

AQF LEVEL	AQF LEVEL 8 CRITERIA – BACHELOR HONOURS DEGREE		PROGRAM LEARNING OUTCOMES
<b>PURPOSE</b>	The Bachelor Honours Degree qualifies individuals who apply a body of knowledge in a specific context to undertake professional work and as a pathway for research and further learning		
<b>KNOWLEDGE</b>	Graduates of a Bachelor Honours Degree will have coherent and advanced knowledge of the underlying principles and concepts in one or more disciplines and knowledge of research principles and methods	Graduates of the Bachelor of Engineering (Honours) in Mechanical Engineering will have a comprehensive, theory based knowledge and understanding of the underpinning natural and physical sciences, including research principles and methods as well as project planning and management, and the engineering fundamentals applicable to mechanical engineering with an in depth understanding of the specialist bodies of knowledge within materials and manufacturing, thermofluids, structures and mechanical design of sufficient depth to gain employment at a professional level with advanced technical knowledge and skills in at least one of these domains.	
<b>SKILLS</b>	Graduates of a Bachelor Honours Degree will have: <ul style="list-style-type: none"> <li>• cognitive skills to review, analyse, consolidate and synthesise knowledge to identify and provide solutions to complex problems with intellectual independence</li> <li>• cognitive and technical skills to demonstrate a broad understanding of a body of knowledge and theoretical concepts with advanced understanding in some areas</li> <li>• cognitive skills to exercise critical thinking and judgement in developing new understanding</li> </ul>	Graduates of the Bachelor of Engineering (Honours) in Mechanical Engineering will have: <ul style="list-style-type: none"> <li>• the cognitive and technical skills to identify, interpret and analyse stakeholder needs, establish priorities and the goals, constraints and uncertainties of the system (social, cultural, legislative, environmental, business, technical etc.), using systems thinking, while recognising ethical implications of professional practice.</li> <li>• the communication skills to communicate and coordinate proficiently by listening, speaking, reading and writing English for professional practice, working as an effective member or leader of diverse teams, using basic tools and practices of formal project management.</li> <li>• the cognitive and technical skills to design and use research in a project and to apply abstraction, mathematics and discipline fundamentals to analysis, design and operation, using appropriate computer software, laboratory equipment and other devices ensuring model applicability, accuracy and limitations.</li> </ul>	

**APPLICATION OF KNOWLEDGE & SKILLS**

<ul style="list-style-type: none"> <li>• technical skills to design and use research in a project</li> <li>• communication skills to present a clear and coherent exposition of knowledge and ideas to a variety of audiences</li> </ul>	
<p>Graduates of a Bachelor Honours Degree will demonstrate the application of knowledge and skills:</p> <ul style="list-style-type: none"> <li>• with initiative and judgement in professional practice and/or scholarship</li> <li>• to adapt knowledge and skills in diverse contexts</li> <li>• with responsibility and accountability for own learning and practice and in collaboration with others within broad parameters</li> <li>• to plan and execute project work and/or a piece of research and scholarship with some independence</li> </ul>	<p>Graduates of the Bachelor of Engineering (Honours) in Mechanical Engineering will demonstrate the application of knowledge and skills:</p> <ul style="list-style-type: none"> <li>• to analyse, design and operate, using abstraction, mathematics and discipline fundamentals, appropriate computer software, laboratory equipment and other devices ensuring model applicability, accuracy and limitations</li> <li>• by adopting problem solving design and decision-making methodologies to address novel research questions in the discipline, develop components, systems and/or processes to meet specified requirements, including innovative approaches to synthesise alternative solutions, concepts and procedures, while demonstrating information skills and research methods.</li> <li>• by managing own time and processes effectively by prioritising competing demands to achieve personal and team goals, with regular review of personal performance as a primary means of managing continuing professional development.</li> </ul>