UNSW Business School

School of Information Systems and Technology Management

INFS3605
Information Systems Innovation & Transformation

Course Outline
Semester 2, 2017

Course-Specific Information

The Business School expects that you are familiar with the contents of this course outline. You must also be familiar with the Course Outlines Policies webpage which contains key information on:

- Program Learning Goals and Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Student Support and Resources

This webpage can be found on the Business School website:
https://www.business.unsw.edu.au/degrees-courses/course-outlines/policies

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COURSE-SPECIFIC INFORMATION

1 STAFF CONTACT DETAILS

Lecturer-in-charge: Dr Michael Cahalane
Room 2085
Email: m.cahalane@unsw.edu.au
Consultation Time: – Wednesdays 10:00-12:00 (or by appointment)

A full list of tutors will be posted on Course Website.

2 COURSE DETAILS

2.1 Teaching Times and Locations

Workshops start in Week 1(to Week 12): The Time and Location are:

Group A: Monday 16:00 - 18:00 in UNSW Business School G24 (K-E12-G24)

Group B: Monday 18:00 - 20:00 in UNSW Business School G21 (K-E12-G21)

2.2 Units of Credit

The course is worth 6 units of credit.

2.3 Summary of Course

This is a Level 3 Information Systems (IS) course that concludes the students' study of IS through the application, integration and synthesis of students' knowledge from previous IS courses. Specifically, INFS3605 is the 'capstone' IS course that is centrally organised around practical, experiential, group software projects. Throughout the course, students will apply programming knowledge and teamwork skills learnt in previous courses in an applied and integrated fashion. The course begins with student groups brainstorming and developing their software project ideas and then gathering requirements. Following this, student groups engage in an iterative development process in designing and refining their software application. Specifically, students will use the agile scrum framework in developing their software project, working in two-week sprints/iterations. This hands-on project course takes a blended approach to learning, mixing online content provided through the school's e-learning platform (Moodle) with weekly flipped workshop sessions. Throughout the course, students will perform various roles (including scrum master and product owner) and ceremonies (including sprint planning, stand-up sessions, sprint reviews, sprint retrospectives, and backlog refinement), as well as utilise a number of a tools (such as kanban boards, burndown charts and planning poker).

2.4 Course Aims and Relationship to Other Courses

This course covers material that is significant to the discipline of information systems. The aim of this course is to provide students with an experimental learning approach to understanding, implementing and reflecting upon the use of agile scrum as a framework for developing software. This course provides students with concepts and skills that are essential in careers such as traditional project managers (as well as scrum masters and product owners), business analysts, systems analysts, designers, testers, and programmers.

2.5 Student Learning Outcomes

The Course Learning Outcomes are what you should be able to DO by the end of this course if you participate fully in learning activities and successfully complete the assessment items.

By the end of this course, you should be able to:

1. Identify attributes of quality, project management, project effort estimation, software testing, maintenance, and evaluation of software products and processes.
2. Critically assess problem case and create a viable software solution.
3. Construct written and video work, which is logically and professionally presented.
4. Work collaboratively in development of a software project using Agile Scrum.
5. Reflect on their personal and team experience in report form and group discussion.
6. Present a group solution in a professional and timely manner.

The Learning Outcomes in this course also help you to achieve some of the overall Program Learning Goals and Outcomes for all undergraduate coursework students in the Business School. Program Learning Goals are what we want you to BE or HAVE by the time you successfully complete your degree (e.g. 'be an effective team player'). You demonstrate this by achieving specific Program Learning Outcomes – what you are able to DO by the end of your degree (e.g. 'participate collaboratively and responsibly in teams').

For more information on Program Learning Goals and Outcomes, see the School's Course Outlines Policies webpage available at https://www.business.unsw.edu.au/degrees-courses/course-outlines/policies.

The following table shows how your Course Learning Outcomes relate to the overall Program Learning Goals and Outcomes, and indicates where these are assessed (they may also be developed in tutorials and other activities):

Program Learning Goals and Outcomes		**Course Learning Outcomes**	**Course Assessment Item**
This course helps you to achieve the following learning goals for all Business undergraduate coursework students:		*On successful completion of the course, you should be able to:*	*This learning outcome will be assessed in the following items:*
1	Knowledge	Identify attributes of quality, project management, project effort estimation, software testing, maintenance, and evaluation of software products and processes.	• Workshops • Group Assignment • Software Project
2	Critical thinking and problem solving	Critically assess problem case and create a viable software solution.	• Workshops • Individual Assignment • Group Assignment

