Illustrative Example for Addressing QAF 2.1.2.4.a) and b)

York University, PhD, Disaster and Emergency Management

York University's Disaster and Emergency Management (PhD) program was recognized by the Quality Council's Appraisal Committee as a good illustration of how the requirements of QAF 2.1.2.4.a) and b) can be addressed in a new program proposal for a graduate (PhD) program.

The Committee noted that Section 5.1 of this example addresses QAF 2.1.2.4.a) by linking Program-level Learning Outcomes (PLOs) to Degree Level Expectations (DLEs) in textual form. This section is followed by a comprehensive table that connects assessment methods, PLOs, and DLEs, along with a separate textual discussion of each PLO. The Committee found the combination of the table and narrative effective in demonstrating the relationships among these elements and recognized this as one of several acceptable approaches for presenting QAF 2.1.2.4.a) information.

The Committee also highlighted Section 5.2 for its detailed description of the dissertation component, which it commended, noting its significance as the primary assessment method in a PhD program. Section 5.3 was similarly noted for its valuable contribution to QAF 2.1.2.4.a), offering a separate table that effectively pairs assessment methods with PLOs.

The Committee further noted that Section 5.4 provides clear and comprehensive information aligned with QAF 2.1.2.4.b). It outlines several metrics for data collection and clearly explains how the data will be used, with a strong emphasis on continuous program improvement.

5.0 Program Structure, Learning Outcomes, and Assessment

5.1 Program Learning Outcomes

The six degree-level expectations motivate the design of the program, including the Program-level learning outcomes, which are listed below. We discuss how the program aligns with each of these in turn below, followed by a description of the program learning outcomes as related to the coursework and requirements.

Breadth and depth of knowledge: Graduates are expected to demonstrate a deep mastery in current and emerging topics in the field of DEM, including key concepts, debates, and ideas in the field (taught through both DEMS 7700 and supervisor mentorship). They are also expected to demonstrate contributory-level expertise in their field of specialization, in which they'll focus their dissertation research. This depth underpins their ability to conduct future research in the field, to teach courses on the subject in future faculty positions, and to contribute to improving practice through both research and contributions to the field. Graduates are also expected to develop a breadth of knowledge in the field of DEM – and in related fields – that provides context for their particular specialization. This includes developing a fluency in the way that different disciplinary perspectives address core questions and debates in the field (e.g., how a sociological approach to studying DEM would differ from an anthropological, political, or psychological approach).

Research and scholarship: Two courses specifically address research methods, providing students with advanced training in developing and executing both qualitative and quantitative projects. In addition, DEMS 7750 provides focused application of these skills in service of developing an effective dissertation proposal and beginning their journey of professionalization. Furthermore, all courses have a research component that will allow students to develop their scholarship to a highly professional level. Under the supervision of a faculty member the required dissertation or research papers will build on previous course work and give the student the opportunity to build their research and scholarship skill up to a professional academic level.

Linking theory and application: The field of DEM requires a close relationship between theory and practice, given the significant importance of disaster and emergency management in the real-world. The program and courses are comprised of a mix of theory and practical application, and there is a significant emphasis on the practical aspects of disaster risk reduction within a theoretical context. This emphasis on application involves both close engagement with the practitioner community (including guest speakers in courses and field research for the dissertation), as well as critical engagement with their models, approaches, and techniques. For instance, in the DEM 7700 course, students (a) learn about the theory of disaster risk reduction and current debates on the subject, (b) meet practitioners to understand the differences between theory and practice, and (c) use different disciplinary approaches to critique and improve these practices.

Professional capacity/autonomy: Beyond the *content* knowledge of the program, significant emphasis is place on the development of professional capacity and autonomy. Our graduates will be effective critical thinkers, have well-honed abilities to construct and execute research projects, develop leadership skills relevant to academic departments and practitioner settings alike, and have refined ethical foundations for working in a crisis-based field. Some of these skills are honed through close mentorship by supervisors and committees, while other training is obtained through the DEMS 7750 course (guidance in developing a program of research, building relationships with practitioners for collaborative research, and developing their personal portfolio for a professional career).

