ADES Courses Lead to a Major or Minor

ADES offers courses leading to either a major or a minor component of a four year Bachelor of Arts or Bachelor of Science. The major is an in-depth study of disasters and the ways our communities cope. It builds on the established core ADES courses while giving students flexibility in selecting their electives. The Bachelor of Arts or Bachelor of Science is determined by the selection of additional Arts or Science courses that complement the ADES courses.

ADES is also available as a minor to go together with any major in Arts or Science. This can make any BU Bachelor of Arts or Bachelor of Science unique. This smaller set of courses gives students an appreciation of disaster studies and matches well with several social and physical science specialties.

Our understanding of disasters and emergency management continues to develop and is best studied in an interdisciplinary approach. The combination of required and elective ADES courses ensures students have a balanced perspective.

Required ADES Courses

All ADES majors take the following courses. See the Appendix for descriptions.

- Intro to Disaster Studies
- Intro to Emergency Management
- Hazards: Causes and Consequences
- Hazard and Risk Assessment
- Recovery and Mitigation
- Emergency Management Law
- Disaster Response Management
- ADES Practicum (two part course including field placement)

ADES Electives

An additional five ADES courses are selected from topics including:

- Health Sector Emergency Management
- Disaster Sociology
- Social Vulnerability
- Gender and Disasters
- Disasters and Development
- International Emergency Management
- Risk Communication
- Current Issues in Emergency Management

Time Commitment

ADES majors will attend over 400 hours of lectures focused on disaster studies and hundreds more in pre-requisites and other related courses! In total, a student finishing a 4 year degree will be in class for over 1400 hours plus time spent reading, studying and writing assignments. This gives ADES students greater knowledge and experience than programs offering diplomas or certificates, some lasting only a few days.

Course Descriptions

Click here to view the BU Course Calendar

(* indicates courses required for the ADES major)

40:151 Introduction to Disaster Studies *

This course introduces students to the social construction of hazards and disasters and how these can be minimized through effective risk reduction and emergency management. Multidisciplinary and international case studies are examined with emphasis on the practical implications of differing theoretical perspectives. The fundamental models, theories and concepts at the core of emergency management and
Courses

future directions in Canada and the world are explored to provide students with a solid foundation for future study.

- Differentiate between the concepts of hazard, emergency, disaster, risk and vulnerability.
- Understand the implications of hazards' characteristics on emergency management.
- Be able to discuss the relevance of significant international disasters to Canada's hazardscape.

40:152 Introduction to Emergency Management *

This course will provide students with a broad introduction to the current practices of emergency management and the theories that they are based on. This course will review the evolution of the current emergency management research and its professional practices. The principles and components of a comprehensive program will be presented and related to both urban and rural settings. Students will be introduced to a range of topics, including mitigation, preparedness, response, and recovery, that will be further developed in later A-DES courses.

- Explain the current practices of emergency management and the theories that they are based on.
- Understand the phases of comprehensive emergency management (mitigation, preparedness, response, and recovery).
- Describe the relevance of Canada’s historical and legislative context to emergency management.

40:251 Natural Hazards *

Through a review of the causes of geophysical, biological, hydro-meteorological, and technological hazards and disasters, this course will examine the complex interaction of dynamic processes and of life support systems. A number of case studies dealing with earthquakes, landslides, floods, storms, droughts, and other natural and technological hazards will be critically examined.

- Learn about the physical dynamics, causes, characteristics, measurements, prediction methods, and effects of each natural disaster type.
- Understand the physical processes and environmental conditions associated with different types of natural hazards.

40:253 Hazard and Risk Assessment *

Through assessment of core issues and competing models, students will learn effective strategies for identifying a wide range of environmental, technical and human-induced hazards, assessing social and environmental vulnerabilities to these, and people’s efforts to reduce risk. Particular attention is paid to the factors constraining and promoting effective risk assessment at the community level. Students will examine case studies of disaster risk assessment and work in groups to produce their own.

- Learn the concepts of risks, vulnerability, and resiliency of communities.
- Gain knowledge about the procedures that are followed to identify risks from natural and technological hazards.
- Discuss risk and vulnerability assessment methods and tools along with working exercises.
- Discuss modeling tools include disaster pressure and release model, and access to resources model.

40:273 Sociology of Disaster

This course examines the theoretical perspectives, research, and policy issues in the sociological study of disaster with an interdisciplinary approach. Considerable attention will be given to the cultural, social, economic and political aspects of a wide range of natural disasters and catastrophic events such as hurricanes, earthquakes, floods, famines, epidemics, oil spills, plane crashes, nuclear plant accidents, terrorism, colonization of indigenous peoples, and wars.

40:352 Emergency Management Law *

This course provides an overview of the Canadian law that is relevant to emergency management. Federal, provincial and municipal legislation, by-laws and regulations will be examined for their implications on mitigation, preparedness, response and recovery. Students will also consider how fundamental legal concepts apply in the context of disasters and influence emergency management. Case studies and international comparisons will be used to highlight these issues.

- Recognize the implications of legislation, regulations and other legal issues on emergency management.
- Understand organizations' legal mandates and their relationships.
- Understand how to apply special powers granted by legislation for emergency management, especially for response.
40:353 Health Sector Emergency Management
This course provides a focused discussion of the emergency management issues facing the Canadian health sector. The functions and policies of federal, provincial and regional organizations and their implications for the health sector’s involvement in mitigation, preparedness, response and recovery activities will be examined. Students will also consider how different hazards, including pandemic disease outbreaks, terrorism, and mass casualty incidents, affect roles and responsibilities within the health sector. Case studies and international comparisons will be used to highlight these issues.