			• Software Project
3a	Written communication	Construct written and video work, which is logically and professionally presented. Reflect on their personal and team experience in report form and group discussion.	• Individual Assignment
3b	Oral communication	Reflect on their personal and team experience in report form and group discussion. Work collaboratively in development of a software project using Agile Scrum. Present a group solution in a professional and timely manner.	• Workshops • Individual Assignment • Group Presentation
4	Teamwork	Work collaboratively in development of a software project using Agile Scrum. Present a group solution in a professional and timely manner.	• Workshops • Group Assignment • Group Presentation • Software Project
5a	Ethical, social and environmental responsibility	Students will discuss the ethical and environmental implications of new information systems and consider these implications in the actual design of their information system.	• Software Project
5b	Social and cultural awareness	Students will discuss the social and cultural implications of new information systems and consider these implications in the actual design of their information system.	• Software Project

3 LEARNING AND TEACHING ACTIVITIES

3.1 Approach to Learning and Teaching in the Course

This course adopts an experiential & project-based approach to learning and teaching. Students learn by applying their knowledge in real-life inspired project situations. This learning is supported by the lecturer and workshop tutor through guiding and giving specific feedback to each throughout the semester. The course is taught using flipped classroom techniques as well as the agile scrum framework. Therefore, students are required to complete both individual and group work outside of the classroom on an on-going basis. On occasion, the lecturer will use the workshop time to pose questions to students and hold class discussions and debates on topics covered. The relevant study material, to be read in your own time, provides more detail about the topics discussed in this course. It is expected that you will spend approximately 10 hours per week working on this course. This time should be made up of reading, revision, working on exercises and problems, and attending workshops. In periods where you need to complete assignments, the workload may be greater.

3.2 Learning Activities and Teaching Strategies

This course is conducted via 2 hour workshops in a flipped classroom environment. There are two separate workshop classes. Traditional 'lecture' material will be provided to students as weekly 'homework' lesson material. Students will need to review this material prior to participating in workshops. This material will also contain interactive assessments in the form of questions and gamification style learning activities.

The focus of this course is on the practical component of student groups collaboratively development a software solution. This course is structured around an iterative and incremental software development process, agile scrum, seeing student groups conduct various planning and retrospective meetings. Workshops give you the opportunity to discuss your work with your peers, and can offer an indication of your own progress. Throughout the course, student groups will contribute to workshops via project progress presentations and discussions as well as on-going workshop assignment work. Workshops will be primarily used to discuss and build upon weekly homework material as well as provide workspace for students to conduct project planning, programming and retrospective meetings, group assessments and debates. Workshops will also be used to provide limited technical support.

4 ASSESSMENT

4.1 Formal Requirements

To receive a pass grade in this course, you must meet all of the following criteria:

- Achieve a composite mark of at least 50; and
- Make a satisfactory attempt at all assessment tasks (see 4.2), including workshop preparation and participation. A mark of 45% (for each of the assessment tasks) or higher is normally regarded as satisfactory.
- Attain a mark of at least 45% in the final assessment, which in this course is the group 'Final Video Presentation & Software Application' submission.
- In the case of peer assessed group work, the mark assigned to each member of the group may be scaled based on peer assessment of each member's contribution to the task.

The School reserves the right to scale final marks to a mean of 60%, or thereabouts. It should be noted that group members are expected to work in a harmonious and professional fashion, which includes appropriate management of non-performing members.

4.2 Assessment Details

Assessment Task	Weighting	Length	Due Date
Workshop	10%		Weekly (Weeks 2-13)
Group Assignment And Peer Review	15%	See Below	Week 4, Friday 18th Aug. Peer Review Due Week 5, 25th Aug
Individual Assignment	20%	See Below	Week 9, Friday 22nd Sept

Group Presentation	10%	See Below	Week 12, Monday 16th Oct
Software Project	45%	See Below	Week 13, Friday 27th October
Total	100		

Workshop Preparation and Participation (10%): INFS3605 workshops have been designed to cultivate your analytical and critical thinking skills while at the same time, enhance your understanding and appreciation of agile scrum and software development. Additionally, the design of these workshops is also aimed at improving your skills in communication, group-work, time management and personal organization.

The INFS3605 workshops are 2 hours in length per week and will typically take place in the flipped classroom space in the Business School. For guest lectures, alternative lecture theatres may be used. Students are encouraged to bring their personal laptops and tablets to class. Checking social media (e.g. Facebook, etc.) is **not** permitted while the workshop is in session. Regular breaks will be given throughout each workshop, during which times students will be free to check their personal email, social media, etc. Smart phones may be used for certain activities, such as Socrative quizzes, however all phones must be placed on silent during the workshop.