Communication skills: Given the employment trajectories of current doctoral graduates – which include both tenure-track and non-academic paths – it is essential that graduates emerge with a suite of effective communication abilities. Our graduates will be effective at producing traditional academic outputs, including journal publications, longer manuscripts, and conference presentations. They will be mentored in effective teaching and best pedagogical practices. And, they will be trained at effective communication in practitioner-oriented venues, including professional reports, action-research, and policy documents.

Awareness of limits of knowledge: Both through theory and case studies there will be an emphasis on uncertainty and how that affects decision making. This is of particular importance to issues such as climate change adaptation, and the mitigation of low probability, high impact risks.

Map of PLOs and Assessments to Ontario's Graduate Doctoral Degree Level Expectations - Doctoral Degree

		Depth and breadth of knowledge	Research and Scholarship	Level of Application of Knowledge	Professional capacity / autonomy	Level of Communications Skills	Awareness of limits of knowledge
LO 1	Demonstrate a deep mastery in current and emerging topics in the field of DEM, including key concepts, debates and ideas in the field and a contributory level of expertise in their field of specialization.	A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice including, where appropriate, relevant knowledge outside the field and/or discipline	The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research design or methodology in the light of unforeseen problems;	.		The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively.	
	Assessment	Course examinations and test (DEMS 7700); Written Assignment; Comprehensive Examinations and Defence	Course Examination & Test; comprehensive examination			Dissertation Proposal and Oral Defence	

		Depth and breadth of knowledge	Research and Scholarship	Level of Application of Knowledge	Professional capacity / autonomy	Level of Communications Skills	Awareness of limits of knowledge
LO2	Demonstrate an array of knowledge in different research methodologies including the understanding of theoretical and empirical academic research in DEM field and conduct independent and group research with professional expertise	A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice including, where appropriate, relevant knowledge outside the field and/or discipline	a) The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research design or methodology in the light of unforeseen problems; b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and c)The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.		The ethical behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research		
	Assessment	Dissertation & oral defence	Dissertation & oral defence		Written Assignment in Course Work; Comprehensive Examination, Dissertation Proposal & Oral Defence		
LO3	Apply the theoretical knowledge on risk, hazard and vulnerability assessment as well as the development of risk reduction		a) The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research	The capacity to: a) undertake pure and/or applied research at an advanced level; and b)contribute to the development of academic or	The ability to evaluate the broader implications of applying knowledge to particular contexts.	The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively.	

		Depth and breadth of knowledge	Research and Scholarship	Level of Application of Knowledge	Professional capacity / autonomy	Level of Communications Skills	Awareness of limits of knowledge
	strategies through both close engagement with the community practitioners and critical engagement with their models and approaches and techniques.		design or methodology in the light of unforeseen problems; b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and c) The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication	professional skills, techniques, tools, practices, ideas, theories, approaches, and/or materials.			
	Assessment		Comprehensive examinations; Dissertation Proposal & Oral Defence; dissertation	Comprehensive examinations; Dissertation Proposal & Oral Defence; dissertation	Dissertation & oral defence	Comprehensive examinations; Dissertation Proposal & Oral Defence; dissertation	
LO 4	Develop critical thinking, leadership skills and ethical foundations to construct and execute research projects as a practicing independent academic and non-academic researcher.	A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice including, where appropriate, relevant knowledge outside the field and/or discipline	a) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and b) The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.	The capacity to: a) undertake pure and/or applied research at an advanced level; and b) contribute to the development of academic or professional skills, techniques, tools, practices, ideas, theories, approaches, and/or materials.	a) The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations; b) The intellectual independence to be academically and professionally engaged and current; c) The ethical		

		Depth and breadth of knowledge	Research and Scholarship	Level of Application of Knowledge	Professional capacity / autonomy	Level of Communications Skills	Awareness of limits of knowledge
					behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and d) The ability to evaluate the broader implications of applying knowledge to particular contexts.		
	Assessment	Course Examination and Tests; Comprehensive Exam	Comprehensive Exams; Dissertation & Oral Defence	Dissertation & Oral Defence	Annual progress reviews		
LO5	Demonstrate effective writing skills for academic and non academic publications and report writing and effective communication skills for both pedagogical and non-pedagogical purposes.		a) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and b) The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.		The qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex situations;	The ability to communicate complex and/or ambiguous ideas, issues and conclusions clearly and effectively.	
	Assessment		Written Assignment, Examination and Tests, Dissertation Proposal & Oral Defence; Dissertation & Oral Defence		Dissertation Proposal & Oral defence; Dissertation & Oral defence	Dissertation & oral defence; comprehensive examination; course examination and assignment	

