

Critical Infrastructure Protection (HMSY 1341)



Credit: 3 semester credit hours (3 hours lecture)

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.

Required Text and Materials

1. Text Material is provided online:
 - a. National Infrastructure Protection Plan, 2009
http://www.dhs.gov/xlibrary/assets/NIPP_Plan.pdf
 - b. Critical Infrastructure and Key Resources
http://www.dhs.gov/files/programs/gc_1189168948944.shtm
 - c. IS-860.a National Infrastructure Protection Plan (NIPP)
<http://training.fema.gov/EMIWeb/IS/IS860a.asp>
 - d. IS-821 Critical Infrastructure and Key Resources Support Annex
<http://training.fema.gov/emiweb/is/is821.asp>
2. A package of #882 Scantrons and #2 pencils.

Course Objectives

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

1. Identify local area critical infrastructures (SCANS: C5, C6)
2. Evaluate security measures (SCANS: C5, C6, C7, F2, F7)
3. Report methods to revise security of protection assets (SCANS C8, C16)
4. Demonstrate mitigation of a critical infrastructure threat (SCANS C9, C12, C14)
5. Conduct information collection using the Internet and library resources (SCANS C3, C5, C8, F1,
6. Present written and oral reports on findings (SCANS: F2, F7)

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools*. In

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its research, the Commission determined that “workplace know-how” consists of two elements: foundation skills and workplace competencies.

Course Outline

- A. Syllabus
 - 1. Introduction of Faculty and students
 - 2. Instructor Resume
 - 3. Comments
- B. IS-860 National Infrastructure Protection Plan
 - 1. Overview of the NIPP
 - 2. Authorities & Roles
 - 3. The Strategy: Managing Risk
 - 4. Online FEMA Exam
- C. IS- 821 Critical Infrastructures and Key Resources Support Annex
 - 1. Definition of Critical Infrastructure and Key Resources
 - 2. Examples of Critical Infrastructure and Key Resources
 - 3. CIKR Sectors and Sector-Specific Agencies
 - 4. CIKR and Incident Response
 - 5. Threats to CIKR
 - 6. An All-Hazards Approach
 - 7. CIKR Authorities
 - 8. CIKR Response Roles
 - 9. Online FEMA Exam
- D. Agriculture and Food/Banking & Finance
 - 1. Sector Overview
 - 2. Critical dependences
 - 3. Read sector snapshots
- E. Commercial Facilities/Government Facilities
 - 1. Sector Overview
 - 2. Critical dependences
 - 3. Read sector snapshots
- F. Communications/Information Technology
 - 1. Sector Overview
 - 2. Critical dependences
 - 3. Read sector snapshots
- G. Critical Manufacturing/Energy/Defense Industrial Base
 - 1. Sector Overview
 - 2. Critical dependences
 - 3. Read sector snapshots
- H. National Monuments and Icons
 - 1. Sector Overview
 - 2. Read sector snapshots
- I. Health Care and Public Health
 - 1. Sector Overview
 - 2. Critical dependences
 - 3. Read sector snapshots
- J. Postal, Shipping and Transportation
 - 1. Sector Overview
 - 2. Critical dependences
 - 3. Read sector snapshot

Grade Scale

90 – 100	A
80 – 89	B
70 – 79	C

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60 – 69	D
0 – 59	F

Course Evaluation

Final grades will be calculated according to the following criteria:

1. 2 Unit Tests	50%
2. Comprehensive Final Exam	20%
3. Course Assignments	10%
4. Course Project	20%

Course Requirements

1. Orally present a weekly current event pertaining to the present chapter topic.
2. Complete the chapter quizzes, IS-860 FEMA NIPP Course, and IS-821 Critical Infrastructure and Key Resources Support Annex assignment.
3. Participate in students-to-instructor discussions pertaining to the studied chapter assignments.
4. Work in groups of four or five students to research, write and develop a YouTube presentation on a topic assigned by the course instructor. The research paper requirement will be presented to the instructor. Each of the partners will submit identical papers and will receive the same grade.
5. Participate in student-to-student discussions regarding articles included in selected chapters.

Course Policies

1. No food, drinks, or use of tobacco products in class.
2. Beepers, telephones, headphones, and any other electronic devices must be turned off while in class.
3. Do not bring children to class.
4. No late assignments will be accepted.
5. Tests. Students that miss a test are not allowed to make up the test. Students that miss a test will receive a grade of '0'.
6. Attendance Policy. Two 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 two absences will result in a 5 point deduction from your final grade.
7. If you wish to drop a course, the student is 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.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator at (409) 880-1737 or visit the office in Student Services, Cecil Beeson Building.

Course Schedule

Week	Topics
1	Course Overview Identify Critical Infrastructures in Southeast Texas
2	MLK Day IS-860 National Infrastructure Protection Plan (NIPP) http://training.fema.gov/EMIWeb/IS/IS860a.asp
3	IS-821 Critical Infrastructure and Key Resources Support Annex http://training.fema.gov/emiweb/is/is821.asp
4	Current Event Agriculture and Food Sector http://www.dhs.gov/files/programs/gc_1188565256722.shtm Banking and Finance http://www.dhs.gov/files/programs/gc_1188566544964.shtm Chemical http://www.dhs.gov/files/programs/gc_1188567509125.shtm
5	Current Event Commercial Facilities http://www.dhs.gov/files/programs/gc_1189101907729.shtm Government Facilities http://www.dhs.gov/files/programs/gc_1189011910767.shtm
6	Current Event Dams http://www.dhs.gov/files/programs/gc_1189103468978.shtm Water http://www.dhs.gov/files/programs/gc_1188399291279.shtm Nuclear Reactors http://www.dhs.gov/files/programs/gc_1188475350325.shtm Test 1 – Weeks 1-5
7	Current Event Communications http://www.dhs.gov/files/programs/gc_1189102978131.shtm Information Technology

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Week	Topics
	http://www.dhs.gov/files/programs/gc_1188479464996.shtm
8	Current Event Critical Manufacturing http://www.dhs.gov/files/programs/gc_1226007062942.shtm Energy http://www.dhs.gov/files/programs/gc_1189013411585.shtm Defense Industrial Base http://www.dhs.gov/files/programs/gc_1189165508550.shtm
9	Spring Break March 8-12
10	Current Event National Monuments and Icons http://www.dhs.gov/files/programs/gc_1189169651266.shtm
11	Current Event Emergency Services http://www.dhs.gov/files/programs/gc_1189094187811.shtm Test 2 Weeks 6-10
12	Current Event Healthcare and Public Health http://www.dhs.gov/files/programs/gc_1188490299862.shtm Good Friday April 2
13	Current Event Postal and Shipping http://www.dhs.gov/files/programs/gc_1188412546210.shtm Transportation http://www.dhs.gov/files/programs/gc_1188404440159.shtm
14	Term Paper & Power Point DUE - Presentations Begin
15	Complete Presentations
16	Final Exam Review - Final Exam