

# EDMG320

**STUDENT WARNING:** This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

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## Course Summary

**Course :** EDMG320 **Title :** Natural Disaster Management

**Length of Course :** 8

**Prerequisites :** N/A **Credit Hours :** 3

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## Description

**Course Description:** This course covers the basic principles of natural disaster management in the United States. This course highlights several hazard types as topical investigations, as well as the processes and considerations of management options for preparedness, response, recovery, and mitigation. This will include but not be limited to understanding basic natural hazard mechanisms, the range of physical and human impacts, linkages to demographic and environmental transitions, and both structural and non-structural mitigation techniques. All management techniques are framed within existing U.S. Federal guidelines, however management techniques covered in this course may be applied widely. The course covers issues of organization, operations, training, and other issues associated with the management of natural disasters.

### Course Scope:

The course is eight weeks long and is appropriate for **upper levels** of undergraduate work. The Resources, assignments, learning outcomes, and expectations in this upper level undergraduate course assume that the student has completed all lower level general education and career planning coursework necessary to develop research, writing, and critical thinking skills. College-level competency in research and writing skills are a “must.” Exams will consist of a variety of questions, to include multiple choice, true/false, short answer, and essay. Students who have not fulfilled all general education requirements through courses or awarded transfer credit should strongly consider completing these requirements prior to registering for this course.

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## Objectives

The successful student will fulfill the following learning objectives:

**LO-1 Understand hazard paradigms with variations in vulnerability to disasters.**

**LO-2 Describe the reason the Swiss cheese model is used to explain the causation of disaster.**

**LO-3 Distinguish the roles and responsibilities of various agencies for natural events and evaluate various programs for natural disaster mitigation and management.**

**LO-4 Analyze Losses, Relief and Cost-Benefit of disasters: Economic Considerations**

**LO-5 Describe the different hazards such as hurricane, severe storm, flooding, hurricanes, drought, volcano, earthquakes, landslides, avalanches, wildfires, biohazard, and technological hazards and the protective and mitigation measures used.**

**LO-6 Evaluate public policy and planning disasters.**

**LO-7 Identify key challenges in disaster risk reduction.**

**LO - 8 Compare and contrast chronic (elusive) and rare (new) hazards.**

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## **Outline**

### **Week 1: The Nature of Hazards**

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Learning Outcomes

**LO-1:** Understand hazard paradigms with variations in vulnerability to disasters.

**LO-2:** Describe the reason the Swiss cheese model is use to explain the causation of disaster.

Required Readings

#### **Resources:**

Vulnerability assessment in natural hazard and risk analysis: Current approaches and future challenges. Natural Hazards, 64(3), 1969-1975.

<https://link.springer.com/content/pdf/10.1007%2Fs11069-012-0352-9.pdf>

A Social vulnerability index for disaster management. Journal of Homeland Security and Emergency Management, 8(1), 3

[https://www.researchgate.net/profile/Barry\\_Flanagan/publication/274439003\\_A\\_Social\\_Vulnerability\\_Index\\_1](https://www.researchgate.net/profile/Barry_Flanagan/publication/274439003_A_Social_Vulnerability_Index_1)

Threat and Hazard Identification and Risk Assessment Guide Comprehensive Preparedness Guide (CPG) 201

[https://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201\\_htirag\\_2nd\\_edition.pdf](https://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf)

Modified swiss cheese model to analyse accidents. Chemical Engineering Transactions, 43, 1237

<http://www.aidic.it/cet/15/43/207.pdf>

Assignments

#### **Student Introduction (Bio)**

#### **Forum Post #1**

### **Week 2: Risk Management, Mitigation and Economics of Natural Hazards**

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Learning Outcomes

**LO-3:** Distinguish the roles and responsibilities of various agencies for natural events and evaluate various programs for natural disaster mitigation and management

**LO-4** Analyze Losses, Relief and Cost-Benefit of disasters: Economic Considerations.

Required Readings

**Resources:**

National Response Framework (NRF), 3d Ed.

[https://www.fema.gov/media-library-data/20130726-1914-25045-1246/final\\_national\\_response\\_framework\\_20130501.pdf](https://www.fema.gov/media-library-data/20130726-1914-25045-1246/final_national_response_framework_20130501.pdf)

Threat and Hazard Identification and Risk Assessment Guide Comprehensive Preparedness Guide (CPG) 201

[https://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201\\_htirag\\_2nd\\_edition.pdf](https://www.fema.gov/media-library-data/8ca0a9e54dc8b037a55b402b2a269e94/CPG201_htirag_2nd_edition.pdf)

Mitigation Ideas: A Resource for Reducing Risk to Natural Hazards

[https://www.fema.gov/media-library-data/20130726-1904-25045-0186/fema\\_mitigation\\_ideas\\_final508.pdf](https://www.fema.gov/media-library-data/20130726-1904-25045-0186/fema_mitigation_ideas_final508.pdf)

Critical Infrastructure and Economic Impact Considerations

[https://www.fema.gov/media-library-data/20130726-1910-25045-7188/40\\_rrkp\\_critical\\_infrastructure\\_and\\_econ\\_impact\\_considerations\\_cbr\\_incidents.pdf](https://www.fema.gov/media-library-data/20130726-1910-25045-7188/40_rrkp_critical_infrastructure_and_econ_impact_considerations_cbr_incidents.pdf)

