APPLICATION FOR CORE CURRICULUM STATUS

Please complete the following application, providing attachments as requested.

1. Program  Philosophy

2. Course  PHIL 2303 – Introduction to Formal Logic

3. Petition Type

   ____ New Course

   ____ Re-submitted THECB Rejected Course (New statement of Justification Attached)

   X   CAO Course moved to Component Area

4. Component Area

   ____ Communication

   ____ American History

   ____ Governmental/Political Science

   ____ Social/Behavioral Science

   X   Mathematics

   ____ Life and Physical Sciences

   ____ Language, Philosophy, and Culture

5. Core Objectives Required Optional

   Critical Thinking   X   ____

   Communication Skills   X   ____

   Empirical & Quantitative   X   ____

   Teamwork   ____   ____

   Social Responsibility   ____   ____

   Personal Responsibility   ____   ____

6. Attach the course syllabus. (See Attached.)

7. Statement of Justification (See Attached.)

8. Attach the Assessment Plan. (See Attached.)

Submitted by ___________________________ 02/22/2019

Program Coordinator  Date
Course Description:
The purpose of this course is to introduce the student to symbolic logic, including syllogisms, propositional and predicate logic, and logical proofs in a system of rules (Texas ACGM). It emphasizes the rules of translating language into symbols as well as the semantic and syntactic implications of the system of first-order logic, a method of reasoning ingredient to philosophy, mathematics, and computer programming (HCC Catalogue). This course stresses the HCC Core Objectives of Critical Thinking, Communication Skills, Empirical and Quantitative Literacy, and Teamwork.

PREREQUISITE(S):
- ENGL 1301 or higher

HCC CORE CURRICULUM:
This course satisfies the Component Area Option in the HCC Core Curriculum. If you are not sure that you need this course to graduate, please consult with your advisor.

Student Learning Outcomes:
1. **Determine** the logical structure of English arguments by identifying premises and conclusions.
2. **Understand** basic concepts in logic, such as truth functionality, validity, soundness, counter-examples, tautology, self-contradiction, logical equivalence, logical contradictoriness, and logic consistency.
3. **Translate** English statements into propositional and/or predicate notation.
4. **Determine** the validity of symbolic propositional or predicate arguments using such methods as direct/indirect truth tables, natural deduction, and/or the finite universe method.
Notice About Online Learning Management Software:

This is a web-enhanced lecture course that uses Eagle Online Canvas. The Eagle Online Canvas logon page is:

https://eagleonline.hccs.edu/

Your Eagle Online ID is now the same as your HCC User ID which is used for Online Registration (for example: W0034567). If you don't know your HCC User ID, you can retrieve it here. Your default Eagle Online password at the beginning of the term is: "distance". This password is independent of your Online Registration password or Blackboard Vista password. You will be required to change your password when you first log in.

IMPORTANT: Eagle Online works best with the latest version of Mozilla Firefox. Download is free, here. (Please check your Operating System to see if you have Firefox in your applications.)

TEXT:

To be determined by the instructor - refer to approved textbook list

Course weights sample (may be determined by instructor)

[To be discussed in class]

Exam 1: 20%
Exam 2: 20%
Exam 3: 20%
Final: 20%
In Class participation/Exercises: 15%
Attendance: 5%

Grading Policy:

The term grade legend follows:

A = 90% to 100%
B = 80% to 89.9%
C = 70% to 79.9%
D = 60% to 69.9%
F = 0% to 59.9%

FX (Failure due to non-attendance)

IP (In Progress)

W (Withdrawn)

I (Incomplete)

AUD (Audit)

IP (In Progress) is given only in certain developmental courses. The student must re-enroll to receive credit. COM (Completed) is given in non-credit and continuing education courses.

FINAL GRADE OF FX: Students who stop attending class and do not withdraw themselves prior to the withdrawal deadline may either be dropped by their professor for excessive absences or be assigned the final grade of "FX" at the end of the semester. Students who stop attending classes will receive a grade of "FX", compared to an earned grade of "F" which is due to poor performance. Logging into a DE course without active participation is seen as non-attending. Please note that HCC will not disperse financial aid funding for students who have never attended class.

Students who receive financial aid but fail to attend class will be reported to the Department of Education and may have to pay back their aid. A grade of "FX" is treated exactly the same as a grade of "F" in terms of GPA, probation, suspension, and satisfactory academic progress.

To compute grade point average (GPA), divide the total grade points by the total number of semester hours attempted. The grades "IP," "COM" and "I" do not affect GPA.

Late policy: example - (may be adjusted by instructor)

Please try to be present and ready at the time, remain for the entire class, and spend class time focused on the material at hand. (That said, I do understand that sometimes circumstances conspire to make us late. Please come to class anyway, and, should you need to arrange to arrive late or leave early, I will gladly accommodate.)

