

DIGITAL & INFORMATION TECHNOLOGY - COE

COMPUTER SCIENCE

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DIGITAL & INFORMATION TECHNOLOGY - COE

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Academic Degrees and Certificates

Associate of Arts in COMPUTER INFORMATION SYSTEMS

			FIRST YEAR	SCH
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				
ACCT	2301	Principles of Financial Accounting		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				
MATH	1342	Elementary Statistical Methods OR		
ACCT	2302	Principles of Managerial 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

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

Academic Degrees and Certificates

Associate of Science in

COMPUTER SCIENCE

Field of Study Curriculum

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

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

Not CORE complete but Field of Study Compliant

Workforce Degrees and Certificates

COMPUTER PROGRAMMING

COMPUTER PROGRAMMING - APPLICATIONS DEVELOPMENT - CLOUD COMPUTING AND APPLICATION DEVELOPMENT

Associate of Applied Science

SCH

FIRST YEAR

First Semester - Fall

EDUC	1300	Learning Framework	3
ITSE	1411	Beginning Web Programming	4
MATH	1314	College Algebra	3
COSC	1436	Programming Fundamentals I	4
Semester Total			14

Second Semester - Spring

COSC	1437	Programming Fundamentals II	4
ITSE	2402	Intermediate Web Programming	4
ITCC	1414	CCNA 1: Introduction to Networks OR	
ITNW	1425	Fundamentals of Networking Technologies	4
ITSE	1345	Introduction to Oracle SQL OR	
ITSE	1346	Database Theory and Design	3
Semester Total			15

Third Semester - Summer

ENGL	1301	Composition I	3
ITNW	1313	Computer Virtualization	3
Semester Total			6

SECOND YEAR

First Semester - Fall

ITSE	2473	Cloud Computing - Solution Architect	4
INEW	2434	Advanced Web Programming	4
XXXX	#3## ¹	Social/Behavioral Sciences Elective	3
Semester Total			11

Workforce Degrees and Certificates

Second Semester - Spring

ITSE	2474	Cloud Computing II - Developer	4
XXXX	#4## ²	Program Approved IT Elective	4
ITSE	1380	Cooperative Education - Computer Programming/Programmer, General OR	
INEW	2332	Comprehensive Software Project (Capstone)	3
XXXX	#3## ¹	Humanities/Fine Arts 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 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

FIRST YEAR

First Semester - Fall			SCH
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			SCH
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

Workforce Degrees and Certificates

Second Semester - Spring

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

Workforce Degrees and Certificates

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	3
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)	4
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

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	
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
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 (Capstone)	4
Semester Total			4

Total Minimum Credits for the Level 1 Certificate **16**

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - CYBER SECURITY - 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 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			

Total Minimum Credits for the Level 1 Certificate

16

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
ITMT	1358	Windows Client Operating System	3
ITSC	1307	UNIX Operating System I	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 (Capstone)	3
ITNW	1313	Computer Virtualization	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	1307	UNIX Operating System I	3
ITSC	1425	Personal Computer Hardware	4
Semester Total			16

Second Semester - Spring

ENGL	1302	Composition II	3
ITSC	1458	UNIX System Administration I	4
ITNW	1425	Fundamentals of Networking Technologies OR	
ITCC	1414	CCNA 1: Introduction to Networks	4
XXXX	#3## ¹	Humanities/Fine Arts Elective	3
Semester Total			14

Third Semester - Summer

ITSC	1319	Internet/Web Page Development OR	
ITSC	1391	Special Topics in Computer and Information Sciences, General (Linux OS Red Hat)	3
XXXX	#3## ¹	Humanities/Fine Arts Elective	3
Semester Total			6

SECOND YEAR

First Semester - Fall

ITSC	1447	UNIX System Administration II	4
ITNW	1313	Computer Virtualization	3
ITSY	1342	Information Technology Security	3
XXXX	#3## ¹	Social/Behavioral Sciences Elective	3
Semester Total			13

Second Semester - Spring

ITSC	2425	Advanced Linux (Capstone)	4
ITSC	1491	Special Topics in Computer and Information Sciences, General	4
XXXX	#3## ²	Program Approved Business Elective	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 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	1307	UNIX Operating System I	3
ITNW	1425	Fundamentals of Networking Technologies OR	
ITCC	1414	CCNA 1: Introduction to Networks	4
Semester Total			14

Second Semester - Spring

ITSC	1458	UNIX System Administration I	4
ITSC	1319	Internet/Web Page Development OR	
ITSC	1391	Special Topics in Computer and Information Sciences, General (Linux OS Red Hat)	3
Semester Total			7

Third Semester - Summer

ITSC	1447	UNIX System Administration II	4
ITNW	1313	Computer Virtualization	3
Semester Total			7

SECOND YEAR

First Semester - Fall

ITSC	1491	Special Topics in Computer and Information Sciences, General	4
ITSC	2425	Advanced Linux (Capstone)	4
Semester Total			8

