. Reading and writing may be done as reinforcement to oral communication skills. The course is slower-paced and less comprehensive than Japanese 1411. It is highly recommended for students without previous experience in the Japanese language. This course is not open to students whose first language is Japanese. Generally, does not transfer as foreign language credit but may transfer as elective credit.

JAPN 1411 - Beginning Japanese I
Credits: 4 (3 lecture, 2 lab). Introduction to Japanese language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

Description of Courses

JAPN 1412 - Beginning Japanese II

Credits: 4 (3 lecture, 2 lab). Continuation of JAPN 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: JAPN 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school Japanese within the last two years. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite).

JAPN 2311 - Intermediate Japanese I

Credits: 3 (3 lecture). In-depth study of Japanese grammar. Oral practice based on selected readings on culture and current events. Continuing practice in reading and writing in Hiragana and Katakana, as well as in Kanji (Chinese five characters). Prerequisite: JAPN 1412 or equivalent. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

JAPN 2312 - Intermediate Japanese II

Credits: 3 (3 lecture). Continuation of JAPN 2311. Extensive practice in conversation and composition with emphasis on reading and writing in Kanji. Prerequisite: JAPN 2311 or equivalent. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

KINE 1100 - Golf

Credits: 1 (1 lecture, 2 activity). The student will learn the basic fundamental skills of golf and become familiar with the basic rules, tournament play and terminology involved with beginning golf.

KINE 1103 - Yoga

Credits: 1 (1 lecture, 2 activity). This class will acquaint the student with history, development, branches and practices of yoga with emphasis on physical practice of individual postures, sets of postures, breathing techniques, meditation and relaxation techniques.

KINE 1105 - Jogging

Credits: 1 (1 lecture, 2 activity). The student will learn proper and safe walking/jogging/running techniques to begin a cardiovascular training program and will learn the basic physiological principles for distance walking/jogging/running.

KINE 1146 - Beginning Bowling

Credits: 1 (1 lecture, 2 activity). This course includes everything the beginning bowler needs to know about the game of bowling; rules, regulations, and techniques. In addition to the basics of bowling, this course attempts to give each student a better understanding of the elements involved in the game and enhance his or her enjoyment and performance of the number one indoor participant lifetime sport in the United States.

KINE 1164 - Introduction to Physical Fitness and Wellness

Credits: 1 (1 lecture, 2 activity). This course will provide an overview of the lifestyle necessary for fitness and health. Students will participate in physical activities and assess their fitness status. Students will be introduced to proper nutrition, weight management, cardiovascular health, flexibility, and strength training. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing. INRW 0420

KINE 1301 - Foundations of Kinesiology

Credits: 3 (3 lecture). The purpose of this course is to provide students with an introduction to human movement that includes the historical development of physical education, exercise science, and sport. This course offers the student both an introduction to the knowledge base, as well as, information on expanding career opportunities. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KINE 1304 - Personal/Community Health

Credits: 3 (3 lecture). This course provides an introduction to the fundamentals, concepts, strategies, applications, and contemporary trends related to understanding personal and/or community health issues. This course also focuses on empowering various populations with the ability to practice healthy living, promote healthy lifestyles, and enhance individual well-being. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KINE 1306 - First Aid

Credits: 3 (3 lecture). Instruction and practice for emergency care. Designed to enable students to recognize and avoid hazards within their environment, to render intelligent assistance in case of accident or sudden illness, and to develop skills necessary for the immediate and temporary care of the victim. Successful completion of the course may

enable the student to receive a certificate from a nationally recognized agency

Description of Courses

KINE 1338 - Concepts of Physical Fitness

Credits: 3(3 lecture). This course is designed to familiarize students with knowledge, understanding and values of health related fitness and its influence on the quality of life emphasizing the development and implementation of fitness programs.

KINE 1346 - Drug Use & Abuse

Credits: 3 (3 lecture). Study of the use, misuse and abuse of drugs and other harmful substances in today's society. Physiological, sociological, pharmacological and psychological factors will be emphasized.

KINE 2111 - Weight Training & Conditioning

Credits: 1 (1 lecture, 2 activity). Basic fundamental skills and techniques of a strength and conditioning program. Emphasis is placed on correct procedures and use of equipment.

KINE 2113 - Individual Fitness Training

Credits: 1 (1 lecture, 2 activity). Provides opportunity to accomplish fitness objectives at own pace. Some knowledge of concepts of fitness and weight training recommended.

KINE 2115 - Weight Training and Conditioning II

Credits: 1 (1 lecture, 2 activity). Emphasis is placed on acquiring advanced training techniques for improving muscular strength, including competitive lifting skills. Prerequisite: Prerequisite: Weight training experience is required.

KORE 1411 - Beginning Korean I

Credits: 4 (3 lecture, 2 lab). Fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KORE 1412 - Beginning Korean II

Credits: 4 (3 lecture, 2 lab). Continuation of fundamental skills in listening comprehension, speaking, reading, and writing. Includes basic vocabulary, grammatical structures, and culture. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

KORE 2311 - Intermediate Korean I

Credits: 3 (3 lecture). In-depth study of Korean grammar. Oral practice based on selected readings on culture and current events. Continuing practice in reading and writing in Korean. Prerequisite: KORE 1412 or equivalent. Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

KORE 2312 - Intermediate Korean II

Credits: 3 (3 lecture). Continuation of KORE 2311. Extensive practice in conversation and composition with emphasis on reading and writing in Korean. Prerequisite: KORE 2311 or equivalent Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

LANG 1311 - Beginning Foreign Language I

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1312 - Beginning Foreign Language II

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 1411 - Beginning Foreign Language I

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1412 - Beginning Foreign Language II

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

Description of Courses

LANG 1511 - Beginning Foreign Language I

Credits: 5. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1411 is utilized

LANG 1512 - Beginning Foreign Language II

Credits: 5. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 1412 is utilized.

LANG 2311 - Intermediate Foreign Language I

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2311 is utilized.

LANG 2312 - Intermediate Foreign Language I

Credits: 3. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2312 is utilized.

LANG 2411 - Intermediate Foreign Language I

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2311 is utilized.

LANG 2412 - Intermediate Foreign Language I

Credits: 4. This is a state-approved course prefix for posting transfer credit of a foreign language course where there is no home equivalent. Transfer credit with the LANG prefix is utilized in HCC degree plans in the same way as home foreign language courses with the number 2312 is utilized.

LBRA 1191 - Information Literacy , Student Inquiry and Libraries

Credits: 1 (1 lecture). An introduction to the nature, relevance, varieties, availability, and uses of information accessible in libraries and elsewhere, with special emphasis on processes of inquiry and self-directed learning insocial and academic contexts.

LEAD 1370 - Workforce Leadership and Critical Thinking Skills for Student Success

Credits: 3 (3 lecture, 0 lab). A study of the development of leadership skills and critical thinking strategies that promote employment readiness, retention, advancement, and promotion for student success.

LGLA 1303 - Legal Research

Credits: 3 (3 lecture). This course provides a working knowledge of the fundamentals of effective legal research. Topics include law library techniques, computer assisted legal research, citation forms, briefs, and court opinion discussions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1305 - Legal Writing

Credits: 3 (3 lecture). This course provides a working knowledge of the fundamentals of effective legal writing. Topics include briefs, legal memoranda, case and fact analysis, citation forms, and legal writing styles. Prerequisite: LGLA 1303; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1344 - Texas Civil Litigation

Credits: 3 (3 lecture). Fundamental concepts and procedures of Texas civil litigation with emphasis on the paralegal's role. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1345 - Civil Litigation

Credits: 3 (3 lecture). This course presents fundamental concepts and procedures of civil litigation with emphasis on the paralegal's role. Topics include pretrial, trial, and post trial phases of litigation. Prerequisite: LGLA 1344; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1351 - Contracts

Credits: 3 (3 lecture). This course presents fundamental concepts of contract law with emphasis on the paralegal's role. Topics include formation, performance, and enforcement of contracts under the common law and the Uniform Commercial Code. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

LGLA 1353 - Wills , Trusts and Probate Administration
Credits: 3 (3 lecture). This course presents fundamental concepts of the law of wills, trusts, and probate administration with emphasis on the paralegal's role. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1355 - Family Law
Credits: 3 (3 lecture). This course presents fundamental concepts of family law with emphasis on the paralegal role. Topics include formal and informal marriages, divorce, annulment, marital property, and the parent-child relationship. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1370 - Pro Doc for Paralegals
Credits: 3 (3 lecture). The Pro Doc class in Paralegal Technology will include instruction using the automated legal document assembly computer software. The software generates a finished work product for Texas Legal Practitioners. Pro Doc certification is also available for students after passing an exam offered by Pro Doc. Prerequisite: LGLA 1303; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 1380 - Cooperative Education - Legal Assistant / Paralegal
Credits: 3 (1 lecture, 19 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: LGLA 1303 and LGLA 1344; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2303 - Torts and Personal Injury Law
Credits: 3 (3 lecture). This course presents fundamental concepts of tort law with emphasis on the paralegal role. Topics include intentional torts, negligence, and strict liability. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2307 - Law Office Management
Credits: 3 (3 lecture). This course presents the fundamentals of principles and structure of management, administration, and substantive systems in the law office including law practice technology as applied to paralegals. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2309 - Real Property
Credits: 3 (3 lecture). This course presents fundamental concepts of real property law with emphasis on the paralegal's role. Topics include the nature of real property, rights and duties of ownership, land use, voluntary and involuntary conveyances, and the recording of and searching for real estate documents. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2311 - Business Organizations
Credits: 3 (3 lecture). This course presents basic concepts of business organizations with emphasis on the paralegal's role. Topics include law of agency, sole proprietorships, forms of partnerships, corporations, and other emerging business entities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2313 - Criminal Law and Procedure
Credits: 3 (3 lecture). This course introduces the criminal justice system including procedures from arrest to final disposition, principles of federal and state law, and the preparation of pleadings and motions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LGLA 2315 - Oil and Gas Law
Credits: 3 (3 lecture). This course presents fundamental concepts of oil and gas law including the relationship between landowners and oil and gas operators, government regulation, and documents used in the industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

LGLA 2381 - Cooperative Education - Legal Assistant / Paralegal
Credits: 3 (1 lecture, 19 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: LGLA 1303, LGLA 1305, LGLA 1344, LGLA 1345, or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

LMGT 1170 - Certified Logistics Assistant
Credits: 1 (1 lecture, 1 lab). This course satisfies the requirements for a student to take the national Manufacturing Skill Standards Council (MSSC) test for certification as a Certified Logistics Associate. Major topics include understanding the life cycle of global chain logistics, the logistics environment and familiarization with different material handling equipment, introduction to safety principles and safe equipment handling, quality control principles, workplace communications, teamwork and problem solving. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1193 - Special Topics in Logistics and Materials Management
Credits: 1 (1 lecture). An overview of Workplace Essentials, Supply Chain Management, Transportation Management, Warehouse Management and Computer Systems utilizing SAP ERP. Prerequisites: Students must be in the last semester of completing the requirements for either a certificate or an AAS degree in Logistics and Global Supply Chain Management. Students with a background in Logistics must have at least one year experience in the field Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1270 - Equipment Operation
Credits: 2 (1 lecture, 2 lab). This course provides students with skills to demonstrate proficiency in the use of equipment used in material handling. Topics include forklift truck safety principles and driving, lifting and delivery proficiency with the forklift. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1271 - Certified Logistics Technician
Credits: 2 (2 lecture). Students who have successfully completed the first level logistics associate course are prepared for the second level certification. The focus of the course is on product receiving, storage order processing, packaging and shipment, inventory control, evaluation of transportation modes and dispatch and tracking. This second course is a second level certification from the Manufacturing Skills Standards Council, (MSSC). These are industry led nationally validated skills standards. The assessment for certification will be at the conclusion of the course. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 1319 - Introduction to Business Logistics
Credits: 3 (3 lecture). A systems approach to managing activities associated with traffic, transportation, inventory management and control, warehousing, packaging, order processing, and materials handling. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0306 in math.

LMGT 1321 - Introduction to Materials Handling
Credits: 3 (3 lecture). Introduces the concepts and principles of materials management to include inventory control and forecasting activities. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1323 - Domestic and International Transportation Management
Credits: 3 (3 lecture). An overview of the principles and practices of transportation and its role in the distribution process. Emphasis on the physical transportation systems involved in the United States as well as on global distribution systems. Topics include carrier responsibilities and services, freight classifications, rates, tariffs, and public policy and regulations. Also includes logistical geography and the development of skills to solve logistical transportation problems and issues. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1325 - Warehouse and Distribution Center Management
Credits: 3 (3 lecture). Emphasis on physical distribution and total supply chain management. Includes warehouse operations management, hardware and software operations, bar codes, organizational effectiveness, just-in-time manufacturing, continuous replenishment, and third party. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

Description of Courses

LMGT 1345 - Economics of Transportation and Distribution

Credits: 3 (3 lecture). A study of the basic economic principles and concepts applicable to transportation and distribution. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1349 - Materials Requirement Planning

Credits: 3 (3 lecture). A study of materials requirement planning that includes net change versus regenerative systems, lot sizing, and the time sharing of dependent demand. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 1370 - Equipment Operation

Credits: 3 (3 lecture). This course provides students with skills to demonstrate proficiency in the use of equipment used in material handling. Topics include forklift truck safety principles and driving, lifting and delivery proficiency with the forklift. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 2288 - Internship: Logistics and Materials Management

Credits: 2 (12 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LMGT 2334 - Principles of Traffic Management

Credits: 3 (3 lecture). A study of the role and functions of a transportation traffic manager within a commercial or public enterprise. Includes training in rate negotiation, carrier and mode selection, carrier service evaluation, quality control, traffic pattern analysis, documentation for domestic and international shipments, claims, hazardous materials movement, and the state, federal, and international environments of transportation. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

LMGT 2389 - Internship: Logistics and Materials Management

Credits: 3 (1 lecture, 17 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer as applicable to maritime transportation logistics. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

LNG 1307 - Intra-lingual Skills Development for Interpreters

Credits: 3 (2 lecture, 2 lab). Concentration on the development of intra-lingual (English to English) skills necessary for future development of inter-lingual (English to American Sign Language [ASL]/ASL to English) skills. Focus on linguistic and cognitive skills development in areas of paraphrasing, summarizing, main idea identification, comprehension, memory, delayed repetition, multi-tasking, vocabulary, and cultural literacy. Prerequisite: SGNL 1401, 1402, 2301, 2302; must be placed into college-level reading, college-level writing and MATH 0312 in math.

LNG 2402 - Interpreting II

Credits: 4 (3 lecture, 4 lab). Continued development of discourse analysis and interpreting skills for increasingly complex tasks. Utilization of consecutive and simultaneous interpreting scenarios including monologues and dialogues. Emphasizes skill development, self-analysis, and peer evaluation. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, SLNG 1311, SLNG 1321, SLNG 2401; Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

LOTT 1401 - Introduction to Fiber Optics

Credits: 4 (3 lecture, 3 lab). An introductory course in fiber optics and its application including advantages of fiber, light transmission in fiber, types of fiber, sources, detectors, and connectors. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

MART 1370 - Introduction to Maritime Shipping

Credits: 3 (3 lecture). This program will introduce the students to the unique role of the Maritime industry in logistics. Topics include port operations, modes of cargo handling and stowage, general shipping, ship construction, types of transport ships, tankers, shipboard nomenclature and the mission of merchant ships. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

MATH 0309 - Introductory Algebra

Credits: 3 (3 lecture). Topics include real numbers, introduction to Logic, polynomials, basic factoring, linear equations, linear models, percentage models, order of operations, set operations, and an introduction to other topics which may include linear and quadratic modelling and math for financial management. A departmental final examination must be passed with a score of 60% or more in order to pass the course. Prerequisite: TSIA ABE level 5 or 6; TSIA Math Score 336 – 347 with Elementary Algebra Score 5 – 15 and Intermediate Algebra

Diagnostic Score 0 – 6; Math 0106: Pass with “C” or better.

MATH 0314 - Intermediate Algebra

Credits: 3 (3 lecture, 1 lab). Topics include factoring techniques, radicals, algebraic fractions, absolute value, complex numbers, graphing linear equations and inequalities, quadratic equations, systems of equations, graphing quadratic equations and an introduction to functions. Emphasis is placed on algebraic techniques needed in order to successfully complete MATH 1314: College Algebra. A departmental final examination must be passed with a score of 60% or more in order to pass this course. Prerequisite: Prerequisite: Must be placed into MATH 0312 (or higher) or completion of MATH 0308.

MATH 1314 - College Algebra

Credits: 3 (3 lecture). Topics include quadratics, polynomial, rational, logarithmic and exponential functions, system of equations, progression, sequences and series, matrices and determinants. A departmental final examination will be given in this course. Core Curriculum Course. Prerequisite: Prerequisite: Must be placed into college-level mathematics or completion of MATH 0312.

MATH 1316 - Plane Trigonometry

Credits: 3 (3 lecture). Topics include solutions of triangles, Euler identity, graphing of trigonometric and inverse trigonometric functions, identities, trigonometric equations and an introduction to vector analysis. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1324 - Mathematics for Business & Social Sciences

Credits: 3 (3 lecture). A survey of finite mathematics and its application to problems of business and the natural and social sciences. Topics include set theory, probability, an introduction to matrices, linear programming, and an introduction to statistics. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1325 - Calculus for Business & Social Sciences

Credits: 3 (3 lecture). A survey of differential and integral calculus including the study of functions and graphs from a calculus viewpoint as applied to problems in business and the natural and social sciences. Core Curriculum Course. Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1332 - Contemporary Mathematics

Credits: 3 (3 lecture). Mathematics for Liberal Arts is a course designed for liberal and fine arts, non-mathematics, non-science, and non-business majors. The course provides students with an appreciation of the History, Civilization, , art, and beauty of mathematics in the world around us. Topics include an examination of sets with applications, probability, and statistics, financial management, mathematical modeling, and fundamentals of geometry and its application. Core Curriculum Course. Prerequisite: Prerequisite: Must be placed into college-level mathematics or completion of MATH 0312.

MATH 1342 - Elementary Statistical Methods

Credits: 3 (3 lecture). Topics include histograms, probability, binomial and normal distributions and their applications, correlation and prediction, and tests of statistical hypotheses. Core Curriculum Course. Students who have completed MATH 1342 successfully should NOT take MATH 1442. Students will Not receive credit for both MATH 1342 and MATH 1442. Core curriculum course Prerequisite: Prerequisite: MATH 1314; must be placed into college-level mathematics.

MATH 1350 - Mathematics for Teachers I

Credits: 3 (3 lecture). Concepts of sets, functions, numeration systems, number theory, and properties of the natural numbers, integers, rational, and real numbers systems with an emphasis on problem-solving and critical thinking. Field of Study Course. Core Curriculum Course. Prerequisite: Prerequisite: MATH 1314 or equivalent; must be placed into college-level mathematics.

MATH 1351 - Mathematics for Teachers II

Credits: 3 (3 lecture). Concepts of geometry, probability, and statistics, as well as applications of the algebraic properties of real numbers to concepts of measurement with an emphasis on problem solving and critical thinking. Field of Study Course. Core Curriculum Course. Prerequisite: Prerequisite: MATH 1314 or equivalent; must be placed into college-level mathematics.

Description of Courses

MATH 1442 - Stat II: Statistics for Non-STEM Majors
Credits: 4 (4 lecture). Topics include probability, binomial and normal distributions, and their applications, random sampling, statistical inference, estimation, confidence intervals, and tests of statistical hypotheses, and analysis of variance. Students who have completed MATH 1342 successfully should NOT take MATH 1442. Students will Not receive credit for both MATH 1342 and MATH 1442. Prerequisite: Prerequisite: Must pass MATH 0311 with a grade of C or higher.

MATH 2305 - Discrete Mathematics
Credits: 3 (3 lecture). Topics selected from logic, set theory, combinatorics and graph theory. Prerequisite: Prerequisite: MATH 2318

MATH 2318 - Linear Algebra
Credits: 3 (3 lecture). Topics include systems of linear equations, vector spaces, matrices, linear mappings, and determinants. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2413

MATH 2320 - Differential Equations
Credits: 3 (3 lecture). Topics include initial value problems for first order and linear second order equations, Picard iteration, series solutions, boundary value problems, Laplace transforms and numerical methods. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2414

MATH 2412 - Pre-Calculus Math
Credits: 4 (4 lecture). Topics include elementary theory of functions and equations, analytic geometry, vectors, introductory logic, mathematical induction, sequences and finite series. Core Curriculum Course. Prerequisite: Prerequisite: MATH 1314 and MATH 1316 or Department Approval

MATH 2413 - Calculus I
Credits: 4 (4 lecture). An integrated study of differential calculus with analytic geometry including the study of functions, limits, continuity, differentiation, and an introduction to integration. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2412 or consent of the Department Chair

MATH 2414 - Calculus II
Credits: 4 (4 lecture). Integral calculus including discussions of transcendental functions, applications of integration, techniques and improper integrals, infinite series, Taylor series, plane curves, and polar coordinates. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2413

MATH 2415 - Calculus III
Credits: 4 (4 lecture). A survey of advanced topics in calculus including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, Jacobians, divergence and Stokes theorems. Core Curriculum Course. Prerequisite: Prerequisite: MATH 2414

MCHN 1302 - Print Reading for Machining Trades
Credits: 3 (3 lecture). A study of blueprints for machining trades with emphasis on machine drawings. Use of sketching techniques to create pictorial and multiple-view drawings. Offered as an 8 week hybrid course. Co-requisite Classes introduced include TECM 1301 Industrial Mathematics, MCHN 1338 Basic Machine Shop. This class should be taken before MCHN 1320 Precision Tools & Measurements. Prerequisite: Prerequisites: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: TECM 1301; MCHN 1338

MCHN 1305 - Metals and Heat Treatment
Credits: 3 (2 lecture, 2 lab). Designed for students going into the workforce as manual machinists, tool designers, or heat treat operators. Topics include properties of metals and heat treatment of metals. Prerequisite: TECM 1301, MCHN 1302; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 1308 - Basic Lathe
Credits: 3 (1 lecture, 7 lab). An introduction to the common types of lathes. Emphasis on basic parts, nomenclature, lathe operations, safety, machine mathematics, blueprint reading, and theory. Prerequisite: Prerequisites: TECM 1301, MCHN 1302, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MCHN 1313 - Basic Milling Operations
Credits: 3 (1 lecture, 7 lab). An introduction to the common types of milling machines, part nomenclature, basic machine operations and procedures, safety, machine mathematics, blueprint reading, and theory. Prerequisite Classes introduced include TECM 1301 Industrial Mathematics, MCHN 1302 Blueprint Reading for Machine Trades, and MCHN 1338 Basic Machine Shop. Prerequisite: Prerequisites/Corequisites: TECM 1301, MCHN 1302, MCHN 1338, ENTC 1347; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

MCHN 1320 - Precision Tools and Measurement
Credits: 3 (3 lecture, 1 lab). An introduction to the modern science of dimensional metrology. Emphasis on the identification, selection, and application of various types of precision instruments associated with the machining trade. Practice of basic layout and piece part measurements while using standard measuring tools. Offered as an 8 week hybrid course. Lecture/Lab combination more accurately reflects class. Prerequisite class introduced - MCHN 1302 Print Reading for Machine Trades. Prerequisite: MCHN 1302, TECM 1301 Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 1338 - Basic Machine Shop I
Credits: 3 (2 lecture, 4 lab). An introductory course that assists the student in understanding the machinist occupation in industry. The student begins by using basic machine tools such as the lathe, milling machine, drill press, power saw, and bench grinder. Machine terminology, theory, math, part layout, and bench work using common measuring tools is included. Emphasis is placed on shop safety, housekeeping, and preventative maintenance. Prerequisite: Prerequisites: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: TECM 1301, MCHN 1302, MCHN 1320

MCHN 1343 - Machine Shop Mathematics
Credits: 3. Designed to prepare the student with technical, applied mathematics that will be necessary in future machine shop-related courses.

