

AP/DEMS 2700: Fundamentals of Emergency Management

York University
School of Administrative Studies
Faculty of Liberal Arts and Professional Studies
DEMS 2700
Fundamentals of Emergency Management

Instructor: James Kilgour
E-Mail: jamesjkilgour@gmail.com

Prerequisites:

None

COURSE DESCRIPTION AND OBJECTIVES

This course presents the theories, principles, and approaches to emergency management. The main purpose of this course is to introduce students to the important, complex and evolving discipline of emergency management. Organized based on the concept and practice of comprehensive emergency management, it will explain concepts, methods, and issues of mitigation, preparedness, response, and recovery phases of emergency management. This introductory course is supported by disaster and emergency research and practice using a combination of disaster and emergency related research findings, professional practice and various past disaster and emergency cases selected from Canada and the rest of the world.

On completion of this course students should be able to:

- Understand the historical evolution of emergency management and disaster studies and the need for emergency/disaster management and the ethical standards for the profession of emergency management.
- Describe the nature of an emergency and disaster and the distinctions between them.
- Understand the main conceptual and theoretical explanations of disaster and emergency and their management issues.
- Explain the framework for integrated emergency management and its elements; mitigation, preparedness, response and recovery, including the effects of emergencies/disasters.
- Discuss and debate hazard-specific and all-hazard approaches to emergency management.
- Explain hazard identification and emergency mitigation planning as one element of comprehensive emergency management.
- Explain various aspects and issues of emergency preparedness with emphasis on emergency declaration and cancellation, emergency operation center evacuation (EOC), emergency social service, emergency warning and evacuation, public education and communication in theory and practice.
- Describe the main activities of emergency response phase such as early warning, evacuation, needs assessment, search and rescue, media roles, individual and organizational response to disasters and emergencies.
- Understand the main concepts, functions and activities of disaster and emergency recovery and reconstruction phase with emphasis on emergency restoration.

AP/DEMS 2700: Fundamentals of Emergency Management

- Understand the main emergency management agencies at governmental, non-governmental and international levels and their roles and functions.

READINGS

Required Text

Damon Coppola, "Introduction to International Disaster Management", Butterworth-Heinemann.

In addition to the textbook there will be some reading materials to supplement the text. These readings are available for you to download for free on the course website in Moodle.

USE OF TECHNOLOGY

Course on Moodle

This course uses Moodle for information sharing. All students who register for this course are requested to activate their Moodle service.

Once activated, students can access Moodle for this course by logging into "moodle.yorku.ca" using their York ID and Password.

All course materials, announcements, assignments and course outline are posted in this site.

METHODS OF INSTRUCTION:

The teaching method is a combination of:

- On-line; and
- Case Studies

COURSE EVALUATION

<i>Type</i>	<i>Topic</i>	<i>Weight</i>	<i>Due Date</i>
<i>Written Assignment # 1</i>	<i>Disaster Management Cycle</i>	<i>20%</i>	<i>June 12</i>
<i>Written Assignment # 2</i>	<i>Responses</i>	<i>20%</i>	<i>July 3</i>
<i>Mid-Term Multiple Choice</i>	<i>Chapters 1- 8</i>	<i>25%</i>	<i>July 17</i>
<i>Written Paper</i>	<i>Defined Question</i>	<i>35%</i>	<i>August 7</i>
<i>Total</i>		<i>100%</i>	

All final grades will be reviewed by the School of Administrative Studies, and the School reserves the right to modify them in order to maintain high standards.

Late Assignments

Late assignments will be penalized at 5% per day.

AP/DEMS 2700: Fundamentals of Emergency Management

DETAILED COURSE OUTLINE

Lesson 1: The Management of Disasters

Disaster management is a risk-based program consisting of prescribed elements that assist an organization or government in mitigating, preparing, responding and recovering from a risk. The purpose of this week is to discuss the historical evolution of disaster management, examine the disaster management cycle, define the phases of disaster management and examine the five disaster management trends. Highlighted this week will be current issues and challenges of implementing an effective and efficient disaster management program.

