

Degree Level Expectations for Graduates Receiving the Degree of Master of Applied Science

Faculty of Applied Science and Engineering University of Toronto

This degree is awarded to students who have demonstrated the following:

1. Depth and Breadth of Knowledge

A systematic understanding of engineering and applied science knowledge including, where appropriate, relevant knowledge outside the field and engineering discipline, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their engineering or applied science discipline.

2. Research and Scholarship

A conceptual understanding and methodological competence that

- (a) Enables a working comprehension of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline;
- (b) Enables a critical evaluation of current research and advanced research and scholarship in the discipline;
- (c) Enables a treatment of complex issues and judgments based on established principles and techniques; and

On the basis of that competence, has shown both of the following:

- (d) The development and support of a sustained argument in written form; and
- (e) Originality in the application of engineering or applied science knowledge.

3. Level of Application of Knowledge

- (a) Competence in the research process by applying an existing body of knowledge in the critical analysis of a new question or of a specific problem or issue in a new setting; and
- (b) The ability to exercise leadership in research innovation.

4. Professional Capacity/Autonomy

- (a) The qualities and transferable skills necessary for employment requiring:
 - (i) The exercise of initiative and of personal responsibility and accountability; and
 - (ii) Decision-making in complex situations;
- (b) The intellectual independence required for continuing professional development including the ability for self-directed life-long learning;
- (c) The ethical behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and
- (d) The ability to appreciate the broader implications of applying knowledge to particular context.

5. Level of Communications Skills

The ability to communicate ideas, issues, and conclusions clearly in oral and written form.

6. Awareness of the Limits of Knowledge

Cognizance of the complexity of knowledge, its underlying assumptions, and the potential contributions of other interpretations, methods, and disciplines.

Approved on March 8, 2011 by Faculty Council