NETWORK TECHNOLOGY ADMINISTRATION AND SECURITY POST-DEGREE DIPLOMA

Purpose

This program provides graduates with the fundamental IT skills to work in a variety of positions related to network administration and security. Students will gain a strong foundation in network systems administration and automation, desktop support, and computing and network infrastructure. Students will then move on to topics such as perimeter security, data communications, digital forensics, encryption, network exploits and vulnerabilities, and penetration testing.

Students will learn through a variety of hands-on experiences within a computer lab environment. Students will work with both Windows and Unix-like operating systems.

Graduates of this program will be prepared for a variety of positions in network administration and security, such as Information Systems Analyst/Consultant, Computer and Information Systems Manager, or User Support Analyst.

Duration

This program can be completed in two years with full-time study. The program must be completed within 3 years.

Learning Outcomes

Upon successful completion of this program, graduates will be able to:

- Plan, create, and implement computer network systems
- Work with clients and team members to provide desktop/server support
- Implement IT system and data security policies
- Design, implement and maintain a full virtualization environment
- Engage in computer forensic investigation
- Design, implement, maintain, and monitor a network using Windows and Linux operating systems.
- Lead, manage, and direct small-to-medium scale IT projects
- Perform shell scripting or other basic scripting tasks
- Perform data backups and disaster recovery operations
- Operate master consoles to monitor the performance of computer systems and networks and to co-ordinate access and use of computer networks
- Evaluate and install computer hardware, networking software, operating system software and software applications
- Maintain, troubleshoot and administer the use of local area networks (LANs), wide area networks (WANs), wireless networks, mainframe networks, computer workstations, connections to the Internet and peripheral equipment

Admission Requirements

- An undergraduate degree from an accredited university
- English proficiency demonstrated by one of the following:
  - VCC ELA (English Language Assessment) with minimum scores of: Listening 25/30, Speaking 27/30, Reading 50/70 and Essay 16/20, *or*
  - TOEFL iBT with a minimum score of 84 (minimum score of 21 in each section), *or*
  - Academic IELTS with a minimum score of 6.5 (no band less than 6.0)

Program Requirements

Part-time students may take courses in any order as long as course prerequisites are met.

First Year		
Term One		**Credits**
ITOP 1101	A+ Hardware	2
ITOP 1102	Networking Fundamentals	2
ITOP 1105	Security Fundamentals	2
ITOP 1106	Service Manager	2
ITOP 1107	Linux Server Fundamentals	2
ITOP 1108	Windows Desktop Support	2
	Credits	**12**
Term Two		
ITOP 1103	Windows Server Fundamentals	2
ITOP 1109	PowerShell	2
ITOP 2306	Virtualization & Cloud Comput	3
ITOP 2309	Data Communications & Networks	4.5
	Credits	**11.5**
Term Three		
ITOP 1104	Active Directory	2
ITOP 2202	Networking with Cisco	4
ITOP 2204	Computing Security Arch	3.5
	Credits	**9.5**
Second Year		
Term One		
ITOP 2203	Wireless Technology Networks	3.5
ITOP 2308	Enterprise Messaging & Service	3
ITOP 2411	Advanced Network Systems	4.5
	Credits	**11**
Term Two		
ITOP 2205	Infrastructure Project	1
ITOP 2414	Encryption, PKI Archit & Admin	3.5
ITOP 2415	NetworkExploits-Vul-PenTesting	4.5
	Credits	**9**
Term Three		
ITOP 2201	Professional Development	1
ITOP 2307	ITIL Foundation	1
ITOP 2310	Industry Capstone Project	3
ITOP 2403	Intro to Netw. Opt. Monitoring	2
ITOP 2412	Computer Forensics	2
	Credits	**9**
	Total Credits	**62**

This guide is intended as a general guideline only. The College reserves the right to make changes as appropriate.

Evaluation of Student Learning

Students will be assessed through a wide range of activities such as presentations, assignments, quizzes, projects, learning journals, and exams.

Students are required to maintain a minimum GPA of 2.0 in each term to progress to the next term of the program.

To receive a Post-Degree Diploma in Network Technology Administration and Security, a student must achieve a minimum grade of C (61-65%) in each course.

Prior Learning Assessment and Recognition (PLAR)

Prior Learning Assessment and Recognition (PLAR) is not available for this program.

Transcript of Achievement

The evaluation of learning outcomes for each student is prepared by the instructor and reported to the Student Records Department at the completion of semesters.

The transcript typically shows a letter grade for each course. The grade point equivalent for a course is obtained from letter grades as follows:

Grading Standard

Grade	Percentage	Description	Grade Point Equivalency
A+	96-100		4.33
A	91-95		4.00
A-	86-90		3.67
B+	81-85		3.33
B	76-80		3.00
B-	71-75		2.67
C+	66-70		2.33
C	61-65		2.00
C-	56-60		1.67
D	50-55		1.00
F	0-49	Failing Grade	0.00
S		Satisfactory – student has met and mastered a clearly defined body of skills and performances to required standards	N/A
U		Unsatisfactory – student has not met and mastered a clearly defined body of skills and performances to required standards	N/A
I		Incomplete	N/A
IP		Course in Progress	N/A
W		Withdrawal	N/A
Course Standings			
R		Audit. No Credit	N/A
EX		Exempt. Credit Granted	N/A
TC		Transfer Credit	N/A

Grade Point Average (GPA)

1. The course grade points shall be calculated as the product of the course credit value and the grade value.
2. The GPA shall be calculated by dividing the total number of achieved course grade points by the total number of assigned course credit values. This cumulative GPA shall be determined and stated on the Transcript at the end of each Program level or semester.
3. Grades shall be assigned to repeated courses in the same manner as courses taken only once. For the purpose of GPA calculation of grades for repeated courses, they will be included in the calculation of the cumulative GPA.