You are expected to prepare for workshops by engaging with the weekly homework lessons (incorporating supplementary video modules, reading material, and quizzes) posted on Moodle. Homework must be completed before the weekly workshop. Students that fail to adequately engage with the homework material may be penalized in terms of their weekly workshop grade.

During workshops, you are not only expected to participate actively in class activities, group discussions and class presentations, but you are also required to answer questions that have been raised during the class. If you fail to complete **ANY** of the assigned tasks for the workshops, you may be penalized in terms of your weekly workshop grade. Expectations for workshop preparation and participation will be further discussed in your first workshop, in Week 1.

If you are unable to attend a workshop due to illness or misadventure, you will have to provide the LIC with evidence (e.g., certificate from a doctor) **TO COVER ALL ABSENCES**.

Students that arrive more than 15 minutes late, or leave the workshop early without permission, will be marked as **ABSENT.**

Based on experience from previous years, students that do not attend the weekly workshops may end up causing significant setbacks for their own group's progression in their development of the software application. In turn, students should be aware that they have both a commitment to themselves and their group to attend and participate in the weekly workshop.

INFS3605 ASSIGNMENTS
Assignment Submissions for this course comprise of:

- Group Assignment and Peer Review (15%)
- Individual Assignment: Reflection Essay (20%)

- Group Presentation: Final in class presentation of your groups solution (10%)
- Software Submission: Submission of all code and documents for your groups software solution (45%)

Detailed specifications for these assignments will be provided to students in Week 1 of the course. This will include a marking rubric for each assignment.

All written and video assignments will be submitted via Moodle for grading.

General Information on Individual Assignment (Reflection Essay/video)
"*A great deal of your time at university will be spent thinking; thinking about what people have said, what you have read, what you yourself are thinking and how your thinking has changed. It is generally believed that the thinking process involves two aspects: reflective thinking and critical thinking. They are not separate processes; rather, they are closely connected*" (Brookfield 1987[1]).

For this assignment, each student is required to create a series of reflective diary entries each week and submit these entries (as a single word document or video) on Moodle by the due date in Week 9. Further information regarding this assignment will be provided in Week 1.

Reflection is a form of personal response to experiences, situations, events or new information. Reflection is also an essential element of successful agile scrum implementation, observed in the sprint retrospective ceremony at the end of each sprint. Reflective writing/presenting is: your response to experiences, opinions, events or new information; your response to thoughts and feelings; a way of thinking to explore your learning; an opportunity to gain self-knowledge; a way to achieve clarity and better; understanding of what you are learning; a chance to develop and reinforce writing skills; and a way of making meaning out of what you study.

Reflective writing/presenting is not: just conveying information, instruction or argument; pure description, though there may be descriptive elements; straightforward decision or judgement (e.g. about whether something is right or wrong, good or bad); simple problem-solving; a summary of course notes; or a standard university essay.

For more information see: https://student.unsw.edu.au/reflective-writing.

General Information on Group Assignments
Submission of group assignments must be accompanied by a **SIGNED** cover page provided on Moodle. Digital signatures are **NOT** allowed. Signature on the cover page **MUST MATCH** the one you signed for your workshop attendance. Missing cover page or cover page without proper signature will result in an automatic penalty of 10% of the maximum marks available for the assignment.

Students that commit to a group and then do not honour their commitments will lose marks. Group members are expected to work in a harmonious and professional way. This includes appropriate management of non-performing members and conflict management. A group 'leader' (in this context, a scrum master) may be selected to help organise group activities, but the responsibility for the group's performance falls on all its members.

[1] Brookfield, Stephen. Developing critical thinkers. Milton Keynes: Open University Press, 1987.

You are to report any problems to the lecturer-in-charge as early as possible. Confidential peer assessments may be used for group assignments if individual contributions vary significantly. The lecturer-in-charge will have the final discretionary authority to alter individual marks, based on information provided in the peer assessments and/or direct consultation with involved parties.

Group assignments in INFS3605 are all subject to peer assessment. Each member of the group must submit a peer assessment form (properly filled in and SIGNED) at the time of submission for each assignment. Any claims of unequal contribution in the peer assessment form **MUST BE** backed with supporting documentation (or evidence) (e.g., emails, communication logs and/or screenshots of text messages being communicated). This supporting documentation must be submitted **TOGETHER** with the peer assessment form for an **INVESTIGATION TO BE INITIATED BY THE TUTOR** in the presence of **ALL MEMBERS**.

