AQF LEVEL	AQF LEVEL 9 CRITERIA – MASTERS DEGREE (COURSEWORK)	PROGRAM LEARNING OUTCOMES
PURPOSE	The Masters Degree (Coursework) qualifies individuals who apply an advanced body of knowledge in a range of contexts for professional practice or scholarship and as a pathway for further learning	
KNOWLEDGE	Graduates of a Masters Degree (Coursework) will have: ▪ a body of knowledge that includes the understanding of recent developments in a discipline and/or area of professional practice ▪ knowledge of research principles and methods applicable to a field of work and or learning	Graduates of the Master of Professional Engineering will have: ▪ a body of advanced knowledge and in-depth understanding related to their chosen discipline required to find engineering solutions to current and emerging issues and problems. ▪ an appropriate depth of integrated, specialized knowledge in leading and managing complex engineering projects through development in professional practice in their discipline. ▪ knowledge of research principles and methods appropriate and applicable to the engineering profession.
SKILLS	Graduates of a Masters Degree (Coursework) will have: ▪ cognitive skills to demonstrate mastery of theoretical knowledge and to reflect critically on theory and professional practice or scholarship ▪ cognitive, technical and creative skills to investigate, analyse and synthesise complex information, problems, concepts and theories and to apply established theories to different bodies of knowledge or practice ▪ cognitive, technical and creative skills to generate and evaluate complex ideas and concepts at an abstract level	Graduates of the Master of Professional Engineering will have developed skills to: ▪ identify, interpret and apply engineering techniques, tools & resources related to professional engineering practice ▪ critically analyse and evaluate the application of established engineering methods, and the underlying principles and concepts of an engineering discipline related to professional engineering practice ▪ critically analyse and evaluate the way in which contextual factors such as professional, environmental, economic and/or social issues influence professional engineering practice ▪ review, analyse, consolidate and synthesise aspects of professional engineering practice ▪ effectively communicate the technical and professional issues of engineering practice in professional • review and analyse priorities and the goals, constraints and uncertainties of the system (social, cultural, legislative, environmental, business etc), using systems thinking, while recognising ethical implications of professional practice

	▪ communication and technical research skills to justify and interpret theoretical propositions, methodologies, conclusions and professional decisions to specialist and non-specialist audiences ▪ technical and communication skills to design, evaluate, implement, analyse and theorise about developments that contribute to professional practice or scholarship	▪ have the communication and technical research skills to communicate to a high level, both verbally and in a variety of written forms, engineering theory and practice and the interpretation and justification of engineering solutions to complex problems to a range of specialist and non-specialist audiences ▪ have the technical and communication skills to initiate, plan, coordinate, implement and evaluate complex engineering problems and issues, as an effective member or leader of diverse teams, using basic and/or specialised tools and practices of formal project management.
APPLICATION OF KNOWLEDGE & SKILLS	Graduates of a Masters Degree (Coursework) will demonstrate the application of knowledge & skills: ▪ with creativity and initiative to new situations in professional practice and/or for further learning ▪ with high level personal autonomy and accountability ▪ to plan and execute a substantial research-based project, capstone experience and/or piece of scholarship	A graduate of the Master of Professional Engineering will: ▪ be creative and innovative in finding sustainable solutions to new developments in their engineering field. ▪ be capable of obtaining and investigating through applying established theories, an analysis and evaluation of a variety of data sources at a high and complex level and to apply problem solving, design, and decision making skills to develop components, systems and or processes to meet specified requirements ▪ interpret and develop innovative approaches to the solving of engineering problems to suit different contexts ▪ have high level personal autonomy and accountability managing competing demands and prioritising whilst planning and executing substantial research-based projects in various fields of their discipline and showing expert judgement, adaptability and taking responsibility for all aspects of the work or function of others when required with high levels of personal autonomy and accountability ▪ plan, manage, and execute a substantial research-based engineering project research and apply appropriate theories, models and tools for critically analysing and interpreting the relevant sustainability, innovation, change, planning and management issues whilst being able to reflect critically on professional practice and scholarship.