MCHN 1370 - Lean Manufacturing - Machinist
Credits: 3 (2 lecture, 3 lab). Study of principles of lean manufacturing for machinists; including a systematic approach to reducing costs and lead-time. Prerequisite: TECM 1301, MCHN 1302, ENTC 1347; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2303 - Fundamentals of Computer Numerical Controls (CNC) Machine Controls
Credits: 3 (2 lecture, 3 lab). An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Prerequisite: TECM 1301, MCHN 2433, MCHN 2437; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2331 - Operation of CNC Turning Centers
Credits: 3 (2 lecture, 3 lab). Continuation of Fundamentals of CNC Machine Controls with an emphasis on turning centers. Prerequisite: MCHN 1302, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math. Corequisite: Prerequisites/Corequisite: ITSC 1309

MCHN 2333 - Advanced Lathe Operations
Credits: 3 (1 lecture, 7 lab). A study of advanced lathe operations. Identify and use of special cutting tools and support tooling, such as form tools, carbide inserts, taper attachments, follower and steady rest. Close tolerance machining required. Prerequisite: MCHN 1308, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2334 - Operation of CNC Machining Centers
Credits: 3 (1 lecture, 6 lab). CNC operations with an emphasis on machining centers. Prerequisite: ENTC 1347, HYDR 1345, MCHN 1302, MCHN 1308, MCHN 1313, MCHN 1320, MCHN 1338, MCHN 1345, MCHN 2344, Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2335 - Advanced CNC Machining
Credits: 3. Advanced CNC operation with an emphasis on programming and operations of machining and turning centers.

MCHN 2337 - Advanced Milling Operations
Credits: 3 (1 lecture, 7 lab). An advanced study of milling machine operations. Identification and/or use of milling cutters and support tooling. Prerequisite: MCHN 1313, TECM 1301; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MCHN 2341 - Advanced Machining I
Credits: 3 (2 lecture, 4 lab). A study of advanced lathe and milling operations. Emphasis on advanced cutting operations of the lathe and milling machines, including the use of special tooling, bench assembly, and materials identification. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: MCHN 2333, MCHN 2337

MCHN 2344 - Computerized Numerical Control Programming
Credits: 3 (1 lecture, 6 lab). An introduction to G and M codes (RS274-D) necessary to program Computer Numerical Controlled (CNC) machines. Prerequisite: ENTC 1347, MCHN 1303, MCHN 1338, MCHN 1345, Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

MCHN 2447 - Specialized Tools and Fixtures
Credits: 4 (3 lecture, 2 lab). An advanced course in the designing and building of special tools, such as jigs, fixtures, punch press dies, and molds. Machining and assembling of a production tool using conventional machine shop equipment. Application of production tool theory, care, and maintenance. Prerequisite: TECM 1301, MCHN 1302, MCHN 1320; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MDCA 1165 - Practicum (or Field Experience) Medical/Clinical Assistant
Credits: 1 (7 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1205 - Medical Law and Ethics
Credits: 2 (2 lecture). Instruction in principles, procedures, and regulations involving legal and ethical relationships among physicians, patients, and medical assistants in ambulatory care settings. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1213 - Medical Terminology
Credits: 2 (2 lecture). A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1254 - Medical Assisting Credentialing Exam Review
Credits: 2 (1 lecture, 2 lab). A preparation for one of the National Commission for Certifying Agencies (NCCA) recognized credentialing exams. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: Corequisite: MDCA 1360 or Department Approval

MDCA 1264 – Practicum (or Field Experience) - Medical / Clinical Assistant
Credits: 2 (15 hours externship per week). A health-related work-based external learning experience that enables the student to apply specialized occupational theory, skills and concepts relating to specific occupational outcomes. Practical workplace training is supported by an individualized learning plan developed by the employee, college and student. Direct supervision is provided by the clinical (workplace) professional. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1291 - Special Topics in Medical Assistant : Clinical Protocols in Healthcare
Credits: 2 (2 lecture). Topics in the course address clinical protocols for healthcare management for families in acute illness when rendering advice and coordination of care in patient-center mode home/ambulatory care settings. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1310 - Medical Assistant Interpersonal and Communication Skills
Credits: 3 (3 lecture). Emphasis on the application of basic psychological principles and the study of behavior as they apply to special populations. Topics include procedures for self-understanding and social adaptability in interpersonal communication with patients and co-workers in an ambulatory care setting. Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1313 - Medical Terminology
Credits: 3 (3 lecture). A study and practical application of a medical vocabulary system. Includes structure, recognition, analysis, definition, spelling, pronunciation, and combination of medical terms from prefixes, suffixes, roots, and combining forms. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MDCA 1321 - Administrative Procedures
Credits: 3 (2 lecture, 3 lab). Medical office procedures including appointment scheduling, medical records creation and maintenance, interpersonal communications, bookkeeping tasks, coding, billing, collecting, third party reimbursement, credit arrangements, and computer use in the medical office. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

MDCA 1343 - Medical Insurance

Credits: 3 (2 lecture, 2 lab). Emphasizes medical office coding procedures for payment and reimbursement by patient or third party payers for ambulatory care settings. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1352 - Medical Assistant Laboratory Procedures
Credits: 3 (2 lecture, 4 lab). Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1372 - Electronic Medical Record Documentation for Scribes

Credits: 3(2 lecture, 3 lab). This course addresses the basics of history and physical documentation in the electronic medical record. Provides practical application utilizing dictation and/or activities developed for the scribe industry in an ambulatory care setting. Topics include fundamentals of the Electronic Medical Record related to billing and coding. The course prepares students for hands-on skills of medical scribing. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1391 - Special Topics in Medical Assisting
Credits: 3 (2 lecture, 3 lab). This course addresses the basics of History, Civilization, and physical documentation in the electronic medical record. Provides practical application utilizing dictation and/ or activities developed for the scribe industry in an ambulatory care setting. Topics include fundamentals of the EMR related to billing and coding. The course prepares students for hands-on skills of medical scribing. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1409 - Anatomy and Physiology for Medical Assistants

Credits: 4 (4 lecture). Emphasis on normal human anatomy and physiology of cells, tissues, organs, and systems with overview of common pathophysiology. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1417 - Procedures in a Clinical Setting

Credits: 4 (3 lecture, 3 lab). Emphasis on patient-centered assessment, examination, and treatment as directed by physician. Includes vital signs, collection and documentation of patient information, asepsis, office clinical procedures, and other treatments as appropriate for the ambulatory care settings. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1448 - Pharmacology and Administration of Medications

Credits: 4 (2 lecture, 4 lab). Instruction in concepts and application of pharmacological principles. Focuses on drug classifications, principles and procedures of medication administration, mathematical systems and conversions, calculation of drug problems, and medico-legal responsibilities of the medical assistant. Prerequisite: Must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MDCA 1471 - Ambulatory Care and Emergency Procedures

Credits: 4 (3 lecture, 2 lab). An introduction to Basic Health Profession skills including, CPR, OSHA safety guidelines, universal health precautions; emergency preparedness and response to basic medical emergencies; perform client monitoring skills; and document health care. Prerequisite: Prerequisite: Department Approval; must be placed into college-level reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

METL 1301 - Introduction to Metallurgy

Credits: 3 (3 lecture). A study of refining mechanical and physical properties of ferrous and nonferrous materials including: the theory of alloys, heat treatment, and testing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 1313 - Introduction to Corrosion

Credits: 3 (3 lecture). An introduction to internal, external, and atmospheric corrosion including terminology, causes of common problems in industry, and generic remedies such as cathodic protection, protective coatings, material selection, and chemical treatments. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

Description of Courses

METL 2405 - Atmospheric Corrosion Control
Credits: 4 (3 lecture, 3 lab). An in-depth study of atmospheric corrosion control by coatings which includes surface preparation, coating selection, coating application, inspection, and failure analysis. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

METL 2441 - Cathodic Protection
Credits: 4 (3 lecture, 3 lab). An in-depth study of corrosion control of buried or submerged metallic structures utilizing both impressed and galvanic cathodic protection systems. Emphasis on regulatory compliance for pipelines and underground storage tanks. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

MLAB 1101 - Introduction to Clinical Laboratory Science
Credits: 1 (1 lecture, 1 lab). Introduction to medical laboratory science, structure, equipment, and philosophy. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 1127 - Coagulation
Credits: 2 (1 lecture, 4 lab). A course in coagulation theory, procedures, and practical applications. Includes laboratory exercises which rely on commonly performed manual and semiautomatic methods. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 1166 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

MLAB 1167 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

MLAB 1211 - Urinalysis and Body Fluids
Credits: 2 (1 lecture, 4 lab). An introduction to urinalysis and body fluid analysis, including the anatomy and physiology of the kidney, and physical, chemical and microscopic examination of urine, cerebrospinal fluid, and other body fluids.. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 1231 - Parasitology/Mycology
Credits: 2 (1 lecture, 4 lab). A study of the taxonomy, morphology, and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 1235 - Immunology/Serology
Credits: 2 (1 lecture, 4 lab). An introduction to the theory and application of basic immunology, including the immune response, principles of antigen-antibody reactions, and the principles of serological procedures. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 1266 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

MLAB 1267 - Practicum (or Field Experience) - Clinical/Medical Laboratory Technician
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

MLAB 1270 - Hematology I
Credits: 2 (1 lecture, 4 lab). Introduction to the theory and practical application of routine and special hematology procedures, both manual and automated, red blood cells and white blood cells maturation sequences, and normal and abnormal morphology and associated diseases. This course is the first part of a two-part course and concentrates on red cell disorders. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 1271 - Hematology II
Credits: 2 (1 lecture, 4 lab). Introduction to the theory and practical application of routine and special hematology procedures, both manual and automated, red blood cells and white blood cells maturation sequences, and normal and abnormal morphology and associated diseases. This course is the first part of a two-part course and concentrates on white blood cell disorders. Prerequisite: MLAB 1270; must be placed into college-level reading, writing and math.

Description of Courses

MLAB 1371 - Registry Review

Credits: 3 (3 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2232 - Seminar in Medical Laboratory Technology

Credits: 2 (4 lab). Designed to reinforce didactic information with laboratory methodologies and to allow exploration of advanced techniques in medical laboratory technology Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2238 - Advanced Topics in Medical Laboratory Technician/Assistant

Credits: 2 (1 lecture, 2 lab). This course examines the integration of all areas of the clinical laboratory and correlates laboratory test data with diagnostic applications and pathophysiology using critical thinking skills. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2264 - Practicum V (or Field Experience) - Clinical / Medical Laboratory Technician

Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: Department Approval; must be placed into college-level reading, writing and math.

MLAB 2270 - Clinical Chemistry I

Credits: 2 (1 lecture, 4 lab). An introduction to the principles and procedures of various tests performed in Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid-base balance, proteins, carbohydrates, lipids and NPNs. Prerequisite: Must be placed into college-level reading, writing and math.

MLAB 2271 - Clinical Chemistry II

Credits: 2 (1 lecture, 4 lab). An introduction to the principles and procedures of various tests performed in Clinical Chemistry. Presents the physiological basis for the test, the principle and procedure for the test, and the clinical significance of the test results, including quality control and normal values. Also includes basic chemical laboratory technique, chemical laboratory safety, electrolytes and acid-base balance, enzymes, cardiac, pancreatic, and liver function, vitamins and endocrinology. Prerequisite: MLAB 2270; must be placed into college-level reading, writing and math.

MLAB 2331 - Immunohematology

Credits: 3 (2 Lecture, 4 lab). A study of blood antigens and antibodies. Performance of routine blood banking procedures, including blood group and Rh typing, antibody screens, antibody identification, cross matching, elution, and absorption techniques. Presents quality control, basic laboratory technique and safety. Includes the principles, procedures and clinical significance of test results in genetics, blood group systems, pre-transfusion testing, adverse effects of transfusions, donor selection and components, and hemolytic disease of the newborn. Prerequisite: MLAB 1235; must be placed into college-level reading, writing and math.

MLAB 2434 - (Clinical) Microbiology

Credits: 4 (3 lecture, 4 lab). Instruction in the theory, practical application, and pathogenesis of clinical microbiology, including collection, setup, identification, susceptibility testing, and reporting procedures. Prerequisite: BIOL 2120 and BIOL 2320; must be placed into college-level reading, writing and math.

MLSC 1210 - Military Leadership I

Credits: 2 (2 lecture). Open to all students. No military commitment is required. Principles of effective leadership; reinforcement of self-confidence through participation in physically and mentally challenging training with upper division ROTC students; development of communication skills to improve individual performance and group interaction. Relate ethical values to the effectiveness of leadership. Survival skills and self-defense. Cooperative program with the University of Houston Army ROTC department. Prerequisite: Prerequisite: Contact UH Army ROTC

MLSC 1220 - Military Leadership II

Credits: 2 (2 lecture). Continuation of MLSC 1210. Cooperative program with the University of Houston Army ROTC department. Prerequisite: Prerequisite: MLSC 1210

Description of Courses

MLSC 2210 - Military Leadership Development I
Credits: 2 (2 lecture). Characteristics of leadership, problem analysis, decision making, oral presentations, first aid, small unit tactics, land navigation, basic radio communication, marksmanship, fitness training, rappelling. Fitness training required three times per week in addition to class and lab. Cooperative program with the University of Houston Army ROTC department.
Prerequisite: Prerequisite: MLSC 1220

MLSC 2220 - Military Leadership Development II
Credits: 2 (2 lecture). Continuation of MLSC 2210. Cooperative program with the University of Houston Army ROTC department. Prerequisite: Prerequisite: MLSC 2210

MRKG 1302 - Principles of Retailing
Credits: 3 (3 lecture). Introduction to the retailing environment and its relationship to consumer demographics, trends, and traditional/nontraditional retailing markets. The employment of retailing techniques and the factors that influence modern retailing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1311 - Principles of Marketing
Credits: 3 (3 lecture). Introduction to the marketing functions: identification of consumer and organizational needs; explanation of economic, psychological, sociological, and global issues; and description and analysis of the importance of marketing research. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1313 - Public Relations
Credits: 3 (3 lecture). Exploration of theories, techniques, and processes of public relations including means of influencing methods of building good will, analysis of media, obtaining publicity, and implementation of public relations programs. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1370 - Enterprise Mindset
Credits: 3 (3 lecture). Enterprise Skills provides an overview of the crucial skills needed for individuals to excel at developing both for profit and not-for profit (social) enterprise ventures. All the pertinent skills will be covered, including action oriented activities to provide students with skills necessary to succeed. Topics will include: creativity, experimentation, risk-taking, self-reliance, character, self-leadership, growth mindset, action orientation, persistence, resourcefulness, collaboration and empathy. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 1391 - Special Topics in Business Marketing and Marketing Management
Credits: 3 (3 lecture). Sports and Entertainment Marketing introduces the basic principles of marketing, economic impact, the History, Civilization, of sports and entertainment, careers, as well as legal and business risks involved in the industry. Students will also learn characteristics and buying behaviors of sports consumers as well as entertainment consumers Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2312 - e-Commerce Marketing
Credits: 3. Explore electronic tools utilized in marketing; focus on marketing communications in developing customer relationships.

MRKG 2333 - Principles of Selling
Credits: 3 (3 lecture). Overview of the selling process. Identification of the elements of the communication process between buyers and sellers. Examination of the legal and ethical issues of organizations which affect salespeople. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2348 - Marketing Research and Strategies
Credits: 3 (3 lecture). A simulated marketing environment for experience in marketing decision-making. Provides practical experiences in analyzing marketing cases. Includes dynamic interrelationships among marketing price, channels of distribution, promotion, and product responsibility. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

MRKG 2349 - Advertising and Sales Promotion
Credits: 3 (3 lecture). Integrated marketing communications. Includes advertising principles and practices. Emphasizes multi-media of persuasive communication including buyer behavior, budgeting, and regulatory constraints. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2370 - Creativity and Innovation
Credits: 3 (3 lecture). Creativity and Innovation will introduce the concepts of creativity and how those concepts spur innovation and the economy. Processes for the development of individual and organizational creativity will be covered as well as importance of innovation in economic communities, strategies for systematic development of innovative products/services/ideas, and topics related to using innovation in marketing to create demand, drive growth and build new industries. Prerequisite: MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2371 - Services Marketing
Credits: 3 (3 lecture). An analysis of the principles, methods and problems of marketing for both professional and consumer services. A study of competition, customer service, services design, pricing, services promotion and distribution strategies. Prerequisite: Prerequisite: MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2372 - Consumer Behavior
Credits: 3 (3 lecture). A study of buyer motives, reference groups, social class, culture, and family and social interrelationships are examined. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2373 - Services Promotion
Credits: 3 (3 lecture). Principles and practices of services promotion including public relations, image advertising, proposal writings, sales presentation design, media planning, public relations campaign planning, lobbying, crisis management, positioning, services selling and event planning are discussed. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2374 - Marketing Case Studies
Credits: 3 (3 lecture). A study of marketing problems and challenges through the use of case histories and actual marketing situations involving advertising, prices, distribution, product selection, client or consumer behavior, marketing training, market segmentation and international marketing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2375 - Social Enterprise
Credits: 3 (3 lecture). Social Enterprise is a comprehensive overview of the important aspects of enterprise as related to social needs and the development of not-for-profit organizations. Topics will include: the development of enterprise skills related to the creation of not-for profit social organizations such as fund-raising, public affairs, analyses of social needs (market assessment for social interests); organizational planning, marketing and leadership for the social organization, building community support, social media strategy and other topics related to not-for-profit social organizations. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2376 - Enterprise Opportunity Analysis
Credits: 3 (3 lecture). A comprehensive overview of all aspects of opportunity analysis, including how to differentiate a good idea from a lucrative idea, how to analyze current and future markets for products/services, how to develop marketing and operations strategies based on the analyses. The course will culminate in an Enterprise Plan (similar to a business plan, but with more emphasis on analysis for innovation, strategies for taking action and being flexible as the market changes. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2377 - Financial Management/Budgeting for Enterprise Marketing
Credits: 3 (3 lecture). Financial Management/Budgeting for Enterprise Marketing provides a comprehensive overview of the budgeting needs and processes of financial management that relate specifically to marketing the start-up enterprise (profit or not-for-profit). Enterprises have different financial needs and issues related directly to the development of innovation. This course will teach the students how to market and manage an enterprise with little or no funds, as well as options for obtaining capital with which to launch new ventures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

MRKG 2378 - Franchises

Credits: 3 (3 lecture). Franchising is a comprehensive course that explores all aspects of utilizing the franchise model for developing a new venture. The pros and cons of the franchising model are explored. The financial requirements and risks, the legal pitfalls and obligations of franchises, and the process for expanding into franchises (for both franchisee and franchisor) are explored. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2380 - Cooperative Education - Marketing /Marketing Management, General

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval and MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRKG 2381 - Cooperative Education - Business Marketing / Marketing Management

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval and MRKG 1311; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MRMT 1307 - Medical Transcription I

Credits: 3 (2 lecture, 3 lab). Fundamentals of medical transcription with hands-on experience in transcribing physician dictation including basic reports such as History, Civilization, and physicals, discharge summaries, consultations, operative reports, and other medical reports. Utilizes transcribing and information processing equipment compatible with industry standards. Designed to develop speed and accuracy. Prerequisite: MDCA 1313, POFT 1329; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUAP 1169 - Piano

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1181 - Improvisation I

Credits: 1 (0 lecture, 3 lab). Private applied lessons (MUAP) are designed to foster development of skills in music performance. Private lessons are for students who wish to complete an AA Music degree, and for students who wish to transfer to a four-year institution. Enrollment in the corresponding MUAP Studio class is required. Permission numbers for lessons and studio are required to register. A one-time fee will be required for private lessons each semester. A minimum number of weekly practice hours will be required. A final performance judged by a panel of instructors is required. Students must provide their own instruments except piano, organ, and percussion.

MUAP 1182 - Improvisation II

Credits: 1 (0 lecture, 3 lab). Private applied lessons (MUAP) are designed to foster development of skills in music performance. Private lessons are for students who wish to complete an AA Music degree, and for students who wish to transfer to a four-year institution. Enrollment in the corresponding MUAP Studio class is required. Permission numbers for lessons and studio are required to register. A one-time fee will be required for private lessons each semester. A minimum number of weekly practice hours will be required. A final performance judged by a panel of instructors is required. Students must provide their own instruments except piano, organ, and percussion.

Description of Courses

MUAP 1201 - Violin

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1213 - Strings / Bass

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1217 - Flute / Piccolo

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1233 - Saxophone

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1237 - Trumpet / Cornet

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1245 - Trombone

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

Description of Courses

MUAP 1257 - Percussion

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1261 - Guitar

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1265 - Organ

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1281 - Voice

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1285 - Improvisation

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 1289 - Special Topics : Keyboard

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

Description of Courses

MUAP 1292 - Arranging & Composition

Credits: 2. For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture).

MUAP 2149 - Euphonium/Baritone Horn III

Credits: 1 (1 lecture). Half hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate major(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn one credit (1 lecture), hour lessons earn two credits (2 lecture).

MUAP 2181 - Improvisation III

Credits: 1 (0 lecture, 3 lab). Private applied lessons (MUAP) are designed to foster development of skills in music performance. Private lessons are for students who wish to complete an AA Music degree, and for students who wish to transfer to a four-year institution. Enrollment in the corresponding MUAP Studio class is required. Permission numbers for lessons and studio are required to register. A one-time fee will be required for private lessons each semester. A minimum number of weekly practice hours will be required. A final performance judged by a panel of instructors is required. Students must provide their own instruments except piano, organ, and percussion.

MUAP 2182 - Improvisation IV

Credits: 1 (0 lecture, 3 lab). Private applied lessons (MUAP) are designed to foster development of skills in music performance. Private lessons are for students who wish to complete an AA Music degree, and for students who wish to transfer to a four-year institution. Enrollment in the corresponding MUAP Studio class is required. Permission numbers for lessons and studio are required to register. A one-time fee will be required for private lessons each semester. A minimum number of weekly practice hours will be required. A final performance judged by a panel of instructors is required. Students must provide their own instruments except piano, organ, and percussion.

MUAP 2209 - Cello

Credits: 2. For Courses Numbered 21xx, 22xx, these are Sophomore level, one-half hour and one-hour lessons per week respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture). See list MUAP 1101, 1201, 2101, 2201. Violin. MUAP 1105, 1205, 2105, 2205. Viola. MUAP 1109, 1209, 2109, 2209. Cello. MUAP 1113, 1213, 2113, 2213. Bass. MUAP 1115, 1215, 2115, 2215. Electric Bass. MUAP 1117, 1217, 2117, 2217. Flute/Piccolo. MUAP 1121, 1221, 2121, 2221. Oboe, English Horn. MUAP 1125, 1225, 2125, 2225. Bassoon. MUAP 1129, 1229, 2129, 2229. Clarinet. MUAP 1133, 1233, 2133, 2233. Saxophone. MUAP 1137, 1237, 2137, 2237. Trumpet/Coronet. MUAP 1141, 1241, 2141, 2241. French Horn. MUAP 1145, 1245, 2145, 2245. Trombone. MUAP 1149, 1249, 2149, 2249. Euphonium/Baritone. MUAP 1153, 1253, 2153, 2253. Tuba. MUAP 1157, 1257, 2157, 2257. Percussion. MUAP 1161, 1261, 2161, 2261. Guitar MUAP 1165, 1265, 2165, 2265. Organ. MUAP 1169, 1269, 2169, 2269. Piano. MUAP 1173, 1273, 2173, 2273. Electronic Keyboard. MUAP 1177, 1277, 2177, 2277. Harp. MUAP 1181, 1281, 2181, 2281. Voice. MUAP 1185, 1285, 2185, 2285. Improvisation. MUAP 1187, 1287, 2187, 2287. Special Topics - Strings. MUAP 1188, 1288, 2188, 2288. Special Topics - Percussion. MUAP 1189, 1289, 2189, 2289. Special Topics - Keyboard. MUAP 1190, 1290, 2190, 2290. Special Topics - Voice. MUAP 1292, 2292. Arranging and Composition.

Description of Courses

MUAP 2281 - Voice

Credits: 2. For Courses Numbered 21xx, 22xx, these are Sophomore level, one-half hour and one-hour lessons per week respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture). See list MUAP 1101, 1201, 2101, 2201. Violin. MUAP 1105, 1205, 2105, 2205. Viola. MUAP 1109, 1209, 2109, 2209. Cello. MUAP 1113, 1213, 2113, 2213. Bass. MUAP 1115, 1215, 2115, 2215. Electric Bass. MUAP 1117, 1217, 2117, 2217. Flute/Piccolo. MUAP 1121, 1221, 2121, 2221. Oboe, English Horn. MUAP 1125, 1225, 2125, 2225. Bassoon. MUAP 1129, 1229, 2129, 2229. Clarinet. MUAP 1133, 1233, 2133, 2233. Saxophone. MUAP 1137, 1237, 2137, 2237. Trumpet/Coronet. MUAP 1141, 1241, 2141, 2241. French Horn. MUAP 1145, 1245, 2145, 2245. Trombone. MUAP 1149, 1249, 2149, 2249. Euphonium/Baritone. MUAP 1153, 1253, 2153, 2253. Tuba. MUAP 1157, 1257, 2157, 2257. Percussion. MUAP 1161, 1261, 2161, 2261. Guitar MUAP 1165, 1265, 2165, 2265. Organ. MUAP 1169, 1269, 2169, 2269. Piano. MUAP 1173, 1273, 2173, 2273. Electronic Keyboard. MUAP 1177, 1277, 2177, 2277. Harp. MUAP 1181, 1281, 2181, 2281. Voice. MUAP 1185, 1285, 2185, 2285. Improvisation. MUAP 1187, 1287, 2187, 2287. Special Topics - Strings. MUAP 1188, 1288, 2188, 2288. Special Topics - Percussion. MUAP 1189, 1289, 2189, 2289. Special Topics - Keyboard. MUAP 1190, 1290, 2190, 2290 Special Topics - Voice. MUAP 1292, 2292. Arranging and Composition.

