

**STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK**



MASTER SYLLABUS

**COURSE NUMBER – COURSE NAME
EADM 205 – Hazard Assessment and Mitigation**

Created by: Dr. M. O'Connor

Updated by: Jay Roorbach

School of Science, Health, and Criminal Justice

Department: Center for Criminal Justice, Intelligence, and Cybersecurity

Semester/Year: Fall 2020

A. **TITLE:** Hazard Assessment and Mitigation

B. **COURSE NUMBER:** EADM 205

C. **CREDIT HOURS:** (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)

Credit Hours: 3

Lecture Hours: 3 per week

Lab Hours: per week

Other: per week

Course Length: 15 Weeks

D. **WRITING INTENSIVE COURSE:** Yes No

E. **GER CATEGORY:** None: Yes: GER
If course satisfies more than one: GER

F. **SEMESTER(S) OFFERED:** Fall Spring Fall & Spring

G. **COURSE DESCRIPTION:**

This course focuses on a generalized understanding and an awareness of various types of threats and hazards. Central to the course is the understanding the technical cooperation regarding hazard and vulnerability assessments, planning doctrine and methodology, inclusion of hazard mitigation strategies in the formulation of projects, and resource management.

H. **PRE-REQUISITES:** None Yes If yes, list below:

CO-REQUISITES: None Yes If yes, list below:

I. STUDENT LEARNING OUTCOMES: (see key below)

By the end of this course, the student will be able to:

<u>Course Student Learning Outcome</u> <i>[SLO]</i>	<u>Program Student Learning Outcome</u> <i>[PSLO]</i>	<u>GER</u> <i>[If Applicable]</i>	<u>ISLO & SUBSETS</u>	
Discuss the background of and requirements for hazard risk assessments.	Students will demonstrate an advanced understanding of the core concepts, theories, and doctrine related to emergency and disaster management.		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
Review the issues and discuss the methods related to all-hazards risk analysis and mitigation planning.	Students will demonstrate an advanced understanding of the core concepts, theories, and doctrine related to emergency and disaster management.		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
Produce a Hazard Analysis and Vulnerability Assessment for your local area	Students will develop written communications related to emergency management and present projects in multiple formats.		1-Comm Skills ISLO ISLO	W Subsets Subsets Subsets
Understand the issues involved in strategic hazard mitigation planning and action.	Students will develop and maintain a comprehensive perspective of emergency and disaster management.		4-Soc Respons ISLO ISLO	GL Subsets Subsets Subsets
Discuss specific hazards including natural and human caused disasters.	Students will develop and maintain a comprehensive perspective of emergency and disaster management.		5-Ind, Prof, Disc, Know Skills ISLO ISLO	Subsets Subsets Subsets Subsets
Discuss the impact of hazards on private-sector entities and continuity planning.	Students will develop and maintain a comprehensive perspective of emergency and disaster management.		4-Soc Respons ISLO ISLO	IK GL Subsets Subsets
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KEY	<u>Institutional Student Learning Outcomes [ISLO 1 – 5]</u>
ISLO #	ISLO & Subsets
1	Communication Skills Oral [O], Written [W]
2	Critical Thinking <i>Critical Analysis [CA], Inquiry & Analysis [IA], Problem Solving [PS]</i>
3	Foundational Skills <i>Information Management [IM], Quantitative Lit/Reasoning [QTR]</i>
4	Social Responsibility <i>Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]</i>
5	Industry, Professional, Discipline Specific Knowledge and Skills

*Include program objectives if applicable. Please consult with Program Coordinator

J. **APPLIED LEARNING COMPONENT:** Yes No

If YES, select one or more of the following categories:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Classroom/Lab | <input type="checkbox"/> Civic Engagement |
| <input type="checkbox"/> Internship | <input type="checkbox"/> Creative Works/Senior Project |
| <input type="checkbox"/> Clinical Placement | <input checked="" type="checkbox"/> Research |
| <input type="checkbox"/> Practicum | <input type="checkbox"/> Entrepreneurship |
| <input type="checkbox"/> Service Learning | (program, class, project) |
| <input type="checkbox"/> Community Service | |

K. **TEXTS:**

All materials are provided to the student.

L. **REFERENCES:**

None

M. **EQUIPMENT:** None Needed:

N. **GRADING METHOD:** A-F

O. **SUGGESTED MEASUREMENT CRITERIA/METHODS:**

- Writing assignments
- Discussion Boards
- Research Paper
- Participation

P. **DETAILED COURSE OUTLINE:**

I. **INTRODUCTION AND OVERVIEW**

A. Introduction of risk, hazards, threats, and vulnerability.

B. Overview of assessments and current practices.

C. Overview of mitigation strategies.

II. **POLICY, DOCTRINE, AND METHODOLOGY**

A. FEMA hazard mitigation methodology.

B. Regulatory requirements for hazard analysis.

C. Examples of assessments.

III. **HAZARD AND VULNERABILITY ANALYSIS**

A. Select an area or jurisdiction and conduct a hazard and vulnerability assessment (HVA).

B. Use results to analyze and prioritize hazards.

IV. **DATA AND MITIGATION STRATEGIES**

A. Analyze data from assessments to assess needs.

B. Determine feasibility of mitigation strategies.

C. Identify barriers to implementation of mitigation strategies.

- D. Understand risk acceptance as a strategy.
- V. MITIGATION PLANNING
 - A. Discuss methods for selecting, approving, and implementing mitigation strategies.
 - B. Identify funding sources to implement mitigation strategies.
 - C. Analyze examples of hazard mitigation planning templates.
- VI. HAZARD MITIGATION PLANS
 - A. Review actual hazard mitigation plans from communities in the US.
 - B. Perform analyses of hazard mitigation plans against current guidance.
 - C. Learn FEMA standards for hazard mitigation planning.
- VII. BUSINESS IMPACT ANALYSIS AND CONTINUITY
 - A. Discuss private-sector analysis with a focus on business impacts.
 - B. Provide an overview of continuity planning.

Q. LABORATORY OUTLINE: None Yes