



PROGRAMS OF **study**

COMPUTER SCIENCE

ASSOCIATE IN SCIENCE



PROGRAM DESCRIPTION

The Computer Science program provides students with a solid grounding in both theoretical and practical topics in computer science, emphasizing the concepts that underlie computer design and development, languages, and systems. The program provides the foundational courses typically encountered in the first two years of study in most baccalaureate programs. Core courses in programming, algorithms and data structures, discrete math, and computer architecture constitute the nucleus of this program. Selected courses in the liberal arts support and enhance this central core. The curriculum is designed to develop problem-solving and critical-thinking skills and to prepare students for rewarding and challenging careers.

Program Learning Outcomes

Upon successful completion of this program, graduates will be able to:

- Evaluate technical information and present it clearly, both in writing and orally, to a wide range of audiences.
- Develop programs using both structured programming and object-oriented programming in a team setting.
- Describe the global impact of recent computing advances on individuals, organizations, and society.
- Analyze the temporal and spatial efficiency of algorithms and data structures in a program design.
- Use professional and scholarly sources to apply new ideas in programming languages, algorithms, platforms, and data structures when solving programming problems.
- Demonstrate competency with one programming language, and a familiarity in two other programming languages.
- Explain the importance of diversity in opinions, values, abilities, and cultures with both colleagues and customers when creating software solutions.



CAREER OPPORTUNITIES

Opportunities for computer science graduates occur in a wide variety of settings including large or small software and computer services companies, private industry, government, banking, healthcare and many more. Graduates may also choose to continue their education at a four-year institution in Computer Science or a related field.

COMPUTER SCIENCE, A.S. ASSOCIATE IN SCIENCE

The sequencing of courses in this program begins in the fall semester.

Students entering in the spring or summer will likely take longer than two years to complete the program.

Curriculum Requirements: 62 credits	Credits	Grade	Semester
First Year, Fall Semester (14 credits)			
CIS 170 Problem Solving and Programming	4		
MAT 127 College Algebra	3		
ENG 101 College Composition	3		
General Education, Core IV, Lab Science *	4		
First Year, Spring Semester (17 credits)			
CIS 174 Algorithms in Programming	4		
MAT 222 Discrete Math	3		
General Education, Core III	3		
General Education, Core IV, Lab Science *	4		
Program Elective	3		
Second Year, Fall Semester (16 credits)			
CIS 272 Data Structures	3		
CIS 254 Computer Organization	4		
SPE 101 Oral Communications	3		
ENG 211 Technical Writing <i>or</i> ENG 212 Business Communications	3		
Any MAT 200 level course **	3		
Second Year, Spring Semester (15 credits)			
CIS 275 Systems Programming	3		
PHI 102 Ethics and Contemporary Society	3		
Program Elective	3		
General Education, Core I-IV **	3		
Open Elective	3		

* Students planning on transferring to a four-year Computer Science program are advised to determine if they will need to complete a two-course sequence in a lab science, for example Chemistry I and Chemistry II.

** Students planning on transferring to a four-year Computer Science program are advised to verify which mathematics courses will count towards the BS or BA degree requirements beforehand as each institution has different requirements.

*Articulation agreements exist between York County Community College and various colleges and universities.
Please, contact Career and Transfer Services for information regarding these agreements.*

DISCLAIMER

While every effort has been made to ensure accuracy, the college reserves the right to make edits due to errors or omissions or changes at any time with respect to course offerings, degree and program requirements addressed in this publication. The information provided is solely for the convenience of the reader, and the college disclaims any liability, which may otherwise be incurred.