COMPUTER SCIENCE
Certificate

Program Description

The Computer Science Certificate is designed for students interested in exploring the field of computer science. It provides students with general knowledge in the areas of computer programming, computer network technologies, database management, and website design through a survey of courses. Students can expand their knowledge further in an area of choice through the selection of electives.

Program Outcomes

At the completion of this program, the student should be able to:

- Summarize how computers, data processing, and networking have changed practices in society, business, science, and medicine.
- Describe the role of major hardware and software components of a computer.
- Apply structured methodologies to design, implement, document, test, and debug computer programs.
- Utilize common procedural and object-oriented programming language constructs.
- Describe the technologies used in computer networks.
- Design a relational database with queries, forms, and reports.
- Create web pages with HTML markup and style them with CSS.

Program Requirements – see p. 98 24 credits total	Credits
CSI 101 Introduction to Computers	3 credits
CSI 107 C++ Programming[1]	3 credits
CSI 104 Introduction to Programming with Python	3 credits
CSI 244 Networking I	3 credits
CSA 213 Database Management	3 credits
CSA 227 Website Design	3 credits
Program Electives (see below)	6 credits

Total credits required for graduation   24 credits

Program Electives	Credits
CSA 229 Web and Mobile Development with JavaScript and React[1] (F)	3 credits
CSI 213 Advanced C++[1]	3 credits
CSI 150 Introduction to Game Development with Unity[1] (S)	3 credits
CSI 226 UNIX with Linux	3 credits
CSI 233 Java Programming[1] (F)	3 credits
CSI 245 Networking II[1]	3 credits
CSI 261 Robotics Programming[1] (F)	3 credits
CSI 311 Computer Organization (F)	3 credits
CSI 217 Introduction to Operating Systems (F)	3 credits

Additional Information

1. Indicates course requires the completion of a prerequisite.

NOTE: All classes are offered in the fall and the spring unless otherwise designated:

F=Class is only offered in the Fall
S=Class is only offered in the Spring
C=Contact Advising at 617-984-1720 for more information.

Prior Learning Assessment Opportunity

CompTIA and QC Courses

Network+ is equivalent to CSI 244 Networking I

Security+ is equivalent to CSI 242 Computer Systems Security

Students with proof of completion please contact Division Dean.

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