

Computer Science/Software Engineering Concentration (9259)

Associate of Applied Business Degree

This concentration is designed for students planning to transfer to a computer science or computer information systems program at a four-year college. In addition to being a transfer program, this program will help students who are interested in game and entertainment programming acquire the fundamental skills to get started. Students should consult a Lakeland counselor prior to beginning this program in order to ensure maximum transferability.

NOTE: Students must fulfill the following requirements for this program:

- Place into MATH 1700 Trigonometry OR complete MATH 1650 College Algebra with a “C” grade or higher
- Successfully complete the CIS Tech Prep program **OR** have waived with equivalent high school **OR** the following college coursework :
- Complete ITIS 1005 Computer Essentials with a “C” grade or higher












OR



Complete ITIS 1007 Principles of Information Technology and Computer Science with a “C” grade or higher

OR

Pass the AP Computer Science Principles Exam with a “3” or higher


NOTE: Students planning to transfer to a four-year college are encouraged to take ENGL 1120 English Composition II in addition to the following requirements.

Course	Title	Credit Hours
First Semester		
CPET 1120	C Programming for Engineering Technology 	3
ENGL 1110 or ENGL 1111	English Composition I (A) ¹ or English Composition I (B)	3
FYEX 1000	First Year Experience	1
ITCS 1010	Programming Logic 	3
ITON 1011	Comparative Analysis of Microcomputer Operating Systems 	2
ITON 1070	Operating Systems: Skills and Techniques 	1
MATH 1700	Trigonometry	3
	Credit Hours	16
Second Semester		
BUSM 1300	Introduction to Business	3
BUSM 2400	Business Communication	3
ITCS 1820	Java Programming I 	3
ITCS 1870	Python Programming I 	3
MATH 2500	Calculus and Analytical Geometry I	5
	Credit Hours	17
Third Semester		
CHEM 1500 or PHYS 2410	General Chemistry I ² or Science and Engineering Physics I	5
ITCS 2080	Fundamentals of Software Engineering 	3
ITCS 2870	Data Structures 	4
MATH 2600	Calculus and Analytical Geometry II	5
	Credit Hours	17
Fourth Semester		
ITCS 2012	Discrete Structures 	3
ITCS 2875	Computer Architecture and Organization 	3
ITDB 1400	Introduction to SQL 	2

ITIS 2890	Information Technology and Computer Science Capstone 	2
ITON 1205	Network+ and Networking Essentials 	2
Select course(s) from the Arts and Humanities Electives list		3
Credit Hours		15
Total Credit Hours		65

¹ English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).

² Students should discuss the choice of science courses with their advisor.

 This course is designated as a technical course in the program. Students must earn a "C" grade or higher in the course to fulfill the college's graduation requirements policy.

Electives

Course	Title	Credit Hours
Arts and Humanities		
ARTS 1120	Art Appreciation	3
ARTS 2220	Survey of Art I	3
ARTS 2230	Survey of Art II	3
ENGL 2250	Survey of American Literature I	3
ENGL 2260	Survey of American Literature II	3
ENGL 2280	Survey of British Literature I	3
ENGL 2290	Survey of British Literature II	3
HUMX 1100	Introduction to Humanities	3
HUMX 1200	The American Experience in the Arts	3
MUSC 1200	Music Appreciation	3
MUSC 1215	World Music	3
MUSC 1800	Popular Music: Rock, Jazz, Country, and Hip-Hop	3
MUSC 2200	Music History and Literature I	3
MUSC 2250	Music History and Literature II	3
PHIL 1500	Introduction to Philosophy	3
PHIL 2000	Comparative Religion	3
PHOT 1000	History of Photography	3