

ITEC 245-J10:
Online Course
Introduction to Networking
Summer 2023
3 Credit Hours

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Academic Bulletin Description

Understanding the essential concepts of computer networks, including standards, topologies, security, media, switching, routing, and more.

Full Course Description

This online course is an introduction to technologies, terminology, and skills used in data networking. Emphasis is on practical applications of networking and computer technology to real-world problems. Prepares students for entry-level jobs as a networking technician and prepares them for learning more advanced topics in networking.

Prerequisites

ITEC-233

Learning Outcomes

At the conclusion of this course, students will be able to:

- Describe network hardware components, network media, and services used in data networks and the Internet including the Internet of Things (IoT).
- Describe the role of protocol layers in data networks; and compare the protocols.
- Analyze the application of IP addressing schemes at various layers in IPv4 and IPv6 environments.
- Design subnet masks and addresses in IPv4 and IPv6 networks.
- Design a simple Ethernet network.
- Use Cisco command-line (CLI) commands to configure switches and routers.
- Utilize common network utilities to analyze data traffic and verify network operations.
- Discuss network security vulnerabilities and mitigation.

Course Materials

Students will use their Cisco Networking Academy course modules as an online resource for information, labs, interactive activities, and quizzes/exams.

Course Requirements

You must spend time each day keeping up with the module reading and activities and completing the assignments. If you procrastinate and put off doing the assignments, you will not have enough time to complete all your coursework.

Please check Blackboard daily for information on assignments and class activities. All class announcements, schedules, and other information will be posted on Blackboard. The course requirements include quizzes, homework assignments and weekly exercises.

I do not foresee any circumstances under which I will grant a grade of "incomplete."

Course Format

This is a fully online course. Online classes are not easier than face-to-face lecture classes. To succeed in an online class, you must be extremely motivated and well organized. You will need to access course materials via Blackboard ("Bb") each week of the course. You also will need to activate/login to the Cisco Academy portal each week of the course (netacad.com - new users receive an email token the first week in their student email - check spam folder if it is not in your inbox). Regular Internet access is essential for successful completion of the course.

The typical class structure will consist of learning modules, which include:

- Short Video/PowerPoint Lectures
- Readings
- Quizzes
- Exercises
- Assignments

This is an entirely Web-based course. We have no face-to-face class meetings, and you will complete your work asynchronously - which simply means that you will be working on it at different times than your colleagues. You can log into the class to do your work at whatever time is convenient for you if you are meeting class deadlines.

It is important to understand that this is not a self-paced class or an independent study. You will have assigned deadlines, and work must be submitted on time. You may not save up your assignments to complete in the last weeks or days of the semester. Each assignment sequence must be completed on schedule – you can't work ahead or get behind and be successful.

Classroom Interaction

Instructor-Student Interaction

I present important course material and announcements to students on Blackboard. I also embed video lectures and demonstrations within each of the learning modules of the course.

Weekly announcements are posted and emailed summarizing the activities for the week and any other important course news.

I will respond to all discussion board posts and emails within 24 hours. Feedback will be provided on all assignments within 48 hours.

Student-Student Interaction

Students will have an opportunity to interact with one another using discussions and during scheduled hardware labs. These labs are not mandatory, but I encourage you to attend announced labs as an opportunity to use networking hardware in a physical setting.

Student-to-Content Interaction

Students will also use the NetAcad account created for them as their reading materials.

Students are required to post assignments in Blackboard as well as complete quizzes and weekly exercises.

It is important to understand that this is not a self-paced class or an independent study. You will have assigned deadlines, and work must be submitted on time and will not be accepted late. You may not save up your assignments to complete in the last weeks or days of the semester. Each assignment sequence must be completed on schedule.

Technology Requirements

Students must have access to the Internet. Students will submit all assignments and take all quizzes/tests through Blackboard. You **MUST** have consistent and reliable access to a computer and the Internet to succeed. You need to feel comfortable using a computer to succeed in this course. You must also have:

- A computer powerful enough to run Packet Tracer, a Cisco simulation tool you will download and install during the first few weeks of the course.
- Having Packet Tracer installed on your computer is helpful. An alternate is to use the computers in the CEC Computer lab (either in the lab or remotely).

If you have problems with your computer, please contact the Division of Information Technology (DoIT)

https://sc.edu/about/offices_and_divisions/division_of_information_technology/end_user_services/available_technology_resources/carolina_tech_zone/index.php

Grading

The grading scale is points graded divided by 1,450 points possible as follows:

Assignments: 6 assignments (100 points each) for a total of 600 points
Exercises: 15 exercises (20 points each) for a total of 300 points
Quizzes: 11 quizzes (50 points each) for a total of 550 points

Complete rubrics will be provided in Blackboard.

Homework

Assignments are due by 11:59 Eastern Standard time on the date posted for each assignment. Assignments one day late will have 10 points deducted; assignments two days late will have 20 points deducted; assignments three or more days late will have 40 points deducted.

I reserve the right to not accept homework assignments that are more than one week late. There will be no exceptions—Homework turned in later than one week will be given 0 points. Homework scores will be posted on Blackboard.

