ICT275 INNOVATION AND TECHNOLOGY MANAGEMENT T326 BRIEF

All information in the Subject Outline is correct at the time of approval. KOI reserves the right to make changes to the Subject Outline if they become necessary. Any changes require the approval of the KOI Academic Board and will be formally advised to those students who may be affected by email and via Moodle.
Information contained within this Subject Outline applies to students enrolled in the trimester as indicated

1. General Information

1.1 Administrative Details

Associated HE Award(s)	Duration	Level	Subject Coordinator
Bachelor of Information Technology (BIT)	1 trimester	Level 2	Mr Rashidul Mubasher rashidul.mubasher@koi.edu.au P: +61 (2) 9283 3583 L: 7-11, 11 York St. Consultation: via Moodle or by appointment.

1.2 Core / Elective

Elective subject for BIT

1.3 Subject Weighting

Indicated below is the weighting of this subject and the total course points.

Subject Credit Points	Total Course Credit Points
4	BIT (96 Credit Points)

1.4 Student Workload

Indicated below is the expected student workload per week for this subject

No. Timetabled Hours/Week*	No. Personal Study Hours/Week**	Total Workload Hours/Week***
4 hours/week (2 hour Lecture + 2 hour Tutorial)	6 hours/week	10 hours/week

* Total time spent per week at lectures and tutorials
** Total time students are expected to spend per week in studying, completing assignments, etc.
*** Combination of timetable hours and personal study.

1.5 Mode of Delivery Classes will be face-to-face or hybrid. Certain classes will be online (e.g., special arrangements).

1.6 Pre-requisites 6 subjects completed

1.7 General Study and Resource Requirements

- Dedicated computer laboratories are available for student use. Normally, tutorial classes are conducted in the computer laboratories.

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- Students are expected to attend classes with the requisite textbook and must read specific chapters prior to each tutorial. This will allow them to actively take part in discussions. Students should have elementary skills in both word processing and electronic spreadsheet software, such as Office 365 or MS Word and MS Excel.
- Computers and WIFI facilities are extensively available for student use throughout KOI. Students are encouraged to make use of the campus Library for reference materials.
- Students will require access to the internet and email. Where students use their own computers, they should have internet access. KOI will provide access to required software.

Resource requirements specific to this subject: MS Imagine, Office 365.

1.8 Academic Advising

Academic advising is available to students throughout teaching periods including the exam weeks. As well as requesting help during scheduled class times, students have the following options:

- Consultation times: A list of consultation hours is provided on the homepage of Moodle where appointments can be booked.
- Subject coordinator: Subject coordinators are available for contact via email. The email address of the subject coordinator is provided at the top of this subject outline.
- Academic staff: Lecturers and Tutors provide their contact details in Moodle for the specific subject. In most cases, this will be via email. Some subjects may also provide a discussion forum where questions can be raised.
- Head of Program: The Head of Program is available to all students in the program if they need advice about their studies and KOI procedures.
- Vice President (Academic): The Vice President (Academic) will assist students to resolve complex issues (but may refer students to the relevant lecturers for detailed academic advice).

2 Academic Details

2.1 Overview of the Subject

Globalisation, radical technological innovation and an increasingly transient consumer base have increased the pressure for organisations to become innovative. This subject takes a view of information technology and impact of social, ethical and environmental implications of technological innovation that extends beyond the province of business applications built and used by a single organisation. You will see the importance of innovation, learn how organisations can commercialise their technological innovations and examine how the associated risks and benefits might be managed. Through the open innovation paradigm, you will see how internal and external ideas can be brought together and how innovations can be transferred inward and outward through licensing, joint ventures and spin-offs.

2.2 Graduate Attributes for Undergraduate Courses

Graduates of Bachelor courses from King's Own Institute (KOI) will achieve the graduate attributes expected under the Australian Qualifications Framework (2nd edition, January 2013). Graduates at this level will be able to apply a broad and coherent body of knowledge from their major area of study in a range of contexts for professional practice or scholarship and as a pathway for further learning.

