Critical Infrastructure Protection (HMSY 1341)

CREDIT

3 Semester Credit Hours (3 hours lecture, 0 hours lab)

MODE OF INSTRUCTION
Online

PREREQUISITE/CO-REQUISITE:
None

COURSE DESCRIPTION
Identification and analysis of critical infrastructure systems including security and threat assessments. Includes mitigation of threats as well as evaluation and revision of security measures in order to protect critical infrastructures. This course is time-bound, structured, and completed totally online.

COURSE OBJECTIVES
1. Identify local area critical infrastructures
2. Evaluate security measures
3. Report methods to revise security of protection assets
4. Demonstrate mitigation of a critical infrastructure threat
5. Conduct information collection using the Internet and library resources
6. Present written and oral reports on findings

INSTRUCTOR CONTACT INFORMATION
Instructor: Tim Ocnaschek

Email: twocnaschek@lit.edu

Office Phone: 409-839-2968

Office Location: Technology Center (TC) – Room 116

Office Hours: BY APPOINTMENT

REQUIRED TEXTBOOK AND MATERIALS
Text Material is provided online:
• A Guide to Critical Infrastructure Security and Resilience (November 2019)
• Critical Infrastructure Sectors_ CISA
• The Office of Infrastructure Protection
• IS-913.a Critical Infrastructure and Key Resources Support Annex
• IS-860.c National Infrastructure Protection Plan (NIPP), An Introduction
• IS-1170, Introduction to the Interagency Security Committee (ISC)

Approved: TNS 1/09/26

- IS-906 Workplace Security Awareness
- IS-907 Active Shooter: What You Can Do
- IS-914 Surveillance Awareness: What You Can Do
- IS-915 Protecting Critical Infrastructure Against Insider Threats

ATTENDANCE POLICY

1. Except for the introductory week, weekly discussion assignments are due by Wednesday at midnight. Responses to classmate(s) are due by midnight Saturday. Tests are due by midnight Sunday.
2. Discussion assignments must be submitted in the following format: Course name, Student name, and date as a header. Answers must be in paragraph format and single spaced if done in Blackboard but double-spaced if attached. Either way, the response is limited to a 100-word minimum and 250 word maximum
3. The Final Project paper is due the week before Finals

DROP POLICY

If you wish to drop a course, you are responsible for initiating and completing the drop process. If you stop coming to class and fail to drop the course, you will earn an "F" in the course.

COURSE CALENDAR

DATE	TOPIC	READINGS (Due on this Date)	ASSIGNMENTS (Due on this Date)
Week 1	"Start Here" Module 1	• Initial Intro Discussion 1 • Final Intro Discussion 1	• Post by Feb 21 • Post by Feb 24
Week 2	Module 1 Introduction and Foundation	• **Read Guide to Critical** Infrastructure Security and Resilience • Initial Intro Discussion 1 • Final Intro Discussion 1	 • Post by Feb 28 • Post by Feb 31
Week 3	Module 1, Introduction and Foundation	• **Review IS-860.c** • Initial Discussion 1 • Initial Discussion 2 • Final Discussion 1 • Final Discussion 2	 • Post by Feb 4 • Post by Feb 4 • Post by Feb 7 • Post by Feb 7
Week 4	Module 1, Introduction and Foundation	• **Review IS-913.a** • Initial Discussion 1	 • Post by Feb 11

