

The Associate in Computer Science Degree

The Associate in Computer Science degree is a pre-professional curriculum designed to inspire students for transfer to a four-year college or university that offers a BS or BA degree in Computer Science. In contrast, various Associate in Applied Science degrees in Computer Science prepare students for immediate employment in more specialized, practical fields.

The required and elective Computer Science, Math, and Science courses in this degree are typical of requirements for the first two years of a four-year program that follows guidelines established by the Association for Computing Machinery (ACM). These ACM-style degree programs provide the theoretical foundation and programming experience that forms the basis of academic Computer Science.

Academic four-year Computer Science degrees address essential skills future software developers need for computer programming, network design, and database management. Individual degree requirements vary at each four-year college or university. Students should check with the transfer school or speak to an advisor or counselor to ensure selection of the right classes for transfer credit. By design, the ACS degree electives are sufficiently flexible to accommodate a wide range of transfer options.

Degree Requirements

The Associate in Computer Science degree requires completion of the requirements for all degrees listed under Degree Graduation requirements, plus specific course requirements described below

A.C.S. Computer Science

COLL 100	First Year Seminar	1		
General Education Requirements		Credits	Semester Taken	Prerequisites
Communications:				
ENGL 101	Composition and Reading I	3		ENGL 30/90 or appropriate placement test score
ENGL 102	Composition and Reading II or	3		ENGL 101
ENGL 215	Technical Writing			
COMM 100	Fundamentals of Speech	3		ENGL 30/90 or appropriate placement test score
American Institutions: (Choose one of the following)				
HIST 120	United States History to 1865	3		
HIST 121	United States History Since 1865			
POLS 136	Introduction to American National Politics			
POLS 137	Introduction to State and Local Politics			
Sciences: (1 course with lab)				
BIOL 101	General Biology	5		CHEM 107 or high school chemistry & MATH 120 MATH 130 MATH 190
BIOL 104	General Botany			
BIOL 106	General Zoology			
BIOL 110	Human Anatomy			
CHEM 111	General College Chemistry I			
PHYS 130	General Physics I			
PHYS 220	Engineering Physics			
Western Civilization: (Choose one of the following)				
HIST 133	Foundations of Western Civilization	3		
HIST 134	Modern Western Civilization			
Social Sciences: (Choose one of the following)				
ANTH 100	General Anthropology	3		MATH 40 or 40L or satisfactory placement score MATH 40 or 40L or satisfactory placement score
ANTH 110	Cultural Anthropology			
ECON 210	Macroeconomics			
ECON 211	Microeconomics			
PSYC 140	General Psychology			
SOCI 160	Sociology			
Humanities: (Choose one of the following)				
ENGL 218	Introduction to Literature	3		
ENGL 220	British Literature to 1750			
ENGL 221	British Literature 1750 - Present			
ENGL 222	American Literature to 1860			
ENGL 223	American Literature 1860 - Present			
ENGL 268	Women's Literature			
PHIL 110	Introduction to Philosophy			
PHIL 200	Logic			
PHIL 203	Ethics			
Humanities Appreciation				
ARAB 101, ART 108, ART 150, ART 151, CHIN 101, All French, All German, All Spanish, MUSI 108, THEA 106		3		(mcckc.edu/progs/degrees/aa/Appreciation.asp)
Total General Education Courses		29		

The Associate in Computer Science Degree (cont)

A.C.S. Computer Science (cont)

Program Requirements		Credits	Prerequisites
CSIS 123	Programming Fundamentals	3	MATH 40/40L or appropriate placement score
CSIS 223	Object Oriented Programming or	3	MATH 110 and CSIS 123
CSIS 222	Object Oriented Programming with Java		MATH 104 or higher and CSIS 123
MATH 180	Analytic Geometry and Calculus I	5	MATH 130 or 150
Program Electives			
Choose from the below list of courses. At least 6 hours must have a CSIS designator. Consult with an advisor to determine the best options for transfer.			
CSIS 152	Linux Operating System	21	CSIS 110
CSIS 221	Introduction to Computer Architecture		CSIS 123 and MATH 120 or 150
CSIS 228	Advanced Web Development		CSIS 128
CSIS 250	Assembly Language Programming		CSIS 123 with a C or higher
CSIS 265	.NET Web Programming with C#		CSIS 223
CSIS 271	Data Structures and Algorithm Analysis		CSIS 223 and CSIS/MATH 141
CSIS/MATH 141	Discrete Structures for Computer Science I		MATH 120 or MATH 150
CSIS/MATH 241	Discrete Structures for Computer Science II		CSIS 223 or CSIS/MATH 141
MATH 115	Statistics		MATH 110 or appropriate placement score
MATH 190	Analytic Geometry and Calculus I		MATH 180
MATH 210	Analytic Geometry and Calculus II		MATH 190
PHYS 220	Engineering Physics I		MATH 190
PHYS 221	Engineering Physics II		MATH 210 and PHYS 220
Total Credit Hours Required		62	