FEMA: Benefit – Cost Analysis

<https://www.fema.gov/benefit-cost-analysis>

Assignments

**Forum Post #2**

**Written Assignment #1**

**Week 3: Severe Storm Hazards and Context Hazards**

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Learning Outcomes

**LO-2** Describe the reason the Swiss cheese model is used to explain the causation of disaster.

**LO-5** Describe the different hazards such as hurricane, severe storm, flooding, hurricanes, drought, volcano, earthquakes, landslides, avalanches, wildfires, biohazard, and technological hazards and the protective and mitigation measures used.

Required Readings

**Resources:**

Modified swiss cheese model to analyse accidents. Chemical Engineering Transactions, 43, 1237

<http://www.aidic.it/cet/15/43/207.pdf>

FEMA: Are you ready? – Natural Hazards

<https://www.fema.gov/benefit-cost-analysis>

FEMA: Are you ready? – Technological Hazards

<https://www.fema.gov/pdf/areyouready/technohazards.pdf>

FEMA: Integrating Man-made Hazards into Mitigation Planning

<https://www.fema.gov/media-library-data/20130726-1524-20490-3869/howto7.pdf>

Assignments

### Forum Post #3

## Week 4: Hydrological Hazards; Public Policy and Planning for Natural Hazards

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Learning Outcomes

**LO5:** Describe the different hazards such as hurricane, severe storm, flooding, hurricanes, drought, volcano, earthquakes, landslides, avalanches, wildfires, biohazard, and technological hazards and the protective and mitigation measures used.

**LO–6** Evaluate public policy and planning disasters.

Required Readings

### Resources:

FEMA: Are you ready? – Natural Hazards

<https://www.fema.gov/benefit-cost-analysis>

FEMA: Are you ready? – Technological Hazards

<https://www.fema.gov/pdf/areyouready/technohazards.pdf>

FEMA: Integrating Man-made Hazards into Mitigation Planning

<https://www.fema.gov/media-library-data/20130726-1524-20490-3869/howto7.pdf>

National Response Framework (NRF), 3d Ed.

[https://www.fema.gov/media-library-data/20130726-1914-25045-1246/final\\_national\\_response\\_framework\\_20130501.pdf](https://www.fema.gov/media-library-data/20130726-1914-25045-1246/final_national_response_framework_20130501.pdf)

National preparedness Goal (NPG), 32 Ed.

[https://www.fema.gov/media-library-data/1443799615171-2aae90be55041740f97e8532fc680d40/National\\_Preparedness\\_Goal\\_2nd\\_Edition.pdf](https://www.fema.gov/media-library-data/1443799615171-2aae90be55041740f97e8532fc680d40/National_Preparedness_Goal_2nd_Edition.pdf)

Assignments

### Forum Posts #4

Day 1

Day 2

Day 3

Day 4

## Week 5: Tectonic Hazards

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### Learning Outcomes

**LO- 5** Describe the different hazards such as hurricane, severe storm, flooding, hurricanes, drought, volcano, earthquakes, landslides, avalanches, wildfires, biohazard, and technological hazards and the protective and mitigation measures used.

### Required Readings

#### Resources:

FEMA: Are you ready? – Natural Hazards

<https://www.fema.gov/benefit-cost-analysis>

FEMA: Are you ready? – Technological Hazards

<https://www.fema.gov/pdf/areyouready/technohazards.pdf>

FEMA: Integrating Man-made Hazards into Mitigation Planning

<https://www.fema.gov/media-library-data/20130726-1524-20490-3869/howto7.pdf>

### Tectonic Hazards and Disasters

[http://carshaltonboys.org/\\_site/data/files/files/sixthform/transition%20into%206th%20form/summer%20transiti](http://carshaltonboys.org/_site/data/files/files/sixthform/transition%20into%206th%20form/summer%20transiti)

### Assignments

#### Forum Post #5

#### Day 5

#### Day 6

#### Hot Wash

#### Optional Feedback

## Week 6: Mass Movement Hazards

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### Learning Outcomes

**LO- 5** Describe the different hazards such as hurricane, severe storm, flooding, hurricanes, drought, volcano, earthquakes, landslides, avalanches, wildfires, biohazard, and technological hazards and the protective and mitigation measures used.

### Required Readings

#### Resources:

FEMA: Are you ready? – Natural Hazards

<https://www.fema.gov/benefit-cost-analysis>

FEMA: Are you ready? – Technological Hazards

<https://www.fema.gov/pdf/areyouready/technohazards.pdf>

FEMA: Integrating Man-made Hazards into Mitigation Planning

<https://www.fema.gov/media-library-data/20130726-1524-20490-3869/howto7.pdf>

What is Mass Wasting / Mass Movement of Rocks?

