Information Technology Security (ITSY 1342 2A1)

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

MODE OF INSTRUCTION
Online

PREREQUISITE/CO-REQUISITE:
Completed the Online Orientation and answered Yes to 7+ questions on the Online Learner Self-Evaluation: https://www.lit.edu/online-learning/online-orientation.

COURSE DESCRIPTION
Instruction in security for network computer hardware, software, virtualization, and data, including physical security; backup procedures; relevant tools; encryption; and protection from viruses. Topics may adapt to changes in industry practices. *This course is time-bound, structured, and completed online*.

COURSE OBJECTIVES
Upon completion of this course, the student will be able to:
- Apply National Institute of Standards and Technology (NIST) guidelines and other best practices.
- Develop backup/recovery procedures to provide for data security.
- Use desktop /device operating system features to implement security.
- Identify computer and network threats and vulnerabilities and methods to prevent their effects
- Use tools to enhance network security
- Use encryption techniques to protect network local and distributed systems data.

INSTRUCTOR CONTACT INFORMATION

Instructor:	Jennifer Graham
Email:	jgraham2@lit.edu
Office Phone:	409 241 9837
Office Location:	TA4-105B
Office Hours:	MTWR: 8:00-9:00, 11:30-12:30
	F: 8:00-8:30, 10:00-11:30

REQUIRED TEXTBOOK AND MATERIALS
Ciampa, M. D. (2022). CompTIA Security+: Guide to Network Security Fundamentals (7th ed.). Cengage. ISBN: 9780357424377

ATTENDANCE POLICY
This is a fully online class. You are expected to log into BlackBoard 3 to 4 times a week to check for updates and announcements.

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.

Last Day to Drop with Refund	02/10/2025
Last Day to Pay Tuition to Avoid Drop	02/20/2025
Last Day to Drop without Academic Penalty	02/26/2025
Last Day to Drop with Academic Penalty	04/14/2025

COURSE CALENDAR

DATE	TOPIC	READINGS	DUE DATE	ASSIGNMENTS
Week 1 1/24-2/2	Introduction/Syllabus	Syllabus	2/2/2025	CompTIA Security+ Knowledge Check, Respondus LockDown Quiz*, Introduce Yourself Discussion Board*
Week 2 1/27-2/2	Introduction to Security	Module 1 Pages 3-32	2/2/2025	Two Rights & A Wrong (1-1,2,3), Sim. Lab 1.1, Sim. Lab 1.2, Module 1 Quiz
Week 3 2/3-2/9	Threat Management & Cybersecurity Resources	Module 2 Pages 33-62	2/9/2025	Two Rights & A Wrong (2-1,2,3), Live VM Lab 2.1, Sim. Lab 2.1, Module 2 Quiz
Week 4 2/10-2/16	Threats & Attacks on Endpoints	Module 3 Pages 63-94	2/16/2025	Two Rights & A Wrong (3-1,2,3), Live VM Lab 3.3, Sim. Lab 3.1, Module 3 Quiz
Week 5 2/17-2/23	Endpoint & Application Development Security	Module 4 Pages 95-126	2/23/2025	Two Rights & A Wrong (4-1,2,3), Sim. Lab 4.1, Sim. Lab 4.2, Module 4 Quiz, Practice Tests (Ch. 1-4)*, **Test 1*** (Ch. 1-4)
Week 6 2/24-3/2	Mobile, Embedded, & Specialized Device Security	Module 5 Pages 127-154	3/2/2025	Two Rights & A Wrong (5-1,2), Sim. Lab 5.1, Sim. Lab 5.2, Module 5 Quiz
Week 7 3/3-3/9	Basic Cryptography	Module 6 Pages 157-190	3/9/2025	Two Rights & A Wrong (6-1,2,3,4), Live VM Lab 6.1, Live VM Lab 6.2, Module 6 Quiz
SPRING BREAK 3/10-3/16				
Week 8 3/17-3/23	Public Key Infrastructure & Cryptographic Protocols	Module 7 Pages 191-222	3/23/2025	Two Rights & A Wrong (7-1,2,3,4), Live VM Lab 7.1, Live VM Lab 7.2, Module 7 Quiz
Week 9 3/24-3/30	Networking Threats, Assessments, & Defenses	Module 8 Page 223-254	3/30/2025	Two Rights & A Wrong (8-1,2,3), Live VM Lab 8.1, Live VM Lab 8.2, Module 8 Quiz, Practice Tests (Ch. 5-8)*, **Test 2*** (Ch. 5-8)
Week 10 3/31-4/6	Network Security Appliances & Technologies	Module 9 Pages 255-284	4/6/2025	Two Rights & A Wrong (9-1,2), Live VM Lab 9.1, Live VM Lab 9.2, Module 9 Quiz
Week 11 4/7-4/13	Cloud and Virtualization Security	Module 10 Pages 285-316	4/13/2025	Two Rights & A Wrong (10-1,2,3), Live VM Lab 10.1, Live VM Lab 10.2, Module 10 Quiz
Week 12 4/14-4/20	Wireless Network Security/Authentication	Module 11-12 Pages 317-388	4/20/2025	Two Rights & A Wrong (11-1,2,3), Live VM Lab 11.1, Live VM Lab 11.2, Module 11 Quiz, Two Rights & A Wrong (12-1,2), Live VM Lab 12.1, Live VM Lab 12.2, Module 12 Quiz
Week 13 4/21-4/27	Incident Preparation, Response, & Investigation	Module 13 Pages 389-422	4/27/2025	Practice Tests (Ch. 9-12)*, **Test 3*** (Ch. 9-12), Two Rights & A Wrong (13-1,2,3), Live VM Lab 13.2, Live VM Lab 13.3, Module 13 Quiz
Week 14 4/28-5/4	Cybersecurity Resilience	Module 14 Pages 423-452	5/4/2025	Two Rights & A Wrong (14-1,2), Live VM Lab 14.1, Live VM Lab 14.2, Module 14 Quiz

