



DEMS 3706 – Disasters & Humans

Fall 2021 | Tuesdays 7 pm – 10 pm

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Office Hours: Fridays 12 pm – 1 pm

via Zoom or by appointment

<https://yorku.zoom.us/j/8976628011>

Course Description

Contrary to how they are often perceived, disasters are not isolated events in time. Rather, they gradually develop through a series of human decisions that clash violently with hazards. These decisions ultimately determine the impact of disasters. This course explores the social and psychological processes behind those individual human choices that act to increase or decrease disaster risk. Students will walk away with a new perspective of the dynamic interplay between risk, hazards, trauma, and individual lives. With this systems-based knowledge, students will be able to anticipate and address human barriers to risk-reducing actions that they may encounter in their careers.

Throughout the term, this course will sequentially walk through the disaster lifecycle and explore social, psychological, and cognitive drivers behind various decisions and experiences. Each week, relevant theory from the disaster timeline will be introduced, which students will apply as a lens to explore exemplifying case studies. Case studies will mainly focus on natural hazards that occur globally, however technological and willful hazards will also be addressed. Weekly reading assignments consisting of research articles will be provided in addition to the independent research that students will complete. Students will be expected to demonstrate a holistic understanding of events and will critically integrate course material with real-world applications.

Discussion circles, guest speakers and project-based assignments will further encourage students to connect with and extend their understanding of the material.

Course Outline

Week 1: Introduction

Week 2: Knowledge Processing and Risk Perception

Week 3: Risk Communication

Week 4: Decision Making and Protection Adoption

Week 5: *Reading Week (no class)*

Week 6: Decision Making and Evacuation

Week 7: Living Through a Disaster I

Week 8: Living Through a Disaster II

Week 9: Behavioral Responses to Unanticipated Events

Week 10: Disaster Responders

Week 11: Navigating and Settling in a Hazardous World

Week 12: Long Term Recovery and Mitigation

Week 13: Evolving Nature of Risk in Non-Stationary Environments

Week 14: Finals

Academic Honesty

I have a zero-tolerance policy for cheating and plagiarizing, we will define and discuss this on the first day of class so that we are all on the same page.

Grade Distribution

Teaching Philosophy

- Empower students to pursue what interests them by providing as many student-centered learning choices in assignments, allowing for creative expression paired with critical reflection.
- Learning through narratives by focusing on case-based experiential learning opportunities to put theory into practice. Pre-class case readings will be integrated with the course material and guest lectures will provide unique insights.
- Broken-lecture strategies are used by dividing class time between lectures and interspersed discussion segments.

Participation	10%
Group Presentation	15%
A1 - Risk Communication Project	25%
Midterm Exam	20%
Final - Comprehensive Essay	30%

*Pending approval

Message to Students

- This course is discussion-based so please feel comfortable talking freely about the course material. All ideas and perspectives are welcomed and valued! We will establish and agree to discussion guidelines together on the first day of class.
- Assignment due dates are specified in the detailed course outline below. If you email me *before the due date*, I will grant you an automatic 24 hour extension.
- Please put your student number at the top of all submitted assignments and presentations.
- If you are confused about the course material, please reach out to me sooner rather than later for assistance! I am very happy to work with individuals to ensure they are getting the most out of this course.

Learning Goals

Students will:

- Be challenged to think critically by applying concepts learned in the course to relevant case studies: students will have the tools to explain how course theories enable us to further understand real world events.
- Gain a new perspective of the entire lifecycle of a disaster from the lens of individual experiences.
- Work in teams, practice public speaking, improve discussion and debate skills.
- Become skilled in reading, understanding, and synthesizing academic research articles.
- Independently explore technology and topics that interest them to encourage life-long learning.

Detailed Course Schedule*

*subject to change and updated on eClass

Introduction

Case Study: Hurricane María - 2017

(Week 1 – 9/14/2021)

Participation Assessment 1

Topic Readings: None

Case Readings: None

Optional Readings: None

Knowledge Processing and Risk Perception

Case Study: Tōhoku Tsunami - 2011

(Week 2 – 09/21/2021)

Topic Readings:

- Bubic et al. (2010). Prediction, cognition and the brain
- Rohrman (2008). Risk perception, risk attitude, risk communication, risk management: A conceptual appraisal
- Mileti and Peek (2000). The social psychology of public response to warnings of a nuclear power plant accident

Case Readings:

- Oki and Nakayachi (2011). Paradoxical effects of the record-high tsunamis caused by the 2011 Tohoku earthquake on public judgments of danger

Optional Readings:

- Puppim de Oliveira and Paleo (2016). Lost in participation: How local knowledge was overlooked in land use planning and risk governance in Tohoku, Japan
- Logan et al. (2018). Hard-adaptive measures can increase vulnerability to storm surge and tsunami hazards over time

Risk Communication

Case Study: COVID-19 - Present

(Week 3 – 9/28/2021)