		Depth and breadth of knowledge	Research and Scholarship	Level of Application of Knowledge	Professional capacity / autonomy	Level of Communications Skills	Awareness of limits of knowledge
LO6	Critique and evaluate different disciplinary perspectives to disaster management and identify their impact on the discipline and demonstrate understanding of the limitations of theoretical and applied models and findings.	A thorough understanding of a substantial body of knowledge that is at the forefront of their academic discipline or area of professional practice including, where appropriate, relevant knowledge outside the field and/or discipline	a) The ability to conceptualize, design, and implement research for the generation of new knowledge, applications, or understanding at the forefront of the discipline, and to adjust the research design or methodology in the light of unforeseen problems; b) The ability to make informed judgments on complex issues in specialist fields, sometimes requiring new methods; and c)The ability to produce original research, or other advanced scholarship, of a quality to satisfy peer review, and to merit publication.				An appreciation of the limitations of one's own work and discipline, of the complexity of knowledge, and of the potential contributions of other interpretations, methods, and disciplines
	Assessment	Comprehensive examinations; dissertation; course examination	Comprehensive examinations; dissertation; course examination				Dissertation & oral defence

Alignment of Program Learning outcomes with Degree Level Expectations

The first PLO –"Demonstrate a deep mastery in current and emerging topics in the field of DEM, including key concepts, debates and ideas in the field and a contributory level of expertise in their field of specialization."– meets Depth and Breadth of Knowledge, Research and scholarship, and Communication Skills in that candidates will not only achieve a vast knowledge and research expertise but also contribute to the field, as well communicate their understanding in different forms. We have identified assessments such as course examination and tests, written assignment, and comprehensive examinations and proposal defense that will ensure students' attainment of these knowledge and skills.

The second PLO – "Demonstrate an array of knowledge in different research methodologies including the understanding of theoretical and empirical academic research in DEM field and conduct independent and group research with professional expertise" –mainly meets Breadth of Knowledge, Research and Scholarships, and Professional Capacity/Autonomy in that students will use their knowledge to analyze, evaluate, and propose solutions to different researched trends and issues in the field and do so alone or in groups or in professional settings. This will be done primarily through class assignments and coursework, comprehensive examination, dissertation proposal and oral defense.

The third PLO – "Apply the theoretical knowledge on risk, hazard and vulnerability assessment as well as the development of risk reduction strategies through both close engagement with the community practitioners and critical engagement with their models and approaches and techniques" – meets Research and Scholarship, Application of Knowledge, Professional Capacity/autonomy, and Communication skills by ensuring that students will achieve the skills to apply their theoretical knowledge to conduct risk assessment in both research and community engagement and find solution for them. Key assessments for this PLO include through class assignments and coursework, comprehensive examination, dissertation proposal and oral defense, and dissertation.

The fourth PLO – "Develop critical thinking, leadership skills and ethical foundations to construct and execute research projects as a practicing independent academic and non-academic researcher" – again meets Depth and Breadth of Knowledge, Research and Scholarship and Application of Knowledge, but primarily aligns with Professional Capacity/Autonomy. This PLO focuses that students apply their critical thinking and communicating ethical management skills, and leadership practices in situations where students can demonstrate their personal responsibility and decision making. Annual progress reviews and comprehensive examination and proposal defense are the methods of assessments to ensure the attainment of these skills.

PLO five – "Demonstrate effective writing skills for academic and non-academic publications and report writing and effective communication skills for both pedagogical and non-pedagogical purposes." – has a primary focus on Communication Skills while addressing Research and Scholarship and Professional Capacity/Autonomy as well so that students will achieve effective communication skills for their upcoming professional life and most importantly, the writing skills for various purposes. This will be achieved through various written assignments students will complete in the coursework and in their comprehensive examination written responses, as well as the dissertation proposal and dissertation itself.