!! Philosophy Tutoring is available at http://hccs.askonline.net/ Please use it if you need it !!

Academic Honesty:

Learning and teaching take place best in an atmosphere of intellectual freedom and openness. All members of the academic community are responsible for supporting freedom and openness through rigorous personal standards of honesty and fairness. Plagiarism and other forms of academic dishonesty undermine the very
purpose of the university and diminish the value of an education. Specific sanctions for academic dishonesty are outlined in the student handbook.

**Make-up Policy: example - (may be adjusted by instructor)**

Attendance in this class is extremely important. Since we are dealing with complex and difficult material, it is vitally important that you are in class and ready to participate daily. If you are unable to attend the class, it is your obligation to arrange with a classmate the acquisition of the day's material. Do not contact me to ask if you have missed “anything important”. You are expected to come to class prepared and ready to participate in class discussion.

Exams will commence at the start of class. I expect everyone to arrive on time, prepared with the needed materials. I will lock the classroom door exactly ten minutes after the exam has begun. If you arrive after that, you will not be allowed to take the exam. I will allow make up exams for the following reasons ONLY:

- Illness
- Death of a loved one
- Military exercises – etc.
- Legal proceedings

If your absence is due to one of these reasons you must let me know WITHIN 24 HOURS OF THE MISSED EXAM. After you provide proper documentation we will schedule your make up exam. If you fail to notify me within 24 hours, or your absence is not due to the above exceptions then YOU WILL NOT BE ALLOWED TO MAKE UP THE EXAM.

**Attendance and Withdrawal Policy:**

HCC Students are expected to attend class regularly. A daily record of absences will be maintained throughout the semester. NOTE: It is the responsibility of the student to drop, or officially withdraw from this course. Your instructor will withdraw a student if and only if provided a written request from that student. Additionally, system-wide rules affect withdrawals:

- **(1)** Students who repeat a course for a third, or more times, may face a significant tuition/fee increase at HCC and other Texas public colleges and universities.
- **(2)** The Texas Legislature passed a law limiting new students (those starting college in Fall 2007) to no more than six total course withdrawals throughout their academic career in obtaining a baccalaureate degree. There may be future penalties imposed.
- **(3)** No student may withdraw from a course following the set "last date to withdraw", After that date and time, a student can only be given a grade earned, or an "I" for incomplete. Incompletes must be made up by the end of the following long semester, after which they will automatically change to a grade of
"F". Students receiving an “I” for a course are ineligible for graduation until the ‘I’ has been removed from a student’s transcript.

**Student Support:** Any student who faces challenges securing their food or housing and believes this may affect their performance in the course is urged to contact the Dean of Students for support. Furthermore, please notify the professor if you are comfortable in doing so. This will enable us to provide any resources that HCC may possess.

**Students with Disabilities:** HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to http://www.hccs.edu/district/students/disability-services/

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. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status-in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross

Director EEO/Compliance

Office of Institutional Equity & Diversity

3100 Main (713) 718-8271 Houston, TX 77266-7517 or Houston, TX 77266-7517 or Institutional.Equity@hccs.edu

At HCC the safety of our students, staff, and faculty is our first priority. As of August 1, 2017, Houston Community College is subject to the Campus Carry Law (SB11 2015). For more information, visit the HCC Campus Carry web page at http://www.hccs.edu/district/departments/police/campus-carry

EGLS3 - Evaluation for Greater Learning Student Survey System:

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time near the end of the term, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be
made available to your professors and department chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term.

Syllabus: example - **(may be adjusted by instructor)**

This syllabus and the information contained herein are tentative and may be changed at the discretion of the instructor

Week 1: Jan 14-17

Introduction: What is Symbolic Logic, Validity and Soundness

Syntax for Propositional Logic: Deconstruction Trees

Week 2: Jan 21-24

Jan 21 Martin Luther King Jr. Day

More Deconstruction Trees, Intro Semantics for Operators

Semantics, given inputs

Week 3: Jan 28-31

Jan 28 Official Day of Record

Semantics, full truth tables

Start Translation

Week 4: Feb 4-7

Translation

Review day, Work on what is needed

Week 5: Feb 11-14

Test 1

Truth table and validity introduction

Week 6: Feb 18-21

Feb 18 President’s Day
Truth tables for validity

Contingent, Contradiction, Tautology, Consistent, and Inconsistent

Week 7: Feb 25-28

Short Cut: validity

Short Cut: other properties

Week 8: March 4-7

Review: Drill day for all short cut method and translation

Test 2

Week 9: March 11-14

March 11-17 Spring Break

Week 9’: March 18-21

Syntax: Introduce basic rules

Proof: ex 144-45

Week 10: March 25-28

Proof: ex 144-45

Proof: end ex 7, start ex8

Week 11: April 1-4

April 1 Last Day to Withdraw

Proof

Proof

Proof

Week 12: April 8-11

Proof

Test 3

Week 13: April 15-18

April 19-21 Spring Holiday
Start Replacement Rules, 172

Proof

Week 14: April 22-25

Proof Strategies

Proof

Week 15: April 29-May 2

Review/Wiggle-Room Day

Test 4

Week 16: May 6-9

Final Exam Week: We do not meet/No class!

