



**LAMAR INSTITUTE
OF TECHNOLOGY**

CCNA 1: INTRODUCTION TO NETWORKS (ITCC 1314)

CREDIT

3 Semester Credit Hours (2 hours lecture, 4 hours lab)

MODE OF INSTRUCTION

Face to Face

PREREQUISITE/CO-REQUISITE:

None

COURSE DESCRIPTION

This course covers networking architecture, structure, security, and functions; introduces the principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations to provide a foundation for the curriculum.

COURSE OBJECTIVES

Upon completion of this course, the student will be able to

- Configure a small network using basic security.
- Perform basic configuration on routers and switches.
- Implement IP addressing schemes.

INSTRUCTOR CONTACT INFORMATION

Instructor: Patrick Stewart

Email: spstewart@lit.edu

Office Phone: 409-880-2279

Office Location: Virtual

Office Hours: By Appointment

REQUIRED TEXTBOOK AND MATERIALS

- [*Introduction to Networks Companion Guide \(CCNAv7\)*](#), by Cisco Networking Academy, Cisco Press, 2020.
 - a. ISBN number for print book is 978-0-13663-366-2
 - b. ISBN number for print book is 978-0-13663-354-9

Recommended Textbook and Materials

- [CCNA 200-301 Portable Command Guide, 5th Edition](#), by Cisco Networking Academy, Cisco Press, 2020. *This is the 5th Edition, which aligns with the CCNAv7 certification and curriculum.*
 - a. ISBN for print book is 978-0-13-593782-2.
 - b. ISBN for e-book is 978-0-13-593770-9.

EAGLE LEARNING ESSENTIALS

Eagle Learning Essentials (ELE) <https://lit.edu/student-success/eagle-learning-essentials> is an affordable textbook rental program through the Barnes and Noble Bookstore. Through this program, students can receive required textbooks, lab manuals, access codes and electronic books conveniently before the first day of class.

The ELE bundle will provide the needed learning materials at \$14 per credit hour (added to your student account), saving students up to 35-50% on the cost of course materials. The cost can be paid by financial aid or by the student. If a student enrolls in a payment plan, this charge will be included in the payment plan calculations. Supplies are not included in this program and will need to be purchased separately.

LIT students are automatically enrolled in the program at the time of registration and will begin receiving emails about selecting their preferred delivery method.

ATTENDANCE POLICY

Three absences are allowed. If a student is tardy to class or departs early three (3) times, it will be equal to one (1) absence. Each absence beyond three absences will result in a 2 point deduction from your final grade.

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process by the specified drop date as listed on the [Academic Calendar](#). If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

STUDENT EXPECTED TIME REQUIREMENT

For every hour in class (or unit of credit), students should expect to spend at least two to three hours per week studying and completing assignments. For a 3-credit-hour class, students should prepare to allocate approximately six to nine hours per week outside of class in a 16-week session OR approximately twelve to eighteen hours in an 8-week session. Online/Hybrid students should expect to spend at least as much time in this course as in the traditional, face-to-face class.

COURSE CALENDAR (Subject to change)

DATE	TOPIC	READINGS	ASSIGNMENTS (Due on this Date)
Week 1 8/26-9/1	Networking Today	Chapter 1	Packet Tracer 1.0.5 Packet Tracer 1.5.7 9/8/2024
Week 2 9/1-9/8	Basic Switch and End Device Configuration	Chapter 2	Packet Tracer 2.3.7 Packet Tracer 2.5.5 Packet Tracer 2.7.6 Packet Tracer 2.9.1 9/8/2024
Week 3 9/8-9/15	Protocols and Models Modules 1 - 3: Basic Network Connectivity and Communications Exam	Chapter 3 Study Guide 1-3	Packet Tracer 3.5.5 Module Exam 1-3 9/15/2024
Week 4 9/15-9/22	Physical Layer Connect the Physical Layer	Chapter 4	Packet Tracer 4.6.5 Packet Tracer 4.7.1 9/22/2024
Week 5 9/22-9/29	Number Systems Data Link Layer	Chapter 5 Chapter 6	In class work 9/29/2024
Week 6 9/29-10/6	Ethernet Switching Modules 4 - 7: Ethernet Concepts	Chapter 7 Study Guide 4-7	Lab 7.1.6 Lab 7.2.7 Module Exam 4-7 10/6/2024
Week 7 10/6-10/13	Network Layer Address resolution	Chapter 8 Chapter 9	Packet Tracer 9.1.3 Packet Tracer 9.2.9 Packet Tracer 9.3.4 10/13/2024
Week 8 10/13-10/20	Basic Router Configuration Modules 8 - 10: Communicating Between Networks	Chapter 10 Study Guide 8-10	Packet Tracer 10.1.4 Packet Tracer 10.3.4 Packet Tracer 10.3.5 Packet Tracer 10.4.3 Module Exam 8-10 10/20/2024
Week 9 10/20-10-27	IPv4 Addressing	Chapter 11	Packet Tracer 11.5.5 Packet Tracer 11.7.5 10/27/2024
Week 10 10/27-11/3	IPv6 Addressing	Chapter 12	Packet Tracer 12.6.6 11/3/2024

Week 11 11/3-11/10	ICMP Modules 11 - 13: IP Addressing	Chapter 13 Study Guide 11-13	Packet Tracer 13.2.6 Packet Tracer 13.2.7 Packet Tracer 13.3.1 Module Exam 11-13 11/10/2024
Week 12 11/10-11/17	Transport Layer	Chapter 14	Packet Tracer 14.8.1 11/17/2024
Week 13 11/17-11/24	Application Layer Modules 14 - 15: Network Application Communications	Chapter 15 Study Guide 14-15	Lab 15.4.8 Module Exam 14-15 11/24/2024
Week 14 11/24-12/1	Network Security Fundamentals	Chapter 16	Packet Tracer 16.5.1 12/1/2024
Week 15 12/1-12/8	Build a Small Network Modules 16 - 17: Building and Securing a Small Network	Chapter 17 Study Guide 16-17	Packet Tracer 17.7.7 Packet Tracer 17.5.9 Module Exam 16-17 12/8/2024
Week 16 12/8-12/12	Final Exam	Final Exam	Final Exam 12/9/2024

