Information Systems Technology

Degree Type
Associate in Science

The Department of Information Systems Technology offers coursework in computer hardware repair, computer networking, network security, and network management. This coursework opens the door to career changes, career enhancements, and career opportunities. The demand for IT professionals continues to rise. IT professionals are being sought after with higher salaries as an incentive. Continuing education opportunities are available for IST graduates through current articulation agreements with four-year colleges. Courses will be offered on a rotating semester basis. Students should work with their advisors to plan course selections to optimize program completion time.

Program Outcomes

Students will be able to:

- Design local area networks using multiple sub-networks.
- Configure networking devices to forward traffic throughout a local area network.
- Implement, configure and manage Wi-Fi network infrastructure.
- Configure networking devices to connect to internet service provider network.
- Configure and maintain personal computers in a networked environment.
- Configure and maintain network servers.
- Install and test physical layer infrastructure to include copper, fiber- optic, and wireless media.
- Install and configure Windows workstations and servers.
- Establish and maintain basic network security policies and procedures.
- Configure and maintain advanced network security devices.
- Configure and implement virtualization of the desktop and network.
- Prepare for selected industry recognized certifications.

Health, Safety, and Internship Considerations

The college must ensure that stakeholders at internship and service-learning sites are not adversely affected by students during learning experiences. Therefore, students participating in internship and field experiences must demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor or faculty member, and establish rapport and maintain sensitive interpersonal relationships with employees, customers, and clients.

Students participating in an internship are required to follow The College immunization policy. Please see the Academic Policies section of this catalog, under XVI. Immunization Policy. Depending upon the site, the student may be required to possess and maintain professional liability insurance. For unpaid internships, the student must possess and maintain accident insurance. Please see the Student Services section of this catalog, under Insurance for purchase options available through the College.

Technical Standards

Students who enroll in the program should comprehend the English language, both oral and written, and have sufficient keyboarding skills to produce electronic documents in a timely manner. They should be able to sit or stand at a desk or workstation and stay on task for extended periods of time. They should be detail-oriented, able to read small print, and perform basic mathematical operations. Successful employees in the field demonstrate the emotional stability required to exercise sound judgment, accept direction and guidance from a supervisor, and establish rapport and maintain sensitive interpersonal relationships with employees, customers and clients.

Transfer Credit Policy

In addition to Great Bay transfer credit policies, all Information Systems Technology transfer credits will be evaluated by the IST chairperson or his/her designee.

General Education Core Classes

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	ENGL214G or ENGL215G	3	0	3
	MATH150G/152G or MATH170G	4	0	4-5
	MATH170G or MATH2XX	4	0	4
	Science Elective (IST)	4	0	4
	Social Science Elective*	3	0	3-4
	Humanities/Foreign Language/Fine Arts Elective	3	0	3
	Sub-Total Credits	**25-27**	**0-2**	**25-28**

At least 21 credits at the 100 level and at least 18 credits must be at the 200 level. Up to 15 CIS or DGMT credits may be applied at either the 100 or 200 level in fulfillment of IST degree requirements.
Track 1 MATH150G/152G and MATH170
Track 2 MATH170 and MATH2xx

Information System Technology Core Courses

Item #	Title	Theory Hours	Lab Hours	Credits
IST112G	Applied Logic	2	2	3
IST113G	IT Essentials: PC Hardware and Software	2	2	3
IST122G	Introduction to Networks	2	2	3
IST123G	Switching, Routing, and Wireless Essentials (SRWE)	2	2	3
IST142G	Virtualization Essentials	2	2	3
IST150G	Network Operating System Fundamentals	2	2	3
IST161G	Fundamentals of Networking/Security	2	2	3
IST163G	Legal Issues in Information Security	3	0	3
IST200G	Communication Electro-Optics	2	2	3
IST212G	Mobile Systems Architecture	2	2	3
IST222G	Enterprise Networking, Security, and Automation (ENSA)	2	2	3
IST242G	Advanced Virtualization	2	2	3
IST245G	Enterprise Data Management	2	2	3
IST251G	Windows Network Operating Systems Services	2	2	3
IST253G	Windows Server 2008 Active Directory	2	2	3
IST262G	Advanced Network Security	2	2	3
IST263G	Information Assurance/Information Risk Management	2	2	3
IST264G	Configuration Security Appliance	2	2	3
IST265G	CCNA Cybersecurity Operations	2	2	3
IST266G	Security+	2	2	3
IST275G	Network Protocols and Services	2	2	3
IST281G	Internship	1	8	3
	Sub-Total Credits	**44**	**48**	**39**

First Year

Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL110G/111G	4	0	4-5
	MATH150/152G or MATH 170	4	0	4-5
IST122G	Introduction to Networks	2	2	3
IST123G	Switching, Routing, and Wireless Essentials (SRWE)	2	2	3
	Sub-Total Credits	**12**	**4-6**	**14-16**

Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	MATH170G or MATH2XX	4	0	4
	Science Elective (IST)	4	0	4
IST222G	Enterprise Networking, Security, and Automation (ENSA)	2	2	3
	IST Elective (100 Level)	2	2	3
	Sub-Total Credits	**12**	**4**	**14**

Summer Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	IST Elective (100 Level)	2	2	3
	IST Elective (200 Level)	2	2	3
	Humanities/Fine Arts	3	0	3
	Sub-Total Credits	**7**	**4**	**9**

Second Year

Fall Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	ENGL214G or ENGL215G	3	0	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	Social Science Elective*	3	0	3-4
	Sub-Total Credits	**12-13**	**6**	**15-16**

Spring Semester

Item #	Title	Theory Hours	Lab Hours	Credits
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	IST / CIS Elective (100/200 Level)	2	2	3
	Sub-Total Credits	**8**	**8**	**12**

At least 18 credits must be at the 200 level for IST Classes
Up to 15 CIS and DGMT credits will be accepted in the IST Program

	Total Credits			**64-67**