

## INFORMATION TECHNOLOGY - COMPUTER PROGRAMMING AND DATA ANALYTICS CONCENTRATION

*Students starting the program in Fall 2026*

This degree concentration integrates core information technology and general education requirements with specialized coursework in programming and data analytics. Graduates will learn to code, analyze data, and solve real-world problems with Python, Java, C++, SQL, and modern web tools. This program blends hands-on programming with entry-level data science, teaching you how to build applications, work with databases, and turn raw data into meaningful insights. You'll gain practical skills with Git/GitHub, algorithms, and data visualization. A key feature of this program is learning how to integrate artificial intelligence (AI) tools into programming and analytics workflows. Students practice using AI to improve coding efficiency, support data exploration, and assist in problem solving, while also developing the critical thinking skills needed to evaluate and refine AI-generated output. This program prepares you for transfer to a four-year degree or for careers as a programmer, developer, or data analyst.

### Required Program of Study for Associate of Applied Science Degree (2 years)

#### FIRST YEAR

Course	Credits
INFO 1010 Fundamentals of Information Technology* .3	
INFO 2660 Introduction to Networking .....	3
INFO 1605 PC Systems Maintenance and Repair .....	3
INFO 1510 Introduction to Computer Programming... 3	
Mathematics* .....	3-5
	<u>15-17</u>

#### Spring Semester

Course	Credits
BSAD 2050 Business Communications .....	3
INFO 1725 HTML, CSS, and JavaScript .....	3
INFO 1850 Operating Systems .....	3
INFO 2330 Database Concepts, Design and Application .....	3
INFO 2550 Programming in Java .....	3
	<u>15</u>

#### Internship Options\*\*

Course	Credits
<b>Select one of the following options:</b> .....	<b>3</b>
INFO 2820 Internship ( <i>summer only</i> ) .....	3
<b>OR</b>	
INFO 2020 Systems Analysis and Design .....	3
( <i>final semester only</i> )	

#### SECOND YEAR

Course	Credits
ECON 2110 Principles of Macroeconomics* .....	3
BSAD 1000 Human Relations and Ethics* <b>OR</b>	
PSYC 1810 Introduction to Psychology* .....	3
INFO 2460 Data Structures and Algorithms .....	3
INFO 2040 Project Management .....	3
INFO 2900 Data Analysis .....	3
INFO 2500 Programming in C++ .....	3
	<u>18</u>

#### Spring Semester

Course	Credits
INFO 1900 Topics in Cybersecurity .....	3
INFO 1800 Data Mining Application .....	3
INFO 2020 Systems Analysis and Design** .....	3
INFO 2400 Advanced Web Programming .....	3
INFO 2770 System Security and Compliance .....	3
	<u>12-15</u>

Total Credit Hours 63-65

\*Course fulfills a general education requirement for Northeast Community College. See general education requirements.

\*\*Students are encouraged to enroll in summer internships (*3.0 GPA and permission of instructors required*). If the student does not meet internship requirements, they must enroll in INFO 2020 Systems Analysis and Design in their final semester.