King's Own Institute's generic graduate attributes for a bachelor's level degree are summarised below:

	KOI Bachelor Degree Graduate Attributes	**Detailed Description**

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	Knowledge	Current, comprehensive, and coherent and connected knowledge
	Critical Thinking	Critical thinking and creative skills to analyse and synthesise information and evaluate new problems
	Communication	Communication skills for effective reading, writing, listening and presenting in varied modes and contexts and for the transferring of knowledge and skills to a variety of audiences
	Information Literacy	Information and technological skills for accessing, evaluating, managing and using information professionally
	Problem Solving Skills	Skills to apply logical and creative thinking to solve problems and evaluate solutions
	Ethical and Cultural Sensitivity	Appreciation of ethical principles, cultural sensitivity and social responsibility, both personally and professionally
	Teamwork	Leadership and teamwork skills to collaborate, inspire colleagues and manage responsibly with positive results
	Professional Skills	Professional skills to exercise judgement in planning, problem solving and decision making

Across the course, these skills are developed progressively at three levels:

- **Level 1 Foundation** – Students learn the basic skills, theories and techniques of the subject and apply them in basic, standalone contexts
- **Level 2 Intermediate** – Students further develop the skills, theories and techniques of the subject and apply them in more complex contexts, and begin to integrate this application with other subjects.
- **Level 3 Advanced** – Students demonstrate an ability to plan, research and apply the skills, theories and techniques of the subject in complex situations, integrating the subject content with a range of other subject disciplines within the context of the course.

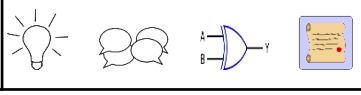
2.3 Subject Learning Outcomes

This is a Level 2 subject.

On successful completion of this subject, students should be able to:

Subject Learning Outcomes	Contribution to Graduate Attributes
a) Investigate and discuss critical factors that impact on innovation and technology in business.	
b) Research, analyse and present a business case for a technology innovation.	

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c) Discuss the impact of social, ethical and environmental uses on technological innovation.	
d) Analyse strategies for funding, promoting, protecting and managing innovation.	

2.4 Subject Content and Structure

Below are details of the subject content and how it is structured, including specific topics covered in lectures and tutorials. Reading refers to the text unless otherwise indicated.

Weekly Planner:

Week (beginning)	Topic covered in each week's lecture	Reading(s)	Expected work as listed in Moodle
Week 1 26 October	Importance of technological innovation disruptive technologies	Ch.1	Discuss examples of technical innovation. Weekly tutorial Grade (2%).
Week 2 02 November	Evolving Sources of Innovation: From Historical Patterns to Contemporary Drivers and AI-Enabled Innovation	Ch. 2, plus selected OECD reading on generative AI, innovation, and entrepreneurship.	Explore how innovative ideas emerge through both historical patterns and contemporary sources such as individuals, firms, universities, collaboration, government, and AI-enabled systems. Examine how AI is reshaping traditional innovation patterns by influencing idea generation, experimentation, iteration, and commercialisation. Discuss the opportunities and challenges of human-AI collaboration in innovation. Weekly tutorial Grade (2%).
Week 3 09 November	Types and Patterns of Innovation in the Age of AI	Ch.3	Analyse traditional types of innovation, including radical, incremental, product, and process innovation, and compare them with emerging AI-enabled patterns of innovation. Discuss how AI contributes to faster experimentation, recombination of ideas, service innovation, and new competitive dynamics across industries. Use examples to evaluate whether AI is mainly supporting incremental

