ICT710 IT GOVERNANCE AND EMERGING TECHNOLOGIES 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
Master of Information Technology (MIT) Graduate Diploma of Information Technology (GDIT) Graduate Certificate of Information Technology (GCIT)	1 trimester	Postgraduate	Dr Shafiqur Rahman shafiqur.rahman@koi.edu.au P: +61 (2) 9283 3583 L: 7-11, 11 York Street. Consultation: via Moodle or by appointment.

1.2 Core/Elective

This subject is
- a core subject for the Master of Information Technology (MIT)
- a core subject for the Graduate Diploma of Information Technology (GDIT)
- a core subject for the Graduate Certificate of Information Technology (GCIT)

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	MIT (64 Credit Points); GDIT (32 Credit Points); GCIT (16 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***
3 hours/week plus supplementary online material	7 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 Nil

1.7 General Study and Resource Requirements

- Students are expected to attend classes with the weekly worksheets and subject support material provided in Moodle. Students should read this material before coming to class to improve their ability to participate in the weekly activities.
- Students will require access to the internet and their KOI email and should have basic skills in word processing software such as MS Word, spreadsheet software such as MS Excel and visual presentation software such as MS PowerPoint.
- 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.

Software resource requirements specific to this subject: Office 365, MS Imagine

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

This subject will build the knowledge and skills required to successfully contribute to the development, management and integration of strategic computer-based systems within an organisational setting. The subject provides a business, government and management perspective of IT, outlining the important IT governance frameworks used by businesses, governments, managers and IT professionals as well as leaders to achieve the best possible organisational outcomes from strategic investments in IT. It identifies the major current trends and IT applications being used by organisations and examines contemporary areas of concern such as security, privacy and ethics. The subject also considers key emerging IT technologies and examines how they may affect businesses, governments, IT professionals and leaders in the near future.

2.2 Graduate Attributes for Postgraduate Courses

Graduates of postgraduate courses from King's Own Institute will achieve the graduate attributes expected from successful completion of a postgraduate degree under the Australian Qualifications Framework (2nd edition, January 2013). Graduates at this level will be able to apply advanced 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 master's level degree are summarised below:

	KOI Postgraduate Degree Graduate Attributes	Detailed Description
	Knowledge	Current, comprehensive and coherent knowledge, including recent developments and applied research methods
	Critical Thinking	Critical thinking skills to identify and analyse current theories and developments and emerging trends in professional practice
	Communication	Communication and technical skills to analyse and theorise, contribute to professional practice or scholarship, and present ideas to a variety of audiences
	Research and Information Literacy	Cognitive and technical skills to access and evaluate information resources, justify research approaches and interpret theoretical propositions
	Creative Problem Solving Skills	Cognitive, technical and creative skills to investigate, analyse and synthesise complex information, concepts and theories, solve complex problems and apply established theories to situations in professional practice
	Ethical and Cultural Sensitivity	Appreciation and accountability for ethical principles, cultural sensitivity and social responsibility, both personally and professionally
	Leadership and Strategy	Initiative, leadership skills and ability to work professionally and collaboratively to achieve team objectives across a range of team roles Expertise in strategic thinking, developing and implementing business plans and decision making under uncertainty
	Professional Skills	High level personal autonomy, judgement, decision-making and accountability required to begin professional practice

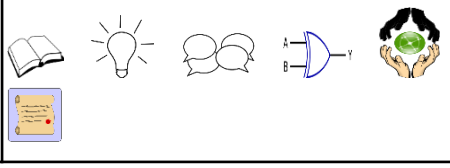
Across the courses, these skills are developed progressively at three levels:

- **Level 1 Foundation –** Students learn the skills, theories and techniques of the subject and apply them in stand-alone contexts
- **Level 2 Intermediate –** Students further develop skills, theories and techniques of the subject and apply them in more complex contexts, beginning to integrate the application with other subjects
- **Level 3 Advanced** – Students have a demonstrated 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

Generally, skills gained from subjects in the Graduate Certificate and Graduate Diploma are at levels 1 and 2 while other subjects in the Master's degree are at level 3.

