

# 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

100103 Revised 9/2017 (Fall 2018)

## A.C.S. Computer Science

General Education Requirements	Credits	Semester Taken	Prerequisites
<b>COLL 100</b> First Year Seminar	1		
<b>Communications:</b>			
ENGL 101 Composition and Reading I	3		ENGL 90 with a minimum grade of S or appropriate placement score
ENGL 102 Composition and Reading II or ENGL 215 Technical Writing	3		ENGL 101
COMM 100 Fundamentals of Speech	3		ENGL 90 with a minimum grade of S or appropriate placement score
<b>American Institutions: (Choose one of the following)</b>			
HIST 120 United States History to 1865 HIST 121 United States History Since 1865 POLS 136 Introduction to U.S. National Politics POLS 137 Introduction to State and Local Politics	3		
<b>Sciences: (1 course with lab)</b>			
BIOL 101 General Biology 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	5		CHEM 107 or high school chemistry & MATH 120 (CHEM 111) MATH 130 (PHYS 130) MATH 190 (PHYS 220)
<b>Western Civilization: (Choose one of the following)</b>			
HIST 133 Foundations of Western Civilization HIST 134 Modern Western Civilization	3		
<b>Social Sciences: (Choose one of the following)</b>			
ANTH 100 General Anthropology ANTH 110 Cultural Anthropology ECON 210 Macroeconomics ECON 211 Microeconomics PSYC 140 General Psychology SOC 160 Sociology	3		MATH 85 with a grade of C or higher or appropriate placement (ECON 210 or 211)
<b>Humanities: (Choose one of the following)</b>			
ENGL 218 Introduction to Literature 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 100 Introduction to Philosophy PHIL 200 Logic PHIL 203 Ethics	3		
<b>Humanities Appreciation</b>			
ARAB 101; ART 108, ART 150, ART 151; CHIN 101; All French; All German; All Spanish; MUSI 108, MUSI 160; THEA 106; SIGN 101, SIGN 102	3		( <a href="http://mcckc.edu/progs/degrees/aa/Appreciation.asp">mcckc.edu/progs/degrees/aa/Appreciation.asp</a> )
Total General Education Credit Hours	29		

## The Associate in Computer Science Degree (cont)

### A.C.S. Computer Science (cont)

Program Requirements		Credits	Prerequisites
CSIS 123	Programming Fundamentals	3	MATH 31 with S or appropriate placement score
CSIS 223 CSIS 222	Object Oriented Programming or Object Oriented Programming with Java	3	CSIS 123 and MATH 95 (S or appropriate placement) MATH 104 or higher and CSIS 123
MATH 180	Analytic Geometry and Calculus I	5	MATH 130 or 150
<b>Program Electives</b>			
Choose from the below list of courses. <b>At least 6 hours must have a CSIS designator.</b> Consult with an advisor to determine the best options for transfer.			
CSIS 143 CSIS 152 CSIS 221 CSIS 228 CSIS 250 CSIS 265 CSIS 271 CSIS/MATH 141 CSIS/MATH 241 MATH 115 MATH 150 MATH 190 MATH 210 PHYS 220 PHYS 221	Database Design and Management Linux Operating System Introduction to Computer Architecture Advanced Web Development Assembly Language Programming .NET Web Programming with C# Data Structures and Algorithm Analysis Discrete Structures for Computer Science I Discrete Structures for Computer Science II Statistics Precalculus Analytic Geometry and Calculus II Analytic Geometry and Calculus III Engineering Physics I Engineering Physics II	21	CSIS 115 with a C or higher CSIS 110 CSIS 123 and MATH 120 or 150 CSIS 128 CSIS 123 with a C or higher CSIS 223 CSIS 223 and CSIS/MATH 141 MATH 120 or MATH 150 CSIS 223 or CSIS/MATH 141 MATH 85/95 with a grade of C or higher or appropriate placement (MATH 115) MATH 95 with a grade of C or higher or appropriate placement (MATH 150) MATH 180 MATH 190 MATH 190 MATH 210 and PHYS 220
<b>Total Credit Hours Required</b>		<b>62</b>	