# **Deakin Learning Futures AGENDA 2020 Stage 2: Assessment and Learning Design**

# **Course Learning Outcome and Minimum Standards: Master of Information Technology**

# **(Masters Degree [Coursework] – AQF level 9)**



* 1. Course Learning Outcome template (incorporating Deakin Graduate Learning Outcomes and AQF specifications)
	– Master of Information Technology

\* The text under the 2nd and 3rd columns is taken directly from the Australian Qualifications Framework Second Edition January 2013 ([www.aqf.edu.au](http://www.aqf.edu.au/PoliciesPublications/tabid/196/Default.aspx)).
In relation to each of the Deakin Graduate Learning Outcomes (GLO), the full text is reproduced. However, some concepts may not apply to a particular GLO – in these cases, they have placed in parentheses.

| **Deakin Graduate Learning Outcomes** | **AQF Masters degree descriptor\*** | **AQF Level 9 (Masters Degree) Criteria\*** | **Discipline/ Professional Standards** (e.g. professional association) | **Course Learning Outcomes (CLOs)** | **Minimum Standards (relating to CLOs)**Note: ensure at appropriate AQF specifications and criteria (see columns 2 & 3) |
| --- | --- | --- | --- | --- | --- |
| **1.** **Discipline-specific knowledge and capabilities**: appropriate to the level of study related to a discipline or profession. |  | Knowledge: 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.Skills: Cognitive skills to demonstrate mastery of theoretical knowledge and to reflect critically on theory and professional practice or scholarship.Application of knowledge and skills: will demonstrate the application of knowledge and skills:* with creativity and initiative to new situations in professional practice and/or further learning

to plan and execute a substantial research-based project, capstone experience and/or piece of scholarship. | Knowledge: Advanced and integrated understanding of a complex body of knowledge in one or more disciplines or areas of practice.Skills: will have expert, specialised cognitive and technical skills in a body of knowledge or practice to independently:research and apply established theories to a body of knowledge or practiceApplication of knowledge and skills: will apply knowledge and skills to demonstrate autonomy, expert judgement, adaptability and responsibility as a practitioner or learner |  | Design, develop and implement advanced IT systems and software, and associated policies and procedures for optimal use and apply industry standards and best practice in one or more specialised areas of IT.Have detailed knowledge of, and be able to implement project management principles. | Apply an advanced and integrated understanding of a complex body of knowledge in one or more disciplines or areas of practice in IT.Acquire and translate user requirements into formal specifications of a system or application. Lead and manage projects effectively and efficiently. |
| **2.**  **Communication**: using oral, written and interpersonal communication to inform, motivate and effect change**. #** |  | Skills: 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. | Skills: Expert, specialised cognitive and technical skills in a body of knowledge or practice to independently:* interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences.
 |  | Communicate professionally and effectively in a range of contexts to inform, motivate and effect improvements to existing systems and business processes. Communicate effectively to design, evaluate and respond to advances in technology, future trends and industry standards and utilise a range of verbal, graphical and written forms, customised for diverse audiences including specialist and non- specialist clients, colleagues and industry personnel. | Independently:(1) select, organise and transmit knowledge, skills and ideas to specialist and non-specialist audiences(2) acquire and translate user requirements into formal specifications of a system or application. |
| **3.** **Digital literacy**: using technologies to find, use and disseminate information. |  | Skills: 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. | Skills: Expert, specialised (cognitive and) technical skills in a body of knowledge or practice to independently:* analyse critically, reflect on and synthesise complex information, problems, concepts and theories
* research and apply established theories to a body of knowledge or practice
* interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences.
 |  | Utilise a range of digital technologies and information sources to discover, select, analyse, employ, evaluate, and disseminate both technical and non-technical information. | Effectively select and use an extensive range of appropriate tools to facilitate information management and knowledge transfer in an IT context. |
| **4.** **Critical thinking**: evaluating information using critical and analytical thinking and judgment. |  | Skills: 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.(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. | Skills: Expert, specialised cognitive and technical skills in a body of knowledge or practice to independently:* analyse critically, reflect on and synthesise complex information, problems, concepts and theories
* research and apply established theories to a body of knowledge or practice

interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences.Application of knowledge and skills: Apply knowledge and skills to demonstrate autonomy, expert judgement, adaptability and responsibility as a practitioner or learner. |  | Evaluate information using critical and analytical thinking and judgement to identify problems, analyse user requirements and propose innovative solutions (CLO3).Critically evaluate IT systems, system performance and software using established techniques including analytical research, formal methods for benchmarking, testing and proof of design correctness for quality assurance.  | Independently:(1) Analyse critically, reflect on and synthesise complex information, concepts and theories(2) Identify problems, analyse user requirements and propose solutions(3) Interpret knowledge, skills and ideas to specialist and non-specialist audiences(4) Research and apply established theories to a body of knowledge or practice. |
| **5.**  **Problem solving**: creating solutions to authentic (real world and ill-defined) problems. |  | Skills: 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.Cognitive and technical skills to design, evaluate, implement, analyse and theorise about developments that contribute to professional practice or scholarship.Application of knowledge and skills: Will demonstrate the application of knowledge and skills:* with creativity and initiative to new situations in professional practice and/or for further learning
* to plan and execute a substantial research based project, capstone experience and/or piece of scholarship.
 | Skills: Expert, specialised cognitive and technical skills in a body of knowledge or practice to independently:* analyse critically, reflect on and synthesise complex information, problems, concepts and theories
* research and apply established theories to a body of knowledge or practice

interpret and transmit knowledge, skills and ideas to specialist and non-specialist audiences.Application of knowledge and skills: Apply knowledge and skills to demonstrate autonomy, expert judgement, adaptability and responsibility as a practitioner or learner. |  | Apply theoretical constructs and critical analysis to real-world and ill-defined problems and develop innovative IT solutions with creativity. | Independently:(1) Identify problems, analyse user requirements and provide professional solutions to meet business needs(2) Research and apply established theories to a body of knowledge or practice. |
| **6.** **Self-management**: working and learning independently, and taking responsibility for personal actions. |  | Application: Will demonstrate the application of knowledge and 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.
 | Application of knowledge and skills: Apply knowledge and skills to demonstrate autonomy, expert judgement, adaptability and responsibility as a practitioner or learner. |  | Apply knowledge and skills in creative ways to new situations in professional practice and/or further learning in the field of IT with adaptability, autonomy, responsibility and personal accountability for actions as a practitioner and a learner.Reflect upon and critique skills developed and plan for their own future continuing professional development;  | Demonstrate autonomy, expert judgement, adaptability and responsibility and ethical behaviour as a practitioner or learner.Plan and execute a research-based project, professional project and/or piece of scholarship autonomously.Self-critique their earning needs and create a personal professional learning/development plan. |
| **7.** **Teamwork**: working and learning with others from different disciplines and backgrounds. |  | AQF is silent on this. | AQF is silent on this. |  | Apply the principles of effective team work as a member and/or leader of diverse teams. | Work effectively and collaboratively in different roles in diverse cultural and professional teams.Critically evaluate own performance in achieving team goals and contributing to team cohesiveness. |
| **8.** **Global citizenship:** engaging ethically and productively in the professional context and with diverse communities and cultures in a global context. |  | Skills: Technical skills to design, evaluate, implement, analyse and theorise about developments that contribute to professional practice or scholarship.Application of knowledge and skills: Demonstrate the application of knowledge and skills:* with creativity and initiative to new situations in professional practice and/or further learning

with high level personal autonomy and accountability.(Note: this second dot point from the AQF Application descriptor does not relate specifically and directly to global citizenship, however does relate indirectly via its link to ethical engagement.)  | The AQF makes no specific reference to global citizenship under the criteria section. |  | Apply the highest ethical standards in the development, design, construction and management of IT systems, in particular security policies, privacy and confidentiality mechanisms, and database security, in the global context of and/or in collaboration with diverse communities and cultures. | Demonstrate the ability to consider and address global and community perspectives in projects they undertake. |

**# Communication Skills**In creating Course Learning Outcomes and Standards for communication, the following requirements set out in the TEQSA Course Accreditation Standards (<http://www.teqsa.gov.au/for-providers/quality-assessments>) should be kept in mind:

*Course Accreditation Standard 1.2:*‘There are robust internal processes for design and approval of the course of study, which ….provide for appropriate development of key graduate attributes in students including English Language Proficiency’.

*Course Accreditation Standard 3.2:*‘The higher education provider ensures that students who are enrolled are sufficiently competent in the English language to participate effectively in the course of study and achieve its expected learning outcomes and sets English language entry requirements accordingly’.

*Course Accreditation Standard 5.6:*‘The higher education provider is able to demonstrate appropriate progression and completion rates and students who complete the course of study have attained key graduate attributes including an appropriate level of English language proficiency’.