Total Minimum Credits for the Level 2 Certificate

36

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - LINUX SYSTEM ADMINISTRATION SPECIALIZATION

Certificate - Level 1

SCH

First Semester - Fall

ITSC	1425	Personal Computer Hardware	4
ITSC	1307	UNIX Operating System I	3
ITNW	1425	Fundamentals of Networking Technologies OR	
ITCC	1414	CCNA 1: Introduction to Networks	4
Semester Total			11

Second Semester - Spring

ITSC	1319	Internet/Web Page Development OR	
ITSC	1391	Special Topics in Computer and Information Sciences, General (Linux OS Red Hat)	3
ITSC	1491	Special Topics in Computer and Information Sciences, General	4
ITSC	1458	UNIX System Administration I (Capstone)	4
Semester Total			11

Total Minimum Credits for the Level 1 Certificate

22

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
ITNW	1425	Fundamentals of Networking Technologies OR	
ITCC	1414	CCNA 1: Introduction to Networks	4
ITMT	1357	Administering a Windows Server Operating System	3
ITSY	1342	Information Technology Security	3
Semester Total			13

Third Semester - Summer

XXXX	#3## ¹	General Education Elective	3
ITSC	1319	Internet/Web Page Development	3
Semester Total			6

SECOND YEAR

First Semester - Fall

ITNW	1313	Computer Virtualization	3
COSC	1436	Programming Fundamentals I	4
ITMT	2304	Implementing an Advanced Server Infrastructure	3
XXXX	#3## ¹	Social/Behavioral Sciences Elective	3
Semester Total			13

Second Semester - Spring

ITMT	2305	Designing & Implementing a Server Infrastructure	3
ITSY	2330	Intrusion Detection	3
ITNW	1380	Cooperative Education - Computer Systems Networking & Telecommunications OR	
ITNW	2335	Network Troubleshooting & Support (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

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION

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
ITMT	1358	Windows Client Operating System	3
ITSC	1425	Personal Computer Hardware	4
Semester Total			13

Second Semester - Spring

ITMT	1357	Administering a Windows Server Operating System	3
ITNW	1425	Fundamentals of Networking Technologies OR	
ITCC	1414	CCNA 1: Introduction to Networks	4
ITSY	1342	Information Technology Security	3
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	2304	Implementing an Advanced Server Infrastructure (Capstone)	3
Semester Total			9

Total Minimum Credits for the Level 2 Certificate

35

Workforce Degrees and Certificates

COMPUTER SYSTEMS NETWORKING - MICROSOFT SERVER ADMINISTRATION

Certificate - Level 1

SCH

First Semester

ITMT	1358	Windows Client Operating System	3
ITSC	1309	Integrated Software Applications I OR	
BCIS	1305	Business Computer Applications	3
ITSC	1425	Personal Computer Hardware	4
Semester Total			10

Second Semester - Spring

ITMT	1357	Administering a Windows Server Operating System (Capstone)	3
ITNW	1425	Fundamentals of Networking Technologies OR	
ITCC	1414	CCNA 1: Introduction to Networks	4
ITSY	1342	Information Technology Security	3
Semester Total			10

Total Minimum Credits for the Level 1 Certificate

20

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 Level 1 Certificate

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

Semester Total

18

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 - 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 - 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
IMED	1345	Interactive Digital Media I (Virtual Reality-Introduction)	3
Semester Total			12

Second Semester - Spring

IMED	1341	Interface Design	3
ARTV	1345	3-D Modeling & Rendering I	3
IMED	2345	Interactive Digital Media II (Virtual Reality-Intermediate)	3
ARTC	1353	Computer Illustration	3
ARTV	1371	Introduction to 3D Printing Technology	3
Semester Total			15

Third Semester - Summer

XXXX	#3## ¹	Math/Natural Science Elective	3
IMED	1359	Writing for Digital Media	3
Semester Total			6

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
IMED	2357	Interactive Digital Media III (Virtual Reality-Advanced)	3
Semester Total			15

Second Semester - Spring

XXXX	#3## ¹	General Education Elective	3
IMED	2313	Project Analysis & Design	3
IMED	2388	Internship - Digital Communication & Media/Multimedia (Capstone)	3
XXXX	#3## ¹	General Education 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

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 - 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 ¹	#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 OR	
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
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

Semester Total

15

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 - 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

Semester Total

15

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 - 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	Computer Illustration	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

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 & SIMULATION

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	3
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

Workforce Degrees and Certificates

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

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
COSC	1436	Programming Fundamentals I (using Python)	4
GISC	1401	Cartography & Geography in Geographical Information Systems (GIS) & Global Positioning Systems (Capstone)	4
Semester Total			12

Second Semester - Spring

GISC	1421	Introduction to Raster-Based Geographic Information Systems (GIS)	4
GISC	2359	Web-Served Geographic Information Systems (GIS)	3
GISC	2364	Practicum - Cartography OR	
GISC	2380	Cooperative Education - Cartography	3
Semester Total			10

Total Minimum Credits for the Level 1 Certificate

22