Supporting documentation must demonstrate that the problem has been **ONGOING** and that the accused has been **MADE AWARE** that they have continuously failed to meet the expectations of the other group member(s) and that any steps proposed by the accuser(s) to resolve the problems have been rebuffed or ignored by the accused. Evidence should also demonstrate that the group has exhausted all possibilities to manage the underperforming member(s). Please note that doctoring supporting documentation or making false claims of unequal contribution will be deemed as serious misconduct and the incident will be referred to the Head of School.

Upon receiving the necessary documents from the accuser(s), the tutor will inform the accused (through his/her UNSW email account) that a claim of unequal contribution has been filed against him/her. The accused will then have **ONE WORKING DAY** to submit any supporting documentation in his/her defence against the accusation of unequal contribution. The tutor will compile all these documents into a single case file.

The tutor will **ONLY** initiate an investigation when all the conditions for a valid claim by the accuser(s) of unequal contribution have been met. Whenever the tutor decides to initiate an investigation, he/she will notify all members (through the UNSW email accounts) that an investigation has been initiated and schedule an investigation session. **ALL** group members must **MAKE ALL POSSIBLE EFFORTS** to attend the investigation sessions scheduled by the tutor. These sessions also represent an opportunity for the accused to defend their cases in front of their accuser(s). If the group members are not able to find a common time to meet with the tutor after several attempts to schedule the investigation session, the tutor will then be given the discretion to decide on the distribution of each group member's contribution based on **ALL** evidence submitted by both the accuser(s) and the accused. The decision by the tutor is then binding and all members have to accept the outcome. Upon the conclusion of the investigation, be it in the presence of all members or through the tutor's discretion (whichever applies), the mark assigned to each member of the group may be **scaled according to the distribution of each group member's contribution to the task.**

4.3 Special Consideration, Late Submission and Penalties

For information on Special Consideration please refer to the Business School's Course Outlines Policies webpage**.**

Late submission of an assignment is not desirable. **Assignments are to be submitted on—or before—the due date and time**. Students should therefore upload their assignments well before this time as the upload process may take considerable time (up

to an hour or more in some cases). All Assessments must be fully uploaded and submitted by the stated due time and date. The late submission of assignments carries a penalty of 10% of the awarded marks for that assignment per day of lateness (including weekends and public holidays) unless an extension of time has been granted by the Lecturer-in-Charge. An extension of time to complete an assignment may be granted by the Lecturer-in-Charge in case of misadventure or illness. Applications for an extension should be made to the Lecturer-in-Charge by email or in person before the due date. You will be required to substantiate your application with appropriate evidence such as medical certificates, accident reports etc. Please note that workload, work commitments and computer failures are usually considered insufficient grounds for an extension.

4.4 Protocol for viewing final exam scripts

There is no final examination for this course.

Quality Assurance
The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential.

5 COURSE RESOURCES

The website for this course is on Moodle at:
http://moodle.telt.unsw.edu.au.

6 COURSE EVALUATION AND DEVELOPMENT

Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's myExperience survey is one of the ways in which student evaluative feedback is gathered. In this course, we will seek your feedback through myExperience responses. Feedback from previous students indicated that a number of students wanted to engage with more personalized learning approach to software development. As a result of this feedback, students in 2017 will be able to have significant input into the function of their software application.

7 COURSE SCHEDULE

COURSE SCHEDULE		
Week	**Topic**	**Other activities / assessment**
Week 1 24 July	INFS3605 Introduction	Assignment Specifications Released
Week 2 31 July	Discovery	Guest Lecture on Discovery Stage
Week 3 7 August	User Experience (UX)	Guest Lecture on UX
Week 4 14 August	Presentation of Initial Project Proposals	**Group Assignment 1 Submission**
Week 5 21 August	Evaluation and Refinement	**Peer Review of Group Assignment 1**
Week 6 28 August	Sprint 1	
Week 7 4 September	Sprint 1	
Week 8 11 September	Sprint 2	
Week 9 18 September	Sprint 2	**Individual Assignment Submission**
Mid-semester break: 23 September – 2 October inclusive (2 Oct = Labour Day Public Holiday)		
Week 10 3 October	Sprint 3	**No Workshop on Monday 2nd October due to Public Holiday**
Week 11 9 October	Sprint 3	
Week 12 16 October	Group Presentations	**Group Presentations**
Week 13 23 October	**Group Software Project Submission**	