Topics To Be Covered

- Disasters and Emergencies throughout History
- The History of Disaster and Emergency Management
- Modern Disaster Management
- Disaster Management Cycle
- Response and Recovery-based efforts
- Prevention and Risk Reduction based-efforts
- Disasters, Poverty, and Development
- Disaster Trends
- Definitions

LEARNING OUTCOMES

- Define
 - Disaster management;
 - Hazard
 - Risk
 - Vulnerability
 - Disaster
- Describe the four phases to disaster management and provide Canadian examples:
 - Mitigation;
 - Preparedness;
 - Response; and
 - Recovery
- Illustrate the Disaster Management Cycle
- Describe the 5 'Disaster Trends' and differentiate how those trends impact between a developed and a developing country

Required Readings: Chapter 1: The Management of Disasters (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 2: Hazards

Hazard identification and risk assessments are the cornerstone to an effective disaster/emergency management program. This week we will examine hazards and the hazard profiling process that allows community and organizations mitigate, prepare, respond and recovery from hazards and risks.

Topics To Be Covered

- Hazard Identification and Hazard Profiling
- Hazard Analysis
- Types of Hazards
- Event Tree
- Fault Tree
- Risk Statement

LEARNING OUTCOMES

- Define:
 - Natural Hazards
 - Technological Hazards
 - Intentional Hazards
- Describe the 7 types of hazard identification methods
- Compare and contrast event trees and fault trees and be able to give examples for each
- Identify and explain the 5 elements of a community risk profile
- Compare and contrast the difference between an emergency, disaster and a catastrophe

Required Readings: Chapter 2: Hazards (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 3: Risk and Vulnerability

Understanding risk and vulnerability assists the disaster management professional in establishing program priorities and a community/organization risk profile. This week we will discuss the risk assessment process – basically:

“What can cause harm and the chances of that actually happening to you, your community or organization?”

Topics to be Covered

- Two Components of Risk
- Trends
- Computing Likelihood and Consequence Values
- Risk Evaluation
- Alternatives
- Vulnerability

LEARNING OUTCOMES

- Describe the two components of risk
- Distinguish between qualitative and quantitative methods
- Design a risk matrix
- Arrange hazards in a risk matrix
- Explain risk acceptability
- Explain vulnerability and describe the risk factors that influence vulnerability
- Describe the concept of risk perception

Required Readings:

Chapter 3: Risk and Vulnerability (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 4: Mitigation

Mitigation is defined as “actions taken to reduce the effects of an emergency or disaster” (Emergency Management Ontario, 2007). This week we will discuss the first phase of the disaster management cycle – mitigation – and learn about the various elements and challenges of implementing effective and efficient mitigation projects and programs

- What is Mitigation
- Structural vs. Non-Structural Mitigation
- Obstacles to Effective Mitigation
- Assessing and Selecting Mitigation Options
- Emergency Response Capacity as a Risk Mitigation Measure
- Incorporating Mitigation into Development and Relief Projects

LEARNING OUTCOMES

- Define mitigation
- Explain the difference between structural and non-structural mitigation and provide local, provincial/state and federal examples
- Analyse the six factors that impact the probability mitigation will be implemented
- Describe and apply the STAPLEE method to a local, provincial/state and federal mitigation project
- Define and discuss the goals of mitigation

Required Readings:

Chapter 4: Mitigation (text book)

Optional Readings

Natural Hazards Education in Australian Schools: How Can we Make it More Effective?

[http://www.ema.gov.au/www/emaweb/rwpattach.nsf/VAP/\(966BB47E522E848021A38A20280E2386\)~ajem+24+2+natural+hazards.pdf/\\$file/ajem+24+2+natural+hazards.pdf](http://www.ema.gov.au/www/emaweb/rwpattach.nsf/VAP/(966BB47E522E848021A38A20280E2386)~ajem+24+2+natural+hazards.pdf/$file/ajem+24+2+natural+hazards.pdf)

Multi-Hazard Mitigation Planning

<http://www.fema.gov/plan/mitplanning/index.shtm>

ESTABLISHING MITIGATION AS THE CORNERSTONE FOR COMMUNITY RESILIENCE

http://oregonexplorer.info/data_files/OE_topic/hazards/documents/PERI_YR_Book_LeDuc_01_06_06_print.pdf

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 5: Preparedness

- Overview of Disaster Preparedness
- Government Preparedness
- Public Preparedness
- Media as a Public Educator
- Obstacles of Public Education and Preparedness
- Public Awareness vs. Public Education
- **Case Study:** Risk Watch
- **Film**

