

Unit Outline (Higher Education)

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|----------------------------|---|
| Institute / School: | Institute of Innovation, Science & Sustainability |
| Unit Title: | Masters Project |
| Unit ID: | ITECH7415 |
| Credit Points: | 60.00 |
| Prerequisite(s): | (ITECH5500 and ITECH7401) |
| Co-requisite(s): | Nil |
| Exclusion(s): | (ITECH7403 and ITECH7404 and ITECH7405 and ITECH7602) |
| ASCED: | 029999 |

Description of the Unit:

This unit provides you with the opportunity to synthesise knowledge and skills you have gained so far in your program to work on either an industry or research project. You can work on an industry Information Technology (IT) or Information System (IS) related real-world business problem and/ or engage in research.

Your options are as follows:

(i) Industry Specialisation

You will work in teams on an IT/IS project with an industry client and an academic project supervisor. A project can be related to development of a new IT/IS solution(s) or review, assessment or recommendation of an existing IT/IS solution(s) to improve client`s existing business processes. Projects must be aligned with your study stream.

(ii) Research Specialisation

You will work on an individual research project. Students interested in the Masters Projects with a Research specialisation will need to contact an appropriate academic supervisor prior to the unit commencement and have a research proposal approved.

Grade Scheme: Graded (HD, D, C, P, MF, F, XF)

Work Experience:

Not wholly work experience: Student is not undertaking work experience in industry or student is undertaking

work experience in industry where learning and performance is directed by the provider.

Placement Component: No

Supplementary Assessment: No

Supplementary assessment is not available to students who gain a fail in this Unit.

Course Level:

| Level of Unit in Course | AQF Level of Course | | | | | |
|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| | 5 | 6 | 7 | 8 | 9 | 10 |
| Introductory | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Intermediate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Advanced | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Learning Outcomes:

Knowledge:

- K1.** Analyse a business/research problem
- K2.** Research state-of-the-art in a problem domain and investigate how similar problems were solved.
- K3.** Relate theories and principles learned in other IT/IS units to addressing or solving business/research problem.
- K4.** Identify/Propose/Develop solution(s) to business/research problem.
- K5.** Choose appropriate methodologies, tools and technologies for a project.
- K6.** Manage legal, ethical, privacy and security issues related to a project.
- K7.** Analyse industry frameworks such as the Australian Computer Society`s (ACS) Core Body of Knowledge (CBOK) and Skills for the Information Age (SFIA) and how they relate to your project.

Skills:

- S1.** Identify a gap in a research or industry context.
- S2.** Lead specific aspects of a project.
- S3.** Work as part of a collaborative team and maintain the professional relationship with team members, client and supervisor.
- S4.** Demonstrate problem solving and critical thinking.
- S5.** Apply state-of-the-art industry standards, approaches and methods in a project.
- S6.** Utilise a variety of project management, collaboration, modelling and analytical tools as required.
- S7.** Critique contemporary IT industry practices/presentations related to industry or research projects, and relate them to professional standards and your own career aspirations

Application of knowledge and skills:

- A1.** Propose/Develop a new state-of-the-art IT/IS solution(s) to address business/research problem.
- A2.** Deliver appropriate, professional, industry level documentations and/or research reports.

Unit Content:

This unit is designed to foster problem-based self learning and research. There will be minimal formal lectures.

Topics may include:

- Requirements analysis and modelling.
- Problem solving.
- Research and literature review.
- Creative and critical thinking.
- Communication and reporting.
- Project management.
- Change and risk management.
- Product Evaluation.
- Business and data analysis.
- System development methodologies.
- Professional documentation.
- Team building.
- IT and related industry activity and research developments in the local community, and around the globe.
- ACS's CBOK, SFIA and their relationship with industry and Career pathways.

FEDTASKS

Federation University Federation recognises that students require key transferable employability skills to prepare them for their future workplace and society. FEDTASKS (**T**ransferable **A**tttributes **S**kills and **K**nowledge) provide a targeted focus on five key transferable Attributes, Skills, and Knowledge that are embedded within curriculum, developed gradually towards successful measures and interlinked with cross-discipline and Co-operative Learning opportunities. *One or more FEDTASK, transferable Attributes, Skills or Knowledge must be evident in the specified learning outcomes and assessment for each FedUni Unit, and all must be directly assessed in each Course.*

| FEDTASK attribute and descriptor | Development and acquisition of FEDTASKS in the Unit | |
|----------------------------------|---|-----------------------|
| | Learning Outcomes (KSA) | Assessment task (AT#) |
| | | |

