Course Outline (Higher Education)

School: School of Engineering, Information Technology and Physical Sciences

Course Title: PROJECT 2

Course ID: ITECH3209

Credit Points: 15.00

Prerequisite(s): (CP783 or ITECH3208)

Co-requisite(s): Nil

Exclusion(s): (CP784)

ASCED: 029999

Description of the Course :

This is one of two IT capstone project courses. In this second project course, students will work together in teams to execute, monitor and document an IT industry project, continuing the project begun in ITECH3208 Project 1.
Students will also engage with industry to understand professional expectations relating to their project and develop SFIA and CBOK skills. Students are expected to seek out and attend industry seminars, workshops, expos, discussion forums etc. in order to research and ensure that their project solution is appropriate. The course also contains a hurdle task which requires students to demonstrate their involvement with their local IT community through attendance and participation in events. The aim is to provide students with a broad understanding of the IT industry, its research foundations and its place in servicing society.

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:

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Introductory						
Intermediate						

Level of course in Program	AQF Level of Program					
	5	6	7	8	9	10
Advanced			✔			

Learning Outcomes:

Knowledge:

K1. Adapt the processes and methodologies for project management and planning to a particular problem.

K2. Recognize the importance of client engagement and clear documentation of expectations in a project.

K3. Define roles, responsibilities, procedures and standards to clearly define collaborative team work.

K4. Translate technical knowledge into appropriate formats to suit variety of stakeholders.

K5. Adapt a chosen methodology for project development including production of appropriate documentation and reports.

K6. Demonstrate how to critically review a product in order to improve on its quality.

K7. Identify the Australian Computer Society`s (ACS) Core Body of Knowledge (CBOK) and where it is represented in industry practice.

K8. Discuss the Skills Framework for the Information Age (SFIA) and how it is reflected in industry practice.

Skills:

S1. Consult with a client with a view to executing an IT project.

S2. Work in a collaborative way with professionals in a variety of areas which use information technology.

S3. Conduct a critical review of work completed by peers for a quality assurance task.

S4. Plan and deliver a technical presentation on an IT project.

S5. Show how to choose and apply appropriate analysis and design techniques to solve a particular problem.

S6. Analyse and link the ACS`s CBOK and SFIA to industry practice.

Application of knowledge and skills:

A1. Execute an IT project with appropriate management and technical documentation.

A2. Create technical documentation detailing verification and validation of an implemented system.

A3. Apply quality assurance process, including documentation reviews.

A4. Critique research and industry practice and determine your place in the spectrum of career possibilities.

Course Content:

This second project course will usually involve the completion of a project commenced in the first project course. Following from the project planning and initial execution completed in the first project course, the focus for this course is to execute, monitor and close an IT project. Acceptance criteria identified during the first project course must be included in an appropriate testing framework, with appropriate validation and verification performed. The complete project implementation and documentation will involve close consultation with the client.

Topics may include:

- Estimation and planning for completion.

- Executing and monitoring projects.
- Verification and validation.
- Writing technical and non-technical documentation.
- Developing poster presentations.
- Working effectively in teams.
- 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; Career pathways.

Values:

V1. Appreciate the need for appropriate documentation to support a project development.
V2. Appreciate the need for professionalism in relating to clients.
V3. Value regular communication within a team to foster good team dynamic and collaboration.
V4. Appreciate the need for collaborative team work.
V5. Recognise the importance of research to the development and progress of the IT industry.
V6. Value IT as an underlying transformative technology to all of society in the information and immersive ages.
V7. Appreciate your career possibilities and how they can be achieved.
V8. Appreciate the range of problems faced by industry practitioners and how problem solving skills learnt may be applied in the industry context.
V9. Appreciate how theory and practice learnt is applied in industry.

Graduate Attributes

The Federation University FedUni graduate attributes (GA) are entrenched in the Higher Education Graduate Attributes Policy (LT1228). FedUni graduates develop these graduate attributes through their engagement in explicit learning and teaching and assessment tasks that are embedded in all FedUni programs. Graduate attribute attainment typically follows an incremental development process mapped through program progression. **One or more graduate attributes must be evident in the specified learning outcomes and assessment for each FedUni course, and all attributes must be directly assessed in each program**

Graduate attribute and descriptor	**Development and acquisition of GAs in the course**			
	Learning Outcomes (KSA)	**Code** A. Direct B. Indirect N/A Not addressed	**Assessment task (AT#)**	**Code** A. Certain B. Likely C. Possible N/A Not likely

