



Course Number and Title: ITN 200 System Administration I

Campus Location:

Georgetown, Dover, Stanton, Wilmington

Effective Date:

2021-51

Prerequisite:

ITN 150

Co-Requisites:

None

Course Credits and Hours:

3.00 credits

2.00 lecture hours/week

2.00 lab hours/week

Course Description:

This course provides students with fundamental concepts of system administration, including network administrative tasks, automation, and security. Students build and administer a secure client/server Linux or Windows network.

Required Text(s):

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

Additional Materials:

Access to high-speed Internet

Schedule Type:

Classroom Course

Video Conferencing

Web Conferencing

Hybrid Course

Online Course

Disclaimer:

None

Core Course Performance Objectives (CCPOs):

1. Apply fundamental concepts of system administration in enterprise architectures. (CCC 1, 2; PGC 1, 2)
2. Execute system administrator tasks for a specific environment. (CCC 2, 4; PGC 1, 2, 3)
3. Create automated tasks given a specific scenario. (CCC 2, 4; PGC 1, 2, 3)
4. Build a network with clients and servers. (CCC 1, 2, 3, 4; PGC 1, 2, 3, 4)
5. Create a statement of work or request for proposal for a given scenario. (CCC 1, 2, 4, 5; PGC 1, 2, 3, 4, 5)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

Measurable Performance Objectives (MPOs):

Upon completion of this course, the student will:

1. Apply fundamental concepts of system administration in enterprise architectures.
 1. Explain the purpose of network, clients, servers and domains, and their role in various organizations.
 2. Explain the use and importance of virtualization in networking.
 3. Select appropriate platforms given a network-based service.
 4. Develop proper documentation of procedures and system environments.
 5. Explain the importance and process of enterprise-level patch management.
 6. Explain the importance of encryption.
2. Execute system administrator tasks for a specific environment.
 1. Manage user accounts and groups.
 2. Set-up shared directories and drives.
 3. Monitor and analyze client/server logs.
 4. Create a group policy.
 5. Set-up remote access.
 6. Implement an appropriate backup policy.
 7. Deploy software installations.
3. Create automated tasks given a specific scenario.
 1. Use scripting to automate administrative tasks.
 2. Create schedule to automate administrative tasks.
 3. Deploy an appropriate group policy to a network.
4. Build a network with clients and servers.
 1. Select appropriate network operating systems for a given scenario.
 2. Build and deploy a network server.
 3. Build and deploy network clients.
 4. Configure the network with clients and servers.
 5. Disable or remove unnecessary services.
5. Create a statement of work or request for proposal for a given scenario.
 1. Identify resources to stay abreast of current trends in system administration.
 2. Evaluate technical solutions for given organizational issues.
 3. Support system administrator processes and decisions with proper justification and evidence.

Evaluation Criteria/Policies:

The grade will be determined using the Delaware Tech grading system:

90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
0	-	69	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

Core Curriculum Competencies (CCCs are the competencies every graduate will develop):

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):

1. Solve technology-related problems using critical thinking and troubleshooting skills.
2. Articulate the role of the technology professional in organizations to support the ethical use of information technology.
3. Apply fundamental security concepts and strategies for maintaining and securing information technology.
4. Read and interpret technical information and effectively communicate to a wide range of audiences using oral, print, and multimedia strategies.
5. Demonstrate the importance of lifelong learning that empowers personal and professional growth.

Disabilities Support Statement:

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.