MUAP 2285 - Improvisation

Credits: 2. For Courses Numbered 21xx, 22xx, these are Sophomore level, one-half hour and one-hour lessons per week respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided into two 30-minute lessons per week by mutual consent of the student and the instructor. Lessons may be repeated (maximum 7 times in any combination) with permission of the respective department heads and are required of appropriate majors(s). Juries are required. Students provide all instruments but piano and percussion equipment. A MUSI co-requisite is required. Private instruction is offered to music majors only. Half-hour lessons earn 1 credit (1 lecture). Hour lessons earn 2 credits (2 lecture). See list MUAP 1101, 1201, 2101, 2201. Violin. MUAP 1105, 1205, 2105, 2205. Viola. MUAP 1109, 1209, 2109, 2209. Cello. MUAP 1113, 1213, 2113, 2213. Bass. MUAP 1115, 1215, 2115, 2215. Electric Bass. MUAP 1117, 1217, 2117, 2217. Flute/Piccolo. MUAP 1121, 1221, 2121, 2221. Oboe, English Horn. MUAP 1125, 1225, 2125, 2225. Bassoon. MUAP 1129, 1229, 2129, 2229. Clarinet. MUAP 1133, 1233, 2133, 2233. Saxophone. MUAP 1137, 1237, 2137, 2237. Trumpet/Coronet. MUAP 1141, 1241, 2141, 2241. French Horn. MUAP 1145, 1245, 2145, 2245. Trombone. MUAP 1149, 1249, 2149, 2249. Euphonium/Baritone. MUAP 1153, 1253, 2153, 2253. Tuba. MUAP 1157, 1257, 2157, 2257. Percussion. MUAP 1161, 1261, 2161, 2261. Guitar MUAP 1165, 1265, 2165, 2265. Organ. MUAP 1169, 1269, 2169, 2269. Piano. MUAP 1173, 1273, 2173, 2273. Electronic Keyboard. MUAP 1177, 1277, 2177, 2277. Harp. MUAP 1181, 1281, 2181, 2281. Voice. MUAP 1185, 1285, 2185, 2285. Improvisation. MUAP 1187, 1287, 2187, 2287. Special Topics - Strings. MUAP 1188, 1288, 2188, 2288. Special Topics - Percussion. MUAP 1189, 1289, 2189, 2289. Special Topics - Keyboard. MUAP 1190, 1290, 2190, 2290 Special Topics - Voice. MUAP 1292, 2292. Arranging and Composition.

MUEN 1121 - Symphonic Orchestra I

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 1122 - Symphonic Orchestra II

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

Description of Courses

MUEN 1124 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience. A maximum of four credit hours may be earned.

MUEN 1125 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience. A maximum of four credit hours may be earned.

MUEN 1127 - Major Jazz Ensemble I

Credits: 1 (0 lecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 1128 - Major Jazz Ensemble II

Credits: 1 (0 lecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 1130 - Guitar Ensemble I

Credits: 1 (3 lab). This course serves to enhance reading and performance skills through the practice and performance of technical exercises and ensemble pieces written specifically for the guitar.

MUEN 1134 - Small Jazz Ensemble I

Credits: 1 (0 lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 1135 - Small Jazz Ensemble II

Credits: 1 (0 lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 1137 - Chamber Ensemble I

Credits: 1 (0 lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 1138 - Chamber Ensemble II

Credits: 1 (0 lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 1140 - Guitar Ensemble II

Credits: 1 (3 lab). This course serves to enhance reading and performance skills through the practice and performance of technical exercises and ensemble pieces written specifically for the guitar.

MUEN 1154 - Show Choir I

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 1155 - Show Choir II

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 2121 - Symphonic Orchestra III

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 2122 - Symphonic Orchestra IV

Credits: 1 (3 lab). Examples of major instrumental ensembles may include but are not limited to concert band, marching band, collaborative piano, jazz band, and orchestra.

MUEN 2124 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience. A maximum of four credit hours may be earned.

MUEN 2125 - Symphonic Band

Credits: 1 (3 lab). The study of a wide variety of literature for wind, brass and percussion instruments through rehearsal and performance. Open to all students with instrumental music experience. A maximum of four credit hours may be earned.

MUEN 2127 - Major Jazz Ensemble III

Credits: 1 (0 lecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

MUEN 2128 - Major Jazz Ensemble IV

Credits: 1 (0 lecture, 3 lab). Large ensemble specializing in jazz improvisation and performance.

Description of Courses

MUEN 2134 - Small Jazz Ensemble III

Credits: 1 (0 lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 2135 - Small Jazz Ensemble IV

Credits: 1 (0 lecture, 3 lab). Small ensemble specializing in jazz improvisation and performance.

MUEN 2137 - Chamber Ensemble III

Credits: 1 (0 lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 2138 - Chamber Ensemble IV

Credits: 1 (0 lecture, 3 lab). Examples of small instrumental ensembles may include but are not limited to wind, string, percussion, piano, and mixed ensembles in various styles.

MUEN 2154 - Show Choir III

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUEN 2155 - Show Choir IV

Credits: 1 (3 lab). Examples of small vocal ensembles may include but are not limited to show choir, glee club, madrigals, opera/musical theater, commercial, and folk. Open to non-majors. Performances required.

MUSB 1191 - Special Topics in Music Business Management and Merchandising

Credits: 1 (1 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Learning outcomes/objectives are determined by local occupational need, and business and industry trends. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 1305 - Survey of the Music Business

Credits: 3 (3 lecture). An overview of the music industry including song writing, live performance, the record industry, music merchandising, contracts and licenses, and career opportunities. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSB 1341 - Concert Promotion and Venue Management

Credits: 3 (3 lecture, 1 lab). A course in the basics of concert promotion and venue management including considerations in purchasing a club; concert promotion and advertising; talent buying; city codes; insurance; Texas Alcoholic Beverage Commission Regulation; American Society of Composers, Arrangers, and Publishers (ASCAP/BMI) licenses; personnel management; and concert production and administration. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 1391 - Special Topics in Music Business

Credits: 3 (3 lecture). Students will define and implement a music marketing strategy that defines career goals and creates online branding; utilizes various forms of social media to enforce online presence, build fan base and drive sales in the digital environment. Students will also participate in a self directed course of independent study that constitutes one hour per week. Proof of participation will be provided by submissions of blog posts that reflect a meaningful contribution each week. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2301 - Music Marketing

Credits: 3 (3 lecture). A study of the methods of distribution, retailing, and wholesaling. Topics include the basics of purchasing, inventory control, shipping and receiving, returns, pricing and cost analysis, merchandising, retail display, sales promotion, advertising, security and shrinkage, personnel management, and relationships between retailers and distributors. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2305 - Music Publishing

Credits: 3 (3 lecture). A study of the administrative and marketing aspects of music publishing including the application of current copyright law, developing song writers, rights exploration, and royalty collection. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

Description of Courses

MUSB 2309 - The Record Industry
Credits: 3 (3 lecture). Overview of the record industry and the organization of large and small record companies. Emphasizes record company functions such as artist and repertoire (A & R), promotion, marketing, business affairs, and administration and distribution including Internet-based distribution. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2345 - Live Music and Talent Management
Credits: 3 (3 lecture). An examination of the role, scope, and activities of the talent manager including establishing the artist/manager relationship; planning the artist's career; and developing goals, strategies, and tactics with an overall view of the live music business. Prerequisite: MUSB 1305; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2355 - Legal Aspects of the Entertainment Industry
Credits: 3 (3 lecture). Copyright law and the various agreements used in the entertainment industry. Emphasizes contracts used by music publishers, record companies, artist managers, record producers, film and television producers, and booking agencies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2380 - Cooperative Education - Music Business Management and Merchandising
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization are offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 12 hrs. of MUSB and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSB 2381 - Cooperative Education - Music Management
Credits: 3 (1 lecture 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 12 hrs. of MUSB and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: MUSB 1305

MUSC 1249 - Applied Music : Conducting
Credits: 2 (1 lecture, 4 lab). Private lessons in conducting. Development of technique through the practice of basic beat patterns, beginning beats, gesturing, and cueing. Emphasis on score reading and knowledge of musical terminology. Prerequisite: Commercial Music Theory I and II; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1270 - Fundamentals of Music Production
Credits: 2 (1 lecture, 3 lab). An introduction to the art of producing music in the modern recording studio. The focus of the course will be on the process involved in taking a song idea from initial inception to final commercial release. Topics will include appropriate choice of genre, song construction, demoing material, producing charts and lead sheets, digital tempo and rhythmic manipulation, managing musicians during sessions, mixing aesthetics, and final mastering and packaging of a product. Prerequisite: MUSI 1301; MUSC 1427, 1331, grade of C or higher. Frequent Requisites: MATH 1308, GUST 0342, ENGL 0310 or 0349

MUSC 1305 - Live Sound I Credits: 3. An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system.

MUSC 1309 - Conducting Class
Credits: 3 (2 lecture, 2 lab). Introduction to the art of conducting including regular and irregular beat patterns, subdivision, and beat pattern varieties applied to musical literature and practical experience. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

MUSC 1321 - Songwriting I

Credits: 3 (3 lecture). Introduction to techniques of writing marketable songs including the writing of lyrics and melodies, setting lyrics to music, developing lyrical and musical hooks, analyzing the marketplace, and developing a production plan for a song demo.

Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1323 - Audio Electronics

Credits: 3 (2 lecture, 4 lab). Basic concepts in electricity, Ohm's Law, circuit analysis and troubleshooting audio problems. Topics include soldering techniques, audio electronic alignment procedures for tape machines, console maintenance, and sound reinforcement equipment maintenance. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1325 - Acoustics

Credits: 3 (2 lecture, 4 lab). Principles of sound in air, sound in recording, and sound reinforcement. Topics include acoustical properties of studios, live performance facilities, resonance, and electronic and acoustic control. Students will be able to describe specific characteristics of sound in air; describe acoustical properties of halls, rooms, and studios; measure and quantify sound characteristics; and utilize electronic and acoustic control measures. Prerequisite: MUSC 1427 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MUSC 1327 - Audio Engineering I

Credits: 3 (2 lecture, 4 lab). The tools, personnel and standard workflow of a recording studio. Topics include fundamentals of sound and overview of tracking, editing, and mixing audio. Prerequisite: MUSC 1335,

Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1330 - Computer Music Notation I

Credits: 3 (1 lecture, 4 lab). Survey of music notation software and applications with skill development in computer music notation. Prerequisite: Basic computer skills; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1331 - MIDI I

Credits: 3 (2 lecture, 4 lab). An overview of the Musical Instrument Digital Interface (MIDI) system and applications. Topics include the History, Civilization, and evolution of MIDI, hardware requirements, computer numbering systems, channels and modes, the MIDI language, and typical implementation of MIDI applications in the studio environment using software-based sequencing programs. Students are required to attend additional lab hours outside of class. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1335 - Commercial Music Software

Credits: 3 (2 lecture, 4 lab)). Specialized training in commercial music software applications. This course includes integration of computer-based hardware and software with an emphasis on the utilization of DAW (digital audio workstation) technology in the professional studio environment. Prerequisite: Frequent Requisites: MATH 1308, GUST 0342, ENGL 0310 or 0349

MUSC 1350 - Remixing

Credits: 3 (2 lecture, 4 lab). Basic techniques necessary to produce finished remixes of previously recorded musical compositions. Includes using audio and MIDI "beats" and "loops." Prerequisite: MUSC 1331 or Department Approval

MUSC 1396 - Special Topics in Recording Arts Technology / Technician: Advanced Mixing and Mastering in Protools

Credits: 3 (2 lecture, 4 lab). Topics address advanced mixing and mastering concepts within the ProTools digital software environment. Topics include analysis of mixes by genre, use of advanced effects processing to emphasize depth, clarity, and frequency balance, and time-based editing processes such as time stretching. Students will also practice software-based mastering techniques to optimize mixes for various digital distribution methods. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 1405 - Live Sound I

Credits: (3 lecture, 2 lab). An overview of the field of live sound. Includes principles of live sound and the theory and interconnection of the components of a sound reinforcement system. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

MUSC 2141 - Forum/Recital

Credits: 1 (1 lecture). Stylistic analysis of commercial music performances presented by students, faculty, and guest artists. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2201 - Audio Engineering Practices

Credits: 2 (1 lecture, 2 lab). Application of the concepts and techniques presented in Audio Engineering I and II. (May be repeated three times for credit. Students are required to attend additional lab hours outside of class.) Prerequisite: MUSC 2447, RTVB 2232; must be placed into college-level reading, writing and math. Corequisite: MUSC 2448, 2457 or 2458

MUSC 2214 - Improvisation Theory I

Credits: For courses numbered 11xx and 12xx, these are Freshman level, one-half hour lesson and one-hour lessons per week, respectively. Half-hour lessons require six practice hours per week; hour lessons, ten practice hours per week. Hour lessons may be divided in. A study of the chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2230 - Commercial Music Arranging and Composition

Credits: 2 (1 lecture, 4 lab). Presentation of arranging and composition for projects in industry recognized genres including song writing, show writing, video, and film. Prerequisite: MUSC 1321; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2234 - Improvisation Theory II

Credits: 2 (2 lecture, 1 lab). A continuation of the study of chordal structures of jazz, rock, country, and fusion with emphasis on extemporaneous performance. Prerequisite: MUSC 2214; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2249 - Applied Music : Conducting II

Credits: 2 (1 lecture, 4 lab). Advanced private lessons in conducting. Continues development of conducting techniques, score reading abilities, and study of musical terminology. Prerequisite: MUSC 1249; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2319 - Orchestration

Credits: (3 lecture). Exploration of writing for voices and instruments to include ranges, transportation, and idiosyncrasies of each instrument with emphasis on commercial music chord voicings. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2345 - Synthesis II

Credits: 3 (2 lecture, 3 lab). Course emphasizes technology that integrates MIDI sequencing with digital audio. Topics include computer based hard disk recording systems, MIDI machine control, advanced techniques in synthesizer editing, digital transfers of audio data and CD mastering. The student will demonstrate advanced skill in FM and hybrid synthesis techniques; explain and utilize digital sampling; complete projects using advanced synthesis techniques; and edit samples and synthesizer voices. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2350 - Computer Music Notation II

Credits: 3 (1 lecture, 4 lab). Study and practices in music notation software at a professional level, including large score notation. Prerequisite: MUSC 1330; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2355 - MIDI II

Credits: 3 (2 lecture, 4 lab). A continuation of MIDI I with emphasis on advanced sequencer operation, and SMPTE-based synchronization in the interaction of multiple recording and playback systems. Prerequisite: MUSC 1331; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2403 - Live Sound II

Credits: 4 (3 lecture, 3 lab). Overview of stage monitor systems. Includes monitor systems set-up and operation and stage management. Also covers interactivity between sound management, performance quality, and audience experience. Prerequisite: Must be placed into college-level reading, writing and math.

Description of Courses

MUSC 2427 - Audio Engineering II
Credits: 4 (3 lecture, 2 lab). Major topics include the recording process, microphones and placement techniques, audio console operation, multitrack recording and signal processors. Audio software includes Pro Tools and Digital Performer, Spark and Peak audio editors, Toast and Jam CD editors, Acid looping software. Students learn basic tracking techniques, studio set up and break down and participate in 32 hours of recording sessions. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 1427 and MUSC 1331; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2433 - Scoring for Video and Film
Credits: 4 (3 lecture, 3 lab). Advanced concepts of technology to score and synchronize audio with video or film productions. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2447 - Audio Engineering III
Credits: 4 (3 lecture, 2 lab). Advanced practice of procedures and techniques in recording and manipulating audio. Includes digital audio editing, advanced recording techniques, and advanced engineering projects. Prerequisite: MUSC 1270, MUSC 2427, RTVB 1240 and MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSC 2448 - Audio Engineering IV
Credits: 4 (3 lecture, 3 lab). Examination of the role of the producer including recording, mixing, arranging, analyzing projects, session planning, communications, budgeting, business aspects, technical consideration, and music markets. Students are required to attend additional lab hours outside of class. Prerequisite: Must be placed into college-level reading, writing and math.

MUSC 2457 - Audio Engineering V
Credits: 4 (3 lecture, 4 lab). Analysis and practice of the operation of a large format, computer-automated analog mixing console. Includes console's signal flow and operation as they pertain to tracking. Prerequisite: MUSC 2448, 2201, 2355; must be placed into college-level reading, writing and math.

MUSC 2458 - Audio Engineering VI
Credits: 4 (3 lecture, 4 lab). Analysis and practice in the operation of a large format, computer-automated analog mixing console. Includes console's signal flow and operation as they pertain to mixing. Prerequisite: MUSC 2457, 2201; must be placed into college-level reading, writing and math.

MUSI 1116 - Sight Singing & Ear Training I
Credits: 1 (3 lab). Corequisite: MUSI 1311 - Singing tonal music in treble and bass clefs, and aural study of elements of music, such as scales, intervals and chords, and dictation of basic rhythm, melody and diatonic harmony. Required of majors.

MUSI 1117 - Sight Singing & Ear Training II
Credits: 1 (0 lecture, 3 lab). Singing tonal music in various clefs, continued aural study of the elements of music, and dictation of intermediate rhythm, melody and diatonic harmony. Required of majors. Corequisite: MUSI 1312

MUSI 1157 - Opera Workshop
Credits: 1 (3 lab). A study of the synthesis of singing and acting through the performance of opera.

MUSI 1160 - Italian Diction
Credits: 1 (1 lecture, 1 lab). Study of Italian phonetic sounds to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 1161 - International Phonetic Alphabet (IPA) for Singers
Credits: 1 (1 lecture, 1 lab). A study of the International Phonetic Alphabet (IPA) and its application to singing in English, Italian, German, and French.

MUSI 1166 - Instrument Class : Woodwind
Credits: 1 (0 lecture, 3 lab). Class instruction in woodwind instruments. A skills course. May be repeated. Open to all students.

MUSI 1168 - Instrument Class : Brass
Credits: 1 (0 lecture, 3 lab). Class instruction in brass instruments. A skills course. May be repeated. Open to all students.

MUSI 1181 - Piano Class I
Credits: 1 (0 lecture, 3 lab). Class instruction in the fundamentals of keyboard technique for beginning piano students only. A skills course. May be repeated. Required of majors. Open to non-majors. Prerequisite: Prerequisite: MUSI 1101 or Department Approval

Description of Courses

MUSI 1182 - Piano Class II

Credits: 1 (0 lecture, 3 lab). Continuation of MUSI 1181. May be repeated. Required of majors. Open to non-majors.

MUSI 1183 - Voice Class I

Credits: 1 (0 lecture, 3 lab). Class instruction in fundamentals of singing: tone production, breath production, diction and standard music repertoire. Designed for students with little or no previous vocal training.

MUSI 1184 - Voice Class II

Credits: 1 (0 lecture, 3 lab). Continuation of MUSI 1183.

MUSI 1188 - Percussion Class I

Credits: 1 (0 lecture, 3 lab). Class instruction in percussion instruments. A skills course. May be repeated. Open to all students.

MUSI 1190 - Instrument Class : Strings

Credits: 1 (0 lecture, 3 lab). Class instruction in strings. A skills course. May be repeated. Open to all students.

MUSI 1192 - Guitar Class

Credits: 1 (0 lecture, 3 lab). This class is designed to provide students the fundamentals of guitar, aiding them as they learn or improve their reading of music. Consult with instructor concerning instrument availability. A knowledge of music is not required, but helpful. Open to all students.

MUSI 1211 - Music Theory I

Credits: 2 (2 lecture, 1 lab). Basic music theory with emphasis on part writing of figured bass and melody harmonization requiring all diatonic triads, dominant and supertonic seventh chords, and non-harmonic tones. Keyboard study of harmonic progressions and melodic harmonizations requiring diatonic triads. Required of majors. Prerequisite: MUSI 1301 or Department Approval; must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing. Corequisite: Corequisite: MUSI 1216

MUSI 1212 - Music Theory II

Credits: 2 (2 lecture, 1 lab). A continuation of MUSI 1211. Required of majors. Prerequisite: MUSI 1211 or Department Approval; must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing. Corequisite: Corequisite: MUSI 1217

MUSI 1216 - Sight Singing/Ear Training I

Credits: 2 (2 lecture, 1 lab). Singing tonal music in treble, bass, alto and tenor clefs. Aural study (including dictation) of rhythm, melody and diatonic harmony. Prerequisite: MUSI 1171 or Department Approval; must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1217 - Sight Singing/Ear Training II

Credits: 2 (2 lecture, 1 lab). Singing tonal music in treble, bass, alto and tenor clefs. Aural study (including dictation) of rhythm, melody and diatonic harmony. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1223 - Studio Orchestra I

Credits: 2 (1 lecture, 3 lab). Major ensemble performing contemporary styles. Open to all students with consent of director. Performances required.

MUSI 1227 - Community College Band

Credits: 2 (1 lecture, 2 lab). This class is designed for full or part-time students who desire to improve their performance levels on band instruments, observe rehearsal methods and techniques, and learn band organizational strategies. Performance required.

MUSI 1229 - Harp Ensemble

Credits: 2 (1 lecture, 2 lab). This class is designed for full or part-time students who desired to improve their harp ensemble performance levels, observe rehearsal methods and techniques, and learn harp ensemble organizational strategies. Performances required.

MUSI 1254 - Chamber Vocal Ensemble

Credits: 2 (1 lecture, 2 lab). Madrigal or other small vocal ensemble. Open to non-majors. Performances required.

MUSI 1301 - Fundamentals of Music I

Credits: 3 (3 lecture). An introduction to the elements of music, including study of clefs, staff, key signatures, notation, meter, and rhythm, sight singing, major and minor chords, ear training, basic keyboard harmony. Open to all students. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

Description of Courses

MUSI 1306 - Music Appreciation

Credits: 3 (3 lecture). A foundation course in understanding and enjoyment of music through the use of recorded music and song literature. Elements of music and analysis of music form and how they relate to compositional technique are explored. Open to all students. This course satisfies the Creative Arts or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1307 - Music Literature

Credits: 3 (3 lecture). A survey of the styles and forms of music as it developed from the middle ages to the present. This course will familiarize the student with cultural context, terminology, genres, and notation.

This course satisfies the Creative Arts or Component Area Option of the HCC Core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1310 - American Music

Credits: 3 (3 lecture). General survey of various styles of music in America. Topics may include jazz, ragtime, folk, rock, and contemporary art music. This course satisfies the Creative Arts or Component Area Option of the HCC Core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 1311 - Music Theory I

Credits: 3 (3 lecture). The study of analysis and writing of tonal melody and diatonic harmony, including fundamental music concepts, scales, intervals, chords, 7th chords, and early four-part writing. Analysis of small compositional forms. Required of majors. Corequisite: MUSI 1116

MUSI 1312 - Music Theory II

Credits: 3 (3 lecture). The study of analysis and writing of tonal melody and diatonic harmony, including all diatonic chords and seventh chords in root position and inversions, non-chord tones, and functional harmony. Introduction to

more complex topics, such as modulation, may occur. Required of majors. Corequisite: MUSI 1117

MUSI 2116 - Sight Singing & Ear Training III

Credits: 1 (3 lab). Singing more difficult tonal music in various clefs, aural study including dictation of more complex rhythm, melody, chromatic harmony, and extended tertian structures. Required of majors. Corequisite: MUSI 2311

MUSI 2117 - Sight Singing & Ear Training IV

Credits: 1 (3 lab). Singing advanced tonal music and introduction of modal and post-tonal melodies. Aural study including dictation of advanced rhythm, melody, and harmony. Required of majors. Corequisite: MUSI 2312

MUSI 2139 - Chamber Music II

Credits: 1 (0 lecture, 3 lab). Small ensemble concentrating on chamber music. May be repeated for credit. Prerequisite: Prerequisite: MUSI 1139 or Department Approval

MUSI 2160 - German Diction

Credits: 1 (1 lecture, 1 lab). Study of phonetic sounds of German to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 2161 - French Diction

Credits: 1 (1 lecture, 1 lab). Study of phonetic sounds of French to promote ability to sing the language. Open to all vocal students. May be repeated.

