ICT303 PROFESSIONAL ETHICS IN COMPUTING 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 3	Dr Divya Leekha divya.leekha@koi.edu.au P: +61 (2) 9283 3583 L: 7-11, 11 York St. Consultation: via Moodle or by appointment.

1.2 Core / Elective

Core 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 Successful completion of 12 credit points

1.7 General Study and Resource Requirements

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

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- 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: 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

This subject will provide an understanding of ethical, legal, social and environmental issues related to the evolution of information technology in society. The topics include the professional code of conduct, intellectual property, privacy, data protection, quality assurance and IT compliance.

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**
	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

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	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 3 subject.

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

Subject Learning Outcomes	Contribution to Graduate Attributes
a) Apply methods and tools of analysis for identifying and resolving ethical issues using philosophical frameworks	
b) Discuss professional and ethical responsibilities in computing, including the purpose of codes of ethics for computing professionals, with particular attention to the ethical use, development, and governance of AI systems	
c) Evaluate risks and liabilities of computer based systems and the critical characteristics of information	
d) Analyse legal, social, ethical, and security issues in ICT, including those arising from the development, deployment, and use of AI systems.	

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	Catalysts for Change	Ch. 1	The tutorial class will cover various questions on Professional Ethics, the ACS Code of Ethics, analysis of the code and case studies.
Week 2 02 November	Introduction to Ethics	Ch.2	The tutorial class will cover various questions on Introduction to Ethics, Subjective Relativism, Cultural Relativism, Divine Command Theory, Ethical Egoism, Kantianism, Act Utilitarianism, Rule Utilitarianism, Social Contract Theory, Virtue Ethics.
Week 3 09 November	Networked Communication	Ch.3	The tutorial class will cover various questions on Spam, Internet interactions, Text messaging, Censorship, Freedom of Expression, Children and Inappropriate content, Breaking trust and Internet addictions.
Week 4 16 November	Professional Ethics	Ch.9	The tutorial class will cover various questions on Software Engineering Code of Ethics, analysis of the code, case studies and whistle blowing.
Week 5 23 November	Privacy	Ch. 5	The tutorial class will cover various questions on Information Privacy, Information Disclosures, Data Mining, and examples of Consumer Backlash. **Assessment 1: In-class Quiz (20%) Summative assessment.**
Week 6 30 November	Privacy and the Government	Ch. 6	The tutorial class will cover various questions on US Legislation Restricting Information Collection, Information collection by the government, Covert Government Surveillance, US Legislation Authorising Wiretapping, USA Patriot Act, Regulation of Public and Private databases, Data mining by the Government, National Identification Card, Information Dissemination, and Invasion Ethics.
Week 7 07 December	Revision of Ethical Theories	Ch. 2	The tutorial class will revise various case scenarios based on the 9 ethical theories taught in this unit. **Assessment 2: Ethical analysis. (Report due Sunday midnight)** **Summative assessment worth 20%**
Week 8 14 December	Computer Reliability	Ch.8	The tutorial class will cover various questions on Data entry or data retrieval errors, Software and Billing errors, Notable Software Systems Failures, Therac 25, Computer Simulations, Software engineering, Software warranties and Vendor Liability. **Assessment 2: Presentation**

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Week (beginning)	Topic covered in each week's lecture	Reading(s)	Expected work as listed in Moodle
Week 9 04 January	Intellectual Property	Ch. 4	The tutorial class will cover various questions on Intellectual Property rights, Protecting IP, Fair use, new restrictions on use, Peer to peer networks and Cyberlockers, Protection for software, Open-source software, Legitimacy of IP protection for software and Creative Commons.
Week 10 11 January	Work and Health	Ch.10	The tutorial class will cover various questions on Automation and Employment, Workplace changes, Globalization, the digital divide, and the Winner-take-all society. **Assessment 3: Ethical use of AI in ICT research report. (Report due Sunday midnight).** **Summative assessment worth 25%**
Week 11 18 January	Computer and network security	Ch. 7	The tutorial class will cover various questions on Hacking, Malware, Cyber Crime and Cyber Attacks and Online Voting.
Week 12 25 January	Revision + Practice Test	All Chapters	**Assessment 4: In-class test. (During the tutorial class on campus) Summative assessment worth 35%**
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:

- *On-campus 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 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: In-Class Quiz	Week 5	20%	a, b
Assessment 2: Ethical analysis (2000 words)	Week 7 -Report Week 8- Presentation	20%	a, b

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Assessment 3: Ethical use of AI in ICT research and analysis (2,500 words)	Week 10	25%	b, c, d
Assessment 4: In-Class test	Week 12	35%	a, b, c, 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.