The sixth PLO – "Critique and evaluate different disciplinary perspectives to disaster management and identify their impact on the discipline and demonstrate understanding of the limitations of theoretical and applied models and findings" – is specifically focused on Awareness of Limits of Knowledge by students demonstrating their Depth and Breadth of Knowledge and Research and Scholarship in ways that demonstrate their critical perspectives to disaster management knowledge and practices. Comprehensive examination, course examination, and dissertation and oral defense are the methods to support students' assessment of this continued learning.

While the alignment of these PLOs to the DLEs reflect the Doctoral program as a whole, students enrolled in this program will have opportunities to specialize on their chosen area of the dissertation and contribute to the relevant field. The assessment methods especially course examinations, annual progress review, comprehensive examination, dissertation proposal and defense and dissertation writing are the strategies that will be used to ensure the gradual progress in achieving the above-mentioned advanced skills and knowledge in DEM throughout their doctoral program.

5.2 Research Requirements for Degree Completion

In line with common practice for a Doctoral degree, PhD candidates will be required to complete a dissertation in the field of Disaster and Emergency Management. This dissertation must demonstrate a mastery of their area of specialization and must make a contribution to the field. A 'contribution to the field' is measured, in broad terms, as something that has – or would be likely to – merit publication under stringent peer-review standards in a major journal in DEM or a related field. Students have a responsibility for obtaining ethics clearance for their work in accordance with Faculty and University requirements.

There are two formats for a dissertation in the doctoral program in Disaster and Emergency Management: a traditional monograph or a manuscript-based dissertation. In both formats, the student must demonstrate a mastery of the relevant literature, a clear understanding of their theoretical and/or empirical question and contribution, and a high-quality set of results and analysis. Dissertation projects that take on applied questions of importance to practitioners and real-world challenges in rigorous, theoretically, and methodologically suitable ways are welcomed.

A manuscript-based dissertation must include at least three articles of a quality sufficient to be published in a peer-reviewed journal. In most circumstances, the expectation would be that at least one of these manuscripts is accepted for publication by the time of defence, and that the other two are near or under review. The manuscripts must also be accompanied by a strong introduction and conclusion that justify their relatedness and establish a clear program of study that spans the three papers. While up to two of the papers may be co-authored, the student must play the role of lead

author and co- authors must be able to provide a written declaration of the student's primary role in all elements of the paper (including project design, data collection, analysis, writing, and editing). 2

In both formats, there are common and high expectations. Both forms of dissertations should yield data and analysis that is a quality that could be published in a peer-reviewed journal. Both forms of dissertations should establish a program of study that is coherent and makes both theoretical and empirical contributions to the discipline.

The decision of which format to undertake requires close consultation with – and ultimately approval from – the supervisor and supervisory committee. Students are encouraged to work with their supervisory committee to establish a provision plan for dissemination (e.g., peer reviewed publication) of the dissertation material during and after the PhD in support of both advancing the field and supporting the student's successful transition into a career. Technical specifications for the dissertation (e.g., formatting, sections, and abstract) should be produced in compliance with Faculty of Graduate Studies guidelines. Students and their supervisory committees are also responsible for following FGS requirements in terms of deadlines for manuscript submission and scheduling key milestones like the oral defence.3

All students in the program will be required to complete an oral defence of their dissertation per Faculty of Graduate Studies guidelines. All dissertation defences held in the DEM doctoral program will be open to the public for the presentation and Q&A period, before proceeding into a closed-door session for committee-driven questions and deliberation. Results will be communicated via the FGS guidelines.

The dissertation-based research requirements are suitable for this doctoral program, as they not only establish the content knowledge within the DLEs, but also serve to fulfil the aims of professionalization and skill development through the mentored process of designing a research project, executing this data collection and analysis, and learning how to shepherd a manuscript to publication.