<https://www.earthclipse.com/geology/types-causes-mass-wasting-rocks.html>

Slope Stability, Triggering Events, Mass Movement Hazards

[https://www.tulane.edu/~sanelson/Natural\\_Disasters/slopestability.pdf](https://www.tulane.edu/~sanelson/Natural_Disasters/slopestability.pdf)

Assignments

### **Forum Post #6**

### **Written Assignment #2**

Recommended Optional Reading

Recommended Media

## **Week 7: Technological Hazards and the Changing Nature of Environmental Hazards**

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Learning Outcomes

**LO–5** Describe the different hazards such as hurricane, severe storm, flooding, hurricanes, drought, volcano, earthquakes, landslides, avalanches, wildfires, biohazard, and technological hazards and the protective and mitigation measures used.

Required Readings

### **Resources:**

FEMA: Are you ready? – Technological Hazards

<https://www.fema.gov/pdf/areyouready/technohazards.pdf>

FEMA: Integrating Man-made Hazards into Mitigation Planning

<https://www.fema.gov/media-library-data/20130726-1524-20490-3869/howto7.pdf>

Man-Made Hazards Information

<http://communityemergency.org/man-made-hazards-information/>

Assignments

### **Forum Post #7**

## **Week 8: National Response Framework**

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Learning Outcomes

**LO–7** Identify key challenges in disaster risk reduction.

**LO–8** Compare and contrast chronic (elusive) and rare (new) hazards.

Required Readings

## Resources:

National Response Framework (NRF), 3d Ed.

[https://www.fema.gov/media-library-data/20130726-1914-25045-1246/final\\_national\\_response\\_framework\\_20130501.pdf](https://www.fema.gov/media-library-data/20130726-1914-25045-1246/final_national_response_framework_20130501.pdf)

Principal Hazards in the United States

<https://training.fema.gov/hiedu/docs/fem/chapter%205%20-%20principal%20hazards%20in%20u.s.doc>

Assignments

## Forum Post #8:

None

## Final Written Assignment #3: Final Course Paper

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## Evaluation

### Forums:

Participation is mandatory and will count towards the course grade. You are expected to provide a substantial comment of several well-written paragraphs in each session and a similar comment or reflection in reply to at least two other students' contribution. Statements such as "I agree" or "good post" will not count as a reply. You will be marked down for this type of response.

Initial posting is due on Thursday of the assigned week. The responses are due by Sunday midnight.

### Readings

All the chapters in all the textbooks will be covered throughout this eight (8) week course. As a student, you are expected to read each of the assigned chapters. Other material will be assigned for reading as determined appropriate by the Instructor. Be sure to check the "Additional Readings" folder in Resources regularly.

### Grading:

Name	Grade %
Forums	30.00 %
Week 1 Introduction	6.00 %
Forum #1	6.00 %
Forum #2	6.00 %
Forum #3	6.00 %
Forum #7	6.00 %
Weekly Assignments	30.00 %
Week 2 - Written Assignment #1	15.00 %
Week 6 - Written Assignment #2	15.00 %
Final Course Paper	20.00 %
Week 8 - Written Assignment #3	20.00 %
Simulation Forum - Week 5	10.00 %
Forum #5 - Day 5	3.33 %
Forum #6	3.33 %
Forum #5 - Day 6	3.33 %

Simulation Forum - Week 4	10.00 %
Forum #4 - Day 1	2.00 %
Forum #5 - Hot Wash	2.00 %
Forum #4 - Day 2	2.00 %
Forum #4 - Day 3	2.00 %
Forum #4 - Day 4	2.00 %

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## Materials

**Book Title:** Various resources from the APUS Library & the Open Web are used. Links provided inside the classroom in the Lessons section.

**Author:** No Author Specified

**Publication Info:**

**ISBN:** N/A

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Please visit <http://apus.libguides.com/er.php> and search by the course number (ex: LITR210) to access your required resources.

**Additional Readings:** Weekly case study readings will be assigned in class and will change to remain current for illustrative purposes. Please refer to “Course Announcements” for listings.

**Software:**

- Microsoft Office (MS Word)
  - Adobe Acrobat Reader (Free download from <http://www.adobe.com/support/downloads/main.html>)
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## Course Guidelines

This course requires a time management plan and the self-discipline to follow it. You are responsible for managing your time, completing assignments on time, completing the readings, and making inquiries as needed to complete the course effectively. This is an 8-week course, which means the material must be learned in a short period of time. This requires dedication and diligence on the part of each student.

Students will follow the American Psychological Association Style Guide (APA 6th Edition) as the sole citation and reference style used in written work submitted as part of this course. Specifically, the parenthetical citations-reference list style method, which includes in-text citations with an adjoining reference list, will be utilized. Additional information concerning this writing style can be found within the APUS Library.

Students are expected to submit classroom assignments by the posted due date and to complete the course according to the published class schedule. As adults, students, and working professionals, I understand you must manage competing demands on your time. If you find that you need additional time to complete an assignment, please contact me before the due date so we can discuss the situation and determine an acceptable resolution. Routine submission of late assignments is unacceptable and may result in points deducted from your final course grade.

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## University Policies

## [Student Handbook](#)

- [Drop/Withdrawal policy](#)
- [Extension Requests](#)
- [Academic Probation](#)
- [Appeals](#)
- [Disability Accommodations](#)

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