

School of Information Systems and Technology Management

INFS3631 **Innovation and Technology** **Management**

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>

Table of Contents

COURSE-SPECIFIC INFORMATION	1
1 STAFF CONTACT DETAILS	1
2 COURSE DETAILS	1
2.1 Teaching Times and Locations	1
2.2 Units of Credit	1
2.3 Summary of Course	1
2.4 Course Aims and Relationship to Other Courses	2
2.5 Student Learning Outcomes	2
3 LEARNING AND TEACHING ACTIVITIES	3
3.1 Approach to Learning and Teaching in the Course	3
3.2 Learning Activities and Teaching Strategies	3
4 ASSESSMENT	4
4.1 Formal Requirements	4
4.2 Assessment Details	4
4.3 Assignment Submission Procedure	5
4.4 Special Consideration, Late Submission and Penalties	5
4.5 Protocol for viewing final exam scripts	5
5 COURSE RESOURCES	6
6 COURSE EVALUATION AND DEVELOPMENT	6
7 COURSE SCHEDULE	7

COURSE-SPECIFIC INFORMATION

1 STAFF CONTACT DETAILS

Position	Name	Email	Room	Phone
Lecturer-in-charge	Sam Kirshner	s.kirshner@unsw.edu.au	Quad 2115	93855517
Lecturer/Tutor	David Goad	david.goad@sydney.edu.au	TBA	86276021

Consultations hours: TBA

The best way to contact your lecturer is via email or during their consultation times. Please note that only your UNSW email account will be used for formal notices and correspondence regarding the course. Always sign your email with your name and student number. The subject of your e-mail should begin with the course code (i.e. INFS3631).

Moodle will be used for all course communications i.e. notices, questions regarding assignments and course content. Please check Moodle regularly as this is where we communicate urgent notices when needed. Please note – only urgent (and very short) enquiries will be answered via e-mail, or telephone. Please attend consultation times or make an appointment if you need to discuss issues in detail. If you need to contact the School urgently you call the School Office at 9385-5320 or e-mail istm@unsw.edu.au.

2 COURSE DETAILS

2.1 Teaching Times and Locations

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

Section	Day	Time	Location
LEC A	Monday	2:00-4:00 PM	UNSW Business School G21
LEC B	Monday	4:00-6:00 PM	UNSW Business School G21

2.2 Units of Credit

The course is worth 6 units of credit.

2.3 Summary of Course

This is a Level 3 multi-disciplinary course at the intersection of information systems, entrepreneurship and operations management. The course aims to develop students' conceptual knowledge and practical skills regarding managing technological innovation through various phases of the innovation process. This course will analyze both how small and large firms can compete in competitive markets through the management of technology and innovation. There will also be a focus on how small and large firms can identify market needs and commercialise innovations. The course emphasises the role of social media and social networks in developing, driving and managing innovations. The course will primarily use case studies and class discussions to analyse emerging issues in technology strategy, operational decisions and entrepreneurship.

2.4 Course Aims and Relationship to Other Courses

This course aims to develop students' ability to analyse and assess critical trade-offs in technology management and innovation strategy. Students will learn the industry dynamics of innovation processes and understand how to incentivise innovation, select appropriate development strategies and time product entry. Overall, the course aims at developing students' academic, conceptual and theoretical IS knowledge in the area of technology and innovation management, as well as their professional skills by applying this knowledge to real-world business cases.

The course is a third year course offered as part of the UNSW Business School Information Systems curriculum by the School of Information Systems and Technology Management. The course builds on your knowledge about the role of technology in today's business world. INFS1602 Information Systems in Business is a prerequisite for this course. You must also complete 72 UOC prior to taking this course.

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. Articulate how technology strategy is different from conventional competitive strategy.
2. Determine when and how innovation strategies for start-ups differ from established firms.
3. Explain how innovations are diffused and adopted or why they failed to do so.
4. Evaluate the value and risks of different new product development and commercialisation strategies.
5. Examine how organisations support and foster innovation and creativity.
6. Analyze the suitability of different technology and innovation management strategies to emerging applications.

The Learning Outcomes in this course also help you to achieve some of the overall Program Learning Goals and Outcomes for all undergraduate 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
<i>This course helps you to achieve the following learning goals for all Business undergraduate students:</i>		<i>On successful completion of the course, you should be able to:</i>	<i>This learning outcome will be assessed in the following items:</i>
1	Knowledge	Articulate how technology strategy is different from conventional competitive strategy. Explain how innovations are diffused and adopted or why they failed to do so.	<ul style="list-style-type: none"> • Case Discussions • Assignments • Exam
2	Critical thinking and problem solving	Determine when and how innovation strategies for start-ups differ from established firms. Evaluate the value and risks of different new product development and commercialisation strategies. Examine how organisations support and foster innovation and creativity. Analyze the suitability of different technology and innovation management strategies to emerging applications	<ul style="list-style-type: none"> • Case Discussions • Assignments • Exam
3a	Written communication	Assessed but not taught	Reflection Assignments
3b	Oral communication	Assessed but not taught	Case Discussions
4	Teamwork	Assessed but not taught	Case Discussion
5a	Ethical, social and environmental responsibility	Not specifically addressed in this course.	Case Discussions
5b	Social and cultural awareness	Identify how social factors influence a firm's technology strategy	Case Discussions

3 LEARNING AND TEACHING ACTIVITIES

3.1 Approach to Learning and Teaching in the Course

Each weekly session will be an interactive lecture. The lecture will introduce the relevant concepts and disciplinary knowledge in the area of technological innovation management and organization and use discussion and innovative cases to help you apply these concepts to business applications. The class activities and cases will usually been done in groups and end with a short presentations, debates or discussions.