MUSI 2181 - Piano Class III

Credits: 1 (0 lecture, 3 lab). Continuation of MUSI 1182. May be repeated. Required of majors. Open to non-majors.

MUSI 2182 - Piano Class IV

Credits: 1 (0 lecture, 3 lab). Continuation of MUSI 2181. May be repeated. Required of majors. Open to non-majors.

MUSI 2211 - Music Theory III

Credits: 3 (2 lecture, 1 lab). Emphasis on part-writing, figured bass, and melody harmonization and compositional techniques using all diatonic chords, modulations, instrumental and choral styles, two- and three-part forms. Keyboard study of harmonic progressions, melody harmonizations and modulations to closely related keys. Required of majors. Prerequisite: MUSI 1212 or Department Approval Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing. Corequisite: Corequisite: MUSI 2216

Description of Courses

MUSI 2212 - Music Theory IV

Credits: 3 (2 lecture, 1 lab). Continuation of MUSI 2211. Required of majors. Prerequisite: MUSI 2211 or Department Approval Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing. Corequisite: Corequisite: MUSI 2217

MUSI 2216 - Sight Singing/Ear Training III

Credits: 1 (2 lecture, 1 lab). Singing more difficult tonal music, including modal, ethnic and 20th century materials. Drills in sight-singing and ear training. Aural study (including dictation) of more complex rhythm, melody, chromatic harmony and extending tertian structures. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 2217 - Sight Singing/Ear Training IV

Credits: 1 (2 lecture, 1 lab). Singing more difficult tonal music, including modal ethnic and 20th century materials. Drills in sight-singing and ear training. Aural study (including dictation) of more complex rhythm, melody, chromatic harmony and extended tertian structures. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and be placed into MATH 0308 (or higher) and be placed into ENGL 0310/0349 (or higher) in writing.

MUSI 2258 - Opera Workshop

Credits: 2 (1 lecture, 2 lab). Designed to provide young singers practical operatic experience in the entire operas or operatic excerpts. May fulfill ensemble requirement for degree. May be repeated. Performance required. Prerequisite: Audition or Department Approval.

MUSI 2311 - Music Theory III

Credits: 3 (3 lecture). Advanced harmony voice leading, score analysis and writing of more advanced tonal harmony including chromaticism and extended-tertian structures. Required of majors. Corequisite: MUSI 2116

MUSI 2312 - Music Theory IV

Credits: 3 (3 lecture). Continuation of advanced chromaticism and survey of analytical and compositional procedures in post-tonal music. Required of majors. Corequisite: MUSI 2117

MUSP 1201 - Applied Commercial Music : Arranging and Composition

Credits: 2 (1 lecture, 4 lab). Private instruction in arranging and composition with goals related to jazz or commercial music. The student will demonstrate proficiency in commercial music repertoire and technique; develop a professional, disciplined approach to performance skills; and present a juried performance for faculty. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1203 - Applied Commercial Music : Acoustic Bass

Credits: 2 (1 lecture, 4 lab). Private instruction in acoustic bass with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1204 - Applied Commercial Music : Bass Guitar

Credits: 2 (1 lecture, 4 lab). Private instruction in bass guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1205 - Applied Commercial Music : Commercial Guitar

Credits: 2 (1 lecture, 4 lab). Private instruction in commercial guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1206 - Applied Commercial Music : Dobro Guitar

Credits: 2 (1 lecture, 4 lab). Private instruction in Dobro guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1207 - Applied Commercial Music : Electric Guitar

Credits: 2 (1 lecture, 4 lab). Private instruction in electric guitar with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1210 - Applied Commercial Music : Piano

Credits: 2 (1 lecture, 4 lab). Private instruction in piano with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

MUSP 1211 - Applied Commercial Music : Fiddle
Credits: 2 (1 lecture, 4 lab). Private instruction in fiddle with goals related to jazz or commercial music.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1215 - Applied Commercial Music : Mandolin
Credits: 2 (1 lecture, 4 lab). Private instruction in mandolin with goals related to jazz or commercial music.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1217 - Applied Commercial Music : Percussion
Credits: 2 (1 lecture, 4 lab). Private instruction in percussion with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1221 - Applied Commercial Music : Steel Guitar
Credits: 2 (1 lecture, 4 lab). Private instruction in steel guitar with goals related to jazz or commercial music.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

MUSP 1223 - Applied Commercial Music : Synthesizer
Credits: 2 (1 lecture, 4 lab). Private instruction in the synthesizer with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1225 - Applied Commercial Music : Trumpet
Credits: 2 (1 lecture, 4 lab). Private instruction in the trumpet with goals related to jazz or commercial music.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1227 - Applied Commercial Music : Voice
Credits: 2 (1 lecture, 4 lab). Private instruction in voice with goals related to jazz or commercial music.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1240 - Large Commercial Music Ensemble : Band
Credits: 2 (1 lecture, 2 lab). Participation in a large band concentrating on commercial music performance styles.
Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1241 - Large Commercial Music Ensemble : Symphony Orchestra
Credits: 2 (1 lecture, 2 lab). Participation in a large symphony orchestra concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1242 - Small Commercial Music Ensemble
Credits: 2 (1 lecture, 2 lab). Participation in a small commercial music ensemble concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1250 - Small Commercial Music Ensemble : Jazz
Credits: 2 (1 lecture, 2 lab). Participation in a jazz ensemble concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1255 - Small Commercial Music Ensemble : Studio Orchestra
Credits: 2 (1 lecture, 2 lab). Participation in a studio orchestra concentrating on commercial music performance styles. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 1292 - Special Topics in Music - Piano and Organ Performance
Credits: 2 (1 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 1293 - Special Topics in Music - Voice and Choral I /Opera Performance
Credits: 2 (1 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

Description of Courses

MUSP 1308 - Music Theater I

Credits: 3 (1 lecture, 8 lab). Presentation of literature from the musical theater including operetta, revues, and musical comedy with emphasis on vocal and movement skills. Prerequisite: Department Approval; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

MUSP 2203 - Commercial Class Piano

Credits: 2 (2 lecture, 1 lab). Development of keyboard skills for commercial music majors including blues progressions and scales, model harmony, and extensive use of the ii-V7-I progression with appropriate keyboard voicing. Prerequisite: Prerequisite: college-level piano skills Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2206 - Commercial Vocal Ensemble : General

Credits: 2 (1 lecture, 2 lab). Participation in a vocal ensemble concentrating on commercial vocal music performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2207 - Commercial Vocal Ensemble : Jazz

Credits: 2 (1 lecture, 2 lab). Participation in a vocal ensemble concentrating on commercial vocal jazz performance styles. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2231 - Applied Commercial Music : Arranging and Composition

Credits: 2 (1 lecture, 4 lab). Private instruction in arranging and composition with goals related to jazz or commercial music. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2304 - Piano Studio I

Credits: 3 (3 lecture, 1 lab). Presentation of keyboard, theoretical, and aural instructional strategies. Survey of beginning methods; series, solo, and technique books; basic techniques of improvisation, and professional affiliations. Prerequisite: Prerequisite: college-level piano performance Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2308 - Opera Workshop I

Credits: 3 (1 lecture, 8 lab). Skill development in staged performances of operatic literature for singers. Prerequisite: MUSP 1227; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2338 - Music Theater II

Credits: 3 (1 lecture, 8 lab). Advanced presentation of literature from the musical theater including operetta, revues, and/or musical comedy with emphasis on high level vocal and movement skills and an advanced leadership role in a production. Prerequisite: MUSP 1308; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2339 - Opera Workshop II

Credits: 3 (1 lecture, 8 lab). Advanced skill development in staged performances of operatic literature for singers including the leadership role. Prerequisite: MUSC 2308; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

MUSP 2344 - Piano Studio II

Credits: 3 (3 lecture, 1 lab). A course in advanced keyboard, theoretical, and aural instructional strategies. Survey of intermediate to advanced methods; series, solo and technique books; techniques of improvisation; professional affiliations; and piano studio operations. Emphasis on style and performance. Prerequisite: MUSC 2304; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

NDTE 1305 - Introduction to Ultrasonics

Credits: 3 (2 lecture, 4 lab). Basic theory and applications of the ultrasonic techniques of materials testing covering the theoretical material from the certification test for Ultrasonic Level I American Society of Non-Destructive Testing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL1310 in writing and MATH 0312 in math.

NMTT 1166 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist

Credits: 2 (10 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: Department Approval; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1211 - Nuclear Medicine Patient Care

Credits: 2 (1 lecture, 4 lab). Introduction to medical terminology, health care ethics and legal issues, communication and patient interaction skills, patient assessment, and procedures involving transport, infection control, emergency, safety, phlebotomy and injections. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

Description of Courses

NMTT 1267 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist
Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 1266; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1301 - Introduction to Nuclear Medicine
Credits: 3 (2 lecture, 4 lab). Introduction to the field of nuclear medicine with emphasis on the principles of radiation safety, health physics, ethics, and the various studies performed in a nuclear medicine area.
Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 1409 - Nuclear Medicine Instrumentation
Credits: 4 (3 lecture, 4 lab). Application of instrumentation used in the measurement and analysis of ionizing radiation with emphasis on gamma spectrometry and quality assurance. Prerequisite: SCIT 1420, Admission to program; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2167 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist
Credits: 1 (10 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 1267; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2201 - Radiochemistry and Radiopharmacy
Credits: 2 (1 lecture, 4 lab). Basic concepts of radiochemistry and radiopharmacy including the atomic structure, radioactive decay, and production of various radionuclides. Emphasis on radiopharmaceuticals and their ideal characteristics, biodistribution, and clinical applications; the various dosage forms in which they may be dispensed; quality control tests; and their formation and dispensing. Prerequisite: CHEM 1405, NMTT 1409; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2266 - Practicum (or Field Experience) - Nuclear Medicine Technology/Technologist
Credits: 2 (20 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 2167; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2309 - Nuclear Medicine Methodology I
Credits: 3 (2 lecture, 4 lab). Principles and practices involved in nuclear medicine regarding cardiovascular, genitourinary, respiratory systems, and miscellaneous procedures. Emphasizes patient care, anatomy, physiology, radiopharmaceuticals, instrumentation, data processing and analysis, and diagnostic value.
Prerequisite: NMTT 1409, BIOL 2401, BIOL 2402; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2333 - Advanced Positron Emission Tomography (PET) and Fusion Technology
Credits: 3 (3 lecture). Advance study in the field of positron emission tomography and fusion technology
Prerequisite: NMTT 1409; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2335 - Nuclear Medicine Technology Seminar
Credits: 3 (2 lecture, 2 lab). A capstone course focusing on the synthesis of professional knowledge, skills and attitudes in preparation for professional employment and lifelong learning. Prerequisite: All NMTT courses; must be placed into college-level reading, college-level writing and MATH 1314 in math. Corequisite: Corequisite: NMTT 2267

NMTT 2367 - Practicum (or Field Experience) V - Nuclear Medical Technology/Technologist
Credits: 2 (20 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: NMTT 2266; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NMTT 2413 - Nuclear Medicine Methodology II
Credits: 4 (2 lecture, 6 lab). Principles and practices involved in nuclear medicine regarding gastrointestinal, central nervous system, skeletal system, tumor and inflammation processes and miscellaneous procedures. Emphasizes patient care, anatomy, physiology, pathology, radiopharmaceuticals, instrumentation, data processing and analysis, and diagnostic values.
Prerequisite: NMTT 1409, BIOL 2401, BIOL 2402; must be placed into college-level reading, college-level writing and MATH 1314 in math.

NUPC 1320 - Patient Care Technician/Assistant
Credits: 3 (3 lecture, 3 lab). A course designed to provide the student with the necessary training, skills, and knowledge needed to gain employment as a Patient Care Technician in a hospital setting. Prerequisite: Must be placed into college-level reading, writing and math.

Description of Courses

OSHT 1301 - Introduction to Safety and Health
Credits: 3 (3 lecture). An introduction to the basic concepts of safety and health. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

OTHA 1161 - Clinical - Occupational Therapist Assistant
Credits: 1 (3 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312.

OTHA 1162 - Clinical - Occupational Therapist Assistant
Credits: 1 (3 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1201 - Introduction to Occupational Therapy
Credits: 2 (2 lecture, 2 lab). Introduction to the historical development and philosophy of the profession of occupational therapy. Emphasis on the roles and functions of the occupational therapy assistant in current health care environments including moral, legal, and ethical issues. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1241 - Occupational Performance from Birth through Adolescence
Credits: 2 (2 lecture, 3 lab). Occupational performance of newborns through adolescents. Includes frames of reference, evaluation tools and techniques, and intervention strategies.

OTHA 1253 - Occupational Performance for Elders
Credits: 2 (2 lecture, 3 lab). Occupational performance of elders. Includes frames of reference, evaluation tools and techniques, and intervention strategies.

OTHA 1305 - Principles of Occupational Therapy
Credits: 3 (2 lecture, 4 lab). Introduction to occupational therapy including the historical development and philosophy. Emphasis on the roles of the occupational therapy assistant. Topics include occupation in daily life; education and functions; occupational therapy personnel; current health care environment; and moral, legal and ethical issues. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1309 - Human Structure and Function in Occupational Therapy
Credits: 3 (2 lecture, 4 lab). Study of biomechanics of human motion. Emphasis on the musculoskeletal system including skeletal structure, muscles and nerves, and biomechanical assessment procedures. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1311 - Occupational Performance Throughout the Lifespan
Credits: 3 (3 lecture, 1 lab). General principles of occupational performance throughout the lifespan. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1315 - Therapeutic Use of Occupations or Activities I
Credits: 3 (2 lecture, 4 lab). Various occupations or activities used as therapeutic interventions in occupational therapy. Emphasis on awareness of activity demands, contexts, adapting, grading, and safe implementation of occupations or activities. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 1319 - Therapeutic Interventions I
Credits: 3 (2 lecture, 4 lab). Concepts, techniques, and assessments leading to proficiency in skills and activities used as treatment interventions in occupational therapy (OT). Emphasizes the Occupational Therapy Assistant's role in the OT process. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2209 - Mental Health in Occupational Therapy
Credits: 2 (2 lecture, 3 lab). Promotion of mental health through occupational therapy. Emphasis on theory and intervention strategies to enhance occupational performance. Prerequisite: OTHA 1311, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

Description of Courses

OTHA 2266 – Practicum (or Field Experience) – Occupational Therapy Assistant
Credits: 2 (20 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All OTHA first and second semester courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2267 Practicum (or Field Experience) – Occupational Therapy Assistant
Credits: 2 (20 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: All OTHA first and second semester courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2301 - Pathophysiology in Occupational Therapy
Credits: 3 (3 lecture, 1 lab). Pathology and general health management of diseases and injuries across the lifespan encountered in occupational therapy treatment settings. Includes etiology, symptoms, and the client's physical and psychological reactions to disease and injury. Prerequisite: OTHA 1305, OTHA 1309, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2302 - Therapeutic Use of Occupations or Activities II
Credits: 3 (2 lecture, 4 lab). Continuation of OTHA 1315/1415: Therapeutic Use of Occupations or Activities I. Emphasis on advanced techniques and applications used in traditional and non-traditional practice settings. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2305 - Therapeutic Interventions II
Credits: 3 (2 lecture, 4 lab). Continuation of Therapeutic Interventions I. Emphasis on current rehabilitative interventions. Prerequisite: All first semester OTHA courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2311 - Abnormal Psychology in Occupational Therapy
Credits: 3 (3 lecture, 1 lab). Fundamental principles and techniques of psychological diagnosis with emphasis on mental health issues including theories, etiology, and treatment intervention. Prerequisite: OTHA 1311, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2330 - Workplace Skills for the Occupational Therapy Assistant
Credits: 3 (3 lecture). Seminar-based course designed to complement Level II fieldwork by creating a discussion forum addressing events, skills, knowledge, and/or behaviors related to the practice environment. Application of didactic coursework to the clinic and test-taking strategies for certification exams. Prerequisite: All OTHA courses - simultaneous with Clinical II courses; must be placed into college-level reading, college-level writing and MATH 0312 in math.

OTHA 2331 - Physical Function in Occupational Therapy
Credits: 3 (2 lecture, 4 lab). Physical function to promote occupational performance. Includes frames of reference, assessment/evaluation tools and techniques, patient/client education, and intervention strategies. Prerequisite: OTHA 1305, OTHA 1309, OTHA 1315, OTHA 1319; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PHIL 1301 - Introduction to Philosophy
Credits: 3 (3 lecture). This course is a theoretically diverse introduction to the study of ideas, including arguments and investigations about abstract and real phenomena, particularly in the areas of knowledge, ethics, and religion. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 1304 - Introduction to World Religions
Credits: 3 (3 lecture). This course is a diverse survey of world traditions and religions, including African traditions, Native American traditions, Hinduism, Buddhism, Islam, Tao and Chinese Philosophy, Christianity and Judaism. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 2289 - Academic Cooperative in Philosophy
Credits: 2 (2 lecture). An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the student will set specific goals and objectives in the study of philosophy. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

Description of Courses

PHIL 2303 - Introduction to Formal Logic
Credits: 3 (3 lecture). An introduction to symbolic logic, focusing on both propositional and predicate logic, emphasizing the rules of translating language into symbols, the rules of inference and replacement, and the mechanism of reasoning used by computers. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

PHIL 2306 - Introduction to Ethics
Credits: 3 (3 lecture). A philosophical reflection of the basic principles of the moral life, including traditional and contemporary views concerning the nature of goodness, happiness, duty, and freedom as they apply to individual right, business, medicine, and community well-being. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1302 or Department Approval

PHIL 2307 - Introduction to Social and Political Philosophy
Credits: 3 (3 lecture). This course is a critical analysis of political theories and social issues. Consideration will be given to historically significant and contemporary systems, problems, and thinkers. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1301 or Department Approval

PHIL 2316 - Classical Philosophy
Credits: 3 (3 lecture). An historic survey of critical and reflective thinking as applied to the basic problems of existence and the meaning of human life and institutions; begins with the Greek and Roman philosophers, continues through the Middle Ages, and ends with the Renaissance; a study of the nature of philosophy as applied to the development of the scientific method, the existence of God, and the political structures of society. This course satisfies the Language, Philosophy and Culture or Component Area Option of the HCC core. Prerequisite: ENGL 1302 or Department Approval

PHIL 2321 - Philosophy of Religion
Credits: 3 (3 lecture). A critical investigation of major religious ideas, experiences, and questions that form the basis for a philosophy of religion. Prerequisite: ENGL 1301 or Department Approval

PHIL 2389 - Academic Cooperative in Philosophy
Credits: 3 (3 lecture). An instructional program designed to integrate on-campus study with practical hands-on work experience. In conjunction with class seminars, the student will set specific goals and objectives in the study of philosophy. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

PHRA 1243 - Pharmacy Technician Certification Review
Credits: 2 (2 lecture). A review of major topics covered on the National Pharmacy Technician Certification examination (PTCE). Prerequisite: Successful completion of all 1st & 2nd semester PHRA courses.

PHRA 1247 - Pharmaceutical Mathematics II
Credits: 2 (2 lec, 1 lab). Advanced concepts of Pharmaceutical Mathematics. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1260 - Clinical - Pharmacy Technician / Assistant
Credits: 2 (10 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: HPRS 1201, PHRA 1309, PHRA 1413

PHRA 1261 - Clinical - Pharmacy Technician / Assistant
Credits: 2 (8 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: PHRA 1102, PHRA 1205, PHRA 1309, and PHRA 1313 (with a minimum grade of C or better); Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1272 - Professional Practices for Pharmacy Technicians
Credits: 2 (2 lec, 1 lab). Development of the necessary interpersonal and professional skills and abilities needed to become a successful entry-level pharmacy technician. Prerequisite: HPRS 1201; PHRA 1301; Admission to the Pharmacy Technician Program

Description of Courses

PHRA 1291 - Professional Practices for Pharmacy Technicians
Credits: 2 (2 lec, 1 lab). Development of the necessary interpersonal and professional skills and abilities needed to become a successful entry-level pharmacy technician. Prerequisite: HPRS 1201; PHRA 1301; Admission to the Pharmacy Technician Program

PHRA 1301 - Introduction to Pharmacy
Credits: 3 (3 lecture). An overview of the qualifications, operational guidelines, and job duties of a pharmacy technician.

PHRA 1304 - Pharmacotherapy and Disease Process
Credits: 3 (3 lecture). A study of the disease state and therapeutic properties of drugs used in pharmaceutical therapy Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1305 - Drug Classification
Credits: 3 (3 lecture). A study of pharmaceutical drugs, abbreviations, classifications, dosages, side effects, and routes of administration. Prerequisite: HPRS 1201; PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1309 - Pharmaceutical Mathematics I
Credits: 3 (3 lecture). Solving pharmaceutical calculation problems encountered in the preparation and distribution of drugs. Prerequisite: HPRS 1201, PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1413 - Community Pharmacy Practice
Credits: 4 (2 lecture, 4 lab). Introduction to the skills necessary to process, prepare, label, and maintain records of prescriptions in a community pharmacy to include customer service, count and pour techniques, prescription calculations, drug selection and preparation, over-the-counter drugs, inventory management and legal parameters. Prerequisite: HPRS 1201, PHRA 1301; Admission to the Pharmacy Technician Program; must be placed into college-level reading, college-level writing and MATH 0308 in math.

PHRA 1445 - Compounding Sterile Preparations
Credits: 4 (2 lecture, 6 lab). The process of compounding sterile preparations and aseptic technique within legal and regulatory guidelines specified by USP <797> standards. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 1449 - Institutional Pharmacy Practice
Credits: 4 (2 lecture, 6 lab). Fundamentals of the diverse roles and practice of pharmacy technicians in an institutional pharmacy setting. In-depth coverage of hospital pharmacy organization, work flow and personnel, safety techniques, data entry, packaging and labeling operations, inpatient drug distribution systems including investigational drugs, continuous quality improvement and inventory control. Prerequisite: Successful completion of all 1st semester PHRA courses.

PHRA 2260 - Clinical - Pharmacy Technician / Assistant
Credits: 2 (8 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Successful completion of all 1st and 2nd semester PHRA courses.

PHRA 2261 - Clinical - Pharmacy Technician / Assistant
Credits: 2 (10 external lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Successful completion of all 1st and 2nd semester PHRA courses.

PHTC 1311 - Fundamentals of Photography
Credits: 3 (2 lecture, 4 lab). An introduction to camera operation and image production, composition, supplemental lighting, and use of exposure meters and filters. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1343 - Expressive Photography
Credits: 3 (2 lecture, 4 lab). A study of formal, professional, and individual uses of photography by applying photographic technology to personalized needs. Emphasis on creative visual thinking and problem solving and the exploration of personal vision. Prerequisite: PHTC 1311

PHTC 1345 - Illustrative Photography I
Credits: 3 (2 lecture, 4 lab). Instruction in the technical aspects involved in commercial photography. Topics include lighting equipment, techniques of production photography, reproduction principles, illustrative techniques, and advertising. Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

PHTC 1351 - Photojournalism I

Credits: 3 (2 lecture, 4 lab). Presentation of photographic techniques used by photojournalists in newspapers, magazines, and trade publications including news, feature, sports, editorial portraits, and photo essays. Includes a study of layout design and the freelance market. Prerequisite: Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1353 - Portraiture I

Credits: 3 (2 lecture, 4 lab). Photographic principles applied to portrait lighting, posing, and subject rapport. Prerequisite: PHTC 1311; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 1371 - Adobe Photoshop Lightroom CC

Credits: 3 (2 lecture, 4 lab). Introductory concepts in the use of the computer software for photographic manipulation, batch processing, printing and output.

PHTC 2340 - Photographic Studio Management

Credits: 3 (3 lecture). Photography business management, pricing, market analysis, promotion, networking, job acquisition, and photographic equipment analysis. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 2343 - Portfolio Development

Credits: 3 (2 lecture, 4 lab). A culmination experience for the evaluation of the student's photographic competencies. Includes association with a professional photographic organization, skills in resume creation, completion of portfolio, professional self-presentation, comprehensive exam, and seminars in areas of photographic interest. Prerequisite: Prerequisite: All PHTC courses; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 2349 – Photo Digital Imaging II

Credits: 3 (2 lecture, 4 lab). Advanced concepts in the use of the computer and software for photographic manipulation and output.

PHTC 2353 - Portraiture II

Credits: 3 (2 lecture, 4 lab). Advanced concepts in the study of principles of effective portraiture with specific emphasis on unique presentation and environmental and location studies. Prerequisite: PHTC 1345; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PHTC 2451 - Photojournalism II

Credits: 3 (2 lecture, 4 lab). Advanced concepts of photojournalism. May include documentary, corporate, and annual report photography.

