



INFORMATION & NETWORK TECHNOLOGY

PROGRAM DESCRIPTION

The Information and Network Technology program is a comprehensive and rigorous program focused on the design, configuration, implementation, maintenance, and troubleshooting of modern Information Technology networks. Both hardware and software aspects are covered. Specific topics include LAN/WAN design and configuration, routing and switching, network analysis, reliability, physical and information security, fault tolerance, operating systems, computer and network hardware, virtualization and cloud computing, the Internet of Things, asset management, and troubleshooting. The program is capped off with students running a live network of their own in a team Capstone class. The Capstone brings together all knowledge domains from previous classes. The students must maintain, upgrade, repair, and support a network of about 40 users. Students who complete the program will be prepared for several highly demanded industry certifications. Successful Information Technology personnel must be adaptable, self-learners with good spatial, logical, and organizational skills. Strong math skills are not required but do generally indicate the individual's problem-solving ability.



PROGRAM OUTCOMES

- Design, implement, and maintain small and medium business networks.
- Install, configure, and manage a virtualized computer infrastructure.
- Deploy, configure, and manage a physical computer infrastructure.
- Utilize a command line environment to perform and automate tasks.
- Display the ability to troubleshoot complex computer hardware, operating system, and network system problems.
- Demonstrate the interpersonal skills needed for working successfully in a service-oriented profession.
- Work productively as a member of a team.
- Demonstrate the ability to make technology solution recommendations while considering fiscal ramifications.
- Demonstrate the ability to create appropriate and thorough technical documentation.
- Demonstrate research and verbal presentation skills.
- Demonstrate how to avoid various malware and cyberattack pitfalls.
- Responsibly utilize the Internet, PCs, smart phones, and other internet-enabled devices.
- Demonstrate how to secure and manage IT assets and digital data in storage and transit, including the use of physical security.
- Install, configure, and manage enterprise server level applications.

CERTIFICATES OFFERED UPON COMPLETION:

CompTIA IT Fundamentals+ • Red Hat Certified System Administrator • CompTIA A+ • Cisco Certified Network Associate CompTIA Cloud+ • VMware Certified Professional (Partial) • Microsoft Certified Systems Engineer (partial) • CompTIA Security+ • CompTIA Network+ • IAT Level I – A+, Network+ • DoD Directive 8570.01 • IAM Level I – Security+ • IAT Level II – Security+

ARTICULATIONS: Pittsburg State University • KSU-Salina • Washburn University • Fort Hays State University

Accreditation:



Cisco Networking Academy
170 West Tasman Dr.
San Jose, CA 95134
www.netacad.com



VMware IT Academy
3401 Hillview Ave.
Palo Alto, CA 94304
www.vmware.com/company/research/it-academy.html



Red Hat Academy
100 E. Davie St.
Raleigh, NC 27601
www.redhat.com/en/services/training/red-hat-academy

ADMISSION REQUIREMENTS

College Placement Assessment Criteria

Information & Network Technology Curriculum

Associates in Applied Science

63 Credit Hours

Technical Specialty Courses

43 Credit Hours

COURSE NO.	COURSE TITLE	MAPS TO	CREDITS
Year 1 Fall Semester			
CRT 100	Principles of Information Assurance		1
CRT 115	Information & Network Technology (INT) Essentials		1
CRT 126	Advanced Operating Systems & PC Hardware	A+ Certification	5
CRT 170	Introduction to Networks	Cisco CCNA Certification	3
Year 1 Spring Semester			
CRT 144	UNIX Fundamentals	RHCSA Certification	3
CRT 148	Microsoft Network OS		3
CRT 176	Switching, Routing, and Wireless Essentials	Cisco CCNA Certification	3
CRT 181	Network/Server Management		3
Year 2 Fall Semester			
CRT 119	Windows Administration Using PowerShell		2
CRT 151	Infrastructure Virtualization		3
CRT 288	Fundamentals of Information Systems Security	Security+ Certification	3
CRT 286	LAN/WAN Implementation and Support	Cisco CCNA Certification	3
EMP 1901	Global Employment Standards		1
Year 2 Spring Semester			
CRT 215	Database Systems		3
CRT 282	Network Security		3
CRT 295	INT Capstone		3

Suggested Technical Electives

5 Credit Hours

COURSE NO.	COURSE TITLE	CREDITS
BUS 125	Business Communication	3
BUS 126 **	Introduction to Business	3
CIS 116	Spreadsheet Management	2
CIS 126	Database Management	2
CIS 150	Web Page Applications	3
CRT 165 ^	Modern Information Technology Networks	3
CRT 231	Internet of Things Fundamentals and Security	3
CRT 281 ^	Cloud Computing Fundamentals	3

** required ^ Maps to Network+ Certification

† Additional Technical Elective listed in [back of catalog](#); see an advisor for more information

General Ed Requirements

15 Credit Hours

COURSE NO.	COURSE TITLE	CREDITS
English 3 required		
COM 105	English Composition I	3
COM 110	Technical Writing	3
Math 3 required		
MAT 109	Technical Mathematics II	3
MAT 110	Intermediate Algebra or higher	3
Communication 3 required		
COM 115	Public Speaking	3
COM 116	Interpersonal Communications	3
Additional General Education 6 required		

General education elective list is located on [page 028](#).

Certificate C Requirements

52 Credit Hours

COURSE NO.	COURSE TITLE	CREDITS
All Technical Specialty Courses		43
Technical Electives		
BUS 125	Business Communication	3
BUS 126	Introduction to Business	3
General Education Requirements 3 required		
MAT 101	Technical Mathematics I	3
MAT 108	Beginning Algebra	3