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		Learning Outcomes (KSA)	**Code** A. Direct B. Indirect N/A Not addressed	**Assessment task (AT#)**	**Code** A. Certain B. Likely C. Possible N/A Not likely
GA 1 Thinkers	Our graduates are curious, reflective and critical. Able to analyse the world in a way that generates valued insights, they are change makers seeking and creating new solutions.	K4,K5,K7,K8,A1,A2,A3	A	3,4,5	A
GA 2 Innovators	Our graduates have ideas and are able to realise their dreams. They think and act creatively to achieve and inspire positive change.	K4, K5, S5,	A	3,4,5	A
GA 3 Citizens	Our graduates engage in socially and culturally appropriate ways to advance individual, community and global well-being. They are socially and environmentally aware, acting ethically, equitably and compassionately.	S3, S4	B	2,4,5	B
GA 4 Communicators	Our graduates create, exchange, impart and convey information, ideas, and concepts effectively. They are respectful, inclusive and empathetic towards their audience, and express thoughts, feelings and information in ways that help others to understand.	S5, S4	A	3,4,5	A
GA 5 Leaders	Our graduates display and promote positive behaviours, and aspire to make a difference. They act with integrity, are receptive to alternatives and foster sustainable and resilient practices.	A1, A3	B	2, 3	B

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 courses, however, successful projects will require application of additional project-dependent skills not explicitly listed in this course 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.

The following list identifies each study stream 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:

- BIT Core
  - ACS CBoK
    - Data & information management
  - SFIA
    - Systems Software (SYSP)
    - Data Analysis (DTAN)
- Big Data Analytics

    - ACS CBoK
        - Data & information management
        - IT Gov. & organisational issues
    - SFIA
        - Information Analysis (INAN)
        - Data Analysis (DTAN)
        - Research (RSCH)
- Business Information Systems
    - ACS CBoK
        - System acquisition
        - Data & information management
        - IT Gov. & organisational issues
    - SFIA
        - Business Process Improvement (BPRE)
        - Business Analysis (BUAN)
        - Data Analysis (DTAN)
- Cloud and Enterprise Computing
    - ACS CBoK
        - Networking
        - IT Gov. & organisational issues
    - SFIA
        - Network Support (NTAS)
        - Systems Design (DESN)
        - Technical Specialism (TECH)
- Games Development
    - ACS CBoK
        - Data & information management
        - Programming
    - SFIA
        - Programming / software development (PROG)
        - Testing (TEST)
        - Technical Specialism (TECH)
- Mobile App Development
    - ACS CBoK
        - Data & information management
        - Programming
    - SFIA
        - Programming / software development (PROG)
        - Testing (TEST)
        - Technical Specialism (TECH)
- Networking and Security
    - ACS CBoK
        - Networking
        - Security management
    - SFIA
        - IT Operations (ITOP)
        - Information Security (SCTY)
        - Network support (NTAS)
- Software Development
    - ACS CBoK
        - Data & information management
        - Programming

- SFIA
  - Programming / software development (PROG)
  - Testing (TEST)
  - Technical Specialism (TECH)

Please Note: Professional Practice students will be considered as either Cloud and Enterprise students or as Software Development students depending on the their registered focus area.

Students will negotiate and complete a project in an area related to a major area of study within the course. Wherever possible, assessment tasks are generic to all projects and will not be specific to individual projects. Assessment in this course 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.

Learning Outcomes Assessed	Learning Tasks	Assessment Type	Weighting
K4, K5, S1, S4, S5, A2, A3	Write and maintain technical and user documentation.	Technical and user documentation.	10 - 20%
K1, K2, K3, K6, S2, S3, A1	Work as a team to execute, monitor and close a project.	Process documentation.	10 - 30%
K3, K4, K5, K6, S1, S5, A2, A3	Demonstrate project progress.	Project and development demonstrations.	20 - 30%
K2, K4, K7, K8, S6, A4	Critically reflect on project practices and individual learning. Demonstrate understanding of and relect upon ACS CBOK and SFIA skills developed as part of the project experience.	Reflective journal and/or individual interview.	10 - 20%
A1, A2, A3, S5	Project outcome.	Project outcome demonstration and team interview.	20 - 30%
K7, K8, S6, A4	Artifact demonstrating a community engagement activity. This report will describe the activity and relate it to the course's learning outcomes, CBOK and SFIA.	Journal	Satisfactory/Unsatisfactory

Adopted Reference Style:

APA