



Undergraduate Course Syllabus

IT 345: Network Planning and Maintenance

Center: Online

Course Prerequisites

None

Course Description

In this course, students learn about the specifics of planning, maintaining, and auditing data communications and networks in an organization. Students engage in assignments focusing on business planning, long- and short-term planning, operations, maintenance, and forecasting. They also explore topological design, network synthesis, and network realization.

Course Outcomes

- Analyze network performance to identify bottlenecks and sources of misalignment to organizational needs
- Design effective network architectures that support the business initiatives of new and growing organizations
- Develop lifecycle management and maintenance plans for network infrastructure that maintain currency and improve quality of service
- Apply best practices in designing and maintaining secure network infrastructures

Required Materials

Using your learning resources is critical to your success in this course. Your textbook is available for free through the Shapiro Library.

[Network Analysis, Architecture, and Design](#)

James D. McCabe

Morgan Kaufmann Publishers, Inc.

Third Edition

2007

ISBN: 978-0-12-370480-1

Microsoft Azure Dev Tools for Teaching

Southern New Hampshire University students in STEM courses (and some business courses) may obtain discounted, often free, Microsoft software through the [Microsoft Azure Dev Tools for Teaching](#) program. Review [these Microsoft Azure guidelines](#) for information on accessing your software. If you have trouble downloading and installing the software, contact your instructor.

This course uses the following Microsoft Azure software:

- Microsoft Visio

Diversity, Equity, and Inclusion

As indicated in our core values, SNHU is committed to “embrace diversity where we encourage and respect diverse identities, ideas, and perspectives by honoring difference, amplifying belonging, engaging civilly, and breaking down barriers to bring our mission to life.”

This may or will be reflected in SNHU’s curriculum as we embrace and practice diversity, equity, and inclusion (DEI) to provide the most transformative experience for our students, faculty, and staff. Because topics pertaining to DEI can be sensitive, please remember that embodying and practicing diversity, equity, and inclusion is one of our core values that you will encounter throughout the academic experience. In higher education, we are expected to think and engage critically. Use a growth mindset to embrace the diverse readings, course assignments, and experiences of your peers and faculty.

For more information about DEI at SNHU, please visit our website at the [Office of Diversity and Inclusion](#).

Instructor Availability and Response Time

Your class interaction with the instructor and your classmates will take place on a regular, ongoing basis. Your instructor will be actively engaged within the course throughout the week. You will normally communicate with your instructor in the weekly discussions or the General Questions discussion topic so that your questions and the instructor’s answers benefit the entire class. You should feel free, however, to communicate with your instructor via SNHU email at any time, particularly when you want to discuss something of a personal or sensitive nature. Your instructor will generally provide a response within 24 hours. Instructors will post grades and feedback (as applicable) within seven days of an assignment’s due date, or within seven days of a late submission.

Grade Distribution

Assignment Category	Number of Graded Items	Point Value per Item	Total Points
Discussions	5	40	200
Assignments	3	100	300
Final Project			
Milestone One	1	100	100
Milestone Two	1	100	100
Final Submission	1	300	300
			Total Course Points: 1,000

This course may also contain practice activities. The purpose of these non-graded activities is to assist you in mastering the learning outcomes in the graded activity items listed above.

University Grading System: Undergraduate

Grade	Numerical Equivalent	Points
A	93–100	4
A-	90–92	3.67
B+	87–89	3.33
B	83–86	3
B-	80–82	2.67
C+	77–79	2.33
C	73–76	2
C-	70–72	1.67
D+	67–69	1.33
D	60–66	1
F	0–59	0
I	Incomplete	
IF	Incomplete/Failure *	
IP	In Progress (past end of term)	
W	Withdrawn	

* Please refer to the [policy page](#) for information on the incomplete grade process.

Grading Guides

Specific activity directions, grading guides, posting requirements, and additional deadlines can be found in the Assignment Guidelines and Rubrics section of the course.

Weekly Assignment Schedule

All reading and assignment information can be found within each module of the course. Assignments and discussion posts during the first week of each term are due by 11:59 p.m. Eastern Time. Assignments and discussion posts for the remainder of the term are due by 11:59 p.m. of the student's local time zone.

In addition to the textbook readings that are listed, there may be additional required resources within each module.