2.7 Prescribed and Recommended Readings

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

Prescribed Texts:

Quinn, M.J., 2026. *Ethics for the Information Age,* Global Edition, 9th ed., Pearson Higher Ed U.S.A. ISBN: 9781292484389.

Recommended Readings:

Becker, C.U., 2024. *Business ethics: Methods, theories, and application*. 2nd ed. London: Routledge. https://doi.org/10.4324/9781003365846

Borenstein, J., and Howard, A., 2021. Emerging challenges in AI and the need for AI ethics education. *AI and Ethics*, 1(1), pp. 61-65. https://doi.org/10.1007/s43681-020-00002-7

Brooks, L.J., and Dunn, P., 2026, *Business & professional ethics for directors, executives & accountants*, 10th ed, Cengage Learning, Boston, MA. ISBN: 9798214058603

Castaño Díaz, C.M., 2023. Designing games for stealth assessment: Dos and don'ts of the trade based on practical experience. In Games as Stealth Assessments, pp.154-190. https://doi.org/10.4018/979-8-3693-0568-3.ch007

Du, W., 2022. *Computer Security: A Hands-on Approach*. 3rd ed. Syracuse: Wenliang Du. ISBN: 9781733003957

John-Mathews, J.-M., Cardon, D., and Balagué, C., 2022. From Reality to World: A Critical Perspective on AI Fairness. *Journal of Business Ethics*, 178(4), 945-959. https://doi.org/10.1007/s10551-022-05055-8

Krening, S., 2023. Q-learning as a model of utilitarianism in a human–machine team. *Neural Computing & Applications*, 35(23), pp.16853–16864. https://doi.org/10.1007/s00521-022-08063-x

Pathni, R. K., 2023. Artificial Intelligence and the Myth of Objectivity: Need for Regulation of Artificial Intelligence in Healthcare. *Journal of Healthcare Management Standards*, 3(1), pp. 1-14. https://doi.org/10.4018/JHMS.329234

Ratti, E., and Graves, M., 2021. Cultivating Moral Attention: a Virtue-Oriented Approach to Responsible Data Science in Healthcare. *Philosophy & Technology*, 34(4), 1819-1846. https://doi.org/10.1007/s13347-021-00490-3

Segun, S. T., 2021. Critically engaging the ethics of AI for a global audience. *Ethics & Information*

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Technology, 23(2), 99-105. https://doi.org/10.1007/s10676-020-09570-y

Shafer-Landau, R. 2021, *The fundamentals of ethics*, 5th ed, Oxford University Press, New York, NY. ISBN: 9780190058319

Shilton, K., Finn, M. and DuPont, Q., 2021. Shaping ethical computing cultures: Lessons from the recent past. *Communications of the ACM*, 64(11), pp.26–29. https://doi.org/10.1145/3486639

Smirnova, Y. and Travieso-Morales, V., 2024. Understanding challenges of GDPR implementation in business enterprises: a systematic literature review. *International Journal of Law & Management*, 66 (3): 326–344. https://doi.org/10.1108/IJLMA-08-2023-0170

Teodorescu, C.A., Ciurea, C.-E., Saftiuc, B.-P. and Staicu, D., 2025. The evolution of mobile cybersecurity regulations in the European Union. *Management & Marketing*, 20(1), pp. 52–63. https://doi.org/10.2478/mmcks-2025-0004

Tolsdorf, J., Dehling, F. & Lo Iacono, L., 2022. Data cart - designing a tool for the GDPR-compliant handling of personal data by employees. *Behaviour & Information Technology*, 41(10), pp.2070–2105. https://doi.org/10.1080/0144929X.2022.2069596

Yamagata-Lynch, L.C., Garty, E.R., Hostetter, S.T. and Lunga, M.L., 2022. Grappling with professional ethics in instructional technology by participating in an online service-learning course. *Journal of Computing in Higher Education*, 34(1), pp.189–210. https://doi.org/10.1007/s12528-021-09288-w

Recommended Journal articles:

Amundsen, D., & Msoroka, M., 2021. Responsive Ethics: navigating the fluid research space between HREC ethics, researcher ethics and participant ethics. *Educational Review*, 73(5), 563-579. https://doi.org/10.1080/00131911.2019.1655392

Bruckman, A., 2020. Have you thought about ... talking about ethical implications of research: considering the good and the bad effects of technology. Communications of the ACM, 63(9), 38-40. https://doi.org/10.1145/3377405

Canca, C., 2020. Computing ethics operationalizing AI ethics principles: A better ethics analysis guide for developers. *Communications of the ACM*, 63(12), pp.18–21. https://doi.org/10.1145/3430368

Choi, B.H., 2021. Software professionals, malpractice law, and codes of ethics: In pursuit of professional status for computing professionals. *Communications of the ACM*, 64(5), pp.22–24. https://doi.org/10.1145/3457193

Denny, P., Prather, J., Becker, B. A., Finnie-Ansley, J., Hellas, A., Leinonen, J., Luxton-Reilly, A., Reeves, B. N., Santos, E. A., and Sarsa, S., 2024. Computing education in the era of generative AI. *Communications of the ACM*, 67(2), 56-67, https://doi.org/10.1145/3624720

Jones, K. M. L., Rubel, A., and LeClere, E., 2020. A matter of trust: Higher education institutions as information fiduciaries in an age of educational data mining and learning analytics. Journal of the Association for Information Science & Technology, 71(10), 1227-1241. https://doi.org/10.1002/asi.24327

Kumar, S. and Kremer-Herman, N., 2019. Integrating ethics across computing: an experience report of three computing courses engaging ethics and societal impact through roleplaying, case studies, and service learning, *IEEE Frontiers in Education Conference (FIE)*, Covington, KY, USA, pp. 1–5. https://doi.org/10.1109/FIE43999.2019.9028568

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Kunjumuhammed, S. K., Madi, H., and Abouraia, M., 2024. *Risks and Challenges of AI-Driven Finance: Bias, Ethics, and Security*. Projected release date: April 2024. 320 pages. https://doi.org/10.4018/979-8-3693-2185-0.

Murukannaiah, P.K. and Singh, M.P., 2020. From machine ethics to internet ethics: Broadening the horizon', *IEEE Internet Computing*, 24(3), pp. 51-57. https://doi.org/10.1109/MIC.2020.2989935

Online Resources and examples on Ethical code of conduct:

- https://www.acs.org.au/__data/assets/pdf_file/0005/7835/Code-of-Ethics.pdf
- http://www.anz.com/documents/au/policies/ANZ-Employee-Code-of-Conduct.pdf
- https://www.sans.org/security-resources/ethics.php
- http://www.tomw.net.au/technology/it/ictethics.shtml

Academic Paper on: The Development of A code of Ethics: IT Challenges
http://www.academia.edu/3167989/The_Development_of_A_code_of_Ethics_IT_Challenges

Useful Websites:

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

2 Australian Computer Society (ACS). (n.d.). *Professional ethics, conduct, and complaints*. https://www.acs.org.au/memberships/professional-ethics-conduct-and-complaints.html [

3 **Association for Computer Machinery**: https://www.acm.org/code-of-ethics

4 General Data Protection Regulation (GDPR). (n.d.). *General Data Protection Regulation (GDPR) – Official Legal Text*. [online] Available at: https://gdpr.eu/

5 Ethics in AI: https://standards.ieee.org/initiatives/autonomous-intelligence-systems/

6 Computer Professionals for Social Responsibility (CPSR): http://cpsr.org/

Others:

The Hastings Center - Ethics of Technology: *https://www.thehastingscenter.org/*

The Markkula Center for Applied Ethics: *https://www.scu.edu/ethics/*

The suggested websites are useful resources covering a range of information relevant to this subject. However, most are not considered to be sources of Academic Peer Reviewed theory and research. If your assessments require ***academic peer reviewed journal articles*** as sources, you need to access such sources using the Library database, Ebscohost, or Google Scholar. Please ask the Library staff if you are unsure how to access Ebscohost. Instructions can also be found in Moodle. An important area of this subject involves the skill of finding appropriate ethical, social and legal cases. During lectures and tutorials, students will be informed where cases may be found. Students are also expected to use the library and the internet.

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