LEARNING OUTCOMES

Lesson 5

- Define preparedness
- Compare and contrast an all hazards versus a hazard specific plan
- Prepare a draft outline for an all hazards emergency plan
- Describe the purpose of an Emergency Operation Centre
- Differentiate the various types of exercises
- Give examples of elements of a personal preparedness program

Required Readings: Chapter 5: Preparedness (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 6: Response

- What is Response
- Response – The Emergency
- Recognition – Pre-Disaster Actions
- Recognition – Post-Disaster
- Provision of Water, Food and Shelter
- Volunteer Management
- Coordination
- **Case Study:** Air France Crash, Three Mile Island Nuclear Emergency, SARS
- **Film**

LEARNING OUTCOMES

Lesson 6

- Define response
- Analyse the three types of response action during the pre-disaster period
- Recognize the four main post-disaster response activities
- Draw conclusions on the complexity in providing water, food and shelter during a response
- Describe both volunteer and donation management
- Diagram and describe the incident command system

Required Readings: Chapter 6: response (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 7: Recovery

- Overview of Recovery
- The Effects of Disasters on Society
- Pre-Disaster Recovery Actions
- Components of Recovery – What is needed, and where does it come from?
- Types of Recovery
- Public Assistance
- Special Consideration in Recovery
- **Case Study:** Emergency Management Australia's Community Recovery Program
- **Film**

LEARNING OUTCOMES

Lesson 7

- Define recovery
- Compare and contrast with examples physical, physiological and economic recovery effects
- Describe the guiding principles of recovery
- Describe the types of recovery
- Appraise recovery efforts of previous emergencies/disasters

Required Readings: Chapter 7: Recovery (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 8: Participants Governmental Disaster Management Agencies

- Governmental Emergency Management Structures
- Emergency Management Participants
- Organizational Structures
- Bilateral Disaster Management Assistance
- How Governments Provide Assistance
- Types of Bilateral Assistance
- Types of National Government Agencies Involved in International Emergency Management

LEARNING OUTCOMES

Lesson 8

- Describe the organizational structure of disaster management in Canada
- Compare and contrast locally, regionally and nationally based disaster management structures
- Explain how government disaster management agencies provide assistance
- Describe the types of bilateral assistance

Required Readings: Chapter 8: Participants - Governmental Disaster Management Agencies (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 9: Participants - Nongovernmental Organizations

- Who Are the NGOs?
- What Do They Do?
- NGO Operations
- NGO / Military Cooperation
- Standards of Conduct
- The Role of the Private Sector
- The Role of Academia

LEARNING OUTCOMES

Lesson 9

- Identify and give examples of the five types of nongovernment organization categories
- Explain what is the role of nongovernment organizations in disaster management
- Explain what is the role of the private sector in disaster management
- Explain what is the role of academia in disaster management
- Assess the code of conduct of nongovernment organizations

Required Readings: Chapter 9: Participants - Nongovernmental Organizations (text book)

AP/DEMS 2700: Fundamentals of Emergency Management

Lesson 10: Multilateral Organizations and the International Financial Institutions

- The United Nations
- Regional International Organizations
- The International Financial Institutions

Required Readings: Chapter 10: Participants - Multilateral Organizations and the International Financial Institutions (text book)

Lesson 11: Special Considerations

- Coordination
- The Media
- Political Will
- Compound Emergencies
- Terrorism
- Global Disasters: SARS, Avian Influenza, and Other Emerging Epidemics
- Social Media
- Film

Required Readings: Chapter 11: Special Considerations (text book)

Lesson 12: COVID_19: First Phase

AP/DEMS 2700: Fundamentals of Emergency Management

RELEVANT UNIVERSITY/LA&PS/SCHOOL REGULATIONS

Applicable to all ADMS and DEMS courses

Deferred Final Exams: Deferred standing may be granted to students who are unable to write their final examination at the scheduled time or to submit their outstanding course work on the last day of classes. Details can be found at <http://myacademicrecord.students.yorku.ca/deferred-standing>

Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

DSA Form: http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf

Attending Physician's Statement form: <http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>

In order to apply for deferred standing, students must register at

<http://apps.eso.yorku.ca/apps/adms/deferredexams.nsf>

Followed by handing in a completed original Deferred Standing Agreement (DSA) form and supporting documentation directly to the main office of the School of Administrative Studies (282 Atkinson) and add your ticket number to the DSA form. The DSA and supporting documentation must be submitted no later than five (5) business days from the date of the exam. These requests will be considered on their merit and decisions will be made available by logging into the above mentioned link. No individualized communication will be sent by the School to the students (no letter or e-mails).