DUE: A1 Project Pitch

Topic Readings:

- Breakwell (2000). Risk communication: factors affecting impact
- Covello et al. (1986). Risk Communication: A Review of the Literature

Case Readings:

- Abrams et al. (2020). Risk Communication During COVID-19
- Lohinva et al. (2020). Understanding coronavirus disease (COVID-19) risk perceptions among the public to enhance risk communication efforts: a practical approach for outbreaks, Finland, February 2020

Optional Readings:

- Frewer (2004). The public and effective risk communication
- Krause et al. (2020). Fact-checking as risk communication: the multilayered risk of misinformation in times of COVID-19
- Ho et al. (2020). Mental Health Strategies to Combat the Psychological Impact of COVID-19 Beyond Paranoia and Panic

Decision Making and Protection Adoption

Case Study: Cologne, Germany River Floods - 2021

(Week 4 – 10/5/2021)

Topic Readings:

- Lindell and Perry (2012). The Protective Action Decision Model: Theoretical Modifications and Additional Evidence
- Weinstein (1989). The Precaution Adoption Process

Case Readings:

- Stock et al. (2021). What Makes Homeowners Consider Protective Actions to Reduce Disaster Risk? An Application of the Precaution Adoption Process Model and Life Course Theory
- Grothmann and Reusswig (2006). People at Risk of Flooding: Why Some Residents Take Precautionary Action While Others do not

Optional Readings:

- Weinstein (1989). Effects of Personal Experience on Self-Protective Behavior
- Terpstra (2011). Emotions, Trust, and Perceived Risk: Affective and Cognitive Routes to Flood Preparedness Behavior
- Moore et al. (2004). After Hurricane Floyd Passed Investigating the Social Determinants of Disaster Preparedness and Recovery
- Hirsch and Selle (2021). Disaster preparedness takes more than an infographic

READING WEEK – NO CLASS

(Week 5 – 10/12/2021)

Topic Readings: None

Case Readings: None

Optional Readings: None

Decision Making and Evacuation

Case Study: Hurricane Floyd - 1999

(Week 6 – 10/19/2021)

Topic Readings:

- Perry (1979). Evacuation Decision-Making in Natural Disasters
- Das and Gladwin (2007). Evacuation Decision Making and Behavioral Responses: Individual and Household

Case Readings:

- Dow and Cutter (2002). Emerging Hurricane Evacuation Issues: Hurricane Floyd and South Carolina.

Optional Readings:

- Dow and Cutter (1998). Crying Wolf: Repeat Responses to Hurricane Evacuation Orders

Living Through a Disaster I

Case Study: Virginia Tech School Shooting - 2007

(Week 7 – 10/26/2021)

DUE: A1 Final Deliverable and Critical Reflection

Guest Speakers: Thomas Kapsidelis (Author) and Koshka Foundation (Survivor)

Topic Readings:

- Lowe and Galea (2017). The Mental Health Consequences of Mass Shootings

Case Readings:

- Flynn and Heitzmann (2008). Tragedy at Virginia Tech: Trauma and Its Aftermath
- Hughes et al. (2011). Posttraumatic Stress Among Students After the Shootings at Virginia Tech

Optional Readings:

- Creamer et al. (1992). Reaction to Trauma: A Cognitive Processing Model
- North et al. (1994). Posttraumatic Stress Disorder in Survivors of a Mass Shooting
- North et al. (1999). Psychiatric Disorders Among Survivors of the Oklahoma City Bombing

Living Through a Disaster II

Case Study: Hurricane Harvey - 2017

(Week 8 – 11/2/2021)

Participation Assessment 2

Topic Readings:

- Neria et al. (2008). Post-traumatic stress disorder following disasters: a systematic review

Case Readings:

- Shultz (2017). Mitigating the Mental and Physical Health Consequences of Hurricane Harvey
- Ivey (2017). Hurricane Harvey: Trauma vs. Resiliency

Optional Readings:

- Stern (2020). A Mental-Health Crisis Is Burning Across the American West

Behavioral Responses to Unanticipated Events

Case Study: Christchurch Earthquake, New Zealand - 2011

(Week 9 – 11/9/2021)

Midterm Exam

Topic Readings:

- Kates and Clark (1996). Environmental Surprise, Expecting the Unexpected?
- Tierney et al. (2006). Metaphors Matter: Disaster Myths, Media Frames, and Their Consequences in Hurricane Katrina
- Siegel et al. (1999). Victimization after a Natural Disaster: Social Disorganization or Community Cohesion?

Case Readings:

- Lindell et al. (2016). Immediate behavioural responses to earthquakes in Christchurch, New Zealand, and Hitachi, Japan.