3.2 Learning Activities and Teaching Strategies

Learning will take place through active contribution to the sessions, studying the course notes, the provided readings and cases and reflection assignments.

4 ASSESSMENT

4.1 Formal Requirements

To pass this course, you must:

- achieve a composite mark of at least 50;
- attend at least 80% of all scheduled classes;
- attain a satisfactory performance in all assessment tasks (see below). A mark of 45% or higher is normally regarded as satisfactory;
- attain a mark of at least 45% in the final exam.

In 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%.

4.2 Assessment Details

Assessment Task	Weighting	Due Date
Pre-Class Quizzes	15%	Weeks 2-12
In-Class Group Activities	15%	Weeks 2-9,11-12
Post-Class Reflections	20%	Weeks 4, 6, 8, 10
Final Exam	50%	University Exam Period
Total	100%	

Pre-Class Quizzes (15%)

You are expected to actively participate in class activities, group discussion and answer questions that have been posed during the class. To help prepare for class discussion, students need to carefully read the core curriculum readings and complete the readings and videos in the multi-media cases, as well as any supplementary material (articles/videos) provided.

For each class (except week 1), there will be an online Moodle quiz testing your knowledge of the readings and related materials. Each quiz will be made available from Thursday at 2:00 PM the week before class to Monday at 2:00 PM the week of class. Each quiz is worth 1.5% and only the best 10/11 will count towards your grade.

In-Class Activities (15%)

For lectures 2-9 and 11-12 there will be a set of questions and activities to be completed in groups. These activities provide an opportunity for you to work in a group setting to assess, debate and discuss key issues in the readings and cases. The solutions to these activities will be completed in a group setting and will be due at the end of class. If you miss class, there will not be an opportunity to make up the group activity. If a class is missed due to a valid medical reason or misadventure (following the guidelines of special consideration), then mark assigned will be the average mark across the remaining classes. Each set of in-class activities will be worth 1.5%.

Post Case-Discussion Reflections (20%)

This assignment provides an opportunity to consolidate your understanding and reflection of the readings and case discussion had in class. Each reflection will demonstrate how your opinion on a key issue evolved based on the group discussion and debate. There will be 4 reflections based on the multi-media cases discussed in weeks 3, 5, 7, and 9. Each reflection will be worth 5% and are due at 2:00 PM on Monday the following week.

Final Exam (50%)

The purpose of the exam is to evaluate your overall learning success in this course in a time-restricted setting. The final exam may cover all material discussed in the course, the Core Curriculum readings, the multi-media cases, and additional material provided in class. You will be asked to both discuss and apply the concepts explained in those sources. Your ability to clearly and coherently frame your answers will be part of the evaluation. You must plan on being available for the full examination period to attend the final exam. In addition, you should also ensure that you would be available for a supplementary examination in the event of illness or misadventure. The LIC will provide further advice on the exam in the lecture.

4.3 Assignment Submission Procedure

Assignments need to be submitted via Moodle. Submission of assignments must be accompanied by a signed cover page. Digital signatures are not allowed. Missing cover page or cover page without authentic signatures will result in a penalty of 10% of the maximum marks available for assignments. Assignments will be screened with plagiarism-detecting software. The submission of non-original materials will be considered plagiarism and will be pursued.

4.4 Special Consideration, Late Submission and Penalties

Late submission of an assignment is not desirable. Assignments are to be submitted on or before the due date. The late submission of assignments carries a penalty of 10% of the available marks for that assignment per day of lateness (including weekends and public holidays). An extension of time to complete an assignment may be granted by the LIC in case of illness or misadventure. Applications for special consideration and appropriate evidence such as medical certificates, accident reports etc. need to be submitted. Please note that workload, work commitments and computer failures are usually considered insufficient grounds for an extension. For group assignments only: groups are expected to plan ahead and to being able to balance out a missing member without an extension. An extension is unlikely to be granted for groups.

4.5 Protocol for viewing final exam scripts

The School of Information Systems and Technology Management (ISTM) has set a protocol under which students may view their final exam script. ISTM exam script viewing day is usually a day after the official release of results. Details will be posted on both the school website and on your course Moodle.

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

Course materials will be provided in class and through Moodle. There is no prescribed textbook. Instead each lecture will be based on a *Core Curriculum* reading or multi-media case, both provided by Harvard Business School. A recommended textbook for students wanting additional materials is:

Schilling (2012). *Strategic Management of Technological Innovation* (4e). McGraw-Hill, New York, NY, USA. (ISBN-13: 978-0078029233).

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 end of semester myExperience responses. Feedback from previous students indicated strong support for using multi-media cases. As a result of last year's myExperience feedback, the course has been updated to replace traditional reading cases with more multi-media cases.

7 COURSE SCHEDULE

COURSE SCHEDULE		
Week	Topic	Reference Notes
Week 1 24 July	Technology Strategy I	Core Curriculum
Week 2 31 July	Technology Strategy II	Core Curriculum
Week 3 7 August	Open Innovation: Born Opening	Multimedia Case
Week 4 14 August	Recognizing and Shaping Opportunities	Core Curriculum
Week 5 21 August	Bio-Inspiration at the San Diego Zoo	Multimedia Case
Week 6 28 August	Financing Entrepreneurial Ventures	Core Curriculum
Week 7 4 September	BionX	Multimedia Case
Week 8 11 September	Experimenting in the Entrepreneurial Venture	Core Curriculum
Week 9 18 September	The Atavist	Multimedia Case
Mid-semester break: 23 September – 2 October inclusive (2 Oct = Labour Day Public Holiday)		
Week 10 3 October	Leading Breakthrough Innovation in Established Companies	Core Curriculum
Week 11 9 October	Back-bay Battery Simulation	Online Simulation
Week 12 16 October	The Start Up Game	Online Simulation