

Computer Information Technology - Computer Programming Degree

281-756-3783

Associate of Applied Science Degree Program (A.A.S.) - Tech Prep

Purpose: The computer Information Technology curriculum develops in students the skills, knowledge, attitudes, and abilities which will enable them to function in positions of responsibility in the current employment market. Special emphasis is given to computer programming, and each student is urged to consult with the Counseling Center or faculty advisor.

Program Requirements: This curriculum in computer information technology is a two-year program encompassing instruction in the many areas required for competence as a technician in the computer science industry. Approximately one-half of the curriculum includes courses in computer technology, with the remaining courses in technically related areas: mathematics, business, and general education. This curriculum provides a broad background, qualifying the student to perform effectively in several different occupational areas of the computer information technology field. Upon completion of the two-year curriculum, with an overall grade point average of 2.0 for all computer science courses attempted, the student will be awarded the Associate in Applied Science Degree with a major in Computer Information Technology, specializing in business computer programming.

Course Number	Course Title	Lecture Hours	Lab Hours	Credits
FIRST YEAR				
First Semester				
COSC 1401 or BCIS 1405 or COSC 1415	Microcomputer Applications or Business Computer Applications or Fundamentals of Programming	3	3	4
BCIS 1431 or ITSE 1431	Programming in Visual Basic or Introduction to Visual BASIC Programming	3	3	4
1st Mini ITNW 1358	Network+	2	2	3
2nd Mini ITNW 1325	Fundamentals of Networking	2	2	3
ENGL 1301	Composition I	<u>3</u>	<u>0</u>	<u>3</u>
		13	10	17
Second Semester				
COSC 1436 or BCIS 1420 or ITSE 1422	Programming Fundamentals I or Introductory C Programming or Introduction to C Programming	3	3	4
IMED 2415 or ITSE 2402	Web Design or Intermediate Web Programming	3	3	4
*BCIS 2431 or ITSE 2449	Advanced Programming Visual Basic or Advanced Visual BASIC Programming	3	3	4
Elective	Speech Communication Core	3	0	3
ENGL 2311 or ENGL 1302	Technical Communication (preferred) or Composition II	<u>3</u>	<u>0</u>	<u>3</u>
		15	9	18
SECOND YEAR				
First Semester				
COSC 1437 or COSC 1420 or ITSE 1407	Programming Fundamentals II or Computer Programming - C++ or Introduction to C++ Programming	3	3	4
ITSE 2409	Database Programming	3	3	4
SOCI 1301 or ECON 2301	Introductory Sociology or Principles of Economics I	3	0	3
MATH 1314 or TECM 1403 or MATH 2413 or MATH 2414 or PHYS 2425 or PHYS 2426	College Algebra (preferred) or Technical Calculations or Calculus I or Calculus II or Physics I or Physics II	3/3	0/3	3/4
Elective	Visual & Performing Arts/Humanities Core	<u>3</u>	<u>0</u>	<u>3</u>
		15/15	6/9	17/18
Second Semester				
COSC 2436 or COSC 1430 or ITSE 2417	Programming Fundamentals III or Computer Programming - JAVA or JAVA Programming	3	3	4
COSC 2420	Advanced C++ Programming	3	3	4
CPMT 2445 or COSC 2425	Computer System Troubleshooting or Computer Organization and Machine Language	3	3	4
1st Mini ITMT 1302	Windows Seven Configuration	<u>2</u>	<u>2</u>	<u>3</u>
		11	11	15
* Capstone Course				
Total Credits Required for A.A.S. Computer Programming Degree.....				67-68

Mini-Semesters run 8 weeks and are scheduled back-to-back (e.g. 1st Mini=8wks + 2nd Mini=16wks)

Courses below prepare for the following certifications:

CompTIA Network+ Certification (ITNW 1358 and ITNW 1325)

Microsoft Certified IT Professional (MCITP) Certification (ITMT 2351)

ACC has a 2+2 agreement with UHCL.

Field of Study Curriculum for Computer Science

Course Number	Course Title	Semester Credit Hours
COSC 1436	Programming Fundamentals I	4
COSC 1437	Programming Fundamentals II	4
COSC 2436	Programming Fundamentals III	4
COSC 2425	Computer Organization and Machine Language	4
MATH 2413	Calculus I	4
MATH 2414	Calculus II	4
PHYS 2425	Physics I	4
PHYS 2426	Physics II	4
		32 SCH Total

Associate in Applied Science - Computer Networking Degree Program

281-756-3669

Purpose: The Computer Information Technology Networking program is designed to prepare students for careers in many areas of LAN/WAN administration and design. ACC is a Charter member of the Microsoft IT Academy Program and thus holds a leveraged position for success in a variety of career opportunities (e.g. installing, managing and maintaining Microsoft servers and networks worldwide). This 63 credit A.A.S. program focuses on these Microsoft certifications: (MCITP) "Microsoft Certified IT Professional", "MCITP-Support Technician", "MCITP-Server Administrator". Program graduates will be prepared for other, vendor neutral, certifications, as well. Such as CompTIA's "Network+", "A+", and "Security+". All industry certifications are awarded after passing their proprietary exams which are administered by authorized testing centers. Alvin College has a classroom lab on the main campus dedicated exclusively to the Network Administrator/Professional/Technician curriculums.