May 12 End of Semester/Grades Posted

STATEMENT OF JUSTIFICATION

PHIL 2303 – Introduction to Formal Logic

ACGM approval number: 38.0101.52 12
Slated for discontinuation? No

Course Description:
The purpose of the course is to introduce the student to symbolic logic, including syllogisms, propositional and predicate logic, and logical proofs in a system of rules.

Learning Outcomes
Students will be able to:
1. Determine the logical structure of English arguments by identifying premises and conclusions.
2. Understand basic concepts in logic, such as truth functionality, validity, soundness, counter-examples, tautology, self-contradiction, logical equivalence, logical contradictoriness, and logical consistence.
3. Translate English statements into propositional and/or predicate notation.
4. Determine the validity of symbolic propositional or predicate arguments using such methods as direct/indirect truth tables, natural deduction, and/or the finite universe method.

This course belongs in the Mathematics Foundational Component Area (FCA) because it focuses on quantitative literacy in logic, patterns, and relationships. It involves the understanding of key mathematical concepts and the application of appropriate quantitative tools to everyday experience.
Like other courses in this FCA, it targets critical thinking, communication, and empirical and quantitative reasoning skill.

**Critical Thinking:** The course requires creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.

**Communication:** The course requires effective development, interpretation, and expression of ideas through written, oral, and visual communication.

**Empirical & Quantitative:** The course requires the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Core objectives are explicit in the syllabus template.

Core objectives are targeted and assessed in all course sections, regardless of instructional format, population, or setting.
ASSESSMENT PLAN

Required Core Objectives: **Critical Thinking, Communication, Empirical & Quantitative Skill**

I. Methodology for Assessment:
   
   A. How will each of the core objectives be covered in the course?

   All PHIL 2303 courses require written work. This can take the form of written exam questions, exercises, or public discussions. Every PHIL 2303 is dependent on exceptional listening capacities, since students are required to understand complex and abstract material frequently delivered in a lecture format. Additionally, the logical means for assessing sentential arguments and some of the means for representing categorical propositions utilize visual representations, for example, tables, trees, and Venn diagrams.

   B. Provide the specific assessment methodology.

   In philosophy courses, all assessments are accomplished by reference to discipline-specific standards for meeting course SLO’s. These objectives will be assessed using embedded assessments that are developed at the discretion of the instructor. Recommended types of assessments for written communication include written exercises, public discussion topics, or written essays on quizzes and exams. Recommended types of assessment for oral/visual communication include in-class and take-home exercises, quizzes, and exams. Recommended types of assessment for listening include any assessments in the course.

   C. How will the assessment count within the course?

   Assessments are embedded in the course at the discretion of the instructor. The instructor then reports the relevant assessment score from the graded or ungraded assignment.

   D. Explain how your plan includes a representative sample of HCC faculty and students.

   The assessment plan in Philosophy calls for the program coordinator to randomly select at least 1/3 of the total sections of PHIL 2303 offered in a given semester with at least one sample from each of the varieties of term lengths and delivery options.

II. Rubric: How will the appropriate rubric(s) be incorporated in the course?

   The individual instructor for the course will refer to the core objective rubrics when designing assessments within the course and tailoring assignment-specific rubrics for students. Faculty are instructed on the importance of rubrics for course design and standard form rubrics are often used for SLO assessment. As a result incorporating these core objective assessments in the future will not be difficult.

III. Benchmark/Target: What will be the benchmark the program will use to determine success?

   The program will be considered successful when 75% of enrolled students achieve a grade of 70% or above.

IV. Results: Describe the process of evaluating the results.

   The program coordinator compiles the reports of individual instructors into a single spreadsheet containing a representative distribution of students achieving a given level of achievement for each measurement dimension. Percentages are determined and tracked from year to year.

V. Analysis:

   A. How will the results will be documented and archived?
The program coordinator will record the numbers from every individual report and the compiled scores in a single spreadsheet file that will be saved on the program coordinator's personal computer. The compiled report will be archived on the HCC Sharepoint site for Assessments.

B. Describe how the results will be used to improve student learning.

Each year, the program coordinator will review the results of assessments and report this review back to administration as well as sharing this information with instructors. This report becomes a topic for discussion at faculty development meetings and at an annual outcomes assessment workshop that is held prior to the beginning of the fall semester each year. These forums provide an opportunity to share best practices for assessment and review annual assessment reports.