

Windows System Administration

CNT 4603

Designation: System Administration elective for BS IT

Catalog Description: CNT 4603 3 Credits

Course Name: System Administration and Maintenance

Course Description: An examination of operating systems and applications installation, configuration, and maintenance, including client-server services, content management and deployment, server administration and management, and user/group management.

Pre-requisite: CGS 3767

Textbook(s) and/or other required material(s):

- *Programming in Python 3: A Complete Introduction to the Python Language, 2e*, Mark Summerfield, 2010, Pearson Education, ISBN-13: 978-0-321-68056-3.
- The textbook will be supplemented with online lecture notes which will come from a variety of resources. Any software that is required for the course will be available for downloading via the Internet.

Reference(s): None

Course learning outcomes/expected performance criteria:

The course goals are to enable students to:

- Be able to perform basic system administration tasks on Windows Server 2008-12 based server systems. (Critical)
- Be able to define, install, and maintain system security policies under Server 2008-12. (Relevant)
- Be able to write simple scripts geared toward system administration activities in Windows PowerShell and Python. (Important)
- Be able to perform feasibility studies to determine the cost effectiveness of IT decisions in the area of system components to support virtualization environments. (Critical)
- Be familiar with Active Directory under Windows Server 2008-12. (Relevant)
- Design and analyze Active Directory infrastructures. (Relevant)
- Be familiar with user administration tasks commonly performed by system administrators. (Important)

Topics:

- IT virtualization
- Administering Server 2008

- User administration
- PowerShell scripting
- Python scripting

Class Schedule:

Number of sessions per week 3
Duration of each session 50 min

Laboratory Schedule:

Number of sessions per week 0
Duration of each session 0 min

Contribution of course to meeting requirements of Criterion 5 Curriculum (credit hours):

Math & Science Topics: 0 *Computing Topics (F): 3 General Education: 0

*Computing Topics – Mark with (F) or (A) for Fundamental or Advanced

Student Outcomes in Criterion 3 addressed by the course:

Check if the course is used in assessment of the program's student outcomes (√)

Description of the Program's Student Outcomes addressed by the course	
Outcome	Description
2	Graduates shall demonstrate their ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
3	Graduates will demonstrate their ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs and budget, by applying best practices in software development processes, methods, and tools.
4	Graduates will demonstrate their ability to use current techniques, skills, and tools necessary for computing practices.

Relationship of the Student Outcomes and ABET a-k											
ABET a-k →	a	b	c	d	e	f	g	h	i	j	k
Student Outcomes ↓											
2	x	x	x				x		x	x	x
3	x	x	x						x	x	x
4	x	x	x						x	x	x