2.3 Subject Learning Outcomes

Listed below, are key knowledge and skills students are expected to attain by successfully completing this subject:

Subject Learning Outcomes	Contribution to Graduate Attributes
a) Identify the organisational and IT professional benefits gained through the use of a major IT governance framework in managing the IT resources of an organisation	
b) Examine the significant risks currently facing the IT industry and critique the steps being taken by the industry, business and governments to mitigate them	
c) Evaluate the advantages and disadvantages of major organisational IT technologies in current use	
d) Assess and critically evaluate the impacts of emerging technologies such as Push and Pull innovation processes; Artificial Intelligence (AI); Immersive Technology (MR/AR/VR); Internet of Things (IoT); Blockchain	

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	Introduction to IT governance and emerging technologies	Ch. 1 (Maleh et al., 2024) Extra resources will be provided on Moodle	Readings review questions /discussion Formative not graded
Week 2 02 November	Information Literacy Protection of Information Technology	Ch. 2 (Maleh et al., 2024) Extra resources will be provided on Moodle	Readings review questions /discussion Tutorial 1 due
Week 3 09 November	IT Governance Framework COBIT 5 Emerging Technology – Robotics	Ch. 3 (Maleh et al., 2024) Extra resources will be provided on Moodle	Readings review questions / discussion Tutorial 2 due
Week 4 16 November	IT Governance Framework – ITIL Emerging Technology: 3D Printing & Additive Manufacturing	Ch. 4 (Maleh et al., 2024) Mastering 3D Printing (Moss, 2025)	Readings review questions / discussion Tutorial 3 due

Week 5 23 November	Protection of Information Resources. Personal, social and legal issues related to IT. Emerging Technology – 5G Wireless Technology	Ch. 2 and 6 (Maleh, 2022) 5G Network Technology and Beyond (Umamaheswari, Kumar and Somasundaram, 2026)	Readings review questions / discussion Tutorial 4 due
Week 6 30 November	Emerging Technology – Internet of Things (IoT)	Australia's IoT Opportunity: Driving Future Growth (pwc.com.au)	Get assessment 3 topics approved. Readings review questions /discussion Tutorial 5 due **Assessment 2:** Quiz
Week 7 07 December	Information Governance in Healthcare Telemedicine Technologies	Health systems governance (2026, Who, Int).	Readings review questions / discussion Tutorial 6 due
Week 8 14 December	Developing an Information Management Policy Emerging Technology - Transportation	NAA readings Ch. 8 (Maleh et al., 2024)	Readings review questions / discussion Tutorial 7 due
Week 9 04 January	Blockchain Technology and its Applications	Extra resources will be provided on Moodle	Readings review questions / discussion Tutorial 8 due
Week 10 11 January	E-government Speech Recognition Technologies	Reading provided on Moodle	Readings review questions /discussion Tutorial 9 due **Assessment 3:** Group Report due **A4: 5 case studies released**
Week 11 18 January	Future of Work Strategies for Future Workforce	Reading provided on Moodle	Readings review questions /discussion Tutorial 10 due **Assessment 4: Individual report due**

Week 12 25 January	Viva - Hybrid mode	All course material	Revise all tutorial exercises
Week 13 01 February	No formal activities.		
Week 14 08 February	- 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	a) Results Released b) Review of Grade Day for T326 – see Sections 2.6 and 3.2 below for relevant information. c) 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* (1 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 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 assessments (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 are:

- HD High distinction (85-100%): an outstanding level of achievement in relation to the assessment process.
- D Distinction (75-84%): a high level of achievement in relation to the assessment process.
- C 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.
- FW: This grade will be assigned when a student did not submit any of the compulsory assessment items.

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: Tutorial activities - individual assessment	Weeks 2-11	20%	a, b, c, d
Assessment 2: Quiz (In Class)	Week 6	10%	a, b
Assessment 3: Group report **2100 words**(1500 words group report + 600 words Individual Reflection)	Week 10	Group Report: 25% Individual Reflection 10% Total 35%	b, c, d
Assessment 4: Report + Viva: Hybrid mode	Report due: Week 11 Viva: Week 12	Report: 15% Viva: 20% Total: 35%	a, b, c, and d

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.

Changes Made to the Subject Based on Feedback from Students and Teachers:
Increased follow up with students about their assignments.

2.7 Prescribed and Recommended Readings

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

Prescribed Text:

Maleh, Y., Sahid, A., Alazab, M. and Belaissaoui, M. (2024) *IT Governance and Information Security: Guides, Standards, and Frameworks*. 1st edn. Boca Raton, FL: CRC Press. (Advances in Cybersecurity Management). ISBN: 9780367753252.

Recommended Readings:

Calder, A. and Watkins, S., 2024. IT governance: an international guide to data security and ISO 27001/ISO 27002.

