Cisco 2 - Routing and Switching Essentials (ITCC 1344.1B1) - Spring 2023

INSTRUCTOR CONTACT INFORMATION

Instructor:	Patrick Stewart
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Office Location:	Reaud Administration Building, Lamar University Campus
Office Hours:	By Appointment

CREDIT

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

MODE OF INSTRUCTION

Hybrid

PREREQUISITE/CO-REQUISITE:

ITCC 1314

COURSE DESCRIPTION

Describes the architecture, components, and basic operation of routers and explains the basic principles of routing and routing protocols. It also provides an in-depth understanding of how switches operate and are implemented in the LAN environment for small and large networks.

COURSE OBJECTIVES

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

- Configure and maintain routers and switches.
- Resolve common issues with routing protocols, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks.

REQUIRED TEXTBOOK AND MATERIALS

None

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

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
Week 1	Basic Device Configuration	Module 1 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 2	Switching Concepts	Module 2 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 3	VLAN's	Module 3 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 4	Inter-VLAN Routing	Module 4 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 5	STP Concepts	Module 5 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 6	EtherChannel	Module 6 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 7	DHCPv4	Module 7 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 8	SLAAC and DHCPv6	Module 8 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 8	FHRP Concepts	Module 9 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 9	LAN Security Concepts	Module 10 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 10	Switch Security Configuration	Module 11 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 11	WLAN Concepts	Module 12 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 12	WLAN Configuration	Module 13 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 13	Routing Concepts	Module 14 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 14	IP Static Routing	Module 15 Reading See Cisco NetAcad	See Blackboard Assignment Schedule

Week 15	Troubleshooting Static and Default Routes	Module 16 Reading See Cisco NetAcad	See Blackboard Assignment Schedule
Week 16	Final Exam	Final Exam See Cisco NetAcad	Final Exam

COURSE EVALUATION
Final grades will be calculated according to the following criteria:
- Labs   45%
- Module Quizzes   30%
- Final Exam   25%

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.

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
1. No food, drinks, use of tobacco products, or vaping products in class.
2. Electronic devices not being used for the class, such as phones and headphones, must be turned off while in class.
3. Do not bring children to class.
4. 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.
5. A grade of 'C' or better must be earned in this course for credit toward degree requirement.
6. It is the student's responsibility to verify transferred grades and ask for corrections if needed.
7. All work is due before the final exam date. Nothing will be graded after the final exam.

Certification Requirement
CSNT 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)