

# Computer Networking

## Certificate

### **DIVISION OF SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS**

This certificate is designed to prepare students with the knowledge and skills that will enable them to perform system and network administration jobs. Students will be able to manage, administer, and configure computer networks while applying IT and security best practices.

Most of the courses in this certificate will provide students with pathways to industry certifications that are widely used as standards in the IT industry. Students completing will be prepared and encouraged to gain industry credentials by taking industry standard examinations offered by leading Networking and Cybersecurity organizations.

#### **Career Outlook**

This certificate prepares students with necessary knowledge and skills for the very competitive systems administration and computer networking IT field. The courses in this certificate are aligned with IT Essentials, and LPI Linux Essentials certification, and well as networking and security certification. Courses in this certificate are also aligned with NIST's NICE Framework; hence, students are trained with consistent and current technology and concepts to help them secure a position as an entry-level system administrator, computer network, and/or security specialist.

Upon successful completion, the Certificate in [Computer Networking](#) is awarded.

#### **PROGRAM FOOTNOTES:**

**Recommended:** Working knowledge of computers and the web

| COURSE                 | COURSE TITLE                            | CREDITS      |
|------------------------|-----------------------------------------|--------------|
| <i>First Year</i>      | <i>Semester 1</i>                       |              |
| CS 110                 | Introduction to Computer Science        | 4            |
| CS 113                 | Fundamentals of IT                      | 4            |
| CS 242                 | Computer Networks                       | 4            |
|                        | <b>credits:</b>                         | 12           |
| <i>First Year</i>      | <i>Semester 2</i>                       |              |
| CS 118<br>OR<br>CS 123 | Scripting<br>OR<br>Python Programming   | 3<br>4       |
| CS 141                 | Linux System Management                 | 3            |
| CS 116                 | Fundamentals of Cybersecurity           | 4            |
| CS 243                 | Computer Networks II                    | 4            |
|                        | <b>credits:</b>                         | 14/15        |
| <i>Summer</i>          |                                         |              |
| CS 280*                | Computer Science Internship (Optional)* | 1            |
|                        | <b>Total Credits:</b>                   | <b>27/28</b> |

\* Students are encouraged to seek and participate in relevant internships. Students are responsible for finding internships and co-op opportunities. Students participating in internships and co-op will need to register for CS 280. It is highly recommended to take CS 280 (Computer Science Internship) the last semester.