		• Initial Discussion 2 • Final Discussion 1 • Final Discussion 2 • **Test #1** over material from IS 860.c and 913.a	• Post by Feb 11 • Post by Feb 14 • Post by Feb 14 • Post by Feb 15
Week 5	Module 2, Sector-Specific Information and Threat Assessment and Mitigation	• **Read Critical Infrastructure** Sectors • **Post** selected Critical Infrastructure Sector for final project • **Post** CI Sectors corresponding to wk 1 assignment • Initial Discussion 1 • Final Discussion 1	 • Post by Feb 18 • Post by Feb 18 • Post by Feb 18 • Post by Feb 21
Week 6	Module 2, Sector-Specific Information and Threat Assessment and Mitigation	• Review IS-1170 • Initial Discussion 1 • Final Discussion 1	• Post by Feb 25 • Post by Feb 28
Week 7	Module 2, Sector-Specific Information and Threat Assessment and Mitigation	• Read 2019 National Threat & Hazard Identification and Risk Assessment (THIRA) • Initial Discussion 1 • Final Discussion 1	 • Post by Mar 4 • Post by Mar 7
	Spring Break (March 9-13)		
Week 8	Module 2, Sector-Specific Information and Threat Assessment and Mitigation	• Read National Risk & Capability Assessment • Initial Discussion 1 • Final Discussion 1	 • Post by Mar 18 • Post by Mar 21
Week 9	Module 2, Sector-Specific Information and Threat Assessment and Mitigation	• Read About BRIC _ reducing risk through Hazard Mitigation • Initial Discussion 1 • Final Discussion 1 • **TEST 2** over module 2 reading material	 • Post by Mar 25 • Post by Mar 28 • Post by Mar 29

Week 10	Module 3, Preparedness and Response	• Review IS-906 • Initial Discussion • Final Discussion	• Post by Apr 1 • Post by Apr 4
Week 11	Module 3, Preparedness and Response	• Review IS-907 • Initial Discussion • Final Discussion	• Post by Apr 8 • Post by Apr 11
Week 12	Module 3, Preparedness and Response	• Review IS-914 • Initial Discussion 1 • Final, Discussion 1 •	• Post by Apr 15 • Post by Apr 18
Week 13	Module 3, Preparedness and Response	• Review IS-915 • Initial Discussion 1 • Final, Discussion 1 •	• Post by Apr 22 • Post by Apr 25
Week 14	Module 3, Preparedness and Response	• Read USFA Critical Infrastructure Protection Process Job Aid • Initial Discussion 1 • Final Discussion 1	• Post by Apr 29 Post by May 3
Week 15	Module 3, Preparedness and Response	• Final Project paper due • Research essay regarding National Critical Functions	• Post by May 6 • Post by May 6
Week 16	Module 3, Preparedness and Response	• **Test 3** over material from IS-906, IS 907, IS 914 and IS 915	• Post by May 12

COURSE EVALUATION

Final grades will be calculated according to the following criteria:

- Unit Tests- 60%
- Course Assignments- 40%
- Discussion assignments must be submitted in the following format: Course name, Student name, and date as a header. Answers must be in paragraph format and double-spaced with a 100 word minimum and 250 word maximum.
- After each assignment post, a feedback post is required to at least one fellow student. Lack of a feedback post will result in a 20 point reduction for the assignment grade. Repeated refusal to submit feedback will result in a 30 point reduction for the assignment grade.
- Assignments will be graded up to 7 days after the due date with a 10 point penalty. Assignments later than 7 days will be assessed a 0.
- I will drop the lowest two weekly assignment grades.

- I will drop the lowest test grade.
- There are several FEMA Independent Study courses covered in this class. Upon submission of a FEMA certificate indicating successful completion of the online course, I will add 5 points to the individual test score over that section of the course.
- Tests will be automatically grade and recorded in Blackboard.
- Your final grade will be the average of your weekly discussions, tests and the Final Project
- AI tools should not be used

GRADE SCALE
- 90-100   A
- 80-89   B
- 70-79   C
- 60-69   D
- 0-59   F

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
1. Students are expected to use proper net etiquette while participating in course emails, assignment submissions, and online discussions
2. Log onto Blackboard at a minimum of 1 time each week.
3. Use of AI for assignment completion is NOT acceptable and tends to impede student performance since the discussion requirements are limited between 100 and 250 words.
4. Students must engage in weekly discussions and feedback to classmates
5. All students must register with FEMA and obtain a Student Identification Number (SID; https://cdp.dhs.gov/femasid/register).
6. Assignments' grades may be accessed through My Grades in Blackboard. Each assignment shows your grade and any comments I make on your assignment.