Students with approved DSA will be able to write their deferred examination during the School's deferred examination period. **Deferred exams might take place during the regular exams period or in subsequent weeks depending on the course**; precise dates are known when the Office of the Registrar publishes the final exam schedule of the term. No further extensions of deferred exams shall be granted. The format and covered content of the deferred examination may be different from that of the originally scheduled examination. The deferred exam may be closed book, cumulative and comprehensive and may include all subjects/topics of the textbook whether they have been covered in class or not.

Academic Honesty: The Faculty of Liberal Arts and Professional Studies considers breaches of the Senate Policy on Academic Honesty to be serious matters. The Senate Policy on Academic Honesty is an affirmation and clarification for members of the University of the general obligation to maintain the highest standards of academic honesty. As a clear sense of academic honesty and responsibility is fundamental to good scholarship, the policy recognizes the general responsibility of all faculty members to foster acceptable standards of academic conduct and of the student to be mindful of and abide by such standards. Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

Students should review the York Academic Honesty policy for themselves at:

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

Students might also wish to review the interactive on-line Tutorial for students on academic integrity, at:

AP/DEMS 2700: Fundamentals of Emergency Management

<https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

Grading Scheme and Feedback Policy: The grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) shall be announced, and be available in writing, within the first two weeks of class, and, under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for 'full year' courses offered in the Fall/Winter Term be received by students in all courses prior to the final withdrawal date from a course without receiving a grade, with the following exceptions:

Note: Under unusual and/or unforeseeable circumstances which disrupt the academic norm, instructors are expected to provide grading schemes and academic feedback in the spirit of these regulations, as soon as possible. For more information on the Grading Scheme and Feedback Policy, please visit: <http://www.yorku.ca/univsec/policies/document.php?document=86>

In-Class Tests and Exams - the 20% Rule: For all Undergraduate courses, except those which regularly meet on Friday evening or on a weekend, tests or exams worth more than 20% will not be held in the two weeks prior to the beginning of the official examination period. For further information on the 20% Rule, please visit: <http://secretariat-policies.info.yorku.ca/policies/limits-on-the-worth-of-examinations-in-the-final-classes-of-a-term-policy/>

Reappraisals: Students may, with sufficient academic grounds, request that a final grade in a course be reappraised (which may mean the review of specific pieces of tangible work). Non-academic grounds are not relevant for grade reappraisals; in such cases, students are advised to petition to their home Faculty. Students are normally expected to first contact the course director to discuss the grade received and to request that their tangible work be reviewed. Tangible work may include written, graphic, digitized, modeled, video recording or audio recording formats, but not oral work. Students need to be aware that a request for a grade reappraisal may result in the original grade being raised, lowered or confirmed. For reappraisal procedures and information, please visit the Office of the Registrar site at: <http://myacademicrecord.students.yorku.ca/grade-reappraisal-policy>

Accommodation Procedures: LA&PS students who have experienced a misfortune or who are too ill to attend the final examination in an ADMS course should not attempt to do so; they must pursue deferred standing. Other students should contact their home Faculty for information. For further information, please visit: <http://ds.info.yorku.ca/academic-support-accomodations/>

Religious Accommodation: York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. For more information on religious accommodation, please visit: <https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>

Academic Accommodation for Students with Disabilities (Senate Policy)

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to

AP/DEMS 2700: Fundamentals of Emergency Management

accommodate these needs in a manner consistent with the guidelines established hereunder. For more information, please visit the Student Accessibility Services (formerly known as Counselling and Disability Services) website at <https://accessibility.students.yorku.ca>

York's disabilities offices and the Registrar's Office work in partnership to support alternate exam and test accommodation services for students with disabilities at the Keele campus. For more information on alternate exams and tests please visit <http://www.yorku.ca/altexams/>

Please alert the Course Director as soon as possible should you require special accommodations.