(Tech Prep)

	Course Number	Course Title	Lecture Hours	Lab Hours	Credits
FIRST YEAR					
First Semester					
1st Mini	ITNW 1358	Network+	2	2	3
2nd Mini	ITNW 1325	Fundamentals of Networking	2	2	3
	CPMT 1411	Introduction to Computer Maintenance	3	3	4
	SOCI 1301	Introductory Sociology	3	0	3
	BCIS 1405 or COSC 1401	Business Computer Applications or Microcomputer Applications	3	3	4
			13	10	17
Second Semester					
1st Mini	ITMT 1302	Windows Seven Configuration	2	2	3
2nd Mini	ITMT 1340	Managing and Maintaining a Microsoft Windows Server 2003 Environment	2	2	3
	CPMT 2445	Computer System Troubleshooting	3	3	4
1st Mini	ITNW 2321	Networking with TCP/IP	2	2	3
2nd Mini	ITSY 1342	IT Security (Security+)	2	2	3
			11	11	16
SECOND YEAR					
First Semester					
	*Elective	Fine Arts/Humanities	3	0	3
1st Mini	ITMT 2301	Win Server 2008 Network Infrastructure Configuration	2	2	3
2nd Mini	ITMT 2302	Windows Server 2008 Active Directory Configuration	2	2	3
	ENGL 1301	Composition I	3	0	3
	MATH 1333	Contemporary Mathematics for Tech	3	0	3
			13	4	15
Second Semester					
	ENGL 1302	Composition II	3	0	3
1st Mini	**ITMT 2351	Windows Server 2008: Server Administrator	3	3	3
2nd Mini	ITMT 2322	Windows Server 2008 Applications Infrastructure Configuration	2	2	3
1st Mini	ITMT 2340	Designing Security for Microsoft Networks	2	2	3
2nd Mini	ITMT 2346	Implementing & Administering Security in a Microsoft Windows Server 2003 Network	2	2	3
			15	9	15
Total Credits Required for A.A.S of Computer Networking Degree					63

* Elective is optional but provides flexibility and broader development of the program and individual.

** The capstone course is ITMT 2351 - Windows Server 2008 Server Administrator

Mini-Semesters run 8 weeks and are scheduled back-to-back (e.g. 1st Mini=8wks + 2nd Mini=16wks)

Computer Information Technology - General Computer Data Processing Certificate Program

Purpose: The general computer data processing curriculum provides students with an introduction to data processing and allows persons already engaged in business and industry to increase their computer knowledge.

Program Requirements: The curriculum includes technical courses in computer science. Each student is urged to consult with the Office of Admissions & Academic Advising or faculty advisor. Upon satisfactory completion of the two semester curriculum, with an overall 2.0 grade point average for all computer science courses attempted, the student will be awarded the Certificate in Computer Information Technology (General Computer Data Processing).

	Course Number	Course Title	Lecture Hours	Lab Hours	Credits
	FIRST YEAR				
	First Semester				
	COSC 1401 or BCIS 1405 or COSC 1415	Microcomputer Applications or Business Computer Applications or Fundamentals of Programming	3	3	4
	BCIS 1431 or ITSE 1431	Programming in Visual Basic or Introduction to Visual BASIC Programming	3	3	4
1st Mini	ITNW 1358	Network+	2	2	3
2nd Mini	ITNW 1325	Fundamentals of Networking	2	2	3
			10	10	14
	Second Semester				
	COSC 1436 or BCIS 1420 or ITSE 1422	Programming Fundamentals I or Introductory C Programming or Introduction to C Programming	3	3	4
	IMED 2415	Web Design	3	3	4
	*BCIS 2431 or ITSE 2449	Advanced Programming Visual Basic or Advanced Visual BASIC Programming	3 9	3 9	4 12

* Capstone Course

Total Credits Required for General Computer Data Processing Certificate.....26

Mini-Semesters run 8 weeks and are scheduled back-to-back (e.g. 1st Mini=8wks + 2nd Mini=16wks)

Courses below prepare for the following certifications:

CompTIA Network+ Certification (ITNW 1358 and ITNW 1325)

Microsoft Certified IT Professional (MCITP) Certification (ITMT 2351)

Computer Information Technology - Computer Networking Certificate Program

	Course Number	Course Title	Lecture Hours	Lab Hours	Credits
	First Semester				
	BCIS 1405 or COSC 1401	Business Computer Applications or Microcomputer Applications	3	3	4
	CPMT 1411	Introduction to Computer Maintenance	3	3	4
1st Mini	ITNW 1358	Network +	2	2	3
2nd Mini	ITNW 1325	Fundamentals of Networking	2	2	3
			10	10	14
	Second Semester				
1st Mini	ITMT 1302	Windows Seven Configuration	2	2	3
2nd Mini	*ITMT 1340	Managing and Maintaining a Microsoft Windows Server 2003 Environment	2	2	3
1st Mini	ITMT 2351	Windows Server 2008: Server Administrator	3	3	3
	CPMT 2445	Computer System Troubleshooting	3 10	3 10	4 13

This plan provides courses for preparation for the following certifications:

CompTIA Network+ Certification (ITNW 1358 and ITNW 1325)

CompTIA A+ Certification (CPMT 1411 and CPMT 2445)

Microsoft Certified IT Professional (MCITP) Certification (ITMT 1302 and/or ITMT 2351)

*Capstone Course

Total Credits Required for Computer Information Technology Computer Networking Certificate 27