5.3 Methods of Assessing Student Achievement

Because of the range of learning outcomes articulated in section 5.1, the doctoral program requires a variety of matching mechanisms for assessing student achievement. There are several key moments and forms of assessment during the program:

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[2] As an example, a student may decide to publish the chapters or manuscripts of their dissertation as co-authored projects with members of their supervisory committee or other mentors. The key barometer is that the mentors can attest to the primacy of the student in designing and executing the work.

[3] For the full list of up-to-date guidelines, see http://gradstudies.yorku.ca/current-students/thesis- dissertation/.

Assessment Technique	Pairing with Learning Outcomes
Course-based evaluation in 7700, 7730, 7740, 7750, 7790 and electives.	Assess breadth and depth of knowledge (e.g., content acquisition and testing in 7700 seminar); research and scholarship (e.g., testing on qualitative and quantitative research methods); linking of theory and practice (e.g., assignments requiring application of theory to real-world examples); and level of communication skills (e.g., written assignments in different genres).
Comprehensive examinations	Explicitly assesses breadth and depth of knowledge and linking of theory and practice through the specific questions asked. Assess oral communication skills during the defence. [4]
Dissertation proposal & oral defence	Evaluate whether students have sufficient mastery of the subject to be able to begin their project, and whether they have clarity about their own – and the discipline's – limits of knowledge in framing their contribution. Focused evaluation of their ability to link practice (a real, pressing question and case study) with theory (the contribution they'll make to the discipline). Assess oral communication skills during the defence.
Dissertation & oral defence	Ultimate evaluation of the learning achieved during the program, including breadth and depth of knowledge, their contributions to research and scholarship, and their awareness of their own – and disciplinary – limitations of knowledge. Assess oral communication skills during the defence.[5]
Annual progress reviews	In addition to assessing progress on all of the above, also provides anopportunity for formal feedback on the student's development of professional capacity and autonomy.

5.4 Documenting Degree Progression and Performance

Program-level Assessment of Student Achievement

At a program level, the Executive Committee will track a number of key performance indicators of degree progression and student success. Each year, the Committee will ensure complete statistics are gathered on time to completion, retention, reasons for any student departures from the program, and ongoing tracking of student employment during the degree and post-graduation. The executive committee will also run an annual survey and focus group

[4] For the full list of up-to-date guidelines, see http://gradstudies.yorku.ca/current-students/thesis- dissertation/. For a more detailed discussion of how the Comprehensive Examination process works, see Appendix H.
[5] See http://gradstudies.yorku.ca/current-students/thesis-dissertation/supervision/#section5b.

with PhD students and recent graduates to solicit feedback on student experiences, program design, and alignment between instruction, learning objectives, and long-term success. The Executive Committee will review this data to seek opportunities for continuous improvement, such as program adjustments, changes in mentorship, and identification of new learning goals. The Executive Committee will provide an annual summary (at least once per academic year) of both the findings and proposed iterative improvements to all full members and students.

Assessment of Student Degree Progress

Degree progression and milestones are supported through the policies and procedures of the Faculty of Graduate Studies. Within the program, however, an annual report process (described below) will help to ensure successful and timely progress through the program, as well as early identification of any challenges (in order to provide upstream assistance and support).

To ensure productive progress through the program, students must submit an annual Report on Progress to the Graduate Program Director by the end of April each year. This process looks different depending on where the student is in the program:

- Prior to formally selecting a supervisor (which may occur prior to admission or during the first year of the program, depending on situation; see timeline and later discussion), the Report on Progress is submitted by the student directly to the GPD.
- Once a supervisor has been identified, the student must submit the Report on Progress to the supervisor. The supervisor and student must meet to discuss the report, prior to a copy being submitted by the supervisor to the GPD.
- Once a supervisory committee has been appointed (normally by the end of the second year), the student must submit a copy of the Report on Progress to the supervisory committee and organize a meeting of the full committee. Following this meeting, wherein the committee evaluates the report offered, the supervisor will forward the report to the GPD.

Unsatisfactory reports on progress may result in a requirement by the student to withdraw from the program of study or graduate program. Appeals and conflict resolution mechanisms are detailed by the Faculty of Graduate Studies.[6]

[6] http://gradstudies.yorku.ca/current-students/thesis-dissertation/supervision/#section5b.