

INFORMATION TECHNOLOGY Frederick Community College



Program Contact:

Dr. Andy Yao • 301.846.2410 • ayao@frederick.edu

Information Technology

Careers in Information Technology involve the design, development, support, and management of hardware, software, multimedia, and systems integration services. Typical job responsibilities include diagnosing, troubleshooting, resolving, and documenting hardware and software problems; installing software and hardware; configuring and upgrading systems; and monitoring and maintaining system performance. In addition to careers in the IT industry, opportunities for employment can be found in every sector of the business world.

The Program

Frederick Community College's IT program offers innovative ways to prepare for employment in the field including career programs (A.A.S.), transfer programs (A.S.), certificates, and letters of recognition.

Growth Potential & Estimated Salaries

Employment prospects for IT professionals are excellent. Graduates who are cross trained with skills in several areas are most attractive to potential employers. Opportunities are becoming increasingly available in the Frederick area, however top salaries are found in the major metropolitan areas of Washington and Northern Virginia.

Faculty

All courses are taught by fully qualified professionals who have worked in the IT field. All are experts in their field who take a personal interest in teaching students to think critically and to fulfill their career goals.

Growth Potential & Estimated Salaries Source: US Bureau of Labor Statistics – 2012–2013 Occupational Outlook Handbook

Frederick Community College prohibits discrimination against any person on the basis of age, ancestry, citizenship status, color, creed, ethnicity, gender identity and expression, genetic information, marital status, mental or physical disability, national origin, race, religious affiliation, sex, sexual orientation, or veteran status in its activities, admissions, educational programs, and employment. Frederick Community College makes every effort to accommodate individuals with disabilities. If you have accommodation needs, please call 301.846.2408. To request a sign language interpreter, please call 240.629.7939 or 301.846.2408 (Voice) or email Interpreting@frederick.edu. Requests for any accommodation should be made at least five working days prior to attending a scheduled event.

Transfer Note

FCC has articulation agreements with the following institutions for students graduating with an A.A.S. in Information Technology Option I and who are looking for transfer opportunities. For more information, contact the Counseling & Advising Office at 301.846.2471.

- University of Maryland University College – B.S. Computer Science
- University of Maryland University College – B.S. Cybersecurity
- Hood College – B.S. Computer Science

Financial Assistance

FCC provides a tuition payment plan. Scholarships and loan assistance are available for eligible students.

Required course listings for each program are available at www.frederick.edu

For more information on Information Technology:

Contact Dr. Andy Yao at 301.846.2410 or email ayao@frederick.edu

Career Programs

(Gain a new career in two to three years)

Information Technology Option I: Information Technology Specialist (A.A.S.)

This program is designed to prepare students for immediate entry into computer-related occupations, and provide opportunities for individuals in the industry to upgrade their skills. By the completion of this program students will be able to:

- Prepare a plan that addresses organizational needs
- Identify problem requirements that demonstrate understanding of user and technical needs
- Explain solutions
- Analyze alternative solutions
- Design problem solution
- Produce documentation that describes solution implementation
- Integrate hardware, software and security models that facilitate project outcomes

Information Technology Option II: Network Engineer (A.A.S.)

Prepares students for entry-level positions in the network engineering field. By the completion of this program, students will be able to:

- Prepare a networking plan and identify problem requirements that demonstrate understanding of administrative and technical needs
- Analyze alternative networking solutions
- Design and document networking
- Integrate hardware, software, networking technologies and security models
- Maintain the hardware, software, networking technologies and security implementation of an existing network

Transfer Programs

(Complete the credits you need to transfer to a four-year university)

Information Systems Management (A.S.)

Designed for students seeking to complete the first two years of a four-year degree program in information systems management. By the completion of this program, students will be able to:

- Prepare a plan that addresses organizational needs.
- Identify problem requirements
- Explain solutions
- Analyze alternative solutions
- Design problem solution
- Produce documentation that describes implementation
- Integrate business, financial and/or economic models that demonstrate project feasibility

Computer Science (A.S.)

Provides a core of courses which enables the student to transfer to a four-year college and major in computer science. The program is designed to give broad coverage of both mathematics and computer science with an emphasis on object-oriented design and programming. By the completion of this program, students will be able to:

- Create an object-oriented program that implements data structures
- Identify problem requirements that demonstrate understanding of user needs
- Explain solutions
- Analyze complexity of problem solutions
- Design problem solutions that demonstrate efficiency
- Construct software applications that implement a Graphical User Interface Front-End.
- Produce documentation that describes implementation

Information Technology Certificates

Designed for students seeking to build skills in specialty areas, upgrade current skills, or broaden their general knowledge base in information technology. All courses completed in these certificates apply directly to an A.A.S. degree in information technology.

Computer Studies

By the completion of this program students will be able to:

- Prepare a plan that addresses organizational needs
- Identify problem requirements that demonstrate understanding of user and technical needs
- Design problem solution
- Integrate hardware, software and security models that facilitate project outcomes

Computer Support Specialist

By the completion of this program students will be able to:

- Identify problem requirements that demonstrate understanding of user and technical needs
- Analyze alternative solutions
- Design problem solution solves the requirements
- Integrate hardware, software and communications models

Software Specialist

By the completion of this program students will be able to:

- Identify problem requirements that demonstrate understanding of user needs
- Explain solutions
- Design problem solution
- Integrate application software to facilitate requirement solutions

Network Engineer

Prepares students with the knowledge and skills required to implement and maintain a defined network. Graduates will be able to configure, maintain, and troubleshoot network devices using network tools as well as analyze network traffic to make solution recommendations. This certificate also prepares graduates for Cisco Certified Network Associate (CCNA) professional certification.

Information Security and Assurance

The Information Security and Assurance Certificate is specifically designed to meet the need for workers in this rapidly growing area of information technology.

Healthcare Information Technology

This certificate is designed to prepare graduates to work as healthcare information technology technicians and to perform tasks such as maintaining the system that supports electronic health records (EHR), improving EHR software usability, and designing/implementing policies to protect healthcare data. The curriculum includes information technology, healthcare systems, and medical business operations. This certificate covers the objectives required by CompTIA A+ and CompTIA Healthcare IT Technician. By the completion of this program students will be able to:

- Design and develop information systems and processes that improve quality, effectiveness and efficiency of healthcare operations
- Provide data management and analysis that ensure healthcare specific data security
- Evaluate the impact of information technology on the clinical process, clinical outcome, organizations, and resources
- Implement policies and procedures to protect the privacy and security of patient health information
- Explain healthcare related requirements and prepare/conduct auditing to ensure compliance