



**LAMAR INSTITUTE  
OF TECHNOLOGY**

## INTRUSION DETECTION (ITSY 2330 6A1)

### CREDIT

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

### MODE OF INSTRUCTION

Traditional

### PREREQUISITE/CO-REQUISITE:

None

### COURSE DESCRIPTION

Computer information systems security monitoring, intrusion detection, and crisis management. Includes alarm management, signature configuration, sensor configuration, and troubleshooting components. Emphasizes identifying, resolving, and documenting network crises and activating the response team.

### COURSE OBJECTIVES

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

- Build IDS sensors and attach them to the network (hardware and software).
- Install and manage a secure communication link between all sensors and the monitor.
- Install and manage event database(s); analyze an event and trends.
- Install, manage, and interpret syslog servers and system logs.
- Identify legal and policy issues associated with system and network monitoring.
- Deploy, implement, and test IDS security plan.

### INSTRUCTOR CONTACT INFORMATION

Instructor: Susan Joiner

Email: sljoiner@lit.edu

Office Phone: 409-247-5326

Office Location: TA4 Room 103A

Office Hours: MW 7:30-8:00am; 12:00-3:00pm TR 7:30-8:00am; 1:30-3:00pm

### REQUIRED TEXTBOOK AND MATERIALS

Cengage MindTap access to *Hands-On Ethical Hacking and Network Defense, 4<sup>th</sup> Edition*, Wilson, Robert S., Simpson, and Antill; Cengage, 2023

**a. How to buy your Course Materials**

Step 1: Sign into **Blackboard** and click on **this course**

Approved: **Initials/date**

Step 2: Click on the Cengage link: **Getting Started** in the **Getting Started with Cengage MindTap** section.

Step 3: Create or sign into your Cengage account to access or purchase the materials for this course.

**NOTE:** If you are taking additional courses that use Cengage materials, you can save by purchasing a Cengage Unlimited plan, which gives you access to all Cengage eTextbooks and online homework platforms for one price.

Visit [cengage.com/unlimited](https://cengage.com/unlimited) or your campus bookstore to learn more.

- b. Beware of sites that are selling discounted codes. These sources are likely unauthorized sellers who have acquired access codes illegally, and transactions with such sources may pose a risk to your personal information.
- c. Need help? Visit [startstrong.cengage.com](https://startstrong.cengage.com) for step-by-step registration instructions and videos.

### **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.

### **Important Drop Dates**

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

### **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)**

<b>DATE</b>	<b>TOPIC</b>	<b>READINGS</b>	<b>ASSIGNMENTS (Due on this Date)</b>
Week 1 1/21-1/26	Syllabus	Syllabus	1/27/2025
Week 2 1/26-2/2	Ethical Hacking Overview	Module 1	Lab 1-1 Quiz 1 2/3/2025
Week 3 2/2-2/9	TCP/IP Concepts Review	Module 2	Quiz 2 2/10/2025
Week 4 2/9-2/16	Network and Computer Attacks	Module 3	Lab 3-1 Lab 3-2 Lab 3-3 Lab 3-4 Quiz 3 2/17/2025
Week 5 2/1-2/23	Footprinting and Social Engineering	Module 4 Exam 1	Lab 4-1 Lab 4-2 Quiz 4 2/24/2025
Week 6 2/23-3/2	Port Scanning	Module 5	Lab 5-1 Quiz 5 3/3/2025
Week 7 3/2-3/9	Enumeration	Module 6	Lab 6-1 Quiz 6 3/10/2025
Spring Break 3/9-3/16	Spring Break	Spring Break	Spring Break
Week 8 3/16-3/23	Programming for Security Professionals	Module 7	Quiz 7 3/24/2025
Week 9 3/23-3/30	Desktop and Server OS Vulnerabilities	Module 8 Exam 2	Lab 8-1 Quiz 8 3/31/2025
Week 10 3/30-4/6	Embedded Operating Systems: The Hidden Threat	Module 9	Case Project 9-3 Quiz 9 4/7/2025
Week 11 4/6-4/13	Hacking Web Servers	Module 10	Lab 10-1 Lab 10-2 Lab 10-3 Quiz 10 4/14/2025

Week 12 4/13-4/20	Hacking Wireless Networks	Module 11 Exam 3	Lab 11-1 Quiz 11 4/21/2025
Week 13 4/20-4/27	Cryptography	Module 12	Lab 12-1 Lab 12-2 Quiz 12 4/28/2025
Week 14 4/27-5/4	Network Protection Systems	Module 13	Lab 13-1 Quiz 13 5/5/2025
Week 15 5/4-5/11	Hands-On Ethical Hacking Final Project	Module 14 Exam 4	Quiz 14 5/12/2025
Week 16 5/11-5/13	Final Exam	Final Exam	Final Exam 5/13/2025

### COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Labs 30%
- Module Quizzes 10%
- Exams 15%
- Final Project 15%
- 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

[A grade of 'C' or better must be earned in this course for credit toward degree requirement.](#)

### 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](mailto: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](http://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**

#### **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**

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

**[Students are responsible for scheduling and paying for the certification through the LIT Testing Center.](#)**

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

### **Course Policies**

1. **[Email is the preferred method of communication \(sljoiner@lit.edu\)](mailto:sljoiner@lit.edu)**. I cannot respond to Blackboard Messages, I can see them but I have no way to respond. I will respond within 48 hours except for weekends and holidays.
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.
4. Do not bring children to class.
5. A grade of 'C' or better must be earned in this course for credit toward degree requirement.
6. Any work submitted after the assigned due date will receive a **[10-point deduction the first 2 days and 15 points after 2 days. There is a one-week limit for late work, after one week it will be a 0.](#)**
7. Exams are assigned a due date and must be completed by that date to receive full credit. **[Exams will be open for 5 days total, 3 days for full credit and 2 days for 15-points off. There will be no makeup exams.](#)**
8. It is the student's responsibility to verify transferred grades and ask for corrections if needed.
9. All work is due before the final exam date. Nothing will be graded after the final exam.