| FEDTASK attribute and descriptor | | Development and acquisition of FEDTASKS in the Unit | |
|---|--|---|-----------------------|
| | | Learning Outcomes (KSA) | Assessment task (AT#) |
| FEDTASK 1 Interpersonal | <p>Students will demonstrate an advanced ability in a range of contexts to effectively communicate, interact and work with others both individually and in groups.</p> <p>Students will be required to display high level skills in-person and/or online in:</p> <ul style="list-style-type: none"> • Using and demonstrating a high level of verbal and non-verbal communication • Demonstrating a mastery of listening for meaning and influencing via active listening • Demonstrating and showing empathy for others • High order skills in negotiating and conflict resolution skills • Demonstrating mastery of working respectfully in cross-cultural and diverse teams | S3 | AT1,AT2,AT3,AT4,AT5 |
| FEDTASK 2 Leadership | <p>Students will demonstrate a mastery in professional skills and behaviours in leading others.</p> <p>Students will be required to display skills in:</p> <ul style="list-style-type: none"> • Creating and sustaining a collegial environment • Demonstrating a high level of self-awareness and the ability to self-reflect and justify decisions • Inspiring and initiating opportunities to lead others • Making informed professional decisions • Demonstrating initiative in new professional situations | S2 | AT1,AT2,AT3 |
| FEDTASK 3 Critical Thinking and Creativity | <p>Students at this level will demonstrate high level skills in working in complexity and ambiguity using the imagination to create new ideas.</p> <p>Students will be required to display skills in:</p> <ul style="list-style-type: none"> • Reflecting critically to generate and consider complex ideas and concepts at an abstract level • Analysing complex and abstract ideas, concepts and information • Communicate alternative perspectives to justify complex ideas • Demonstrating a mastery of challenging conventional thinking to clarify complex concepts • Forming creative solutions in problem solving to new situations for further learning | S4 | AT2 |
| FEDTASK 4 Digital Literacy | <p>Students at this level will demonstrate the ability to work competently across a wide range of tools, platforms and applications to achieve a range of tasks.</p> <p>Students will be required to display skills in:</p> <ul style="list-style-type: none"> • Mastering, exploring, evaluating, managing, curating, organising and sharing digital information professionally • Collating, managing complex data, accessing and using digital data securely • Receiving and responding professionally to messages in a range of professional digital media • Contributing competently and professionally to digital teams and working groups • Participating at a high level in digital learning opportunities | Not applicable | Not applicable |

| FEDTASK attribute and descriptor | | Development and acquisition of FEDTASKS in the Unit | |
|--|---|---|-----------------------|
| | | Learning Outcomes (KSA) | Assessment task (AT#) |
| FEDTASK 5 sustainable and Ethical Mindset | <p>Students at this level will demonstrate a mastery of considering and assessing the consequences and impact of ideas and actions in enacting professional ethical and sustainable decisions.</p> <p>Students will be required to display skills in:</p> <ul style="list-style-type: none"> • Demonstrating informed judgment making that considers the impact of devising complex solutions in ambiguous global economic environmental and societal contexts • Professionally committing to the promulgation of social responsibility • Demonstrating the ability to evaluate ethical, socially responsible and/or sustainable challenges and generating and articulating responses • Communicating lifelong, life-wide and life-deep learning to be open to diverse professional others • Generating, leading and implementing required actions to foster sustainability in their professional and personal life. | K6 | AT3 |

Learning Task and Assessment:

Students will engage in project activities that align with their enrolled study stream.

Assessment tasks are designed to measure the learning outcomes of the capstone project units, however, successful projects will require application of additional project-dependent skills not explicitly listed in this unit outline. If students study a specialised stream then these additional learning outcomes will align with the learning outcomes identified by the stream of study at the program level.

Each study specialisation stream identifies with the corresponding ACS CBoK knowledge areas and the SFIA skills that will be assessed (these are in addition to those identified in the ACS and SFIA sections of this outline) if students are enrolled in that study stream

Students will negotiate and complete a project in an area related to their stream specialisation/electives completed.

Wherever possible, assessment tasks are generic to all projects and will not be specific to individual projects. Assessment in this unit aims to replicate many of the types of scenarios that students would face in a professional setting, including writing appropriate documentation, giving presentations to technical and non-technical audiences, and critical self reflection.

Typically, if all team members have worked equally in the project, the same grade will be awarded to all team members for team submissions. In cases where it can be demonstrated that one or more team members have not participated equally, the supervisor and unit coordinator will alter individual grades and/or request additional assessment tasks to be completed.

| Learning Outcomes Assessed | Assessment Tasks | Assessment Type | Weighting |
|--|---------------------------------|-------------------------------------|-----------|
| K1, K2, K3, K4, K7, S1, S2, S3, A1, A2 | Project Initiation and Planning | Project Storyboard; Product Roadmap | 10-30% |

| Learning Outcomes Assessed | Assessment Tasks | Assessment Type | Weighting |
|--|---|---|-----------|
| S1,S2, S3, S4, S5, S6, S7 | Project Ownership Actively participate in and contribute to group collaboration, research, workshops, team work and/or professional communication/meetings. | Evidence of appropriate engagement - Attendance at Workshops, Stand-ups, Statements of individual contribution | 10-30% |
| K1, K2, K3, K4, K5, K6, S1, S2, S3, S4, S5, S6, A1, A2 | Project Execution & Delivery Develop, Propose, and(or) Recommend a solution to an IT business/research problem(s). Deliver professional product-specific industry/research documents specific to a negotiated project/research problem. | Product Demonstration; Project Write-up | 40-60% |
| K1, K2, K3, K4, K5, K6, S1, S2, S3, S4, S5, S6, A1, A2 | Project Monitoring Deliver professional product-specific industry/research documents specific to a negotiated project/research problem. | Assessments may include Sprint Reviews/Retrospectives,, and Evaluation of project execution by project supervisor/client. | 20-40% |

Adopted Reference Style:

APA

Refer to the [library website](#) for more information

Fed Cite - [referencing tool](#)