40:354 Gender and Disaster
This course introduces students to theoretical debates, research traditions and practical applications in the study of gender relations in disaster contexts. Course materials are multidisciplinary and international with emphasis on the lives of girls and women differently at risk in societies at different levels of development. Case studies are used to explore connections between gender equality and increased resilience to environmental, technical and/or human-induced hazards and disasters in the 21st century.

40:355 Disaster Recovery and Mitigation *
The course provides students a critical perspective on the interwoven theories, practices and processes involved in disaster recovery and hazard mitigation. Students will learn how individuals, groups, organizations, institutions and governments can and do act to recover from disaster impacts and build more disaster resilient communities. Social, economic, physical and environmental issues in the recovery period will be considered. Both structural and non-structural mitigation strategies are examined, as these are promoted through preparedness and planning before, during and after disaster events. Canadian and international case studies of pre- and post-event mitigation will be examined with emphasis on community participation in the local planning process.

- Learn how physical planning tools and techniques are used to mitigate and reduce disasters’ impacts.
- Learn how physical and social planning is used in post disaster recovery and reconstruction.

40:356 Social Vulnerability in Disaster Management
As disasters in our modern times have become increasingly human-induced, it is important to understand how human development practices adversely influence the vulnerability of existing populations, as well as the resilience of local governments and communities. This course provides a detailed analysis of the social construction of disasters, that is, how different social characteristics (e.g., race, gender, class, and age) interact before, during, and after a disaster. Theoretical perspectives for practical application will be examined in order to address current issues related to vulnerability and resilience in disaster management. This course explores the following diverse issues related to disasters:

- Social vulnerability;
- Issues of social marginalization and disaster management approaches;
- Environmental justices/ racism and technological hazards;
- Slow on-set of disasters (e.g., extreme weather) and vulnerable groups around the world; and
- Building resilience of local governments and communities to disasters.

40:362 Disaster Response & Management *
This course focuses on the theory and practice of how organizations manage their responses to emergencies and disasters. The use of incident management systems, emergency operation centres and other response techniques will be considered from conceptual and practical perspectives. Students will become familiar with the roles of community members, government and non-government organizations and the private sector through activities in the Emergency Operations Lab (EOL). Disaster warning systems, evacuation planning, emergency social services, and related topics are to be examined.

Identify, develop and apply the appropriate response management technique for the organizational and hazard setting.

- Understand organizational roles, responsibilities and relationships in emergency response.
- Be able to design and participate in emergency response exercises.

40:452 Disasters and Development
The principles and practices of sustainable economic, social and environmental development are examined in relation to environmental, technical and/or human-induced hazards and disasters. The course brings an international perspective to consideration
of how global, national and local development decisions affect the risk of disaster and how hazard mitigation, disaster impacts, and post-disaster relief and recovery processes in turn affect development. Case studies from lesser developed countries and regions as well as affluent societies are used to help students develop a critical perspective on the inter-relationships between development and disaster at the regional, national and local levels. Good practices, successful strategies and the preconditions for social change to reduce disaster risk are emphasized.

- Learn about the negative impacts of disasters on development and development programs
- Learn the impacts that development programs can have on disaster in terms of vulnerability increase or decrease
- Understand the positive impacts that disasters can have on development
- Learn how to simulate such relationship using dynamic modeling and reviewing existing models
- Learn about other development issues such as gender, development aid as they relate to disasters

40:453 Disaster Risk Communication

This course presents students both theoretical and applied issues in disaster risk communication. Four main questions will be explored: Who creates what kinds of information about hazards and disasters, how and why? What must emergency managers and the public, respectively, know and when? How and to whom would this information be communicated, why and when? What lessons have disaster researchers learned about how people, organizations, communities and governments move from knowledge to action? Of particular interest in this class are emergency warning systems, community education strategies, barriers to effective communication and new innovations, cultural diversity and other concerns of the risk communicator. Drawing on national and international case studies, students will examine these issues in diverse cultural and institutional contexts.

40:454 International Comparisons in Emergency Management (3)

This course provides students with the opportunity to compare emergency management systems in different countries or jurisdictions. Examining the current practices in different settings will highlight how emergency management is linked to the broader physical, political, economic and social context. Students will understand how different histories have resulted in the variations in legislative frameworks and organizational relationships. The four phases of comprehensive emergency management will each yield topics for consideration including mitigation planning, public awareness programs, incident management systems, and community recovery. Students will adopt one country or issue to study and represent in this seminar-format course.

40:470 Practicum I – Proposal Preparation *

This course guides students through the development of a practicum proposal. It involves identifying potential topics, discussing appropriate research methodologies and preparing a practicum proposal. The students will also conduct a literature review in support of their topics. This course will help students connect with practicum hosts and arrange their placements for 40:471 Practicum II – Field Placement. The course will encourage peer discussion and review proposals. This course will be delivered primarily through team teaching allowing student access to and interaction with all ADES faculty to assist in the assignment of a suitable faculty advisor.

40:471 Practicum II – Field Placement *

The purpose of this course is to provide practical emergency management experience in a supervised professional setting that is geared towards the integration of theory and practice. Emphasis will be placed on the application of concepts, principles and skills acquired from the ADES curriculum. Each student will be placed in an organization in the disaster and emergency management field including municipal, provincial, and federal governments, industry, relief and voluntary organizations. The practicum course will include hands-on experience in disaster and emergency management issues through an applied project culminating in a final practicum report.