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Packet Tracers 30%
- Quizzes 10%
- Module Tests 30%
- Final Exam 30%

GRADING SCALE

90 – 100 A
80 – 89 B
70 – 79 C
60 – 69 D
0 – 59 F

LIT does not use +/- grading scales

ACADEMIC DISHONESTY

Students found to be committing academic dishonesty (cheating, plagiarism, or collusion) may receive disciplinary action. Students need to familiarize themselves with the institution's Academic Dishonesty Policy available in the Student Catalog & Handbook at <http://catalog.lit.edu/content.php?catoid=3&navoid=80#academic-dishonesty>.

TECHNICAL REQUIREMENTS

The latest technical requirements, including hardware, compatible browsers, operating systems, etc. can be online at <https://lit.edu/online-learning/online-learning-minimum-computer-requirements>. A functional broadband internet connection, such as DSL, cable, or WiFi is necessary to maximize the use of online technology and resources.

DISABILITIES STATEMENT

The Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. LIT provides reasonable accommodations as defined in the Rehabilitation Act of 1973, Section 504 and the Americans with Disabilities Act of 1990, to students with a diagnosed disability. The Special Populations Office is located in the Eagles' Nest Room 129 and helps foster a supportive and inclusive educational environment by maintaining partnerships with faculty and staff, as well as promoting awareness among all members of the Lamar Institute of Technology community. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409)-951-5708 or email specialpopulations@lit.edu. You may also visit the online resource at [Special Populations - Lamar Institute of Technology \(lit.edu\)](#).

STUDENT CODE OF CONDUCT STATEMENT

It is the responsibility of all registered Lamar Institute of Technology students to access, read, understand and abide by all published policies, regulations, and procedures listed in the *LIT Catalog and Student Handbook*. The *LIT Catalog and Student Handbook* may be accessed at www.lit.edu. Please note that the online version of the *LIT Catalog and Student Handbook* supersedes all other versions of the same document.

ARTIFICIAL INTELLIGENCE STATEMENT

Lamar Institute of Technology (LIT) recognizes the recent advances in Artificial Intelligence (AI), such as ChatGPT, have changed the landscape of many career disciplines and will impact many students in and out of the classroom. To prepare students for their selected careers, LIT desires to guide students in the ethical use of these technologies and incorporate AI into classroom instruction and assignments appropriately. Appropriate use of these technologies is at the discretion of the instructor. Students are reminded that all submitted work must be their own original work unless otherwise specified. Students should contact their instructor with any questions as to the acceptable use of AI/ChatGPT in their courses

STARFISH

LIT utilizes an early alert system called Starfish. Throughout the semester, you may receive emails from Starfish regarding your course grades, attendance, or academic performance. Faculty members record student attendance, raise flags and kudos to express concern or give praise, and you can make an appointment with faculty and staff all through the Starfish home page. You can also login to Blackboard or MyLIT and click on the Starfish link to view academic

alerts and detailed information. It is the responsibility of the student to pay attention to these emails and information in Starfish and consider taking the recommended actions. Starfish is used to help you be a successful student at LIT.

ADDITIONAL COURSE POLICIES/INFORMATION

Course Policies

1. Email is the preferred method of communication (sljoiner@lit.edu). I cannot respond to Blackboard Messages, I can see them but I have no way to respond.
2. No food, drinks, use of tobacco products, or vaping products in class.
3. Electronic devices not being used for the class, such as phones and headphones, must be turned off while in class. Any device usage during class may result in a deduction of points on an assignment or test.
4. Do not bring children to class.
5. Certification: If a student passes the certification test that is associated with this class, you will receive an "A" on the final exam and credit for 25% of your labs.
6. A grade of 'C' or better must be earned in this course for credit toward degree requirement.
7. All assignment due dates are indicated in the Blackboard course for this class and the course calendar above. Any work submitted after the assigned due date will receive a **10-point deduction** the first 2 days and **15 points** after 2 days.
8. Tests are assigned a due date and must be completed by that date. There will be a **2-day** grace period and a **15-point** deduction for missed exams. It is the student's responsibility to contact the instructor for an extension.
9. All assignments must be submitted via Blackboard unless specified by your instructor. All assignments require 2 files when submitting work. Assignments submitted through any other method will not receive credit.
10. Grades for assignments may be accessed in the Gradebook in Blackboard. Each assignment shows your grade and any grading comments made on your assignment.
11. Chapter Exam grades may be accessed through the Cisco website until they are transferred to the Gradebook in Blackboard.
12. It is the student's responsibility to verify transferred exam grades and ask for corrections if needed.
13. All work is due before the final exam date. Nothing will be graded after the final exam.

Certification Requirement

Cyber Security majors are required to earn certification in one of the following areas prior to graduation.

- A+ Certification
- Network+ Certification
- Security+ Certification
- Linux+ Certification
- Cisco Certified Network Associate (CCNA)

This course covers part of the material to prepare for the Cisco Certified Network Associate v1.0 (CCNA 200-301) certification exam. All three Cisco courses must be completed to cover the material for the CCNA exam. Students are responsible for scheduling and paying for the certification through the LIT Testing Center. More information about the certification can be found online at <http://www.cisco.com/c/en/us/training-events/training-certifications/certifications.html>.