PHYS 1305 - Elementary Physics I (Lecture)

Credits: 3 (3 lecture). General introduction to basic and fundamental principles in physics (with minimal or no computations) including: motion, gravity, momentum, energy, relativity, structures of matter, thermal energy, waves and sound. This course is intended as a non-lab-based preparatory course for students wishing to take PHYS 1401 and PHYS 1402, and also for those students wishing to take PHYS 2325 who have no prior knowledge of physics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

PHYS 1307 - Elementary Physics Laboratory II

Credits: 3 (3 lecture). A non-lab-based further introduction to the basic principles in physics (with minimal or no computations) which include: light, electricity, electromagnetism, quantum concepts, sub-atomic world, elementary particles and frontiers. Prerequisite: Must be placed in GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing. PHYS 1307 can be taken without taking PHYS 1305.

PHYS 1401 - College Physics I (Lecture & Lab)

Credits: 4 (3 lecture, 3 lab). Non-calculus based course for medical related majors, architecture majors, technology majors, and other non-engineering and non-science majors. Topics include motion and forces, work and energy, momentum and collision, and the thermal properties of matter. Laboratory exercises include selected related experiments on these topics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: MATH 1314, 1316; must also be placed into GUST 0341 (or higher) in reading.

Description of Courses

PHYS 1402 - College Physics II (Lecture & Lab)
Credits: 4 (3 lecture, 3 lab). Continuation of non-Calculus based physics for medical related majors, architecture majors, technology majors and other non-engineering and non-science majors. Topics include wave motion, electricity, magnetism, electromagnetic waves, optics, and topics in modern physics. Laboratory exercises include selected related experiments on these topics. This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PHYS 1401; must also be placed into GUST 0341 (or higher) in reading.

PHYS 2125 - University Physics I (Lab)
Credits: 1 (3 lab). Selected laboratory experiments related to topics in PHYS 2325 (University Physics I) for science and engineering majors. Core Curriculum Course. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and MATH 2414 (or higher) in math.

PHYS 2126 - University Physics I (Lab)
Credits: 1 (3 lab). Selected laboratory experiments related to topics in PHYS 2326 (University Physics II) for science and engineering majors. Core Curriculum Course. Prerequisite: Prerequisite/Corequisite: PHYS 2326; must be placed into GUST 0341 (or higher) in reading and be placed into MATH 2415 (or higher).

PHYS 2325 - University Physics I (Lecture)
Credits: 3 (3 lecture, 1 lab). A calculus-based physics course designed specifically for chemistry, physics, and engineering majors. Topics include principles of mechanics, sound, wave phenomena, kinetic theory, fluid flow, and thermal physics. (formerly PHYS 2425) This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into GUST 0341 (or higher) in reading and MATH 2414 (or higher) in math.

PHYS 2326 - University Physics II (Lecture)
Credits: 3 (3 lecture, 1 lab). Continuation of calculus based physics. Course designed specifically for chemistry, physics, and engineering majors. Includes principles of electricity and magnetism, optics, electromagnetic waves, relativity, kinetic theory, introduction to quantum theory, thermal physics, and other physics topics. (formerly PHYS 2426) This course satisfies the Life and Physical Sciences or Component Area Option of the HCC core. Prerequisite: PHYS 2425 or 2325; must be placed into GUST 0341 (or higher) in reading and be placed into MATH 2415 (or higher) in math.

PHYS 2389 - Academic Cooperative in Physics
Credits: 3 (3 lecture). An instructional program designed to integrate on-campus study with practical hands-on work experience in the physical sciences. In conjunction with class seminars, the individual students will set specific goals and objectives in the scientific study of inanimate objects, processes of matter and energy, and associated phenomena

PLAB 1173 - Phlebotomy
Credits: 1 (1 lecture, 4 lab). Skill development in the performance of a variety of blood collection methods using proper techniques and universal precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, proper patient identification, labeling of specimens and quality assurance, specimen handling, processing, and accessioning. Topics include professionalism, ethics, and medical terminology. Prerequisite: Must be placed into college-level reading, writing and math.

PLAB 1260 - Clinical - Phlebotomy/Phlebotomist
Credits: 2. Work based experience that helps students gain practical experience in the discipline of phlebotomy. Direct supervision is provided by the clinical professional within the hospital or clinic.

PLAB 1323 - Phlebotomy
Credits: 3 (2 lecture, 3 lab). Skill development in the performance of a variety of blood collection methods using proper techniques and standard precautions. Includes vacuum collection devices, syringes, capillary skin puncture, butterfly needles and blood culture, and specimen collection on adults, children, and infants. Emphasis on infection prevention, patient identification, specimen labeling, quality assurance, specimen handling, processing, accessioning, professionalism, ethics, and medical terminology. Prerequisite: Must be placed into college-level reading, writing and math.

PLTC 1001 - Introduction to Plastic
Credits: 3 (2 lecture, 3 lab). A survey course designed to introduce the student to the field of plastics. An overview of thermoplastic and thermoset materials and the major processing methods utilized by industry. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

Description of Courses

POFI 1104 - Computer Fundamentals

Credits: 1 (1 lecture, 1 lab). Computer applications specific to business-related software. Emphasizes the concurrent development of office skills and computer knowledge.

Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 1301 - Computer Applications I

Credits: 3 (2 lecture, 3 lab). Overview of computer office applications including current terminology and technology. Introduction to computer hardware, software applications, and procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 1341 - Computer Applications II

Credits: 3 (2 lecture, 3 lab). Continued study of current computer terminology and technology. Advanced skill development in computer hardware, software applications, and procedures. The student will demonstrate proficiency in commonly used software applications and identify and explain the concepts involved in producing documents using advanced features of software applications. Emphasis is on developing end-user proficiency skills for office environments. Prerequisite: POFI 1301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 1349 - Spreadsheets

Credits: 3 (2 lecture, 3 lab). Spreadsheet software for business applications. Prerequisite: POFT 1329 or POFI 1301; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 1380 - Cooperative Education – Business / Office Automation / Technology / Data Entry

Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: 12 semester hours of business technology courses and program approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 2331 - Desktop Publishing

Credits: 3 (2 lecture, 3 lab). In-depth coverage of desktop publishing terminology, text editing, and use of design principles. Emphasis on layout techniques, graphics, multiple page displays, and business applications.

Prerequisite: Prerequisite: POFI 1341, POFI 1349; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFI 2380 - Cooperative Education - Information Processing / Data Entry Technician

Credits: Credit 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: POFI 1380; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFL 1305 - Legal Terminology

Credits: 3 (3 lecture). An introduction to legal terminology including spelling, pronunciation, and definition of legal terms and an overview of the law and the professions.

Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFL 1359 - Legal Transcription

Credits: 3 (2 lecture, 3 lab). Skill development in comprehensive vocabulary, listening, organizing, and transcribing client-quality documents used in a legal office. Prerequisite: POFL 1305; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFL 2305 - Introduction to Legal Research

Credits: 3 (3 lecture). Exploration of legal issues utilizing current and emerging research techniques. Prerequisite: Prerequisite: POFL 1305; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFM 1300 - Basic Medical Coding

Credits: 3 (2 lecture, 3 lab). Presentation and application of basic coding rules, principles, guidelines, and conventions utilizing various coding systems.

Prerequisite: MDCA 1313; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

POFM 2333 - Medical Document Production
Credits: 3 (2 lecture, 3 lab). Study of advanced concepts of medical office activities, practices, and procedures. Topics include advanced medical reports, transcription, coding, billing, insurance activities, and records management. This course is designed to provide practical applications of the linkage of the CPT-4 coding system. Medical references will be used for research and verification. MEDISOFT software applicable. Prerequisite: Prerequisite: POFM 1300; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1319 - Records and Information Management I
Credits: 3 (3 lecture). Introduction to basic records and information management. Includes the life cycle of a record, manual and electronic records management, and basic filing procedures and rules. The student will identify the stages in the life cycle of a record; file and retrieve records using alphabetic, numeric, geographic, and subject filing systems, input, index, code, and cross-reference records; use tickler file, requisition, and charge-out procedures; and differentiate between manual and electronic filing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1325 - Business Math Using Technology
Credits: 3 (3 lecture). Skill development in the use of electronic calculators and business mathematical functions. Emphasis on business problem-solving skills using spreadsheet software and/or electronic calculator/keyboard. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1329 - Beginning Keyboarding
Credits: 3 (2 lecture, 3 lab). Skill development in the operation of the keyboard by touch, applying proper keyboarding techniques. Emphasis on development of acceptable speed and accuracy levels and formatting basic documents. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1345 - Shorthand / Notetaking I
Credits: 3 (2 lecture, 3 lab). An introduction to shorthand/notetaking principles. Mastery of accurate reading and writing of notes to produce mailable documents from dictation. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1370 - Introduction to Office Technology
Credits: 3 (2 lecture, 3 lab). An introduction to present and future resources used to facilitate handling of office information. Study will be made of equipment applications and procedures, terminology and environmental factors affecting productivity and career paths. Prerequisite: Prerequisites: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 1380 - Cooperative Education - Administrative Assistant and Secretarial Services, General
Credits: 3 (1 lecture/seminar and 20 hours a week employment). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary.. Prerequisite: Prerequisite: Completion of 12 semester hours and Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 2301 - Intermediate Keyboarding
Credits: Credit 3 (2 lecture, 3 lab). A continuation of keyboarding skills in document formatting, speed, and accuracy. Emphasis on proofreading, editing, following instructions, and keying documents from various copy. Prerequisite: Prerequisite: POFT 1329; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

POFT 2331 - Administrative Project Solutions
Credits: 3 (2 lecture, 3 lab). Experience in project management and office procedures utilizing integration of previously learned skills. Prerequisite: Prerequisite: POFT 1329 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

Description of Courses

POFT 2380 - Cooperative Education - Administrative Assistant and Secretarial Science, General
Credits: 3 (1 lecture/seminar and 20 hours a week employment). An experience external to the college for an advanced student in a specialized field involving a written agreement between the educational institution and a business or industry. Mentored and supervised by a workplace employee, the student achieves objectives that are developed and documented by the college and that are directly related to specific occupational outcomes. This may be a paid or unpaid experience. This course may be repeated if topics and learning outcomes vary. Prerequisite: POFT 1380 and Department Approval; must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PREM 0100 - Test Prep - Math
Credits: 1. Gives students a head start in basic skill building in mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

PREM 0200 - Test Prep - Math
Credits: 2. Gives students a head start in basic skill building in mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education

PREP 0100 - Test Prep and Skill Building
Credits: 1 (16 lab). Gives students a head start in basic skill building in reading, writing, and mathematics by providing a targeted review of basic skill, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

PREP 0200 - Test Prep and Skill Building
Credits: 1 (16 lab). Gives students a head start in basic skill building in reading, writing and mathematics by providing a targeted review of basic skills, test preparation, and utilization of learning resources. Students will retake a TSI test after this intervention to determine proper placement in developmental education.

PREP 0300 - Test Prep and Skill Building
Credits: 1 (16 lab). To provide students information and skills in preparation for college, including orientation, test preparation, and completion of the HCC application.

PSTR 1301 - Fundamentals of Baking
Credits: 3 (2 lecture, 4 lab). Fundamentals of baking including dough, quick breads, pies, cakes, cookies, tarts, and doughnuts. Instruction in flours, fillings, and ingredients. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1305 - Breads and Rolls
Credits: 3 (2 lecture, 4 lab). Concentration on fundamentals of chemically- and yeast-raised breads and rolls. Instruction on commercial preparation of a wide variety of products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1306 - Cake Decorating I
Credits: 3 (2 lecture, 3 lab). A course in decoration of specialized and seasonal products. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1310 - Pies , Tarts , Teacakes and Cookies
Credits: 3 (2 lecture, 4 lab). Focus on preparation of American- and European-style pie and tart fillings and dough, cookies, teacakes, custard and batters. Instruction in finishing and presentation techniques. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1312 - Laminated Dough , Pate a Choux and Donuts
Credits: 3 (2 lecture, 4 lab). Focus on preparation of laminated doughs to include puff pastry, croissant, and Danish and a variety of pate a choux (clair paste) products and donuts. Fillings and finishing techniques included. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1340 - Plated Desserts
Credits: 3 (2 lecture, 4 lab). Preparation and service of hot and cold desserts with a focus on individual desserts, a la minute preparations, and numerous components within one preparation. Emphasis on station organization, timing, and service coordination for restaurant dessert production. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1343 - Bakery Operations and Management
Credits: 3. Introduction to management, marketing, supervision, and sanitation principles required in retail

Description of Courses

bakery operations. Emphasis on cost control, pricing, computer usage, and personnel issues.

PSTR 1381 - Cooperative Education - Baking and Pastry Arts / Baker / Pastry Chef
Credits: 3 (1 lecture, 20 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1391 - Special Topics in Baker / Pastry Chef : Healthy and Special Needs Baking
Credits: 3 (2 lecture, 4 lab). In this course the students will study and prepare baked goods that are specifically formulated to address a variety of dietary conditions. The course will include baking for people with wheat-gluten sensitivities, diabetic baking, fiber rich and low fat baking, allergies free sensitive baking and more. The course will focus on how to modify formulas and use alternative ingredients and substitutes. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 1471 - Baking for Special Dietary Needs
Credits: 4. Focus on baking methods and principles from a nutritional and chemical/physical point of view. Topics to be covered include: diets such as vegan, diabetic, low carbohydrate and gluten-free, nutritional analyses, and preparation of items for persons with special dietary needs. Topics include baking terminology, tool and equipment use, formula conversions, functions of ingredients, and the evaluation of baked products.

PSTR 2301 - Chocolates and Confections
Credits: 3 (2 lecture, 4 lab). Production and decoration of traditional truffles, marzipan, molded and hand-dipped chocolate, caramels, nougats, and pate de fruit. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2307 - Cake Decorating II
Credits: 3 (2 lecture, 3 lab). A course in decoration of specialized and seasonal products. Prerequisite: PSTR 1306; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2331 - Advanced Pastry Shop
Credits: 3 (2 lecture, 4 lab). A study of classical desserts, French and international pastries, hot and cold desserts, ice creams and ices, chocolate work, and decorations. Emphasis on advanced techniques. Prerequisite: PSTR 1301, PSTR 1310; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2350 - Wedding Cakes
Credits: 3 (2 lecture, 4 lab). Skills, concepts, and techniques for preparing wedding cakes. Includes marzipan, plastic chocolate-rolled fondant, chocolate garnish, flower making, and royal icing piping work. Prerequisite: PSTR 1306; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

PSTR 2370 - Supervised Study: Capstone Study in Baking & Pastry Arts
Credits: 3. Assigns problems for independent study incorporating previous instruction and supervised by the instructor. Provides the student and instructor an opportunity to work together to identify the critical areas of need in the student's repertoire. An individualized plan will be developed to address the student's weaknesses and to lead progressively to a group demonstration of critical skills. Individual assessment constitutes the majority of this course. Lab, lecture, research, and out-of-class projects will be utilized.

PSYC 2301 - General Psychology
Credits: 3 (3 lecture). A survey of the basic principles underlying human behavior and mental processes. Emphasis will be placed on major areas of study in the field of psychology, such as motivation, development, thought processes, and personality. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must qualify to take college-level reading and writing OR take INRW 0420 (or ESOL 0360) as a co-requisite.

Description of Courses

PSYC 2306 - Human Sexuality

Credits: 3 (3 lecture). This course is designed to provide an understanding of human sexuality, identity, orientation, and behavior, and the variations in these dimensions of this important aspect of human experience. It includes information on physical, cognitive, and psychosocial changes associated with sexuality. Theory, research methods, and applications of research to the facilitation of gender identity development and understanding of the human sexual response are covered. The course also provides information on the treatment of sexual dysfunction, and the prevention of sexually transmitted diseases and irresponsible sexual behavior. Prerequisite: Must be placed into college-level reading.

PSYC 2307 - Adolescent Psychology

Credits: 3 (3 lecture). Psychology of adolescence is a study of the relationships among the physical, emotional, social and psychological factors that influence growth and development from puberty to early adulthood (ages 12-18).

PSYC 2308 - Child Psychology

Credits: 3 (3 lecture). A study of normal physiological, intellectual, and emotional development and functioning of the child from conception through adolescence. Emphasis on normal child development, the family, parent-child interaction, and the psychological and cultural forces affecting them.

PSYC 2314 - Lifespan Growth & Development

Credits: 3 (3 lecture). A developmental psychology course designed to provide an understanding of human behavior and characteristics from conception through death. This course includes information on physical, cognitive, and psychosocial changes throughout the lifespan. Theory, research, and applications are covered. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PSYC 2301 or Department Approval; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

PSYC 2315 - Psychology of Adjustment

Credits: 3 (3 lecture). A study of human behavior, applying psychological theory to the development of the well-adjusted individual. Techniques for managing stress, reducing anxiety, coping with anger, increasing assertiveness, and achieving self-control are considered. Prerequisite: Prerequisite: PSYC 2301; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

PSYC 2316 - Psychology of Personality

Credits: 3 (3 lecture). This course covers personality theories that apply to both normal personality and abnormal behavior. Some of the theories covered are psychoanalytic, cognitive, learning, and sociocultural. Current research on the biological foundations of mental health and illness is covered in detail. These theories are related to mental disorders such as major depression, phobias, obsessive-compulsive disorder, bipolar disorder and schizophrenia. Case studies of individuals enhance comprehension of mental disorders. Treatment by psychotherapy and drugs is discussed as well as ethical, legal and social issues relating to the mentally ill. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PSYC 2301; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing Corequisite: (or take ENGL 0310/0349 as a co-requisite).

PSYC 2317 - Statistical Methods in Psychology

Credits: 3 (3 lecture). An introduction to the use of scientific methods in psychology and to the statistical analysis of data. Attention is given to descriptive and inferential statistical methodology including t-tests, analysis of variance, correlation and regression. Core Curriculum Course. Prerequisite: Prerequisite: MATH 0312(Or Higher,)Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing Corequisite: (or take ENGL 0310/0349 as a co-requisite) and be placed into MATH 0312 (or higher).

PSYC 2319 - Social Psychology

Credits: 3 (3 lecture). A study of social cognition, social behavior, interpersonal relations, and group membership. Emphasis on theories, research, and applications. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Prerequisite: PSYC 2301; must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing Corequisite: (or take ENGL 0310/0349 as a co-requisite).

Description of Courses

PTAC 1302 - Introduction To Process Technology
Credits: 3 (3 lecture). Introduction to chemical and refinery plant operations. Topics include process technician duties, responsibilities and expectations, plant organizations, plant process and utility systems, and the physical and mental requirements of the process technician. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

PTAC 1308 - Safety , Health , and Environment I
Credits: 3 (3 lecture). Development of knowledge and skills to reinforce the attitudes and behaviors required for safe and environmentally sound work habits. Emphasis on safety, health, and environmental issues in the performance of all job tasks and regulatory compliance issues. Prerequisite: Prerequisite or Corequisite: PTAC 1302 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

PTAC 1332 - Process Instrumentation I
Credits: 3 (2 lecture, 2 lab). Study of the instruments and instrument systems used in the process industry including terminology, primary variables, symbology, control loops, and basic troubleshooting. Prerequisite: PTAC 1308, PTAC 1302 and MATH 1314 or Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

PTAC 1350 - Industrial Economics
Credits: 3 (3 lecture). Examination of the profitability factors of plant operations including personnel and business strategies. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0308 in math.

PTAC 1354 - Industrial Processes
Credits: 3 (3 lecture). Study of the processes employed in process plant operations. Prerequisite: PTAC 1302 and PTAC 1308; must be placed into GUST 0342 in reading, college-level writing and MATH 0308 in math.

PTAC 1410 - Process Technology I - Equipment
Credits: 4 (3 lecture, 3 lab). Instruction in the use of common process equipment. Prerequisite: Prerequisite: PTAC 1302 PTAC 1308 or Department Approval; must be placed into GUST 0342 in reading, college-level writing and math.

PTAC 2314 - Principles of Quality
Credits: 3 (3 lecture). Study of the background and application of quality concepts. Topics include team skills, quality tools, and economics and continuous improvement. Prerequisite: PTAC 1302 and MATH 1314; must be placed into college-level reading, writing and math.

PTAC 2386 - Internship Process Technology/Technician
Credits: 3 (1 lecture, 17 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer.

PTAC 2420 - Process Technology II - Systems
Credits: 4 (3 lecture, 3 lab). Study of the interrelation of process equipment and process systems including related scientific principles. Prerequisite: Prerequisite: PTAC 1410 PTAC 1332, SCIT 1414, SCIT 1418 or Department Approval; must be placed into college-level reading, writing and math.

PTAC 2438 - Process Technology III - Operations
Credits: 4 (3 lecture, 3 lab). This course combines systems into operational processes with emphasis on operations under various conditions. Prerequisite: Prerequisite: PTAC 2420; must be placed into college-level reading, writing and math.

PTAC 2446 - Process Troubleshooting
Credits: 4 (3 lecture, 3 lab). Instruction in the different types of troubleshooting techniques, procedures, and methods used to solve process problems. Topics include application of data collection and analysis, cause effect relationships, and reasoning. Prerequisite: Prerequisite: PTAC 2420 or Department Approval; must be placed into college-level reading, writing and math.

PTHA 1229 - Applied Physical Principles
Credits: 2 (1 lecture, 2 lab). The application of physical principles to selected interventions in physical therapy. Prerequisite: Admission to the Program; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 1266 - Practicum (or Field Experience) - Physical Therapist Assistant
Credits: 2 (14 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: PTHA 2205, PTHA 2509; must be placed into college-level reading, college-level writing and MATH 0312 in math.

Description of Courses

PTHA 1267 - Practicum (or Field Experience) - Physical Therapist Assistant
Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: PTHA 1266, PTHA 2435, PTHA 2431; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 2239 and PTHA 2250

PTHA 1301 - The Profession of Physical Therapy
Credits: 3 (2 lecture, 2 lab). Introduction to the profession of physical therapy and the role of the physical therapist assistant. Prerequisite: Admission to the Program; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 1321 - Pathophysiology for the PTA
Credits: 3 (3 lecture, 1 lab). Study of the pathophysiology of diseases/conditions encountered in physical therapy. Prerequisite: Prerequisite: PTHA 1413, PTHA 1301, HPRS 1106; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 1391 - Special Topics in Physical Therapy Assistant : PTA Learning Strategies
Credits: 3 (3 lecture). This course is specifically tailored to meet the student's needs with regard to success in the PTA program. The class will emphasize time management, study skills and strategies, reading skills, and critical thinking. Learning outcomes: 1. The student will show competency with all anatomy section exams with a 75% minimum. 2. The student will show improvement in test taking strategies and critical thinking skills as reflected in the student's improved work by the end of the course. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 1405 - Basic Patient Care Skills
Credits: 4 (3 lecture, 4 lab). Introduction to the theory and application of basic patient handling, functional skills, assessment techniques, and measurement techniques. The student will distinguish and examine the theory, principles, and techniques of patient handling and functional skills; perform basic patient handling, functional skills, assessment techniques, and measurement techniques; and utilize relevant communication techniques. Prerequisite: Admission to program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Prerequisites: PTHA 1321, PTHA 1413, PTHA 1229, PTHA 1201

PTHA 1413 - Functional Anatomy
Credits: 4 (3 lecture, 4 lab). The relationship of the musculoskeletal and neuromuscular systems to normal and abnormal movement. Prerequisite: Admission to the Program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: Corequisite: BIOL 2401

PTHA 1431 - Physical Agents
Credits: 4 (2 lecture, 6 lab). Biophysical principles, physiological effects, efficacy, and application of physical agents. Prerequisite: PTHA 1413, PTHA 1229, PTHA 1301, PTHA 1305, HPRS 1106; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2205 - Neurology
Credits: 2 (2 lecture, 1 lab). Study of neuroanatomy and neurophysiology as it relates to commonly encountered neurological conditions. Prerequisite: PTHA 1321; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2250 - Current Concepts in Physical Therapy
Credits: 2 (1 lecture, 4 lab). Current concepts, skills, and knowledge in the provision of physical therapy services. Includes enhancement of professional development. Prerequisite: PTHA 2435, PTHA 2431; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 1267, PTHA 2239, PTHA 2266

PTHA 2266 - Practicum (or Field Experience) - Physical Therapist Assistant
Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: PTHA 2435, PTHA 2431, PTHA 1267; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 2239 and PTHA 2250

PTHA 2267 - Practicum IV-Physical Therapist Assistant
Credits: 2 (14 lab). Practical general workplace training supported by an individualized learning plan developed by the employer, college and student. Prerequisite: PTHA 1267, PTHA 2266, PTHA 2250; must be placed into college-level reading, college-level writing and MATH 0312 in math.