Optional Readings:

- Farvid (2014). "I laugh and say 'I have earthquake brain'": Resident responses to the September 2010 Christchurch Earthquakes.
- Fergusson et al. (2014). Impact of a Major Disaster on the Mental Health of a Well-Studied Cohort

Disaster Responders

Case Study: Greek Wildfires - 2007

(Week 10 – 11/16/2021)

Guest Speakers: Charles Mason (Canadian Armed Forces)

Topic Readings:

- Rabjohn (2012). The human cost of being a 'first responder'
- Regehr and Bober (2005). In the line of fire: Trauma in the emergency services
- Lanza et al. (2018). First Responder Mental Healthcare: Evidence-Based Prevention, Postvention, and Treatment

Case Readings:

- Psarros et al. (2017). Personality characteristics and individual factors associated with PTSD in firefighters one month after extended wildfires

Optional Readings:

- Theleritis et al. (2020). Coping and Its Relation to PTSD in Greek Firefighters

Navigating and Settling in a Hazardous World

Case Study: Indonesia Tsunami - 2004

(Week 11 – 11/23/2021)

Topic Readings:

- Oliver-Smith (1991). Successes and Failures in Post-Disaster Resettlement

Case Readings:

- Arlikatti and Andrew (2012). Housing design and long-term recovery processes in the aftermath of the 2004 Indian Ocean tsunami
- Boano (2009). Housing anxiety and multiple geographies in post-tsunami Sri Lanka

Optional Readings:

- Bukvic et al. (2015). Evaluating drivers of coastal relocation in Hurricane Sandy affected communities
- Burby et al. (2000). Creating hazard-resilient communities through land use planning

Long Term Recovery and Mitigation

Case Study: Exxon Valdez Oil Spill - 1989

(Week 12 – 11/30/2021)

Topic Readings:

- Nigg (1995). Disaster Recovery as a Social Process
- Chondra and Acosta (2010). Disaster Recovery also Involves Human Recovery

Case Readings:

- Gill and Picou (2008). Technological disaster and chronic community stress
- Ritchie (2012). Individual Stress, Collective Trauma, and Social Capital in the Wake of the Exxon Valdez Oil Spill.

Optional Readings:

- Gill et al. (2012). The Exxon Valdez and BP Oil Spills: A Comparison of Initial Social and Psychological Impacts
- Rubin (2009). Long Term Recovery from Disasters – The Neglected Component of Emergency Management

Evolving Nature of Risk in Non-Stationary Environments

Case Study: Watermen of Tangier Island - Ongoing

(Week 13 – 12/07/2021)

Participation Assessment 3

Topic Readings:

- Van der Linden (2015). The social-psychological determinants of climate change risk perceptions: Towards a comprehensive model
- Resser et al. (2011). The Threat of Climate Change: Psychological Response, Adaptation, and Impacts [Pgs. 19-43 of Climate Change and Human Well-Being]

Case Readings:

- Emmerich (2003). Faith-Based stewardship and resolution of environmental conflict: an ethnography of an action research case of Tangier Island Watermen in Chesapeake Bay [Pgs. 83 – 121]
- Worrall (2018). Tiny U.S. Island is Drowning. Residents Deny the Reason

Optional Readings:

- None

Finals Week

(Week 14 – 12/09/2021 – 12/23/2021)

Comprehensive Essay – more details to come!

York University Grading Scheme

GRADE	GRADE POINT	PER CENT RANGE	DESCRIPTION
A+	9	90-100	Exceptional
A	8	80-89	Excellent
B+	7	75-79	Very Good
B	6	70-74	Good
C+	5	65-69	Competent
C	4	60-64	Fairly Competent
D+	3	55-59	Passing
D	2	50-54	Marginally Passing
E	1	(marginally below 50%)	Marginally Failing
F	0	(below 50%)	Failing

Statement on Emails

I encourage open communication, so please feel free to email me if you have any questions or concerns! I am committed to responding to all emails *during business hours within 48 hours of receipt*. Please word all emails professionally and include DEMS 3706 in the beginning of the subject line.

Student Success

If you need support with your academic writing skills, please visit the Writing Centre at York (for more info visit: <https://writing-centre.writ.laps.yorku.ca>).

The staff at Learning Skills Services (<https://lss.info.yorku.ca>) support your development as an excellent student by answering your questions and providing advice on how to succeed in your studies at York. They can help you to develop new skills or strengthen existing academic skills. Information on important learning skills topics is also available online.

Visit Mental Health and Wellness at York (<https://mhw.info.yorku.ca>) if you need support in navigating any kind of mental health issue (e.g., anxiety, stress, etc.). This center provides free assistance in connecting you with wellness services and resources on and off campus.

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/academicsupport-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 accommodate these needs in a manner consistent with the guidelines established hereunder. For more information, please visit the Counselling and Disability Services website at <http://www.yorku.ca/dshub/>. 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.

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

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

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>

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://secretariatpolicies.info.yorku.ca/policies/limits-on-the-worth-of-examinations-in-the-final-classes-of-a-term-policy/>