Module	Topics and Assignments
1	Network Performance Architecture <i>Network Analysis, Architecture, and Design</i> , Chapter 8 1-1 Discussion: Network Performance and Business Applications 1-2 Final Project Review 1-3 Chapter Exercise (Non-graded)

Module	Topics and Assignments
2	Foundational Analysis of Concepts and Processes <i>Network Analysis, Architecture, and Design</i> , Chapter 1 2-1 Assignment: Business Network Design Plan 2-2 Discussion: Key Performance Practices 2-3 Chapter Exercise (Non-graded)
3	Network Design Fundamentals <i>Network Analysis, Architecture, and Design</i> , Chapter 10 3-1 Final Project Milestone One: Executive Summary 3-2 Optional Discussion: Milestone One (Non-graded) 3-3 Chapter Exercise (Non-graded)
4	Corporate Network Architecture <i>Network Analysis, Architecture, and Design</i> , Chapter 5 4-1 Assignment: Business Network Architecture 4-2 Discussion: Business Network Design Key Requirements 4-3 Chapter Exercise (Non-graded)
5	Routing Architecture <i>Network Analysis, Architecture, and Design</i> , Chapter 6 5-1 Final Project Milestone Two: Network Plan and Architecture Design 5-2 Optional Discussion: Milestone Two (Non-graded) 5-3 Chapter Exercise (Non-graded)
6	Network Management Architecture <i>Network Analysis, Architecture, and Design</i> , Chapter 7 6-1 Assignment: Network Management Architecture 6-2 Discussion: Network Design in the Business World 6-3 Chapter Exercise (Non-graded)
7	Network Maintenance Architecture 7-1 Final Project Submission: Network Upgrade and Maintenance Plan Proposal 7-2 Optional Discussion: Final Project (Non-graded)
8	Security Architecture <i>Network Analysis, Architecture, and Design</i> , Chapter 9 8-1 Discussion: Current Event 8-2 Chapter Exercise (Non-graded)

Attendance Policy

Online students are required to submit a graded assignment/discussion during the first week of class. If a student does not submit a graded assignment/discussion during the first week of class, the student is automatically dropped from the course for non-participation. Review the [full attendance policy](#).

Late Assignments Policy

Meeting assigned due dates is critical for demonstrating progress and ensuring appropriate time for instructor feedback on assignments. Students are expected to submit their assignments on or before the due date. Review the [full late assignment policy](#).

SNHU Student Handbook

Review the [student handbook](#).

ADA/504 Compliance Statement

Southern New Hampshire University (SNHU) is dedicated to providing equal access to individuals with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973 and with Title III of the Americans with Disabilities Act (ADA) of 1990, as amended by the Americans with Disabilities Act Amendments Act (ADAAA) of 2008.

SNHU prohibits unlawful discrimination on the basis of disability and takes action to prevent such discrimination by providing reasonable accommodations to eligible individuals with disabilities. The university has adopted this policy to provide for prompt and equitable resolution of complaints regarding any action prohibited by Section 504, the ADA, or the ADAAA.

For questions about **support services, documentation guidelines, general disability issues, or pregnancy accommodations**, please visit the [Online Accessibility Center](#) (OAC).

As a student, you must complete an interactive intake process, with supporting documentation, in order to be granted accommodations. Once reasonable accommodations are approved by the OAC, you will receive an accommodations letter. You are then responsible for sharing the letter with your instructor. Accommodations are not retroactive.

If you feel you've been subject to discrimination on the basis of disability, by any party, you may file a complaint or grievance. For more information on the ADA/504 Grievance Policy, go to the [Disability and Accessibility Services](#) website.

Academic Integrity Policy

Southern New Hampshire University requires all students to adhere to high standards of integrity in their academic work. Activities such as plagiarism and cheating are not condoned by the university. Review the [full academic integrity policy](#).

Copyright Policy

Southern New Hampshire University abides by the provisions of United States Copyright Act (Title 17 of the United States Code). Any person who infringes the copyright law is liable. Review the [full copyright policy](#).

SNHU Withdrawal Policy

Review the [full withdrawal policy](#).

Southern New Hampshire University Policies

More information about SNHU policies can be found on the [policy page](#).