Description of Courses

PTHA 2301 - Essentials of Data Collection

Credits: 3 (2 lecture, 4 lab). Data collection techniques used to assist in patient/client management. Prerequisite: PTHA 1305, PTHA 1321, PTHA 1413, PTHA 1229, PTHA 1301, HPRS 1106; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 1431, HPRS 2332

PTHA 2339 - Professional Issues

Credits: 2 (2 lecture, 1 lab). Discussion of professional issues and behaviors related to clinical practice; preparation for transition into the workforce. Prerequisite: PTHA 2431, PTHA 2435; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: PTHA 1267, PTHA 2266, PTHA 2250

PTHA 2431 - Management of Neurological Disorders

Credits: 4 (2 lecture, 6 lab). Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected neurological disorders. Prerequisite: PTHA 2205, PTHA 2509, PTHA 2435; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2435 - Rehabilitation Techniques

Credits: 4 (2 lecture, 6 lab). Advanced course integrating previously learned and new skills/techniques into the comprehensive rehabilitation of selected musculoskeletal, neuromuscular, cardiopulmonary, and integumentary disorders. Prerequisite: PTHA 2205, PTHA 2509; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTHA 2509 - Therapeutic Exercise

Credits: 5 (3 lecture, 6 lab). Concepts, principles, and application of techniques related to therapeutic exercise and functional training. Prerequisite: PTHA 1321, PTHA 1431, PTHA 2301, HPRS 2332; must be placed into college-level reading, college-level writing and MATH 0312 in math.

PTRT 1301 - Introduction to Petroleum Industry

Credits: 3 (3 lecture). An introduction to the various aspects of petroleum industry including equipment, systems, instrumentation, operations, and the various scientific principles. Addresses a variety of petroleum technologies: exploration, drilling, production, transportation, marketing, and chemical processing industries.

PTRT 1313 - Industrial Safety

Credits: 3 (3 lecture). An overview for petroleum and manufacturing workers of state/federal regulations and guidelines which require industrial safety training. Topics include the 29 C.F.R 1910, 1926 standards.

PTRT 1370 - Petroleum Geology

Credits: 3 (3 lecture). Principles of geological patterns, rock shapes and structures, and reservoir formations associated with petroleum operations. Prerequisite: PTRT 1301, MATH 1314

PTRT 1470 - Petroleum Data Management I - Exploration

Credits: 4 (2 lecture, 4 lab). Overview of computer applications in exploration; covers the History, Civilization, , fundamentals, terminology and software for exploration; introduction to the principles of geology, geophysics and petro-physics. Prerequisite: PTRT 1301, PTAC 1308, MATH 1314 OR Departmental Approval

PTRT 1471 - Exploration and Production I

Credits: 4 (2 lecture, 4 lab). Overview of various aspects of deepwater operations deepwater exploration, drilling and completing wells, development of production systems. Prerequisite: PTRT 1301

PTRT 1472 - Petroleum Data Management II-Drilling and Production

Credits: 4 (2 lecture, 4 lab). Overview of computer applications in drilling and production. Covers the History, Civilization, , fundamentals, terminology and software for drilling and production. Introduction to the principles of drilling, production and reservoir. Prerequisite: PTRT 1470

PTRT 1473 - Exploration and Production II

Credits: 4 (2 lecture, 4 lab). Continue with exploration and production principles including drilling rigs, giant oil and gas fields, beam pumps, and geological classifications. Prerequisite: PTRT 1470

PTRT 2323 - Natural Gas Production

Credits: 4 (2 lecture, 4 lab). An overview of the aspects of natural gas and oil production including various aspects of hydrocarbon production, processing equipment, and gas compression/transportation systems. Prerequisite: PTRT 2331

PTRT 2331 - Well Completions

Credits: 3 (3 lecture). Drilling and wellbore analysis data to develop a well completion plan. Prerequisite: PTRT 1473, MATH 1325

Description of Courses

PTRT 2370 - Petroleum Operations

Credits: 3 (3 lecture). Course covers the principles and fundamentals of onshore and offshore operations implemented in oil recovery. Prerequisite: PTRT 1470

PTRT 2371 - Principles of Reservoir Engineering

Credits: 3 (3 lecture). An overview of reservoir engineering techniques and calculations employed in the proper operation and management of underground oil reservoirs. Prerequisite: PTRT 1370, PTRT 1470

PTRT 2372 - Internship - Petroleum Technology / Technician

Credits: 3 (18 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: PTRT 2331, Department Approval

PTRT 2373 - Principles of Enhanced Oil and Gas Recovery and Hydraulic Fracturing

Credits: 3 (3 lecture). Introduction in the development, basic operations, enhancement, optimization, and monitoring of fundamental and commonly implemented enhanced oil and gas recovery best practices. Prerequisite: PTRT 1470

PTRT 2380 - Cooperative Education - Petroleum Technology / Technician

Credits: 3 (1 lecture, 19 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: PTRT 2331, Department Approval

PTRT 2470 - Petroleum Data Management III - Facilities and Performance

Credits: 4 (2 lecture, 4 lab). Overview of computer applications in surface facilities and automation. Covers the History, Civilization, , fundamentals, terminology and software for surface facilities and automation. Prerequisite: PTRT 2331

RADR 1160 - Clinical - Radiologic Technology / Science - Radiographer

Credits: 1 (5 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 1266 - Practicum (or Field Experience) - Radiologic Technology / Science - Radiographer

Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 1160, RADR 1303, RADR 1411; must be placed into college-level reading, writing and math.

RADR 1303 - Patient Care

Credits: 3 (3 lecture). An introduction in patient assessment, infection control procedures, emergency and safety procedures, communication and patient interaction skills, and basic pharmacology. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 1313 - Principles of Radiographic Imaging I

Credits: 3 (3 lecture, 1 lab). Radiographic image quality and the effects of exposure variables. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 1411 - Basic Radiographic Procedures

Credits: 4 (2 lecture, 4 lab). An introduction to radiographic positioning terminology, the proper manipulation of equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of basic anatomy. Prerequisite: Admission to the program; must be placed into college-level reading, writing and math.

RADR 2167 - Practicum (or Field Experience) - Radiologic Technology/Science - Radiographer

Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 2213, RADR 2217, RADR 2367; must be placed into college-level reading, writing and math.

Description of Courses

RADR 2213 - Radiation Biology and Protection
Credits: 2 (2 lecture). Effects of radiation exposure on biological systems. Includes typical medical exposure levels, methods for measuring and monitoring radiation, and methods for protecting personnel and patients from excessive exposure. Prerequisite: RADR 2309; must be placed into college-level reading, writing and math.

RADR 2217 - Radiographic Pathology
Credits: 2 (2 lecture). Disease processes and their appearance on radiographic images. Prerequisite: RADR 2331; must be placed into college-level reading, writing and math.

RADR 2260 - Clinical - Radiologic Technology / Science - Radiographer
Credits: 2 (8 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RADR 2309, RADR 2401, RADR 1266; must be placed into college-level reading, writing and math.

RADR 2309 - Radiographic Imaging Equipment
Credits: 3 (3 lecture). A study of the equipment and physics of x-ray production, basic x-ray circuits and relationship of equipment components to the imaging process. Prerequisite: RADR 2305, RADR 2331; must be placed into college-level reading, writing and math.

RADR 2331 - Advanced Radiographic Procedures
Credits: 3 (2 lecture, 2 lab). Continuation of positioning; alignment of the anatomical structure and equipment, evaluation of images for proper demonstration of anatomy and related pathology. Prerequisite: Prerequisite: RADR 1313, RADR 2401; must be placed into college-level reading, writing and math.

RADR 2333 - Advanced Medical Imaging
Credits: 3 (3 lecture). Specialized imaging modalities. Includes concepts and theories of equipment operations and their integration for medical diagnosis. Prerequisite: Prerequisite: RADR 1313, RADR 2401; must be placed into college-level reading, writing and math.

RADR 2335 - Radiologic Technology Seminar
Credits: 3 (3 lecture, 1 lab). A capstone course focusing on the synthesis of professional knowledge, skills and attitudes in preparation for professional employment and lifelong learning. Prerequisite: All RADR courses or by Department Approval; must be placed into college-level reading, writing and math.

RADR 2340 - Sectional Anatomy for Medical Imaging
Credits: 3 (3 lecture). Anatomic relationships that are present under various sectional orientations as depicted by computed tomography or magnetic resonance imaging. Prerequisite: RADR 2333; must be placed into college-level reading, writing and math.

RADR 2366 - Practicum (or Field Experience) – Radiologic Technology / Science - Radiographer
Credits: 3 (24 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 1267, RADR 2233; must be placed into college-level reading, writing and math.

RADR 2367 - Practicum (or Field Experience) – Radiologic Technology / Science - Radiographer
Credits: 3 (24 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RADR 2333, RADR 2366; must be placed into college-level reading, writing and math.

RADR 2401 - Intermediate Radiographic Procedures
Credits: 4 (3 lecture, 4 lab). A continuation of the study of the proper manipulation of radiographic equipment, positioning and alignment of the anatomical structure and equipment, and evaluation of images for proper demonstration of anatomy. Prerequisite: RADR 1303, RADR 1411; must be placed into college-level reading, writing and math.

RBTC 1301 - Programmable Logic Controllers
Credits: 3 (2 lecture, 4 lab). A study in programmable logic controllers (PLC). Topics include processor units, numbering systems, memory organization, relay type devices, timers, counters, data manipulators, and programming. Emphasis will be placed on converting ladder diagrams into programs; explaining digital/analog devices used with programmable logic controllers; and executing and evaluating control system operation. Prerequisite: CETT 1425 or INTC 1441 or Department Approval, Must be placed into college-level reading, writing and math.

RBPT 1305 - Residential Lighting , Appliances , and Plug Loads
Credits: 3 (3 lecture, 1 lab). A study of the use of appliances, lighting, plug loads, and techniques to lower energy and water consumption in the home. Includes basic electrical concepts, calculation of energy and water usage, and selection of water- and energy-efficient appliances and lighting. Also covers the impact of human behavior on energy and water consumption. Investigation of future trends will be explored.

Description of Courses

Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

RBPT 1310 - Residential Mechanical Systems
Credits: 3 (3 lecture, 1 lab). Identification and operation of space heating and cooling, ventilation, water heating, and swimming pool/spa systems. Includes comparisons of mechanical systems based on fuel type and efficiency. Also explores the impact of human behavior on energy usage. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

RBPT 2315 - Green Rating Systems for Homes
Credits: 3 (3 lecture, 1 lab). Use of computer software and rating criteria to evaluate and score homes using residential green rating systems. Emphasizes gathering data from building plans, manufacturers' specifications, and on site testing. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RBPT 2320 - Residential Energy Conservation Codes
Credits: 3 (3 lecture, 1 lab). Use of computer software and code documents to determine compliance with residential energy conservation codes. Emphasizes gathering data from building plans and manufacturers' specifications. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RBPT 2325 - Energy Rating Systems for Homes
Credits: 3 (3 lecture, 1 lab). Use of computer software and rating criteria to evaluate and score homes using residential energy rating systems. Emphasizes gathering data from building plans, manufacturers' specifications, and on site testing. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RBPT 2330 - Advanced Residential Building Science and Systems
Credits: 3 (3 lecture, 1 lab). A study of advanced energy efficient and environmentally responsible residential building methodologies and technologies. Includes exploration of alternate residential building systems and climate applicability. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RBPT 2340 - Advanced Residential Mechanical Systems
Credits: 3 (3 lecture, 1 lab). A study in matching the size of a mechanical system with a specific heating and/or cooling load to optimize energy efficiency. Ventilation and humidity requirements will be determined. Includes air distribution fundamentals and an exploration of efficiency testing and verification. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RBPT 2355 - Sustainable Neighborhood Development
Credits: 3 (3 lecture, 1 lab). A study of neighborhood-sustained design strategies and applications that integrate the principles of green building and smart growth. Emphasizes basic neighborhood planning, utility infrastructure, land-use patterns, general zoning, subdivision practices, and quantitative methods to evaluate neighborhood development. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RCCR 0323 - Reading College & Career Readiness
Credits: 3. Is designed to prepare students that possess a secondary education credential, have a TSIA test placement score of 316-335 in Reading or a score of "2" on the TSIA writing sample & wish to enter an academic or career training or education program course of study.

RCCR 0310 - Reading College and Career Readiness
Credits: 3. Is designed to prepare students that possess a secondary education credential, have a TSIA test placement score below 315 in Reading or a score of "1", "0", or "no score" on the TSIA writing sample and wish to enter an academic program course of study.

RELE 1191 - Special Topics in Real Estate
Credits: 1. This course contains instruction on good study habits and an overview to better prepare the student to take their State Examination to obtain a Texas Real Estate License. Topic covered include principles of real estate, real estate law, landlord tenant relationships, ownership and transfer of real property, legal descriptions, taxes, closing disclosures and procedures, fair housing, real estate appraisal, financing, and general overview of both State and Federal laws regarding the real estate industry. Students will be given a review of

Description of Courses

both the Texas Real Estate License Act and The Rules and Regulations of the Texas Real Estate Commission.

RELE 1200 - Contract Forms and Addenda
Credits: 2 (2 lecture). Promulgated Contract Forms, which shall include but is not limited to unauthorized practice of law, broker-lawyer committee, current promulgated forms, commission rules governing use forms and case studies involving use of forms. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1201 - Principles of Real Estate I
Credits: 2 (2 lecture). A beginning overview of licensing as a real estate broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1211 - Law of Contracts
Credits: 2 (2 lecture). Elements of a contract, offer and acceptance, statute of frauds, specific performance and remedies for breach, unauthorized practice of law, commission rules relating to use of adopted forms, and owner disclosure requirements. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1219 - Real Estate Finance
Credits: 2 (2 lecture). Monetary systems, primary and secondary money markets, sources of mortgage loans, federal government programs, loan applications, processes and procedures, closing costs, alternative financial instruments, equal credit opportunity laws affecting mortgage lending, Community Reinvestment Act, and the state housing agency. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1238 - Principles of Real Estate II
Credits: 2 (2 lecture). Overview of licensing as a broker or salesperson. Includes ethics of practice as a license holder, titles to and conveyance of real estate, legal descriptions, deeds, encumbrances and liens, distinctions between personal and real property, appraisal, finance and regulations, closing procedures, and real estate mathematics. Covers at least three hours of classroom instruction on federal, state, and local laws relating to housing, discrimination, housing credit discrimination, and community reinvestment. Fulfills at least 30 of 60 hours of required instruction for salesperson license. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1291 - Special Topics in Real Estate
Credits: 3 (3 lecture). Commercial Real Estate is an overview of the commercial real estate industry which includes: commercial real estate culture, real estate professionalism and ethics, types of properties, investors, end users, leasing, developing, marketing psychology, advertising, time management, negotiating and closing, financing and characteristics of a successful salesperson. Prerequisite: Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1303 - Real Estate Appraisal
Credits: 3 (3 lecture). A study of the central purposes and functions of an appraisal, social and economic determinants of value, appraisal case studies, cost, market data and income approaches to value estimates, final correlations, and reporting. Accredited: Texas Appraiser Licensing and Certification Board. (Formerly REAL 2301) Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

Description of Courses

RELE 1307 - Real Estate Investments

Credits: 3 (3 lecture). Characteristics of real estate investments. Includes techniques of investment analysis, time-valued money, discounted and non-discounted investment criteria, leverage, tax shelters, depreciation, and applications to property tax. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1309 - Real Estate Law

Credits: 3 (3 lecture). Provides a study of legal concepts of real estate, land description, real property rights, estates in land, contracts, conveyances, encumbrances, foreclosures, recording procedures, and evidence of title. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1315 - Property Management

Credits: 3 (3 lecture). A study of the role of the property manager, landlord policies, operating guidelines, leases, lease negotiations, tenant relations, maintenance, reports, habitability laws, and the Fair Housing Act. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1321 - Real Estate Marketing

Credits: 3 (3 lecture). A study of real estate professionalism and ethics; characteristics of successful salespersons; time management; psychology of marketing; listing procedures; advertising; negotiating and closing financing; and the Deceptive Trade Practice Act. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1323 - Real Estate Computer Applications

Credits: 3 (3 lecture). A study of the availability of technology, current software, and its ability to help a real estate agent become more productive. Includes database, mapping, mortgage interest, contact management, presentation and real estate related software application packages. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1324 - Loan Origination and Quality Control

Credits: 3 (3 lecture). An introduction to the mortgage loan application process. Topics include regulatory compliance and documentation; real estate contracts; the mortgage application process, interview techniques; credit, income and property qualification, quality controls and procedures. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1325 - Real Estate Mathematics

Credits: 3 (3 lecture). Basic arithmetic skills. Includes mathematical logic, percentages, interest, time value of money, depreciation, amortization, proration, and estimation of closing statements. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1327 -

RELE 1329 - Fundamentals of Environmental Issues

Credits: 3 (3 lecture). A study of environmental issues affecting the real estate industry including hazardous substances, underground storage tanks, wetlands, radon, asbestos, lead, endangered species protection, sick building syndrome and electromagnetic fields. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1335 - Real Estate Construction

Credits: 3 (3 lecture). A study of the basic principles of design and construction of real estate properties. This course meets part of the educational requirements, as determined by The Texas Real Estate Commission, to become a licensed inspector. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 1371 - Loan Processing

Credits: 3 (3 lecture). A study of the theoretical and practical framework necessary to understand the complex field of mortgage lending with emphasis on loan application, qualifications, and processing. Also includes the role of lenders, residential loan appraisals, closing, and funding the loan. This course emphasizes workforce training in the areas of loan processing and originating procedures as determined by the needs of industry. Accredited: Texas Savings and Loan Department. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1381 - Cooperative Education - Real Estate

Credits: 3 (1 lecture, 20 lab). Career related activities encountered in the student's area of specialization are offered through an individualized agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines, classroom learning with work experience. Includes a lecture component. Prerequisite: Department Approval and RELE 2301; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 1391 - Special Topics in Real Estate

Description of Courses

Credits: 3. Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student.

RELE 2201 - Law of Agency

Credits: 2 (2 lecture). A study of Law of agency including principal-agent and master-servant relationships, the authority of an agent, the termination of an agent's authority, the fiduciary and other duties of an agent, employment law, deceptive trade practices, listing or buying representation procedures, and the disclosure of an agency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

RELE 2305 - Real Estate Inspections

Credits: 3 (3 lecture). A study of the different types of building systems and materials used in the design and construction of real property. Covers residential construction and commercial building systems and materials. Includes different structural building systems with emphasis on wood-related products, concrete and masonry, brick, stone, and steel units. This course meets part of the educational requirements, as determined by The Texas Real Estate Commission, to become a licensed inspector. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2307 - Real Estate Title and Settlement

Credits: 3 (3 lecture). Examines the procedural aspects required to research land titles, establish and administer title closings, escrow, determination of settlement requirements, and filing. In addition, the lender's closing instructions, document review, funding procedures, post closing audit and file set up will be presented. This course emphasizes workforce training in the area of closing and funding procedures as determined by the needs of industry. Accredited: Texas Savings and Loan Department. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2311 - Fundamentals of Mortgage Lending

Credits: 3 (3 lecture). A study of the theoretical and practical framework necessary to understand the complex field of mortgage lending with emphasis on loan application, qualifications, and underwriting. Also includes the role of lenders, security instruments, residential loan appraisals, and closing and funding the loan. This course emphasizes workforce training in the areas of loan processing and underwriting procedures as determined by the needs of industry. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2331 - Real Estate Brokerage

Credits: 3 (3 lecture). A study of law of agency, planning and organization, operational policies and procedures, recruiting, selection and training of personnel, records and control, and real estate firm analysis and expansion criteria. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RELE 2381 - Cooperative Education-Real Estate

Credits: 3 (1 lecture, 20 lab). Career related activities encountered in the student's area of specialization are offered through a cooperative agreement between the college, employer, and student. Under supervision of the college and the employer, the student combines, classroom learning with work experience. Directly related to a technical discipline, specific learning objectives guide the student through the paid work experience. This course may be repeated if topics and learning outcomes vary. The student is required to work a minimum of 20 hours a week and attend a weekly seminar. An approved project and final report is required. Prerequisite: Department Approval and RELE 1381; must be placed into GUST 0341 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RNSG 1105 - Nursing Skills I

Credits: 1 (3 Lab). Study of concepts and principles essential for demonstrating competence in the performance of nursing procedures. Topics include knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: Admission to the A.D.N program. Corequisite: RNSG 1413, RNSG 1360

Description of Courses

RNSG 1144 - Nursing Skills II

Credits: 1 (3 Lab). Study of concepts and principles necessary to perform intermediate or advanced nursing skills; and demonstrate competence in the performance of nursing procedures. Topics include knowledge, judgment, skills and professional values within a legal/ethical framework. Prerequisite: RNSG 1251, RNSG 2213 Corequisite: RNSG 1343, RNSG 2221, RNSG 2130, RNSG 2361

RNSG 1160 - Clinical - Registered Nursing/Registered Nurse

Credits: 1. A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

RNSG 1161 - Clinical - Registered Nursing/Registered Nurse

Credits: 1. A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.

RNSG 1163 - Clinical - Registered Nursing/Registered Nurse

Credits: 1 (3 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to the ADN transition program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: RNSG 1327, RNSG 1215

RNSG 1201 - Pharmacology

Credits: 2 (2 lecture). Introduction to the science of pharmacology with emphasis on the actions, interactions, adverse effects, and nursing implications of drug classifications. Content includes the roles and responsibilities of the nurse in safe administration of medications within a legal/ethical framework.

RNSG 1215 – Health Assessment Credits: 2. Development of skills and techniques required for a comprehensive nursing health assessment within a legal/ethical framework. This course lends itself to a blocked approach.

