

Course Outline (Higher Education)

School:	School of Science, Engineering and Information Technology
Course Title:	PROJECT 2 (SOFTWARE DEVELOPMENT)
Course ID:	ITECH7404
Credit Points:	30.00
Prerequisite(s):	(ITECH7403)
Co-requisite(s):	Nil
Exclusion(s):	Nil
ASCED Code:	029999

Description of the Course :

This course provides students with an opportunity to work in a collaborative team to develop a complex software system to address particular requirements. Students will work to scope and manage the project. Outcomes will include an implemented system that could be deployed to address specified requirements as well as appropriate supportive technical documentation, written to a professional level of quality.

Grade Scheme: Graded (HD, D, C, etc.)

Work Experience:

No work experience: Student is not undertaking work experience in industry.

Placement Component: No

Program Level:

AQF Level of Program						
	5	6	7	8	9	10
Level						
Introductory						
Intermediate						
Advanced					✓	

Learning Outcomes:

Knowledge:

- K1.** Evaluate the critical difference between the software lifecycle and software development lifecycle.
- K2.** Justify the major advantages in using a chosen methodology for complex software development.
- K3.** Critique the process followed in feature based software development.
- K4.** Determine roles, responsibilities, procedures and standards for collaborative team work in major software development.

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K5. Justify analysis and design techniques to a particular software development problem.

Skills:

- S1.** Develop specialised skills to disseminate the features of a complex software system and precisely estimate the amount of work needed to create them.
- S2.** Validate critical requirements that defines a complex software system.
- S3.** Recommend the use of appropriate software development methodologies.
- S4.** Critical decision making capabilities that would differentiate the project management and software development management techniques.
- S5.** Liaise with stakeholders to deliver complex technical information precisely.

Application of knowledge and skills:

- A1.** Develop, apply, monitor and maintain a project management plan.
- A2.** Develop critical understanding of methodologies in software development.
- A3.** Appraise the practice of contemporary software development methodologies and process.
- A4.** Develop deep knowledge to follow process and prepare appropriate artefacts for analysis of user requirements.
- A5.** Develop leadership roles especially suitable to manage complex software developments.
- A6.** Work in a team to develop a technically complex software solution to address particular software requirements.

Course Content:

Topics may include:

- Enterprise level software development;
- Test driven development;
- Software development methodologies;
- Rapid application development;
- Testing strategies;
- Performance analysis;
- Complex coding;
- Technical writing;
- Code maintenance;
- Test estimation;
- Team management;
- Client liaison.

Values:

- V1.** Appreciate the advantages of particular software development methodologies.
- V2.** Appreciate the need for professionalism in relating to clients.
- V3.** Appreciate the difference between project management and software development management.
- V4.** Value regular communication within a team to foster good team dynamic and collaboration.
- V5.** Appreciate feature based development methodologies for the development of complex software.

Graduate Attributes:

FedUni graduate attributes statement. To have graduates with knowledge, skills and competence that enable them to stand out as critical, creative and enquiring learners who are capable, flexible and work ready, and responsible, ethical and engaged citizens.

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Attribute	Brief Description	Focus
Knowledge, skills and competence	Demonstrate understanding of client`s business processes and their IT/IS requirements and ability to propose IT/IS business solution(s) to improve client`s existing business processes.	High
Critical, creative and enquiring learners	Research state-of-the-art in a project domain and adapt industry standards, methodologies and tools applicable for a project.	High
Capable, flexible and work ready	Demonstrate ability to relate learned IT/IS theories and principles in a project and to work in a team environment with a high level of professionalism.	High
Responsible, ethical and engaged citizens	Manage legal, ethical, privacy and/or security issues related to a project.	Medium

Learning Task and Assessment:

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K1, K2, K4, K5, A1, A4, A5, A6, S1, S2, S4, S5	Team Management and planning processes, Write and maintain technical and user documentation.	Detailed project documentation. Planning and status reporting documentation, teamwork. Technical and User documentation.	30% - 60%
K3, K4, S2, S3, S5, A2, A6	Prepare and deliver a presentation. Individual Participation.	Poster and/or technical presentation/s to client, supervisor and other students. QA Review, Reflective report or interview.	20% - 30%
A2, A3, A4, A5, S1, S3, K2, K5	Develop and test a product.	Final product demonstration and status report.	20% - 40%

Adopted Reference Style:

APA