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

## Degree Program: M.A.Sc.

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

Expectations Depth and breadth of	Learning Outcomes A systematic understanding of knowledge, and a critical awareness of current	Indicators of Achievement Successful completion of course work requirement of at least 4	Relevant Courses and academic requirements 4 graduate level courses
knowledge	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.	graduate level courses	
	The ability to integrate and apply knowledge and skills of inquiry to problems and matters relevant to Electrical & Computer Engineering and related fields (if applicable to their research area in Electrical & Computer Engineering).	Integrating and applying knowledge and skills of inquiry to courses taken outside Electrical & Computer Engineering (if applicable to their research area in Electrical & Computer Engineering).	Thesis
	The ability to integrate the knowledge and skills acquired in other disciplines (including Computer Science, Mechanical Engineering, Physics, Mathematics & Statistics) into their course work and research in Electrical & Computer Engineering. Developing an in-depth knowledge of current research and best practices in Electrical & Computer Engineering.	Successful completion and defense of thesis.	
	Develop an in-depth knowledge of current research and best practices in Electrical & Computer Engineering.		

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;	Enrolling in, and fulfilling the requirements of, courses which focus on methods of inquiry in Electrical & Computer Engineering or topics related to their research area in Electrical & Computer Engineering	4 graduate level courses related to their own research
	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	Successful completion of course work requirements of graduate level courses Successful completion and defense of thesis.	Thesis
	Originality in the application of knowledge		
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. 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.	Successful completion of coursework requirement Successful completion and defense of research-based thesis.	4 graduate level courses Thesis

Professional capacity/autonomy	The qualities and transferable skills necessary for employment training:	A conceptual understanding of the relationship between theory, practice, and reflection in Electrical	Completion of a roster of courses (4 graduate level courses) that fulfills their own personal goals for professional
	The exercise of initiative and of personal responsibility accountability; and	& Computer Engineering.	development with the assistance of their supervisor(s).
	Decision-making in complex situations; and	The engagement in the analysis and dissemination of Electrical & Computer Engineering related	
	The intellectual independence required for continuing professional development;	research through	Portfolio
	The ethical behaviour consistent with academic integrity and the use of appropriate guidelines and procedures for	A demonstrated comprehension of academic integrity in all scholarly activities.	Academic Integrity Tutorial
	responsible conduct of research; and	Responsibility taken for the creation of their course work portfolio and	
	The ability to appreciate the broader implications of applying knowledge to particular contexts	the execution of their scholarly activities related to the conduct and dissemination of their research. (e.g. through presentations, publications)	
Communication skills	The ability to communication ideas, issues and conclusions clearly.	Successful completion of course work requirement	4 graduate level courses.
		Successful completion and defense of research-based thesis.	
		A demonstration of communication skills through written projects and oral presentations in the courses, seminars and research	

Awareness of lim knowledge	iits of	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 (4 graduate level courses). Successful completion and defense of research-based thesis.
			The demonstration of the ability to evaluate the level of uncertainty in their research and the significance of error analysis.	