RNSG 1251 - Care of the Childbearing Family

Credits: 2 (2 lecture). Study of the concepts related to the provision of nursing care for childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values with a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, RNSG 2201, RNSG 1341, RNSG 2360 Corequisite: 1160, RNSG 2213

RNSG 1327 - Transition to Professional Nursing

Credits: 3 (3 lecture). Topics include health promotion, expanded assessment, analysis of data, nursing process, pharmacology, multidisciplinary teamwork, communication, and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework throughout the life span. Prerequisite: Admission to the ADN transition program; must be placed into college-level reading, college-level writing and MATH 0312 in math. Corequisite: RNSG 1163

RNSG 1341 - Common Concepts of Adult Health

Credits: 3 (3 lecture). Basic integration of the role of the professional nurse as a provider of patient-centered care, patient safety advocate, member of the profession. Study of the common concepts of caring for adult patients and families with medical-surgical health care needs related to body systems, emphasizing knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: RNSG 1360, RNSG 1413 Corequisite: RNSG 2360, RNSG 2201, RNSG 2261

RNSG 1343 - Complex Concepts of Adult Health

Credits: 3 (3 lecture). Integration of previous knowledge and skills related to common adult health needs into the continued development of the professional nurse as a provider of care, coordinator of care, and member of a profession in the care of adult clients/families in structured health care settings with complex medical-surgical health care needs associated with each body system. Emphasis on knowledge, judgments, skills, and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisite: RNSG 2213, RNSG 1251 Corequisite: RNSG 2361, RNSG 1144

Description of Courses

RNSG 1360 - Clinical - Registered Nursing/Registered Nurse - RNT Foundations
Credits: 3 (9 Clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Prerequisite: Prerequisite: Admission to the ADN program. Corequisite: Corequisite: RNSG 1115, RNSG 1413

RNSG 1413 - Foundations for Nursing Practice
Credits: 4 (3 lecture, 2 lab). Introduction to the role of the professional nurse as provider of care, coordinator of care, and member of the profession. Topics include but are not limited to the fundamental concepts of nursing practice, History, Civilization, of professional nursing, a systematic framework for decision-making, mechanisms of disease, the needs and problems that nurses help patients manage, and basic psychomotor skills. Emphasis on knowledge, judgment, skills and professional values within a legal/ethical framework. This course lends itself to a blocked approach. Prerequisite: Admission to the ADN program. Corequisite: RNSG 1115, RNSG 1360, BIOL 2402, PSYC 2314

RNSG 2130 - Professional Nursing Review and Licensure Preparation
Credits: 1 (1 lecture). Review of concepts required for licensure examination and entry into the practice of professional nursing. Includes application of National Council Licensure Examination for Registered Nurses (NCLEX-RN) test plan, assessment of knowledge deficits, and remediation. This course lends itself to either a blocked or integrated approach. Prerequisite: RNSG 2213, RNSG 1251 Corequisite: RNSG 1343 or Department Approval

RNSG 2160 - Clinical-Registered Nursing/Registered Nurse
Credits: 1 (6 clinical). A health related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Prerequisite: RNSG 1341, RNSG 2201, 1413, RNSG 1360
Corequisite: RNSG 2213, RNSG 1251

RNSG 2201 - Care of Children and Families
Credits: 2 (2 lecture). Study of concepts related to the provision of nursing care for children and families, emphasizing judgment, and professional values within a legal/ethical framework. Prerequisite: RNSG 1413, RNSG 1360, RNSG 1105 Corequisite: RNSG 1341, RNSG 2360, RNSG 2261

RNSG 2213 - Mental Health Nursing
Credits: 2 (2 lecture). Principles and concepts of mental health, psychopathology, and treatment modalities related to the nursing care of clients and their families.
Prerequisite: RNSG 2201, RNSG 1341 Corequisite: RNSG 1251, RNSG 2160

RNSG 2221 - Professional Nursing: Leadership and Management
Credits: 2 (2 lecture). Exploration of leadership and management principles applicable to the roles of the professional nurse. Includes application of knowledge, judgment, skills, and professional values within a legal/ethical framework. Prerequisite: RNSG 1251, RNSG 2213

RNSG 2261 - Clinical - Registered Nursing/Registered Nurse
Credits: 2 (6 clinical). Study of the concepts related to the provision of nursing care for childrearing families; application of systematic problem-solving processes and critical thinking skills, including a focus on the childrearing family from birth to adolescence; and competency in knowledge, judgment, skill, and professional values with a legal/ethical framework.
Prerequisite: RNSG 1413, RNSG 1360, , RNSG 1105
Corequisite: RNSG 2360, RNSG 2201, RNSG 1341

RNSG 2314 - Integrated Care of the Patient with Complex Health Care Needs
Credits: 3. Application of a systematic problem-solving process, critical thinking skills and concepts to provide comprehensive nursing care to patients and families across the lifespan with complex health care needs including, but not limited to, complex childhood/adolescent diseases, complicated perinatal care, acute mental illness, complex perioperative care, serious adult health problems and health issues related to aging. Emphasis on tertiary disease prevention, health maintenance/restoration and collaboration with members of the interdisciplinary health care team. Content includes the roles of the professional nurse and applicable competencies in knowledge, judgment, skills, and professional values within a legal/ethical framework. This course lends itself to an integrated approach.
Prerequisite: Integrated Care of the Patient with Common Health Care Needs: 2404, 2504

RNSG 2360 - Clinical - Registered Nursing/Registered Nurse
Credits: 3 (9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Prerequisite: RNSG413, RNSG 1360 Corequisite: RNSG 1341

Description of Courses

RNSG 2361 - Clinical - Registered Nursing/Registered Nurse
Credits: 3 (9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Prerequisite: RNSG, 1251, RNSG 2213 Corequisite: RNSG 1144, RNSG 1343

RSPT 1201 - Introduction to Respiratory Care
Credits: 2 (2 lecture). An introduction to the field of respiratory care. Topics include the History, Civilization, of respiratory care, hospital organization, medical malpractice, ethics, vital signs, body mechanics, basic cardiopulmonary assessment, infection control, and cardiopulmonary resuscitation (CPR). Prerequisite: Must be placed into college-level reading, writing and math.

RSPT 1213 - Basic Respiratory Care Pharmacology
Credits: 2 (2 lecture). A study of basic pharmacological principles/practices of respiratory care drugs. Emphasis on classification, routes of administration, dosages/calculations, and physiological interaction.
Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1225

RSPT 1225 - Respiratory Care Sciences
Credits: 2 (2 lecture, 1 lab). Physics, mathematics, and chemistry as related to respiratory care. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1213

RSPT 1240 - Advanced Cardiopulmonary Anatomy and Physiology
Credits: 2 (2 lecture). Provides an advanced presentation of anatomy and physiology of the cardiovascular and pulmonary system. Prerequisite: BIOL 2301 BIOL 2101, BIOL 2302, BIOL 2102; must be placed into college-level reading, writing and math.

RSPT 1262 - Clinical - Respiratory Care Therapy/Therapist
Credits: 2 (8 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: RSPT 1361, RSPT 1225; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2314

RSPT 1310 - Respiratory Care Procedures I
Credits: 3 (2 lecture, 3 lab). Essential knowledge of the equipment and techniques used in the treatment of cardiopulmonary disease. Content areas include: oxygen therapy, humidity and aerosol therapy, lung expansion therapy, bronchial hygiene therapy, pulse oximetry, arterial blood gas sampling and interpretation.
Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1361

RSPT 1311 - Respiratory Care Procedures II
Credits: 3 (2 lecture, 3 lab). Provides essential knowledge of airway care and mechanical ventilation. Airway care includes indications, techniques, equipment, and hazards and complications. Mechanical ventilation includes indications, initiation, modes, clinical application, management, complications, and weaning. Prerequisite: RSPT 1361, RSPT 1310; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 1362

RSPT 1360 - Clinical - Respiratory Care Therapy / Therapist
Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Prerequisite: RSPT 1201 Corequisite: Corequisite: RSPT 1310

RSPT 1361 - Clinical - Respiratory Care Therapy / Therapist
Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional.
Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: RSPT 1310

RSPT 2210 - Cardiopulmonary Disease
Credits: 2 (2 lecture). A discussion of pathogenesis, pathology, diagnosis, History, Civilization, , prognosis, manifestation, treatment, and detection of cardiopulmonary diseases. Prerequisite: RSPT 1240; RSPT 2361; must be placed into college-level reading, writing and math.

RSPT 2230 - Respiratory Care Examination Preparation
Credits: 2 (1 lecture, 4 lab). Theory and History, Civilization, of clinical simulation examinations. Includes construction types, scoring, and mechanics of taking the computerized simulation examination respiratory care.
Prerequisite: RSPT 2325 Corequisite: RSPT 2262

Description of Courses

RSPT 2239 - Advanced Cardiac Life Support
Credits: 2 (1 lecture, 2 lab). Advanced Cardiac Life Support (ACLS) with an emphasis on airway management. Designed to develop skills for resuscitation of the adult. Includes strategies for managing and stabilizing the cardiopulmonary arrested patient. May include certification. Prerequisite: RSPT 2317, RSPT 2325, RSPT 2255, RSPT 2258; must be placed into college-level reading, writing and math.

RSPT 2255 - Critical Care Monitoring
Credits: 2 (2 lecture). Advanced monitoring techniques used to assess a patient in the critical care setting. Prerequisite: RSPT 2260; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2266

RSPT 2258 - Respiratory Care Patient Assessment
Credits: 2 (2 lecture). Integration of patient examination techniques, including patient History, Civilization, and physical exam, lab studies, x-ray, pulmonary function, arterial blood gases, and invasive and noninvasive hemodynamics. Prerequisite: RSPT 1201; must be placed into college-level reading, writing and math.

RSPT 2262 - Clinical - Respiratory Care Therapy/Therapist
Credits: 2 (8 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2362 Corequisite: RSPT 2230

RSPT 2314 - Mechanical Ventilation
Credits: 3 (3 lecture, 1 lab). The study of mechanical ventilation with emphasis on ventilator classification, methods, principles, and operational characteristics. Includes indications, complications, and physiologic effects/principles of mechanical ventilation. Emphasizes initiation, management, and weaning of ventilatory support. Prerequisite: RSPT 1213 Corequisite: Corequisite: RSPT 1262

RSPT 2325 - Cardiopulmonary Diagnostics
Credits: 3 (3 lecture). A study of physical, radiological, hemodynamic, laboratory, nutritional, and cardiopulmonary diagnostic assessment of the pulmonary patient. Prerequisite: RSPT 2255, RSPT 2310; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2233

RSPT 2353 - Neonatal/Pediatric Cardiopulmonary Care
Credits: 3 (3 lecture). A study of acute care, monitoring, and management as applied to the neonatal and pediatric patient. Prerequisite: Must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2267

RSPT 2361 - Clinical - Respiratory Care Therapy/Therapist
Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 1262 Corequisite: Corequisite: RSPT 2255

RSPT 2362 - Clinical-Respiratory Care Therapy/Therapist
Credits: 3 (16 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: RSPT 2361; must be placed into college-level reading, writing and math. Corequisite: Corequisite: RSPT 2353

RSTO 1301 - Beverage Management
Credits: 3. A study of the beverage service of the hospitality industry including spirits, wines, beers, and non-alcoholic beverages. Topics include purchasing, resource control, legislation, marketing, physical plant requirements, staffing, service, and the selection of wines to enhance foods.

RSTO 1325 - Purchasing for Hospitality Operations
Credits: 3. Study of purchasing and inventory management of foods and other supplies to include development of purchase specifications, determination of order quantities, formal and informal price comparisons, proper receiving procedures, storage management, and issue procedures. Emphasis on product cost analysis, yields, pricing formulas, controls, and record keeping at each stage of the purchasing cycle.

RSTO 1371 - Principles of Food Preparation for Hospitality
Credits: 3 (2 lecture, 4 lab). A study in the fundamentals of food preparation to introduce hospitality administration students to basic culinary skills. Topics include kitchen professionalism, proper station set up, basic knife skills, basic cooking technique, proper handling and storage of food items and appropriate portion and plating techniques.

Description of Courses

RSTO 1491 - Special Topics in Food and Beverage / Restaurant Operations Manager
Credits: 4 (3 lecture, 3 lab). This course addresses the general principles of food preparation including the safe use of kitchen tools and equipment and a general survey of basic food preparation. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

RSTO 2301 - Principles of Food and Beverage Controls
Credits: 3 (3 lecture). A study of financial principle and controls of food service operation including review of operation policies and procedures. Topics include financial budgeting and cost analysis emphasizing food and beverage labor costs, operational analysis, and internal and regulatory reporting procedures. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

RTVB 1240 - Audio/Radio Production Practices
Credits: 2 (1 lecture, 3 lab). Introduces through practical hands-on experience the equipment and procedures used in multitrack recording. Includes basic tracking, simple overdubs and operation of specific recording equipment commonly found in audio facilities, mixing, and equalization. Prerequisite: MUSC 1427, MUSC 1331; must be placed into GUST 0342, ENGL 0310 or 0349 and MATH 0308 in math. Corequisite: Corequisite: MUSC 2427

RTVB 1309 - Audio/Radio Production I
Credits: 3 (2 lecture, 4 lab). Concepts and techniques of sound production including basic recording, mixing, and editing techniques. Prerequisite: Must be placed into college-level reading, writing and math.

RTVB 1317 - Convergence of Electronic Media
Credits: 3 (3 lecture). History, Civilization, and future of electronic media. Includes radio, television, Internet, and convergent technologies. Recognizes regulatory and economic issues. Explores career opportunities in electronic media. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

RTVB 1321 - TV/Video Field Production
Credits: 3 (2 lecture, 4 lab). Video field camera set up and operation for broadcast and digital media. Incorporates basic editing and field audio techniques. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RTVB 1325 - TV Studio Production
Credits: 3 (2 lecture, 4 lab). Basic television production. Includes studio program content, studio camera operation, and television audio. Prerequisite: RTVB 1317; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

RTVB 1329 - Scriptwriting
Credits: 3 (2 lecture, 4 lab). Writing scripts for film and electronic media. Emphasizes format and style for commercials, public service announcements, promos, news, and documentaries. Prerequisite: Prerequisite: ENGL 1301

RTVB 1355 - Radio and Television Announcing
Credits: 3 (2 lecture, 4 lab). Radio and television announcing skills such as voice quality, articulation, enunciation and pronunciation. Preparation for opportunities in announcing employment in news, sports, commercial, voice talent and disk jockey, and radio and TV. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

RTVB 1401 - Broadcast News Writing
Credits: 4 (3 lecture, 2 lab). Instruction in the writing of news copy according to standard broadcast formats. Prerequisite: ENGL 1301; must be placed into college-level reading, writing and math.

RTVB 1447 - Audio / Radio Production II
Credits: 4 (3 lecture, 2 lab). Audio production theories regarding multitrack recording, studio live production and equipment operation. Prerequisite: RTVB 1409; must be placed into college-level reading, writing and math.

RTVB 2164 - Practicum (or Field Experience) - Radio and Television
Credits: 1 (10 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: FLMC 1304, FLMC 2333, FLMC 2344

RTVB 2232 - Audio/Radio Production Practices II
Credits: 2 (1 lecture, 3 lab). Topics include special effects, automated overdubbing, operation of specific recording equipment commonly found in large format multi-track audio facilities, mixing, and equalization. Complete one recording project using the lab time and facilities. Prerequisite: MUSC 2427, MUSC 2355; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math. Corequisite: Corequisite: MUSC 2447

Description of Courses

RTVB 2282 - Cooperative Education - Radio and Television Broadcasting Technology/Technician
Credits: 2 (1 lecture, 10 lab). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: MUSC 2447; must be placed into college-level reading, writing and math.

RTVB 2330 - Film and Video Editing
Credits: 3 (2 lecture, 4 lab). Film and broadcast editing for the preparation and completion of shorts, trailers, documentaries, and features. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

RTVB 2335 - TV/Video Production
Credits: 3 (2 lecture, 4 lab). Pre-production, production, and post-production process involved in multiple-camera studios. Includes advanced instruction in camera operation, lighting, audio, and television directing. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

RTVB 2337 - TV/Video Production Workshop I
Credits: 3 (2 lecture, 4 lab). Application and design of video productions in location or studio shoots with real deadlines and quality control restrictions. Prerequisite: Must be placed into college-level reading, writing and math.

RTVB 2343 - Commercial Recording Techniques
Credits: 3 (2 lecture, 4 lab). Student will operate audio production and editing equipment, coordinate and direct music production projects from booking to post-production, and characterize the music industry and surrounding labor market. This class provides a capstone experience during which the student will use all of the skills acquired throughout this program. Students are required to attend additional lab hours outside of class. Prerequisite: MUSC 2447; must be placed into college-level reading, writing and math.

RTVB 2386 - Internship - Radio and Television Broadcasting
Credits: 3 (18 lab). A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: RTVB 1317 and Department Approval; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

RUSS 1411 - Beginning Russian I
Credits: 4 (3 lecture, 2 lab). Introduction to Russian language and culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

RUSS 1412 - Beginning Russian II
Credits: 4 (3 lecture, 2 lab). Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Continuation of RUSS 1411 Prerequisite: RUSS 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school Russian within the last two years Must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

RUSS 2311 - Intermediate Russian I
Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning Russian. Study of more complex language structures. Oral and written practice based on readings and dialogues. Directed composition. Class conducted largely in Russian. Core Curriculum Course. Prerequisite: RUSS 1412 or equivalent; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

RUSS 2312 - Intermediate Russian II
Credits: 3 (3 lecture). Continuation of RUSS 2311. Oral practice and compositions based on readings. Class conducted mainly in Russian. Core Curriculum Course. Prerequisite: Prerequisite: RUSS 2311 or equivalent; must be placed into college - level reading (or take GUST 0342 as a co-requisite) and be placed into college level writing (or take ENGL 0310/0349 as a co-requisite)

SCIT 1320 - Physics for Allied Health
Credits: 2 (2 lecture, 2 lab). An introduction to physics with emphasis on applications to health related fields of study. Topics include forces, motion, work and energy, fluids, heat, electricity and magnetism, wave motion, sound, electromagnetic radiation, and nuclear radiation. Prerequisite: Must be placed into college-level reading, writing and math.

Description of Courses

SCIT 1407 - Applied Human Anatomy and Physiology I
Credits: 4 (4 lecture, 1 lab). An applied systematic study of the structure and function of the human body designed for students considering a career in the health field. Includes anatomical terminology, cells, tissues, and the following systems: integumentary, skeletal, muscular, nervous, and endocrine. Emphasis on homeostasis. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1408 - Applied Human Anatomy and Physiology II
Credits: 4 (4 lecture, 1 lab). A continuation of Applied Human Anatomy and Physiology I designed for students considering a career in the health field. The following body systems are included: digestive, respiratory, cardiovascular, lymphatic/immune, renal/excretory, and reproductive. Emphasis is on homeostasis. Prerequisite: SCIT 1407; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1414 - Applied General Chemistry I
Credits: 4 (3 lecture, 3 lab). Applications of general chemistry emphasizing industry-related laboratory skills and competencies including laboratory safety and report writing. Addresses supporting chemical theories including atomic and molecular structure, nomenclature, chemical reactivity, gas laws, acids and bases, and solutions. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SCIT 1415 - Applied General Chemistry II
Credits: 4 (3 lecture, 3 lab). Applications of general chemistry emphasizing industry-related laboratory skills and competencies including laboratory safety and report writing. Addresses supporting chemical theories including covalent bonding, thermodynamics, equilibrium, reaction rates, electrochemistry, nuclear chemistry, and organic compounds. Prerequisite: SCIT 1414 or Department Approval; must be placed into college-level reading, writing and math.

SCIT 1418 - Applied Physics
Credits: 4 (3 lecture, 3 lab). Introduction to physics for industrial applications including vectors, motion, mechanics, simple machines, matter, heat, and thermodynamics. Prerequisite: MATH 1314 or Department Approval; must be placed into college-level reading, writing and math.

SCIT 1543 - Applied Analytical Chemistry
Credits: 5 (4 lecture, 2 lab). Principles of quantitative analysis as related to industrial applications. Includes gravimetric and titrimetric analysis of practical samples by classical and standard methods. Prerequisite: Prerequisite: SCIT 1414 and MATH 1314 or CHEM 1411 and MATH 1314 or Department Approval; must be placed into college-level reading, writing and math.

SCIT 2401 - Applied Organic Chemistry I
Credits: 4 (2 lecture, 4 lab). Applications of the chemistry carbon emphasizing industry-related laboratory skills and competencies. Prerequisite: SCIT 1414 or CHEM 1411 or Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SCIT 2402 - Applied Organic Chemistry II
Credits: 4 (2 lecture, 4 lab). Continuation of the applications of the chemistry of carbon compounds emphasizing industry-related laboratory skills and competencies. Includes reaction mechanisms, spectroscopy, and synthetic methods. Prerequisite: Prerequisite: SCIT 2401; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SCWK 1321 - Orientation to Social Services
Credits: 3 (3 lecture). Introduction to the basic concepts, information, and practices within the field of social services. Topics include a survey of the historical development of social services; social, legal, and clinical definitions; and review of current information regarding indications for and methods of treatment and/or services. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SGNL 1401 - Beginning American Sign Language I
Credits: 4 (3 lecture, 2 lab). An introduction to the basic skills in production and comprehension of American Sign Language (ASL). Includes the manual alphabet and numbers. Develops conversational ability, culturally appropriate behaviors, and exposes students to ASL grammar. Student must complete the course with a ?B? or better. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

Description of Courses

SGNL 1402 - Beginning American Sign Language II
Credits: 4 (3 lecture, 2 lab). Develops receptive and expressive ability and allows recognition and demonstration of more sophisticated grammatical features of American Sign Language (ASL). Increases fluency and accuracy in fingerspelling and numbers. Provides opportunities for interaction within the deaf community. Student must complete the course with a B or better. Prerequisite: Prerequisite: SLNG 1307, SLNG 1311, SGNL 1401; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0306 in math.

SGNL 2301 - Intermediate American Sign Language I
Credits: 3 (2 lecture, 2 lab). Integrates and refines expressive and receptive skills in American Sign Language (ASL), including recognition of sociolinguistic variation. A practice oriented approach to language acquisition. Student must complete the course with a B or better. Prerequisite: Prerequisite: SLNG 1311, SGNL 1401, SGNL 1402; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SGNL 2302 - Intermediate American Sign Language II (4th semester ASL)
Credits: 3 (2 lecture, 2 lab). An integration of expressive and receptive skills in American Sign Language (ASL) with emphasis on grammar, linguistics, literature, and discourse styles at an intermediate level. Provides students with information on linguistic and cultural variations. Prerequisite: Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SLNG 1311; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1248 - Vocabulary Development for Interpreters
Credits: 2 (1 lecture, 3 lab). A course in vocabulary building in English and American Sign Language for interpreters. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1307 - Intra-lingual Skills Development for Interpreters
Credits: 2 (2 lecture, 1 lab). Concentration on the development of intra-lingual (English to English) skills necessary for future development of inter-lingual (English to American Sign Language [ASL]/ASL to English) skills. Focus on linguistic and cognitive skills development in areas of paraphrasing, summarizing, main idea identification, comprehension, memory, delayed repetition, multi-tasking, vocabulary, and cultural literacy. Prerequisite: SGNL 1401, 1402, 2301, 2302; Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1311 - Fingerspelling and Numbers
Credits: 2 (2 lecture, 1 lab). Development of expressive and receptive skills in fingerspelling and numbers. Receptive skills focus on whole word phrase recognition and fingerspelling/number comprehension in context. Expressive skills focus on the development of speed, clarity, and fluency. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1317 - Introduction to the Deaf Community
Credits: 3 (3 lecture). An overview of the physical, educational, social, and cultural implications within the context of a deaf or hard-of-hearing individual's personal life, family, and community in today's multicultural world. Emphasis on current educational and vocational programs, legislation, technology, oppression, and other issues. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1321 - Introduction to the Interpreting Profession
Credits: 3 (3 lecture). An overview of the field of sign language interpretation. Provides a historical framework for the principles, ethics, roles, responsibilities, and standard practices of the interpreting profession. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1347 - Deaf Culture
Credits: 3 (3 lecture). Provides a historical and contemporary perspective of American deaf culture using a sociocultural model. Includes cultural identity and awareness, values, group norms, communication, language, and significant contributions made by deaf people to the world. Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 1350 - Sign-To-Voice
Credits: 3 (2 lecture, 2 lab). Skill development in interpreting and transliterating from American Sign Language and other modes of communication to English and analysis of increasingly complex tasks utilizing simulated interpreting experiences including skills analysis and peer evaluation.

Description of Courses

SLNG 1391 - Special Topics in Sign Language Interpreting
Credits: 3 (2 lecture, 2 lab). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Prerequisite: Prerequisite: SLNG 1307, SLNG 1311, SLNG 2401, SLNG 2402, SGNL 1401, SGNL 1402, SGNL 2301, Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2266 - Practicum (or Field Experience) - Sign Language Interpretation and Translation
Credits: 2. Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student.

SLNG 2301 - Interpreting I
Credits: 3 (2 lecture, 4 lab). An overview of the interpreting process and models of interpretation. Introduces the skills necessary to achieve dynamic message equivalence in interpreting American Sign Language (ASL) to English and English to ASL. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, SLNG 1311, Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2302 - Interpreting II
Credits: 3 (2 lecture, 4 lab). Continued development of discourse analysis and interpreting skills for increasingly complex tasks. Utilization of consecutive and simultaneous interpreting scenarios including monologues and dialogues. Emphasizes skill development, self-analysis, and peer evaluation. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, SLNG 1311, SLNG 1321, SLNG 2401; Department Approval. Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2315 - Interpreting in Educational Settings
Credits: 3 (2 lecture, 2 lab). Overview of education programs (K-12 and post secondary), focusing on the roles and skills of the interpreter as a member of the educational team. Includes current practices, communication methods, legislation, trends, and ethical issues. Introduces resources for content-specific vocabulary Prerequisite: Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2331 - Interpreting III
Credits: 3 (2 Lecture, 4 lab). A practice-oriented course to strengthen skills in the integration and application of interpreting using complex source materials. Continued exposure to simulated interpreting/transliterating experiences. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1307, 1311, SLNG 1321, SLNG 2401, SLNG 2402; Department Approval; must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2371 - Specialized Signs
Credits: 3 (2 lecture, 2 lab). This course focuses on specialized sign language interpreting settings from source language into a target language of American Sign Language and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another. Prerequisite: SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 2301.

Must be placed into college-level reading, college-level writing and MATH 0312 in math.

