**YORK UNIVERSITY**

**School of Administrative Studies**

**DEMS 4704 3.0 – Disaster and Logistics**

**Winter 2021**

**Monday, 7:00 pm – 10:00pm**

**Instructor: David DeVries**

**Email: SLH 107**

**Office Hours: by appointment**

**Course Description:**

This course explores the science and principles of logistics from both private and non-profit sector models, as it applies to the field of disaster management, with the goal of helping academics and professionals develop knowledge and expertise in this area. The course focuses on presenting cases and developing quantitative models in the area of humanitarian logistics in both international and North American scenarios.

**Text:**  There is no text for this course. Readings are provided for each Topic

**Articles:** Articles may be added or substituted prior to the start of the course. Additional articles will be provided on Moodle

**Marking scheme**

20% - participation (assessed based on online participation in both zoom sessions and the online discussions)

20% - In class group work

30% - Individual case study (Due 1 Mar 20) – 3000 word essay – critique of logistics response in a disaster from list of case studies

30% - Final Exam – this will be a long answer format examination.

**Lesson Plan**

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| Lesson | Week | Topic | Notes |
| 1 | 11 Jan 21 | Introduction to Logistics – Examine concepts and applications of logistics on a broader perspective. Examine scales and differences between private and non-private sectors.  Readings: Larson, Paul D, (2018), Process Improvement: a matter of life or death for non-governmental organizations, *Humanitarian Logistics: Meeting the Challenge of Preparing For and Responding to Disasters*, 3rd Edition, Kogan Page, London U.K. 2018, Chapter 1, PP 19-40 | Assignment of Case Study - due in week 7 |
| 2 | 18 Jan 21 | Requirements of the impacted community – humanitarian requirements outside of the North American / European Sphere – use examples based on covered case studies and UN missions e.g. Haiti, Philippines – Quantitative assessments of requirements for large groups  Readings: Altay, Nezih & Prasad, Sameer & Sounderpandian, Jayavel. (2009). Strategic planning for disaster relief logistics: Lessons from supply chain management. International Journal of Services Sciences - Int J Serv Sci. 2. PP 142-161 10.1504/IJSSCI.2009.024937. |  |
| 3 | 25 Jan 21 | Requirements of the impacted community - humanitarian requirements inside the North American / European Sphere – use examples based on case studies / experience e.g. New Orleans, Fort McMurray, Kashechewan – quantitative assessments of requirements for large groups  Readings: Shelley Boulianne, Joanne Minaker & Timothy J. Haney (2018) Does compassion go viral? Social media, caring, and the Fort McMurray wildfire, *Information, Communication & Society*, 21:5, PP 697-711, DOI: [10.1080/1369118X.2018.1428651](https://doi.org/10.1080/1369118X.2018.1428651)  Jennifer Manalac and Justine Wadhawan, (2016) Mapping Disaster Response in Canada and Ontario, *From the Ashes Government and Non-Profit Cooperation in Emergency Management*, Ryerson University  KPMG, (2017), *May 2016 Wood Buffalo Wildfire Post-Incident Assessment Report,* Final Report, May 2017, PP 63-66 |  |
| 4 | 1 Feb 21 | Flow of logistics, planning considerations, evacuations, understanding partners in disaster response. Transportation considerations for responders to an emergency, ensuring effective flow of materials leveraging most efficient means - Quantitative assessments on material and transport requirements  Readings: Charles, Aurelie, Matthieu Lauras and Rolando Tomasini, (2009) Learning from Previous Humanitarian Operations, a Business Process Reengineering approach, *Proceedings of the 6th International ISCRAM Conference – Gothenburg, Sweden, May 2009 J. Landgren and S. Jul, eds.*  Kekić, Dalibor & Milenković, Miloš & Čudan, Aleksandar. (2019). The Use of an Adjusted Transportation Model, for Optimizing Provision of International Help, in Case of Emergency Situations. Acta Polytechnica Hungarica. 16. 187-206. |  |
| 5 | 8 Feb 20 | Understanding critical infrastructure, water, electricity, medical for the impacted population  Readings: United Nations University (2016), *World Risk Report 2016*, Bündnis Entwicklung Hilft and UNU-EHS, Berlin, August 2016. |  |
|  | Feb. 15-19 | Reading Week |  |
| 6 | 22 Feb 20 | The logistical reconnaissance – time spent in advance to ensure that success follows. Key issues that should be identified such as sources of potable, or treatable water, secure shelters, etc.  Readings: Kapucu, N., Lawther, W. & Pattison, S. (2007). Logistics and Staging Areas in Managing Disasters and Emergencies. *Journal of Homeland Security and Emergency Management*, 4(2), pp. -. Retrieved 30 Oct. 2019, from doi:10.2202/1547-7355.1249 |  |
| 7 | 1 Mar 20 | Being prepared for disasters – predictable events vs no notice events – setting conditions for success – planning factors logistics and operations, security of logistics facilities. Quantitative assessment of staging and movement  Readings: Sivadass Thiruchelvam & Mohd Fauzi Ismail & Azrul Ghazali & Kamal Nasharuddin Mustapha & Fatin Faiqah Norkhair & Nora Yahya & Abdul Aziz Mat Isa & Zakaria Che Muda, 2018. "Development of Humanitarian Supply Chain Performance Conceptual Framework in Creating Resilient Logistics Network," Malaysian Journal of Geosciences (MJG), Zibeline International Publishing, vol. 2(1), pages 30-33, January.  Y. Jiang, Y. Yuan, K. Huang and L. Zhao, "Logistics for Large-Scale Disaster Response: Achievements and Challenges," 2012 45th Hawaii International Conference on System Sciences, Maui, HI, 2012, pp. 1277-1285.  doi: 10.1109/HICSS.2012.418 | Individual case studies due (40%) |
| 8 | 8 Mar 20 | Responding to disasters – 1st responders, reinforcements, need for self-sufficiency ongoing sustainment – planning considerations to avoid drawing resources from impacted community  Readings: Broby, N., Lassetter, J., Williams, M., & Winters, B. (2018). Effective International Medical Disaster Relief: A Qualitative Descriptive Study. “Prehospital and Disaster Medicine”, 119-126. doi:10.1017/S1049023X18000225 |  |
| 9 | 15 Mar 20 | Guest Lecturer |  |
| 10 | 22 Mar 21 | Managing emergency stocks, pre-positioned holdings – rotation of materials, emergency supplies and equipment to allow emergency responders to succeed  Readings: Walid Klibi, Soumia Ichoua & Alain Martel (2018) Prepositioning emergency supplies to support disaster relief: a case study using stochastic programming, INFOR: Information Systems and Operational Research, 56:1, 50-81, DOI: 10.1080/03155986.2017.1335045  Samantha Jo Roth, (2019), DORIAN: FEMA Working Around Clock to Prepare for Storm, Spectrum News, August 28, 2019 |  |
| 11 | 29 Mar 21 | Long Term Disasters – Pandemics, long term recovery operations.  Readings: TBC |  |
| 12 | 5 Apr 21 | Wrapping Up – Class Review |  |
|  | TBC | Final Exam |  |

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://sas-app.laps.yorku.ca

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. **During this time of remote learning, you will be required to submit the forms via email to apsas@yorku.ca.** 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: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 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.