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Week (beginning)	Topic covered in each week's lecture	Reading(s)	Expected work as listed in Moodle
			innovation or also enabling more radical shifts. Weekly tutorial Grade (2%).
Week 4 16 November	Standards battles, service and design dominance	Ch.4	Complete end of chapter discussion questions 1, 2 and 5. Weekly tutorial Grade (2%).
Week 5 23 November	Timing of Entry: Strategic Innovation and the Factors Behind Success and Failure	Ch.5	Explore the critical factors that influence the timing of entry into a market, including market readiness, technology, and competition. Using insights from Peter Thiel's Zero to One, they will examine why innovations fail, focusing on issues such as copying existing ideas, poor timing, and the inability to create monopolies. Students will analyse the risks and rewards of entering markets too early or too late and understand how entry timing is linked to competition, monopolies, and breakthrough innovation. Weekly tutorial Grade (2%). **Assessment 2 due (In class)**
Week 6 30 November	Defining the organisation's strategic direction	Ch.6	Complete end of chapter discussion question 3 and 4 in group (not more than 3) and present your findings. Weekly tutorial Grade (2%).
Week 7 07 December	Choosing innovation projects	Ch.7	Complete end of chapter exercises based on Strategies, Innovation. Weekly tutorial Grade (2%).
Week 8 14 December	Collaboration Strategies and Protecting Innovation	Ch.8, 9	Complete end of chapter 8 discussion questions 1, 2 and 3. Weekly tutorial Grade (2%). **Assessment 3 due**
Week 9 04 January	Organising for innovation	Ch.10	Complete end of chapter discussion questions 1,2, 3 and 4. Informal quiz. Weekly tutorial Grade (2%).

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Week (beginning)	Topic covered in each week's lecture	Reading(s)	Expected work as listed in Moodle
Week 10 11 January	Managing the New Product Development Process and Team	Chs.11,12	Complete exercises. Weekly tutorial Grade (2%).
Week 11 18 January	Crafting a deployment strategy	Ch.13	Weekly tutorial on deployment strategy **Assessment 4 (report and presentation) due (The presentation must be in class)**
Week 12 25 January	Revision	All Chapters	Revision
Week 13 01 February	Study review week and Final Exam Week		
Week 14 08 February	- Final Exam Week - Continuing students - enrolments for T127 open		Please see the exam timetable for the exam date, time and location
Week 15 15 February	- Student Vacation begins - New students - enrolments for T127 open		
Week 16 22 February	o Results Released o Review of Grade Day for T326 – see Sections 2.6 and 3.2 below for relevant information. o Certification of Grades NOTE: More information about the dates will be provided at a later date through Moodle/KOI email.		
T127 01 March 2027			
Week 1 01 March	Week 1 of classes for T127		

2.5 Teaching Methods/Strategies

Briefly described below are the teaching methods/strategies used in this subject:

- *Lectures* (2 hours/week) are conducted in seminar style and address the subject content, provide motivation and context and draw on the students' experience and preparatory reading.
- *Tutorials* (2 hours/week) include class discussion of case studies and research papers, practice sets and problem-solving and syndicate work on group projects. Tutorials often include group exercises and so contribute to the development of teamwork skills and cultural understanding. Tutorial participation is an

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essential component of the subject and contributes to the development of many of the graduate attributes (see section 2.2 above). Tutorial participation contributes towards the assessment in many subjects (see details in Section 3.1 for this subject). Supplementary tutorial material such as case studies, recommended readings, review questions etc. will be made available each week in Moodle.

- *Online* teaching resources include class materials, readings, model answers to assignments and exercises and discussion boards. All online materials for this subject as provided by KOI will be found in the Moodle page for this subject. Students should access Moodle regularly as material may be updated at any time during the trimester
- *Other contact* - academic staff may also contact students either via Moodle messaging, or via email to the email address provided to KOI on enrolment.

2.6 Student Assessment

Assessment is designed to encourage effective student learning and enable students to develop and demonstrate the skills and knowledge identified in the subject learning outcomes. Assessment tasks during the first half of the study period are usually intended to maximise the developmental function of assessment (formative assessment). These assessment tasks include weekly tutorial exercises (as indicated in the weekly planner) and low stakes graded assessment (as shown in the graded assessment table). The major assessment tasks where students demonstrate their knowledge and skills (summative assessment) generally occur later in the study period. These are the major graded assessment items shown in the graded assessment table.

Final grades are awarded by the Board of Examiners in accordance with KOI's Assessment and Assessment Appeals Policy. The definitions and guidelines for the awarding of final grades within the BIT degree are:

- HD High distinction (85-100%) an outstanding level of achievement in relation to the assessment process.
- DI Distinction (75-84%) a high level of achievement in relation to the assessment process.
- CR Credit (65-74%) a better than satisfactory level of achievement in relation to the assessment process.
- P Pass (50-64%) a satisfactory level of achievement in relation to the assessment process.
- F Fail (0-49%) an unsatisfactory level of achievement in relation to the assessment process.

