

NETWORK ADMINISTRATOR



NETWORK ADMINISTRATOR CERTIFICATE

18 credits

This program answers a need in the local region from educational and financial institutions as well as small business for people with the basic skills to effectively manage microcomputer networks. SUNY Ulster is designated as a Regional Academy for Cisco Systems training and a member of the Microsoft IT Academy program.

For non-credit version of these courses,
contact reerb@sunyulster.edu

NETWORKING FUNDAMENTALS

Students are introduced to the architecture, structure, functions, components, and models of the Internet and other computer networks following Cisco Academy recommendations. OSI and TCP layered models will be used to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for the curriculum. Dedicated labs allow students to analyze real world data without affecting production networks. Emphasis is given to the use of decision making and problem solving techniques. This is the first course in the four semester CISCO Systems CCNA Exploration program. Prerequisite: MAT 098. Corequisite: CIS 100 or equivalent computer experience.

NET 101-01 T/R 8/27-10/16 9am-12:30pm SRC \$603

INTRO TO ROUTING & SWITCHING

This course is the second course of the four semester Cisco Systems CCNA preparation program. This track is a robust implementation that follows the proven, world recognized Cisco Networking Academy curriculum and incorporates significant online components, including testing. It is designed for students seeking a technical degree in the field of Computer Networking, and for the student seeking CCNA/CCNP certification. This course describes the architecture, components, initial programming, and operation of routers and switches, and explains the principles of routing and routing protocols following Cisco Academy recommendations. It covers basic switched network implementation, and introduces routed networks and their attendant protocols. Prerequisite: NET 101.

NET 102-29 T/R 10/17-12/7 9am-12:30pm SRC \$603

COMPUTER MATHEMATICS

This course is designed for students in the Network Administration Program. Topics essential to solving problems associated with computers and computer networks are covered. They include number systems; arithmetic operations in different number systems; computer arithmetic; algorithms & flowcharts; selected topics in algebra; sets; logic; Boolean algebra and logic gates; matrix manipulation techniques for solving systems of linear equations; graphing and linear programming; elementary descriptive statistics and probability. Prerequisites: MAT 098, high school equivalent (see Guidelines for Mathematics Placement), or Entering Student Assessment at MAT 100 (or higher).

MAT 120-01 M 10/17-12/18 1:45-4:30pm SRC \$603



IBM Community College Skills Accelerator Program for New Collar Jobs

IBM has partnered with select community colleges including SUNY Ulster to build “new collar” skills for employment. This program provides SUNY Ulster faculty and staff access to IBM technical resources and an educational pathway that prepares students for “new collar” roles. IBM locally hires apprentices for Hardware Design Technicians, Mainframe System Administrators, Electronics Engineer Lab Technicians, Software Engineers and Chemical Technicians. Graduates of SUNY Ulster are able to apply for these apprentice positions at <https://careers.ibm.com/ListJobs/All/Search/jobtitle/apprentice/new-collar-role/yes/>

IBM Open Digital Badges

Digital Badges are reinventing how credentials are used to recognize professional achievement and contribution, however, communicating your credentials can be a challenge in today’s online marketplace. A Digital Badge is one way to easily verify proof of your achievement. IBM Digital Badges are represented by a digital image that contains verified metadata outlining the qualifications and assessment process students went through to earn them. Combining Digital Badges with other credentials forms a complete overview of your skills. In addition, Digital Badges display your qualifications on social and professional networking sites while providing employers with easy, valid verification of credentials. For more information on accessing these digital badges, visit us at sunyulster.edu/continuing_education/ibm-badges.php