

COMPUTER SCIENCE/ INFORMATION TECHNOLOGY, ASSOCIATE IN APPLIED SCIENCE

Program Description

The Associate in Applied Science (A.A.S.) in Computer Science / Information Technology is designed for students seeking to enter the workforce with practical technical skills in computing and information systems. This career-focused degree prepares students for roles supporting computer systems, networks, software applications, and digital infrastructure in a variety of organizational settings.

Students develop applied skills in areas such as programming, system administration, networking, cybersecurity, and technical troubleshooting. Coursework emphasizes hands-on learning, problem-solving, and the use of industry-relevant technologies to manage and support modern computing environments.

The program prepares graduates for entry-level technical roles in the information technology sector while providing a strong foundation for continued professional development and industry certifications.

Transfer Information

The A.A.S. in Computer Science / Information Technology is designed primarily as a career-focused degree and is not structured under the New Jersey Statewide Transfer Agreement. Students interested in pursuing a bachelor's degree should consult with Advising & Transfer Services to explore articulation agreements or credit evaluation options at their intended transfer institution.

Students may also choose to pursue additional technical training or professional certifications to expand their career opportunities in the technology field.

Career Information

The A.A.S. in Computer Science / Information Technology prepares graduates for entry-level roles in a wide range of technology-driven organizations.

Potential career paths include:

- IT Support Specialist
- Network Support Technician
- Systems Administrator Assistant
- Cybersecurity Support Technician
- Computer Programmer or Software Support Specialist
- Technical Support Analyst

Students are encouraged to consult with faculty and Career Services to explore internships, certification pathways, and employment opportunities in the information technology sector.

First Semester	Credit Hours
ENGL 151 English I	3
MATH 151 A Survey of Mathematics (or Higher)	3-4
Humanities Gen. Ed. or Social Science Gen. Ed	3
CSIT 124 Introduction to Programming	3
CSIT 144 Introduction to Operating System Using Linux	3
Credit Hours	15-16
Second Semester	Credit Hours
ENGL 152 English II	3
CSIT 185 Networking I	3
CSIT 145 Computing Fundamentals	3
CSIT 200 Information Security Fundamentals	3
CSIT Elective	3
Credit Hours	15
Third Semester	Credit Hours
CSIT 243 Cisco Networking Fundamentals	3
CSIT 277 Introduction to Cloud Computing	4
Any Gen. Ed. Requirement	6
CSIT Elective	3
Credit Hours	16
Fourth Semester	Credit Hours
Any CSIT, Business, Math, or Science Electives	14
Credit Hours	14
Total Credit Hours	60-61

Computer Science/Information Technology Electives

Code	Title	Credit Hours
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Students can choose any CSIT course (CSIT 115 or higher). Students are not required to select a specific area of interest/concentration.

Suggested Business Studies Electives

Code	Title	Credit Hours
ACCT 161	Principles of Accounting I	3
BUSN 131	Introduction to Business Administration	3
BUSN 134	Principles of Marketing	3

The Associate in Applied Science (AAS) in Information Technology prepares students for entry-level positions in various computer-related roles within the IT field. The program features a comprehensive curriculum that covers essential areas such as hardware, software, operating systems, information security, networking, computing fundamentals, and cloud computing. It is also designed to equip students with the skills needed for the integration, design, deployment, and management of computing resources and services. This program prepares students for industry-recognized certifications, enhancing their qualifications and career prospects.

The department recommends the following minimal criteria for prospective students in the Computer Science/Information Technology program:

1. High school diploma or equivalent
2. Cumulative high school grade point average of C or above
3. Ranked in top half of high school graduating class
4. No developmental studies requirement

Learning Outcomes

1. Identify the basic concepts of modern computer architecture including hardware, the main functions of an operating system and ancillary software and how the major computer data, instruction and addressing formats influence computer performance.
2. Understand the fundamental techniques used in the development of software such as classes, objects, algorithms, data types, control structures, arrays, attributes, and methods and explain the software development life cycle (SDLC).
3. Demonstrate foundational computer science and cybersecurity knowledge such as access control, security mechanism, cryptography, vulnerability, and risk management.
4. Describe fundamental networking concepts with emphasis on networking applications, data delivery and routing, network architecture, layering, and protocols
5. Explain the principles of cloud computing including the topics of cloud infrastructures, virtualization, software defined networks and storage, cloud storage, and programming models.
6. Demonstrate knowledge and skills in the areas of Computer Science to solve technical and computational problems.