Department/Academic Unit: Graduate Program in Electrical & Computer Engineering  

Degree Program: M.Eng.

Degree Level Expectations, Learning Outcomes, Indicators of Achievement and the Program Requirements that Support the Learning Outcomes

<table>
<thead>
<tr>
<th>Expectations</th>
<th>Learning Outcomes</th>
<th>Indicators of Achievement</th>
<th>Relevant Courses and academic requirements</th>
</tr>
</thead>
</table>
| **Depth and breadth of knowledge** | A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice. Integrating knowledge and skills acquired in other disciplines into their course work and research in Electrical & Computer Engineering | Successful completion of course work requirements  
Developing an in-depth knowledge of current research and best practices in Electrical & Computer Engineering.  
Integrating and applying knowledge and skills of inquiry to courses taken outside Electrical & Computer Engineering (if applicable). | 8 graduate level courses or 6 graduate level courses + project course ELEC 898. If applicable, successful completion of research project (ELEC 898). |
| Research and scholarship | A conceptual understanding and methodological competence that: Enables a working comprehensive of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline; Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence and; Enables a treatment of complex issues and judgements based on established principles and techniques and On the basis of that competence, has shown as least one of the following: The development and support of a sustained argument in written form, or Originality in the application of knowledge | Successful completion of course work requirement Enrolling in, and fulfilling the requirements of, courses which focus on methods of inquiry in Electrical & Computer Engineering Using their chosen methodology to complete their M.Eng. Project in Electrical & Computer Engineering (if applicable). | 8 graduate level courses or 6 graduate level courses + project course ELEC 898 If applicable, successful completion of research project (ELEC 898). |
| Application of knowledge | 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. | Successful completion of course work requirement of 4 graduate-level courses The investigation of inquiry pertaining to their interests in the area of Electrical & Computer Engineering, and integration of this thread of inquiry throughout their course work and research. | 4 graduate level courses Successful completion and defense of research-based thesis. |
| **Professional capacity/autonomy** | The qualities and transferable skills necessary for employment training:  
The exercise of initiative and of personal responsibility accountability; and  
Decision-making in complex situations; and  
The intellectual independence required for continuing professional development;  
The ethical behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for responsible conduct of research; and  
The ability to appreciate the broader implications of applying knowledge to particular contexts | A conceptual understanding of the relationship between theory, practice, and reflection in Electrical & Computer Engineering.  
A demonstrated comprehension of academic integrity in all scholarly activities.  
Responsibility taken for the creation of their course work portfolio and the execution of their scholarly activities (e.g. presentations, publications, etc). | Creation of a roster of courses (8 graduate level courses) that fulfills their own personal goals for professional development.  
Portfolio |
| **Communication skills** | The ability to communicate ideas, issues and conclusions clearly. | A demonstration of communication skills through written projects and oral presentations in the course work activities. | Successful completion of course work requirement (8 graduate level courses or 6 graduate level courses + project course ELEC 898).  
If applicable, successful completion of research project (ELEC 898). |
| **Awareness of limits of knowledge** | Cognizance of the complexity of knowledge and of the potential contributions of other interpretations, methods, and disciplines. | An ability to understand the limitations of research and the boundaries of present-day understanding in the specific area of research in Electrical & Computer Engineering. | Successful completion of course work requirement (8 graduate level courses or 6 graduate level courses + project course ELEC 898).  
If applicable, successful completion of research project (ELEC 898). |