

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

Expectations	Learning Outcomes	Indicators of Achievement	Relevant Courses and academic requirements	Transferable Skills
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.	<p>Developing an in-depth knowledge of current research and best practices in Mechanical & Materials Engineering.</p> <p>Integrating and applying knowledge and skills of inquiry to courses taken outside Mechanical & Materials Engineering (if applicable).</p> <p>Integrating knowledge and skills acquired in other disciplines into their course work in Mechanical & Materials Engineering.</p>	<p>Successful completion of course work requirement (8 graduate level courses or 7 graduate level courses + project course: MECH 898).</p> <p>If applicable, successful completion of research project (MECH 898).</p>	Ability to use the increased breadth and depth of knowledge to perform common engineering tasks
Research and scholarship	<p>A conceptual understanding and methodological competence that:</p> <p>Enables a working comprehensive of how established techniques of research and inquiry are used to create and interpret knowledge in the discipline;</p> <p>Enables a critical evaluation of current research and advanced research and scholarship in the discipline or area of professional competence and;</p> <p>Enables a treatment of complex issues and judgements based on established principles and techniques and</p> <p>On the basis of that competence, has shown at least one of the following:</p>	<p>Enrolling in, and fulfilling the requirements of, courses which focus on methods of inquiry in Mechanical & Materials Engineering.</p> <p>Using their chosen methodology to complete their M.Eng. project in Mechanical & Materials Engineering (if applicable).</p>	<p>Successful completion of course work requirement (8 graduate level courses or 7 graduate level courses + project course: MECH 898).</p> <p>If applicable, successful completion of research project (MECH 898).</p>	Demonstrated ability to study and understand advanced topics

	sustained argument in written form, or 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 Mechanical & Materials Engineering, and integration of this thread of inquiry throughout their course work.	Successful completion of course work requirement (8 graduate level courses or 7 graduate level courses + project course: MECH 898). If applicable, successful completion of research project (MECH 898).	Ability to analyze technically difficult problems initially with some supervision, with an increase in independent work with time Understanding of intellectual property and commercialization issues.
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	A conceptual understanding of the relationship between theory, practice, and reflection in Mechanical & Materials Engineering. A demonstrated comprehension of academic integrity in scholarly activities.	Creation of a roster of courses (8 graduate level courses) that fulfills their own personal goals for professional development. Responsibility taken for the creation of their course work portfolio and the execution of their scholarly activities.	Ability and commitment to adhere to the professional engineer's code of conduct. Ability to participate in multidisciplinary teams.
Communication Skills	The ability to communicate ideas, issues and conclusions clearly.	A demonstration of communication skills through written projects and oral presentations in their course work activities.	Successful completion of course work requirement (8 graduate level courses or 7 graduate level courses + project course: MECH 898). If applicable, successful completion of research project (MECH 898).	Enhanced writing and communication skills.
Awareness of limits of knowledge	Cognizance of the complexity of knowledge and of the potential contributions of other interpretations,	An ability to understand the limitations of research and the boundaries of present-day	Successful completion of course work requirement (8 graduate level courses or 7 graduate level courses + project course:	Ability to recognize the limitations of engineering empirical correlations and engineering calculations

	methods, and disciplines.	understanding in Mechanical & Materials Engineering.	MECH 898). If applicable, successful completion of research project (MECH 898).	
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