SLNG 2380 - Cooperative Education - Sign Language Interpretation and Translation
Credits: (1 lecture, 240 contact hours). Career-related activities encountered in the student's area of specialization offered through an individualized agreement among the college, employer, and student. Under the supervision of the college and the employer, the student combines classroom learning with work experience. Includes a lecture component. Prerequisite: Departmental Approval

SLNG 2586 - Internship
Credits: . A work-based learning experience that enables the student to apply specialized occupational theory, skills and concepts. A learning plan is developed by the college and the employer. Prerequisite: SLNG 1307, SLNG 1311, SLNG 1321, SLNG 1317, SLNG 1347, SGNL 1401, SGNL 1402, SGNL 2301, SGNL 2302, SLNG 1248, SLNG 1317, SLNG 1321, SLNG 1347, SLNG 1391, SLNG 2315, SLNG 2401, SLNG 2402, SLNG 2431

SOCI 1301 - Introduction to Sociology
Credits: 3 (3 lecture). A survey course which focuses on the nature of human groups in American and world societies, their social and cultural adaptations, and the impact which various social processes may have on their social organization and social change. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

Description of Courses

SOCI 1306 - Social Problems

Credits: 3 (3 lecture). An inquiry into selected current social problems with specific reference to their original development, and suggested solutions. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOCI 2301 - Marriage & the Family

Credits: 3 (3 lecture). This course is a sociological analysis of marriage and family relations based on fundamental principles in the discipline. Both theory and current research findings are covered. Areas explored include family dynamics, interpersonal relations, demographic trends, and conflict management. Current and classical research is reviewed and applied. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOCI 2319 - Minority Studies

Credits: 3 (3 lecture). An in depth theoretical and practical Sociological analysis that examines historical and contemporary minority issues, including race and ethnicity, using historical and modern demographic data such as life span, birth rates, marriage patterns, business ownership, educational attainment, migration data, and assimilation/pluralism patterns as well as the impact of economic and social globalization on minorities in the United States and the world. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOCI 2336 - Criminology

Credits: 3 (3 lecture). An analysis of the social dimensions of crime as a form of deviant behavior; the nature and extent of crime; classic and modern theories; the role of the police and the courts, group and community oriented programs, with an evaluation of prevention, control, and treatment programs. This course satisfies the Social and Behavioral Sciences or Component Area Option of the HCC core. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOCI 2340 - Drug Use & Abuse

Credits: 3 (3 lecture). Study of the use and abuse of drugs in today's society. Emphasizes the physiological, sociological, and psychological factors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SOCI 2374 - Global Issues and Social Change

Credits: 3 (3 lecture). A macro level analysis of the dynamic processes of change affecting the increasingly global community, with emphasis on the role of technology. The course will focus on current trends in the broad topics of human ecology, human rights, the environment, culture and the social institutions. Special attention will be devoted to the conflict and security, international governmental and nongovernmental entities, social movements, and the role of the global citizen. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPAN 1300 - Beginning Spanish Conversation

Credits: 3 (3 lecture). An introductory Spanish course which emphasizes listening comprehension and speaking skills. Reading and writing may be done as reinforcement to oral communication skills. The course is slower-paced and less comprehensive than Spanish 1411. It is highly recommended for students without previous experience in the Spanish language. This course is not open to students whose first language is Spanish. Generally, does not transfer as foreign language credit, but may transfer as elective credit.

SPAN 1310 - Beginning Spanish Conversation II

Credits: 3 (3 lecture). Continuation of SPAN 1300. Emphasizes oral communication skills. Generally, does not transfer as foreign language credit, but may transfer as elective credit. Students who continue the study of Spanish following this course must take SPAN 1411. Prerequisite: Prerequisite: SPAN 1300 or equivalent

SPAN 1411 - Beginning Spanish I

Credits: 4 (3 lecture, 2 lab). Introduction to the Spanish language and Hispanic culture. Development of basic skills in listening comprehension, speaking, reading, writing, and cultural awareness. Course includes vocabulary building, conversation and grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

Description of Courses

SPAN 1412 - Beginning Spanish II

Credits: 4 (3 lecture, 2 lab). Continuation of SPAN 1411. Further development of listening comprehension, speaking, reading, and writing skills, and cultural awareness. More advanced grammar. Transfers as foreign language credit. Core Curriculum Course. Prerequisite: Prerequisite: SPAN 1411 or satisfactory score on an advanced placement examination or at least 2 years of high school Spanish within the last two years; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2311 - Intermediate Spanish I

Credits: 3 (3 lecture). Further development of listening, speaking, reading and writing skills and cultural awareness acquired in Beginning Spanish. Presentation of more complex language structures. Oral and written practice based on selected readings. Class conducted mainly in Spanish. Prerequisite: Prerequisite: SPAN 1412 or equivalent; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2312 - Intermediate Spanish II

Credits: 3 (3 lecture). Continuation of SPAN 2311. Special emphasis on written communication. Readings, discussions and compositions. Class conducted mainly in Spanish. Prerequisite: Prerequisite: SPAN 2311 or equivalent; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2313 - Spanish for Native/Heritage Speakers I

Credits: 3 (3 lecture). Designed for Hispanic-American and other students from a Spanish speaking background. Emphasis on basic skills in reading, spelling, and composition. Credit will not be given for both SPAN 2313 and SPAN 2311. Prerequisite: Prerequisite: test placement; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2315 - Spanish for Native/Heritage Speakers II

Credits: 3 (3 lecture). Continuation of SPAN 2313. Continued development of reading and writing skills and control of universal Spanish style. Prerequisite: Prerequisite: SPAN 2313; must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SPAN 2316 - Career - Oriented Conversational Spanish

Credits: 3 (3 lecture). A course emphasizing the development of listening and speaking skills at the intermediate level. The course will use vocabulary, structures, conversational situations and cultural information appropriate for a designated activity or topic such as business, music, travel or other specialized areas. Each time the course is offered, the particular focus will be specified. May be repeated for credit with permission of the Dean. Prerequisite: Prerequisite: SPAN 2311

SPAN 2321 - Readings in Spanish Literature

Credits: 3 (3 lecture). An introduction to Spanish literature through representative selections by major Spanish authors. Conducted in Spanish. Prerequisite: Prerequisite: SPAN 2312

SPCH 1311 - Introduction to Speech Communication

Credits: 3 (3 lecture). A survey course in the basic principles of oral communication. Includes the study of the use of the body and voice, the speaker-listener relationship, and preparation and delivery of platform speeches. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPCH 1315 - Public Speaking

Credits: 3 (3 lecture). Designed to develop proficiency in public speaking situations; emphasis on content, organization, and delivery of speeches for various occasions. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: SPCH 1311 or ENGL 1301 or Department Approval.

SPCH 1318 - Interpersonal Communication

Credits: 3 (3 lecture). A course designed to improve the student's effectiveness in small-group and one-to-one communication. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

Description of Courses

SPCH 1321 - Business and Professional Communication
Credits: 3 (3 lecture). Applies the techniques of oral communication to situations most common to business and professional people. Covers discussion methods, conference techniques, committee reports, instructions, lectures, and public speeches. Open to all students. Required for speech majors. Core Curriculum Course. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPCH 1342 - Voice and Diction
Credits: 3 (3 lecture). Training in the effective use of the voice and body. Includes study of the vocal mechanism and the phonetic alphabet; improvement of enunciation, pronunciation, and articulation. Recommended for non-native speakers. Open to all students. Required for speech majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPCH 2333 - Discussion and Small Group Communication
Credits: 3 (3 lecture). Examines the dynamics of small group communication and discussion situations, including body language. Open to all students, required of majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPCH 2335 - Argumentation and Debate
Credits: 3 (3 lecture). Study of principles of argumentation and debate. Practice in preparing written and spoken arguments. Open to all students. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPCH 2341 - Oral Interpretation
Credits: 3 (3 lecture). Cultivation of the art of oral presentation of literary forms, analysis of thought, development of imagination, communication of emotional values, and individual projects in interpretive reading. Open to all students. Required for speech majors. Prerequisite: Must be placed into college-level reading (or take GUST 0342 as a co-requisite) and be placed into college-level writing (or take ENGL 0310/0349 as a co-requisite).

SPNL 1291 - Special Topics in Spanish Language and Literature
Credits: 2 (2 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0342 (or higher) in reading and ENGL 0310/0349 (or higher) in writing.

SRGT 1361 - Clinical - Surgical Technology / Technologist
Credits: 3 (9 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Department Approval; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1371 - Sterile Processing
Credits: 3 (2 lecture, 2 lab). In-depth coverage of specialized surgical modalities in endoscopy, microsurgery, therapeutic surgical energies, and other integrated science technologies. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1372 - Comprehensive Anatomy and Physiology for the Surgical Technologist
Credits: 3 (3 lecture). Comprehensive study of the structure and function of human cells, tissues, and organ systems including integumentary, skeletal, muscular, and nervous system, endocrine, digestive, respiratory, cardiovascular, lymphatic/immune, renal/excretory, and reproductive. Fast-paced online course designed for the surgical technologist. Prerequisite: Department Approval; Admission to the program. Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1405 - Introduction to Surgical Technology
Credits: 4 (3 lecture, 3 lab). Orientation to surgical technology theory, surgical pharmacology and anesthesia, technological sciences, and patient care concepts. Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

Description of Courses

SRGT 1409 - Fundamentals of Perioperative Concepts and Techniques

Credits: 4 (3 lecture, 3 lab). In-depth coverage of perioperative concepts such as aseptic principles and practices, infectious processes, wound healing, and creation and maintenance of the sterile field.

Prerequisite: Must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1441 - Surgical Procedures I

Credits: 4 (3 lecture, 3 lab). Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the general, OB/GYN, genitourinary, and orthopedic surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: SRGT 1405, SRGT 1409; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1442 - Surgical Procedures II

Credits: 4 (3 lecture, 3 lab). Introduction to surgical pathology and its relationship to surgical procedures. Emphasis on surgical procedures related to the thoracic, peripheral vascular, plastic/reconstructive, EENT, cardiac, and neurological surgical specialties incorporating instruments, equipment, and supplies required for safe patient care. Prerequisite: Prerequisite: SRGT 1441; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRGT 1463 - Clinical -Surgical Technology / Technologist

Credits: 4 (24 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: SRGT 1361; must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRGT 1560 - Clinical - Surgical Technology / Technologist

Credits: 5 (25 external hours). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0312 in math.

SRGT 2130 - Professional Readiness

Credits: 1 (1 lecture, 1 lab). Transition into the professional role of the surgical technologist. Includes professional readiness for employment, attaining certification, and maintaining certification status. A capstone experience may be included.

SRGT 2463 - Clinical - Surgical Technology / Technologist

Credits: 4 (17 clinical). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Prerequisite: SRGT 1463; must be placed into GUST 0342 in reading, college-level writing and MATH 0312 in math.

SRVY 1301 - Introduction to Surveying

Credits: 3 (2 lecture, 4 lab). An overview of the surveying profession. The History, Civilization, of surveying and its impact on the world. Review of the mathematics used in surveying. Introduction to basic surveying equipment with emphasis on measurements. Instruction on surveying procedures and the limitation of errors. Calculation to determine precision and error of closure. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

SRVY 1341 - Land Surveying

Credits: 3 (2 lecture, 4 lab). A study of the measurement and determination of boundaries, areas, shapes, location through traversing techniques. Instruction in a variety of adjustment methods using programmed and non-programmed hand-held calculators and computers. Methods of traversing and adjustment of errors according to prevailing and applicable professional standards. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

SRVY 2348 - Plane Surveying

Credits: 3 (2 lecture, 4 lab). Surveying instruments, basic measuring procedures, vertical and horizontal control, and traverse closure. Prerequisite: Must be placed into GUST 0342 in reading, ENGL 0310 or 0349 in writing and MATH 0308 in math.

TECA 1303 - Families, School, & Community

Credits: 3 (3 lecture). A study of the child, family, community, and schools, including parent education and involvement, family and community lifestyles, child abuse, and current family life issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Association for the Education of Young Children position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. The course includes a minimum of 16 hours of field experiences Prerequisite: Must be placed into college-level reading and college-level writing.

Description of Courses

TECA 1311 - Educating Young Children

Credits: 3 (3 lecture). An introduction to the education of the young child, including developmentally appropriate practices and programs, theoretical and historical perspectives, ethical and professional responsibilities, and current issues. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the national Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth through age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations; and the course includes a minimum of 16 hours of field experiences. Prerequisite: Must be placed into college-level reading and college-level writing.

TECA 1318 - Wellness of the Young Child

Credits: 3 (2 lecture, 3 lab). A study of the factors that impact the well-being of the young child including healthy behavior, food, nutrition, fitness, and safety practices. Focuses on local and national standards and legal implications of relevant policies and regulations. Course content must be aligned as applicable with State Board for Educator Certification Pedagogy and Professional Responsibilities standards and coincide with the National Assessment of Educational Progress position statement related to developmentally appropriate practices for children from birth to age eight. Requires students to participate in field experiences with children from infancy through age 12 in a variety of settings with varied and diverse populations. Course includes a minimum of 16 hours of field experiences. Prerequisite: Must be placed into college-level reading and college-level writing.

TECA 1354 - Child Growth and Development

Credits: 3 (3 lecture). A study of the physical, emotional, social, language, and cognitive factors impacting growth and development of children through adolescence. (Cross-listed with PSYC 2308) Prerequisite: Must be placed into college-level reading and college-level writing.

TECM 1301 - Industrial Mathematics

Credits: 3 (3 lecture). Math skills applicable to industrial occupations. Includes fraction and decimal manipulation, measurement, percentage, and problem solving techniques for equations and ratio/proportion applications. Prerequisite: Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

TECM 1303 - Technical Calculations

Credits: 3. Specific mathematical calculations required by business, industry, and health occupations.

TRAI 1176 - Business Terminology for Translation and Interpretation

Credits: 1 (1 lecture). This course provides an introduction to the concepts and terminology of international business and has a broad coverage of essential elements of international business. It also focuses on the language of contracts, including Incoterms, and builds foundation for translation and interpretation in commercial areas. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1271 - Technology for Translation & Interpretation

Credits: Credit 2 (1 lecture, 2 lab). This course is an introduction to the equipment and electronic tools used by professional translators and interpreters throughout their workflow. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1272 - Terminology Management and Research

Credits: 2 (1 lecture, 2 lab). Basic terminology in the fields of medicine, law, computers, business, and technical fields will be covered. Students will learn how to ensure accuracy for highly specialized fields for which terminology may not yet be available. Different tools and techniques to find, store, and manage search results will be discussed. Prerequisite: TRAI 1371; Must be placed into college-level reading and college-level writing.

TRAI 1371 - Fundamentals of the Theory & Practice of Translation & Interpretation

Credits: 3 (3 lecture). This course, taught in English, is an introduction to translation into English and target language. Its goal is to teach students the basic principles of the theory of translation, the linguistic and cultural aspects of language transfer, the main techniques and strategies for translating and interpreting as well as the differences between English and target language regarding grammar, syntax, punctuation, and style. Prerequisite: Must be placed into college-level reading and college-level writing.

Description of Courses

TRAI 1372 - Writing, Editing & Revising for Translation
Credits: 3 (3 lecture). This course is designed for translators, editors and writers of business and other specialized and technical documents. Learning activities focus on requirements for the production of final English drafts of good quality. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 1373 - Intercultural Communication
Credits: 3 (3 lecture). This course focuses on important issues of global, national, regional and gender identities seen through the prism of translation activity. It scrutinizes the linguistic and cultural resources employed by translators to assimilate, channel, exploit, and localize discourses and voices in their respective environments. The focus will be on such areas as business, medical and legal areas as well as technical environments. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 2271 - Fundamentals of Specialized Written Translation (Sci-Tech)
Credits: 2 (1 lecture, 2 lab). This course focuses on translation of scientific and technical texts from source language (Spanish//Chinese/Russian/French) into the English language and vice versa, presenting linguistic and cultural issues affecting meaning transfer from one language to another. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 2272 - Introduction to Interpreting II (Medical)
Credits: 2. This course focuses on interpretation of medical content, including sight translation, from English into a target language (Spanish/French/Chinese Mandarin/Russian/Arabic, etc) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another.

TRAI 2273 - Introduction to Interpreting III (Simultaneous)
Credits: 2 (1 lecture, 2 lab). This course focuses on techniques and skills required for simultaneous interpretation including organizing and comprehending messages simultaneously, prediction skills, bilingual proficiency and multiculturalism, concentration, retention, and décalage. Students will practice this mode using scripts based on various scenarios Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 2274 - Introduction to Interpreting (Consecutive and Sight)
Credits: 2 (1 lecture, 2 lab). This course is designed to teach students the specialized techniques of consecutive and sight interpreting to prepare them for the career in the field. Techniques for note taking are also included in the course. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 2275 - Advanced Project in Translation
Credits: 2 (1 lecture, 3 lab). Students will conduct a translation project demonstrating their ability to apply all the skills and tools taught in the Program. Prerequisite: Must be placed into college-level reading and college-level writing.

TRAI 2277 - Fundamentals of Specialized Written Translation (Legal)
Credits: 2. This course focuses on translation of legal texts from English into a target language (Spanish/French/Chinese Mandarin/Russian, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another.

TRAI 2278 - Fundamentals of Specialized Written Translation (Medical)
Credits: 2. This course focuses on translation of medical texts from English into a target language (Spanish/French/Chinese Mandarin/Russian, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another.

TRAI 2279 - Introduction to Interpreting I (Legal)
Credits: 2. This course focuses on interpretation of legal content, including court interpreting, from English into a target language (Spanish/French/Chinese Mandarin/Russian/Arabic, etc.) and vice versa, presenting linguistic, cultural, and subject-related issues affecting meaning transfer from one language to another.

TRAI 2376 – Internship – Translation & Interpretation
Credits: 3 (9 lab). Practical, general workplace training supported by an individualized learning plan developed jointly by the internship site supervisor, college and student. This will serve as the capstone course for the award. Prerequisite: Must be placed into college-level reading and college-level writing.

Description of Courses

VNSG 1122 - Vocational Nursing Concepts
Credits: 1 (1 lecture). Introduction to the nursing profession and its responsibilities. Includes legal and ethical issues in nursing practice. Concepts related to the physical, emotional, and psychosocial self-care of the learner/professional. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1161 – Clinical - Licensed Practical / Vocational Nursing Training
Credits: 1 (6 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1423

VNSG 1162 - Clinical - Licensed Practical / Vocational Nursing Training
Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: VNSG 1161; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1330

VNSG 1163 - Clinical - Licensed Practical / Vocational Nursing Training
Credits: 1 (4 lab). A health-related work-based learning experience that enables the student to apply specialized occupational theory, skills, and concepts. Direct supervision is provided by the clinical professional. Prerequisite: VNSG 1162; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1334

VNSG 1216 - Nutrition
Credits: 2 (2 lecture). Introduction to nutrients and the role of diet therapy in growth and development and in the maintenance of health. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1219 - Leadership and Professional Development
Credits: 2 (2 lecture). Study of the importance of professional growth. Topics include the role of the licensed vocational nurse in the multi-disciplinary health care team, professional organizations, and continuing education. Prerequisite: VNSG 1122; Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1227 - Essentials of Medication Administration
Credits: 2 (2 lecture, 1 lab). General principles of medication administration including determination of dosage, preparation, safe administration, and documentation of multiple forms of drugs. Instruction includes various systems of measurement. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1238 - Mental Illness
Credits: 2 (2 lecture). Study of human behavior with emphasis on emotional and mental abnormalities and modes of treatment incorporating the nursing process. Prerequisite: VNSG 1400; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1266 – Practicum (or Field Experience) – Licensed Practical / Vocational Nurse Training
Credits: 2 (15 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: VNSG 1161; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1409 and VNSG 2331

VNSG 1267 - Practicum (or Field Experience) – Licensed Practical / Vocational Nurse Training
Credits: 2 (16 lab). Practical, general workplace training supported by an individualized learning plan developed by the employer, college, and student. Prerequisite: VNSG 1266; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1410

VNSG 1320 - Anatomy and Physiology for Allied Health
Credits: 3 (3 lecture). Introduction to the normal structure and function of the body including an understanding of the relationship of body systems in maintaining homeostasis. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1330 - Maternal - Neonatal Nursing
Credits: 3 (3 lecture). Utilization of the nursing process in the assessment and management of the childbearing family. Emphasis on the bio-psycho-socio-cultural needs of the family during the phases of pregnancy, childbirth, and the neonatal period including abnormal conditions. Prerequisite: VNSG 1400; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1162

Description of Courses

VNSG 1334 - Pediatrics

Credits: 3 (3 lecture). Study of childhood diseases and childcare from infancy through adolescence. Focus on the care of the well and the ill child utilizing the nursing process. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1163

VNSG 1400 - Nursing in Health and Illness I

Credits: 4 (4 lecture). Introduction to general principles of growth and development, primary health care needs of the client across the life span, and therapeutic nursing interventions. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

VNSG 1409 - Nursing in Health and Illness II

Credits: 4 (4 lecture). Introduction to common health problems requiring medical and surgical interventions. Prerequisite: VNSG 1400; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1266

VNSG 1423 - Basic Nursing Skills

Credits: 4 (3 lecture, 4 lab). Mastery of entry level nursing skills and competencies for a variety of health care settings. Utilization of the nursing process as the foundation for all nursing interventions. Prerequisite: Admission to program; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1161

VNSG 2331 - Advanced Nursing Skills

Credits: 4 (2 lecture, 4 lab). Mastery of advanced level nursing skills and competencies in a variety of health care settings utilizing the nursing process as a problem-solving tool. Prerequisite: Must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1266

VNSG 2410 - Nursing in Health and Illness III

Credits: 4 (4 lecture). Continuation of Nursing in Health and Illness II. Further study of common medical-surgical health problems of the client including concepts of mental illness. Incorporates knowledge necessary to make the transition from student to graduate vocational nurse. Prerequisite: VNSG 1409; must be placed into college-level reading, ENGL 0300 or 0347 in writing and MATH 0306 in math. Corequisite: Corequisite: VNSG 1267

WLDG 1191 - Special Topics in Welder/Welding Technologist

Credits: 1 (1 lecture). Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency. Prerequisite: Must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 1407 - Introduction to Welding Using Multiple Processes

Credits: 4 (2 lecture, 4 lab). Basic welding processes. Includes oxy-fuel welding (OFW) and cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW), and gas tungsten arc welding (GTAW). Prerequisite: Prerequisites/Corequisites: TECM 1301, WLDG 1313 Must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1413 - Introduction to Blueprint Reading for Welders

Credits: 3 (3 lecture). A study of industrial blueprints. Emphasis placed on terminology, symbols, graphic description, and welding processes. Includes systems of measurement and industry standards. Also includes interpretation of plans and drawings used by industry to facilitate field application and production. Prerequisite: Prerequisites/Corequisites: TECM 1301; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1421 - Introduction to Welding Fundamentals

Credits: 4 (2 lecture, 4 lab). An introduction to the fundamentals of equipment used in oxy-fuel and arc welding, including welding and cutting safety, basic oxy-fuel welding and cutting, basic arc welding processes and basic metallurgy. Prerequisite: Prerequisites/Corequisites: TECM 1301; WLDG 1313; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1428 - Introduction to Shielded Metal Arc Welding (SMAW)

Credits: 4. An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, and various joint designs.

Description of Courses

WLDG 1430 - Introduction to Gas Metal Arc Welding (GMAW)

Credits: 4 (2 lecture, 4 lab). A study of the principles of gas metal arc welding, setup and use of Gas Metal Arc Welding (GMAW) equipment, and safe use of tools/equipment. Instruction in various joint designs. Prerequisite: Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1434 - Introduction to Gas Tungsten Arc (GTAW) Welding

Credits: 4 (2 lecture, 4 lab). An introduction to the principles of gas tungsten arc welding (GTAW), setup/use of GTAW equipment, and safe use of tools and equipment. Welding instruction in various positions on joint designs. Prerequisite: Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1435 - Introduction to Pipe Welding

Credits: 4 (2 lecture, 4 lab). Introduction to the welding of pipe using the shielded-metal arc welding process, including electrodes selection, equipment setup, and safe shop practices. Emphasis on weld position 1G and 2G using various electrodes. Prerequisite: Prerequisite: TECM 1301, WLDG 1313, WLDG 1421 and 1407; must be placed into GUST 0339 in reading, ENGL 0300 or 0347 in writing and MATH 0306 in math.

WLDG 1457 - Intermediate Shielded Metal Arc Welding (SMAW)

Credits: 4. A study of the production of various fillets and groove welds. Preparation of specimens for testing in various positions.

WLDG 2447 - Advanced Gas Metal Arc Welding (GMAW)

Credits: 4 (2 lecture, 4 lab). Advanced topics in GMAW welding, including welding in various positions and directions. Prerequisite: WLDG 1430; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 2451 - Advanced Gas Tungsten Arc Welding (GTAW)

Credits: 4 (2 lecture, 4 lab). Advanced topics in GTAW welding, including welding in various positions and directions. Prerequisite: WLDG 1434; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.

WLDG 2453 - Advanced Pipe Welding

Credits: 4 (2 lecture, 4 lab). Advanced topics involving welding of pipe using the shielded metal arc welding (SMAW) process. Topics include electrode selection, equipment setup, and safe shop practices. Emphasis on weld positions 5G and 6G using various electrodes. Prerequisite: WLDG 1435; must be placed into GUST 0341 in reading, ENGL 0300 or 0347 in writing and MATH 0308 in math.