# COMPUTER SCIENCE – INFORMATION TECHNOLOGY SPECIALIST

## Diploma, 36 Credit Hours, 9-Month Program

The Computer Science - Information Technology Specialist program strikes a balance between theory and application. Students will learn about real-life networking and cyber security environments, making them immediately productive upon graduation and prepared to take on a variety of information technology (IT) roles. The first year builds a solid foundation of basic hands-on computer skills and networking concepts. The second-year challenges students to learn to adapt and react to the changing world of computers. Deeper networking concepts are introduced, including cyber security, ethical hacking, complex networks, and programming skills. The emphasis of coursework will be based on preparing students for industry certification testing. Students also will be prepared to continue learning and advancing within the field, allowing them to work within an organization to apply networking and cyber security to business strategy, tactics, and goals.

A typical job description for an information technology specialist would generally include working in an office environment. The job is often performed alone, and the IT Specialist must possess strong troubleshooting and technical skills, including strong math skills. Conversely, the IT Specialist must also work with users who are not comfortable with the system or who are experiencing difficulties, thus the requirement for strong communications skills. Configuring a network can require long hours of work in a short period of time. Maintaining the network can alternate between routine tasks to install, maintain, and update programs, as well as the hectic work of troubleshooting and fixing network problems. If a network crashes, the Information Technology Specialist must work quickly and purposefully to solve problems and restore the network operation. In addition, the task of updating and maintaining network services can require late hours and work on an irregular schedule. The IT worker must also be prepared to maintain related technology within an organization, including audio-visual equipment, televisions, phones, and cabling infrastructure. Physical duties may include climbing and working using ladders, installing cabling, moving computers and related equipment, and installing equipment.

| Course | No. | Course Title | Credits |
|--------|-----|--------------|---------|
| | | **General Education Requirements** | |
| CSC | 105 | MICROCOMPUTER SOFTWARE APPLICATIONS I | 3 |
| ENGL | 101 | COMPOSITION I* | 3 |
| MATH | 114 | COLLEGE ALGEBRA** | 3 |
| PSYC | 101 | GENERAL PSYCHOLOGY *or* | 3 |
| PSYC | 103 | HUMAN RELATIONS IN THE WORKPLACE | |
| | | **Total** | **12** |
| | | **Technical Requirements** | |
| CIS | 122 | INFORMATION TECHNOLOGY HARDWARE/SOFTWARE | 6 |
| CIS | 129 | WINDOWS OPERATING SYSTEMS | 3 |
| CIS | 131 | NETWORKING TECHNOLOGIES I | 3 |
| CIS | 132 | NETWORKING TECHNOLOGIES II | 3 |
| CIS | 201 | LINUX TECHNOLOGIES | 3 |
| CIS | 213 | NETWORKING USING WINDOWS SERVER | 3 |
| CIS | 225 | DATABASES | 3 |
| | | **Total** | **24** |

*Prerequisite: Acceptable ACCUPLACER score or Basic Writing.
**Prerequisite: Acceptable ACCUPLACER score or Intermediate Algebra.

## Semester Breakdown Diploma

| First Semester | | CR | Second Semester | | CR |
|----------------|--|----|-----------------|--|----|
| CIS 122 | Information Technology Hardware/Software | 6 | CIS 132 | Networking Technologies II | 3 |
| | | | CIS 201 | Linux Technologies | 3 |
| CIS 129 | Windows Operating Systems | 3 | CIS 213 | Networking Using Windows Server | 3 |
| CIS 131 | Networking Technologies I | 3 | CIS 225 | Databases | 3 |
| CSC 105 | Microcomputer Software Applications I | 3 | ENGL 101 | Composition I | 3 |
| | | | PSYC 101 | General Psychology *or* | 3 |
| MATH 114 | College Algebra | 3 | PSYC 103 | Human Relations in the Workplace | |
| | **Total Credit Hours** | **18** | | **Total Credit Hours** | **18** |