Provided below is a schedule of formal assessment tasks and major examinations for the subject.

Assessment Type	When assessed	Weighting	Learning Outcomes Assessed
Assessment 1: Weekly Tutorial Exercises	Weeks 1 – 10	20%	a, b, c, d
Assessment 2: **In-Class** Quiz	Week 5 Tutorial	10%	a
Assessment 3: Individual written report, 1,500 words	Week 8	15%	b, c
Assessment 4: Innovation Analysis and Solution Development: Group Case Study (1,200 words) and Presentation **(Presentation must be in class)**	Week 11	**Report:** 10 % **Presentation:** 10 % **Total:** 20%	b, c, d
Assessment 5: Final examination On-campus: 2 hours + 10 mins reading time	Final exam period	35%	a, c, d

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Requirements to Pass the Subject:

To gain a pass or better in this subject, students must gain a *minimum of 50%* of the total available subject marks.

2.7 Prescribed and Recommended Readings

Provided below, in formal reference format, is a list of the prescribed and recommended readings.

Prescribed Text:

Schilling, M., 2023, *Strategic Management of Technological Innovation*, 7th ed., McGraw-Hill Education, New York. ISBN: 9781265657659

Recommended readings:

Johnson, S., 2010, *Where Good Ideas Come From: The Natural History of Innovation*, Riverhead Books, New York. ISBN: 9781594485381

Tidd, J., Bessant, J., and Pavitt, K., 2005, *Managing Innovation: Integrating Technological, Market and Organizational Change*, 3rd ed., John Wiley & Sons, Chichester. ISBN: 9780470093269

Kerzner, H., 2022, *Innovation Project Management: Methods, Case Studies, and Tools for Managing Innovation Projects*, 2nd ed., John Wiley & Sons, Hoboken, NJ. ISBN: 9781119931256.

Agarwal, R., Patterson, E., Pugalia, S., and Green, R., 2022, *Innovation*, Taylor & Francis, Abingdon, UK. ISBN: 9780367364427.

Harrington, H.J., and Voehl, F.,2020, *Total Innovative Management Excellence (TIME): The Future of Innovation*, CRC Press, Boca Raton, FL. ISBN: 9780367432423.

Rothaermel, F.T., 2019, *Strategic Management: Concepts*, 4th ed., McGraw-Hill Education, New York. ISBN: 9781259927621.

Conference/ Journal Articles:

Kalko, M.M., Erena, O.T., and Debele, S.A., 2022, Technology management practices and innovation: Empirical evidence from medium- and large-scale manufacturing firms in Ethiopia, *African Journal of Science, Technology, Innovation and Development*, vol. 15, no. 1, pp. 107–123. DOI: 10.1080/20421338.2022.2040828.

Gama, F., and Magistretti, S., 2025, Artificial intelligence in innovation management: A review of innovation capabilities and a taxonomy of AI applications, *Journal of Product Innovation Management*, vol. 42, no. 1, pp. 76-111. DOI: 10.1111/jpim.12698.

Calvino, F., J. Reijerink and Samek, L., 2025, The effects of generative AI on productivity, innovation and entrepreneurship, *OECD Artificial Intelligence Papers*, No. 39, OECD Publishing, Paris, https://doi.org/10.1787/b21df222-en.

World Intellectual Property Organization, 2024, Generative artificial intelligence: Patent landscape report. WIPO. https://doi.org/10.34667/tind.49740

Journals:

Scopus indexed open access journals

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- Journal of Innovation and Knowledge
- Journal of Innovation and Entrepreneurship
- Journal of Technology Management and Innovation
- Journal of Information Technology Management

Students are encouraged to read peer reviewed journal articles and conference papers. Google Scholar provides a simple way to broadly search for scholarly literature. From one place, you can search across many disciplines and sources: articles, theses, books, abstracts and court opinions, from academic publishers, professional societies, online repositories, universities and other web sites.

Websites:

- Department of Industry, Innovation and Science, Australian Government https://industry.gov.au/Pages/default.aspx
- Australian Bureau of Statistics http://www.abs.gov.au/Technology-and-Innovation
- Innovation Excellence Portal http://innovationexcellence.com
- https://smart-conf.com/

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