Windows System Administration

CNT 4XXX

Designation: System Administration elective for BS IT
Catalog Description: **CNT 4XXX 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, 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:		**Laboratory Schedule:**	
Number of sessions per week	3	Number of sessions per week	0
Duration of each session	50 min	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.