Quizzes

Make up quizzes are only scheduled if you have a valid Doctor's excuse or an excuse from the University. All quizzes are taken in Blackboard.

Academic Success

Disability Services

[Student Disability Resource Center](http://www.sa.sc.edu/sds/) (<http://www.sa.sc.edu/sds/>): The Student Disability Resource Center (SDRC) empowers students to manage challenges and limitations imposed by disabilities. Students with disabilities are encouraged to contact me to discuss the logistics of any accommodations needed to fulfill course requirements (within the first week of the semester). In order to receive reasonable accommodations from me, you must be registered with the Student Disability Resource Center (1705 College Street, Close-Hipp Suite 102, Columbia, SC 29208, 803-777-6142). Any student with a documented disability should contact the SDRC to make arrangements for appropriate accommodations.

Other academic support resources may help you be more successful in the course as well.

- [Library Services](http://library.sc.edu/) (<http://library.sc.edu/>)
- [Writing Center](https://sc.edu/study/colleges_schools/artsandsciences/english_language_and_literature/beyond_classroom/writing_center/index.php/)
(https://sc.edu/study/colleges_schools/artsandsciences/english_language_and_literature/beyond_classroom/writing_center/index.php/)
- [Carolina Tech Zone](https://sc.edu/about/offices_and_divisions/division_of_information_technology/end_user_services/available_technology_resources/carolina_tech_zone/)
(https://sc.edu/about/offices_and_divisions/division_of_information_technology/end_user_services/available_technology_resources/carolina_tech_zone/)

Blackboard and Technology

[Blackboard and Technology](https://sc.edu/about/offices_and_divisions/division_of_information_technology/end_user_services/available_technology_resources/)

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As a student in this course, you have access to support from the Division of Information Technology (DoIT) for Blackboard and computer issues. The service desk can be reached at 803-777-1800.

Course Policies and Procedures

[Include any course or university policies that students need to be aware of. This is where you set expectations for student behavior as learners and as people. It is up to your discretion to decide which policies are included. It is strongly suggested to include policies regarding academic integrity and late submission. Other policies may include student conduct, incomplete grades, withdrawal without penalty, confidentiality, or course communication. You may also choose to include any resources available through the university that promote student success, such as student disability resources, academic support, and student services. Sample policy categories and language are below.]

The [Undergraduate Studies Bulletin](https://academicbulletins.sc.edu/undergraduate/policies-regulations/undergraduateacademic-regulations/)

(<https://academicbulletins.sc.edu/undergraduate/policies-regulations/undergraduateacademic-regulations/>) is the official document of record concerning undergraduate academic programs and regulations.

Attendance Policy

[Resource: View the [Interfaith Calendar](https://www.sc.edu/about/offices_and_divisions/student_affairs/our_experts/our_offices/student_life/spiritual_religious_life/interfaith_calendar/index.php)

(https://www.sc.edu/about/offices_and_divisions/student_affairs/our_experts/our_offices/student_life/spiritual_religious_life/interfaith_calendar/index.php).]

Success in this course is dependent on your active participation throughout the semester. You are expected to log into Blackboard several times a week and complete course assignments. Even if your work is completed, you still need to login to ensure that you

have seen all announcements, etc. It is your responsibility to check updates related to the course. Attendance will be taken based on your completion of course assignments. You will receive a 0 on all missed assignments unless you have a [valid excuse](#) (<https://academicbulletins.sc.edu/undergraduate/policies-regulations/undergraduateacademic-regulations/>).

If you miss an assignment and have a valid excuse, you will be permitted to make up the assignment or complete an equivalent assignment agreed upon with me. Requests for completing work after the due date that can be anticipated at the start of the term, i.e. authorized university activities and religious observances, should be emailed to me no later than the end of the second week of the course. [Consult the policy](#) (<https://academicbulletins.sc.edu/undergraduate/policies-regulations/undergraduateacademic-regulations/>) for additional information.

Academic Integrity

You are expected to practice the highest possible standards of academic integrity. Any deviation from this expectation will result in a minimum academic penalty of your failing the assignment and will result in additional disciplinary measures. This includes improper citation of sources, using another student's work, and any other form of academic misrepresentation.

The first tenet of the Carolinian Creed is, "I will practice personal and academic integrity."

Below are some websites for you to visit to learn more about University policies:

- [Carolinian Creed](http://www.sa.sc.edu/creed) (<http://www.sa.sc.edu/creed>)
- [Academic Responsibility](http://www.sc.edu/policies/staf625.pdf) (<http://www.sc.edu/policies/staf625.pdf>)
- [Office of Student Conduct and Academic Integrity](https://www.sa.sc.edu/academicintegrity/) (<https://www.sa.sc.edu/academicintegrity/>)
- [Information Security Policy and Standards](https://sc.edu/about/offices_and_divisions/division_of_information_technology/security/policy/universitypolicy/) (https://sc.edu/about/offices_and_divisions/division_of_information_technology/security/policy/universitypolicy/)