Yavapai COLLEGE

Bachelor of Science in Computer Science

Total Credits: 120

Progression Plan

Fall Term 1 *12 credit hours*

	Hours	Notes
1st 8 weeks		
• CSC 105 Introduction to Programming	3	
• CSA 110 Introduction to Computer Information System	3	
2nd 8 weeks		
• CSC 113 Programming: Python	3	**Prerequisites:** CSC 105
• CNT 105 Cybersecurity Principles	3	
Term hours subtotal:	***12***	

Spring Term 1 *12 credit hours*

	Hours	Notes
1st 8 weeks		
• CSA 281 Systems Analysis and Design	3	**Prerequisites:** CSA 110 and CSC 105
• CSC 125 Programming: C# Fundamentals Recommended Program Elective	3	**Prerequisites:** CSC 105
2nd 8 weeks		
• CSC 205 Programming: JavaScript, HTML & CSS Recommended Program Elective	3	**Prerequisites:** CSC 105 (may be taken concurrently)
• CNT 135 Security+: Implementing and Maintaining Network Security	3	**Prerequisites:** CNT 105 or CNT 110
Term hours subtotal:	***12***	

Summer Term 1 *6 credit hours*

	Hours	Notes
• MAT 152 College Algebra **OR** MAT 182 Precalculus (Algebra) Quantitative Reasoning	3	**Prerequisite:** MAT 097 or a satisfactory score on the mathematics skills assessment.
• General Education Requirement Recommended Social and Behavioral Sciences	3	
Term hours subtotal:	***6***	

Fall Term 2 *12 credit hours*

	Hours	Notes
1st 8 weeks		
• CSA 282 Database Concepts Recommended Program Elective	3	
• CSA 214 Foundations of Data Science	3	
2nd 8 weeks		
• CSC 220 Programming: Java Recommended Program Elective	3	**Prerequisite**: CSC 105
• ENG 101 College Composition I Recommended Written Communication	3	**Prerequisite**: Satisfactory score on the English skills assessment. Reading Proficiency.
Term hours subtotal:	***12***	

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Spring Term 2 *12 credit hours*	Hours	Notes
1st 8 weeks		
• CSC 211 Programming: PHP and MySQL Recommended Program Elective	3	**Prerequisites**: CSC 105 and CSA 282 (may be taken concurrently)
• ENG 102 College Composition II Recommended Written Communication	3	**Prerequisites**: ENG 101 or ENG 101A or ENG 103. Reading Proficiency.
2nd 8 weeks		
• CSA 250 Introduction to Artificial Intelligence	3	
• PHI 105 Introduction to Ethics Required Arts and Humanities	3	**Prerequisite**: Reading Proficiency.
Term hours subtotal:	***12***	

Summer Term 2 *8 credit hours*	Hours	Notes
• General Education Requirement Recommended Natural Science	4	
• CNT 110 A+ Computer Technician Certification Recommended Program Elective	4	
Term hours subtotal:	***8***	

Fall Term 3 *12 credit hours*	Hours	Notes
1st 8 weeks		
• CSA 315 Software Engineering for the Cloud	3	**Prerequisites**: CSC 105, CSC 113, and CSA 281
• General Education Recommended Social and Behavioral Sciences	3	
2nd 8 weeks		
• CSA 320 Advanced Data Science	3	**Prerequisites:** CSA 110 and CSA 214
• CSA 420 Ethics in Information Technology	3	**Prerequisite**: PHI 105
Term hours subtotal:	***12***	

Spring Term 3 *15 credit hours*	Hours	Notes
1st 8 weeks		
• CSA 390 IT Project Management	4	**Prerequisites:** CNT 105, CSA 110, CSA 281 and CSC 105.
• CSA 355 Advanced Programming Techniques	4	**Prerequisites**: CSC 105 and CSC 113
2nd 8 weeks		
• CSA 345 Information Technology Management	4	**Prerequisite**: CSA 110
• General Education Recommended Arts and Humanities	3	
Term hours subtotal:	***15***	

Summer Term 3 *7 credit hours*	Hours	Notes
• General Education Requirement Select any course from the options category	4	
• General Education Requirement Recommended Institution in the Americas	3	
Term hours subtotal:	***7***	

Fall Term 4 *12 credit hours*	Hours	Notes
1st 8 weeks		
• CSA 310 Advanced Artificial Intelligence	4	**Prerequisite**: CSA 250
• CSA 440 Software Assurance	4	**Prerequisite**: CSA 345
2nd 8 weeks		
• CSA 450 Big Data Architecture	4	**Prerequisite:** CSA 310
Term hours subtotal:	***12***	

Spring Term 4 *12 credit hours*	Hours	Notes
1st 8 weeks		
• CSA 470 Disruptive Technologies	4	**Prerequisites**: CSA 310 and CSA 320
• CSA 496 Internship **OR** CSA 498 Special Topics in Computer Science	4	**Prerequisites:** CSA 110, CSA 250, CSA 420 and CSA 450 **Prerequisite**: CSA 390
2nd 8 weeks		
• CSA 494 Project Capstone: Computer Science	4	**Prerequisites**: CSA 345, CSA 420 (may be taken concurrently, and CSA 450 (may be taken concurrently)
Term hours subtotal:	***12***	

This recommended sequence is not a binding agreement of any kind between Yavapai College and the student, but merely represents a potential curriculum which may be altered as appropriate to meet the student's academic objectives. Course availability is subject to change and all courses are not available every semester. Students should inquire each semester with their Advisor before registering to determine current requirements and possible changes to the suggested curriculum.