Agutter, C., 2025. ITIL® 4 Essentials: Your essential guide for the ITIL 4 Foundation exam and beyond. Packt Publishing Ltd. ISBN: 9781836203520.

Chakir, A., Bansal, R., & Azzouazi, M., 2024. Industry 5.0 and Emerging Technologies: Transformation Through Technology and Innovations. Springer Cham. DOI: https://doi.org/10.1007/978-3-031-70996-8

Gochermann, J., 2022. Technology management: recognizing, evaluating and successfully using technologies. Springer Nature. ISBN: 9783662641538.

Laudon, K.C. and Traver, C. G., 2023. E-Commerce 2023: Business, Technology, Society, Global Edition. Pearson Education Limited. ISBN: 9781292449722.

Moss, A., 2025. *Mastering 3D Printing 2025: The Practical Guide for Intermediate Users*. Independently Published.

Sargiotis, D., 2024. Data governance: a guide. Springer Nature. ISBN: 9783031508516.

Sikkut, S., 2022. *Digital Government Excellence*. Hoboken, New Jersey: Wiley. ISBN: 9781119858874.

Swathi, N.L., Kavitha, S. and Karpakavalli, M., 2025. Healthcare Information Systems Management, IGI Global. ISBN: 9798369351826.

Umamaheswari, K., Kumar, B.V. and Somasundaram, S.K. (eds.) (2026) 5G Network Technology and Beyond: Applications, Architecture, and Future Horizons. Hoboken, NJ: John Wiley & Sons.

Umamaheswari, K., Kumar, B.V. and Somasundaram, S.K. eds., 2023. Artificial Intelligence for Sustainable Applications. John Wiley & Sons. ISBN: 9781394174584. DOI: https://doi.org/10.1002/9781394175253

Vincent, N. and Igou, A., 2023. Emerging Technologies for Business Professionals: A Nontechnical Guide to the Governance and Management of Disruptive Technologies. ISBN: 9781119987369.

Suggested Periodicals and Journals:

- ACM Journal on Emerging Technologies in Computing Systems: https://jetc.acm.org .
- Journal of Emerging Technologies and Innovative Research: http://www.jetir.org
- International Journal of Information Management: https://www.sciencedirect.com/journal/international-journal-of-information-management
- Knowledge and Information Systems: https://link.springer.com/journal/10115
- Artificial Intelligence: https://www.sciencedirect.com/journal/artificial-intelligence
- Computers and Security: https://www.sciencedirect.com/journal/computers-and-security
- Human Behavior and Emerging Technologies: https://onlinelibrary.wiley.com/journal/hbet
- ACM Journal on Emerging Technologies in Computing Systems: https://dl.acm.org/journal/jetc

Useful Websites:

The following industry websites are useful introductory sources covering a range of information useful for this subject.

- IT Governance (COBIT): https://www.itgovernanceusa.com/cobit
- Deloitte, Tech Trends 2023: https://www2.deloitte.com/au/en/pages/technology/articles/tech-trends.
- Info-Tech Research Group, 2023 Tech Trend Report: https://www.infotech.com/research/ss/tech-trends-2023
- SAP Trend Report 2023: Future of Work: https://www.sap.com/documents/2022/12/d0698d19-557e-0010-bca6-c68f7e60039b.html
- Artificial Intelligence – What it is and why it matters: https://www.sas.com/en_au/insights/analytics/what-is-artificial-intelligence.html
- Forecast: Internet of Things, Endpoints and Communications, Worldwide, 2022-2032: https://www.gartner.com/en/documents/4310299
- National Archives of Australia (NAA)-Establishing an Information Governance Framework: https://www.naa.gov.au/information-management/information-governance/establishing-information-governance-framework .
- World Economic Forum-Top 10 Emerging Technologies of 2023. https://www.weforum.org/publications/top-10-emerging-technologies-of-2023/

Conference/ Journal Articles:

Jafarijoo, M. and Joshi, K.D., 2021. IT Governance: Review, Synthesis, and Directions for Future Research. In AMCIS. https://aisel.aisnet.org/amcis2021/strategic_is/strategic_is/5/.

Javed, A.R., Shahzad, F., ur Rehman, S., Zikria, Y.B., Razzak, I., Jalil, Z. and Xu, G., 2022. Future smart cities: Requirements, emerging technologies, applications, challenges, and future aspects. Cities, 129, p.103794. DOI: https://doi.org/10.1016/j.cities.2022.103794.

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.