| Week 15 5/5-5/8 | Risk Management & Data Privacy | Module 15 Pages 453-452 | 5/8/2025 | Two Rights & A Wrong (15-1,2) Live VM Lab 15.1, Live VM Lab 15.2, Module 15 Quiz, Practice Tests (Ch. 13-15)*, **Test 4*** (Ch. 13-15) |
| Week 16 5/8-5/13 | Final Exam | Blackboard | 5/13/2025 | **FINAL EXAM** |

* denotes assignments located in <u>Blackboard Content</u>

COURSE EVALUATION
Final grades will be calculated according to the following criteria:
- Assignments   15%
- Labs   15%
- Chapter Quizzes   15%
- Practice Tests   10%
- Tests   20%
- Final Exam   25%

GRADE SCALE
- 90-100   A
- 80-89   B
- 75-79   C
- 70-74   D
- 0-69   F

<u>You must make a C or better for all required program classes. You must make a D or better for all general education classes.</u>

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 accessible on the LIT website.

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 Wi-Fi 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
1. All assignment due dates are indicated in the Blackboard course for this class. Any work submitted after the assigned due date will receive a 10 point per week deduction.
2. Tests are assigned a due date and must be completed by that date. Tests will not be reactivated after the due date.
3. All tests will require lockdown browser. Please see "Test Browser" in the introduction section of the Blackboard course.
4. All written assignments should be submitted in APA format. Refer to the "APA Format Assistance" section in the introduction section of the Blackboard course.
5. All assignments must be submitted via Blackboard unless specified by your instructor. Assignments submitted through any other method will receive a "0".
6. Grades for assignments may be accessed through My Grades in Blackboard. Each assignment shows your grade and any grading comments made on your assignment.
7. All assignments must be turned in before the final exam.

COMMUNICATING WITH YOUR INSTRUCTOR
- Email is the preferred method for contacting the instructor.
- You must email from your LIT student email account when contacting the instructor.
- You must include the course number (ITSY 1342) and section number (section 2A1).
- Please allow 24 hours during the week and 48 hours on the weekend for a response.

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.

Certification Requirement

Cyber Security and Networking 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)