YORK COUNTY COMMUNITY COLLEGE

2023-2024 ACADEMIC MAP

Computer Science

Associate in Science

Curriculum Requirements: 62 Credits
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SEMESTER 1 – FALL	Credits	Milestone	Completed
CIS 170 Problem Solving and Programming	4	✪	☐
General Education Core IV - Lab Science CHM 106/107 recommended	4		☐
ENG 101 College Composition	3		☐
MAT 127 College Algebra	3		☐
Total Credits	14		

2

SEMESTER 2 – SPRING	Credits	Milestone	Completed
CIS 131 Visual Programming I	3	✪	☐
CIS 174 Algorithms in Programming	3	✪	☐
General Education Core IV - Lab Science CHM 11/117 recommended	4		☐
PSY 101 Introduction to Psychology	3		☐
MAT 222 Discrete Math	3		☐
Total Credits	17		

3

SEMESTER 3 – FALL	Credits	Milestone	Completed
CIS 256 Artificial Intelligence and Machine Learning	4	✪	☐
CIS 264 Introduction to Data Analytics	3	✪	☐
CIS 272 Data Structures	3	✪	☐
MAT 227 Pre-Calculus	3		☐
SPE 101 Oral Communications	3		☐
Total Credits	16		

4

SEMESTER 4 – SPRING	Credits	Milestone	Completed
CIS 275 Systems Programming	3	✪	☐
CIS 284 Interoperability for Smart Systems	3	✪	☐
CIS 298 Computer Science Capstone Project	3	✪	☐
HUM 101 Arts and Critical Thinking	3	✪	☐
PHI 102 Ethics and Contemporary Society	3		☐
Total Credits	15		

YOU'VE FINISHED!

✪ **Program Milestones**

Program milestone courses should be taken in the term and order noted.

Make Your Summers Matter

Program Electives
BUS 113 Introduction to Personal Finance
BUS 260 Small Business Management
FIN 110 Principles of Finance
FIN 170 Insurance ans Risk Management

General Advising Notes

CIS 131 is a pre-requisite for CIS 264
CIS170 is a pre-requisite for CIS 174, CIS 256, CIS 264, CIS 284
CIS 174 is a pre-requisite for CIS 264, CIS 272
CIS 256 is a pre-requisite for CIS 284
CIS272 is a pre-requisite for CIS 275

English and Math courses should be taken in your first term, if possible, or first year.

The Computer Science Capstone Project course is available for students who complete 45 credits, have a 3.0 GPA, and have met the prerequisites of CIS 264 and CIS 272.

Core IV courses have the following prefixes: BIO, CHM, MAT, PHY, SCI

If you plan to continue your education:
Work closely with your faculty advisor and transfer counselor to make sure your courses transfer smoothly.

Computer Science

Associate in Science

Program Description

The Computer Science program provides students with a solid foundation in both theoretical and practical topics in computer science, emphasizing the concepts that underlie fundamental computer design and development, programming languages, data analytics, and artificial intelligence systems. The program provides the foundational courses typically encountered in the first two years of study in most baccalaureate programs.

Core courses comprise of a diverse mixture of problem-solving and programming, data exploration and structure, discrete math, computer architecture, and Artificial Intelligence (AI). Selected courses in the liberal arts and humanities 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

Students who successfully complete the Associates in Science degree in Computer Science 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 programing problems.
- Demonstrate competency with one programing language, and a familiarity in two other programming languages.
- Demonstrate strong interpersonal skills effectively in a variety of given scenarios and professional contexts.

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.

Articulation agreements exist between York County Community College and various colleges and universities. Please work with your advisor for information regarding these agreements.

Updated 3/2023