



UNSW

UNSW Course Outline

COMP4920 Professional Issues and Ethics in Information Technology - 2024

Published on the 05 Feb 2024

General Course Information

Course Code : COMP4920

Year : 2024

Term : Term 1

Teaching Period : T1

Is a multi-term course? : No

Faculty : Faculty of Engineering

Academic Unit : School of Computer Science and Engineering

Delivery Mode : Multimodal

Delivery Format : Standard

Delivery Location : Kensington

Campus : Sydney

Study Level : Undergraduate

Units of Credit : 6

Useful Links

[Handbook Class Timetable](#)

Course Details & Outcomes

Course Description

In this course we will explore ethical issues for computer science, widely conceived. We will

examine in detail the nature of ethical claims/moral judgements themselves, and how it is that our beliefs about their nature can affect our understanding of the ethical issues relating to computer science that we will examined far. We will learn about ethical arguments, and how to construct and evaluate them. We will cover utilitarian, deontological, and virtue ethics, and run test cases past real-world computer science cases. We will learn to engage critically with research ethics, as well as the relationship between ethical responsibility and AI frameworks and innovation. There will be considerable discussion of "ethics washing" - the pretence of ethical reasoning by those in positions of power for the purpose of avoiding regulation, As well as explore the related issues of trust, accountability, and privacy in our current online, informationalised world. We will explore equity, bias and fairness in algorithmic and dataset design, as well as the ethics of AI more broadly. We will also explore the ethical ramifications of transparency and explainability - along with their attendant relationships with power, as they relate to computer science in general.

Course Aims

To explore ethical issues for computer science, widely conceived. To examine in detail the nature of ethical claims/moral judgements themselves, and how it is that our beliefs about their nature can affect our understanding of the ethical issues relating to computer science that we will examine.

Course Learning Outcomes

Course Learning Outcomes
CLO1 : Articulate the major normative and meta-ethical theories that underpin real, research-level moral debates in both academic and professional contexts.
CLO2 : Define and employ ethical values, principles, and practices for responsible research and innovation of technological and computing advances.
CLO3 : Build, articulate, and justify their own moral arguments - as well as how to analyse moral judgements and moral arguments in general.
CLO4 : Discuss ethical dilemmas around specific technological case studies.
CLO5 : Recognise ethical issues and pitfalls in the professional practice of developing novel technologies, including AI (e.g. fairness, transparency, accountability), and learn about existing efforts to mitigate these issues.

Course Learning Outcomes	Assessment Item
CLO1 : Articulate the major normative and meta-ethical theories that underpin real, research-level moral debates in both academic and professional contexts.	<ul style="list-style-type: none">• First Essay• Second Essay• Lecture summaries• Project Report
CLO2 : Define and employ ethical values, principles, and practices for responsible research and innovation of technological and computing advances.	<ul style="list-style-type: none">• First Essay• Second Essay• Lecture summaries• Project Report
CLO3 : Build, articulate, and justify their own moral arguments - as well as how to analyse moral judgements and moral arguments in general.	<ul style="list-style-type: none">• First Essay• Second Essay• Lecture summaries• Project Report
CLO4 : Discuss ethical dilemmas around specific technological case studies.	<ul style="list-style-type: none">• Second Essay• Lecture summaries• Project Report
CLO5 : Recognise ethical issues and pitfalls in the professional practice of developing novel technologies, including AI (e.g. fairness, transparency, accountability), and learn about existing efforts to mitigate these issues.	<ul style="list-style-type: none">• Lecture summaries

Learning and Teaching Technologies

Moodle - Learning Management System | EdStem

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
First Essay Assessment Format: Individual	20%	
Second Essay Assessment Format: Individual	30%	
Lecture summaries Assessment Format: Group	20%	
Project Report Assessment Format: Individual	30%	

Assessment Details

First Essay

Assessment Overview

Short essay, 500-800 words in length. Marked to criteria with extensive feedback to student.

Course Learning Outcomes

- CLO1 : Articulate the major normative and meta-ethical theories that underpin real, research-level moral debates in both academic and professional contexts.
- CLO2 : Define and employ ethical values, principles, and practices for responsible research and innovation of technological and computing advances.
- CLO3 : Build, articulate, and justify their own moral arguments - as well as how to analyse moral judgements and moral arguments in general.

Second Essay

Assessment Overview

Long essay, 1500-2000 words in length. Marked to criteria with extensive feedback to student.

Course Learning Outcomes

- CLO1 : Articulate the major normative and meta-ethical theories that underpin real, research-level moral debates in both academic and professional contexts.
- CLO2 : Define and employ ethical values, principles, and practices for responsible research and innovation of technological and computing advances.
- CLO3 : Build, articulate, and justify their own moral arguments - as well as how to analyse moral judgements and moral arguments in general.
- CLO4 : Discuss ethical dilemmas around specific technological case studies.

Lecture summaries

Assessment Overview

A 15-minute group presentation in-tutorial. Marked with feedback to student.

Course Learning Outcomes

- CLO1 : Articulate the major normative and meta-ethical theories that underpin real, research-level moral debates in both academic and professional contexts.
- CLO2 : Define and employ ethical values, principles, and practices for responsible research and innovation of technological and computing advances.
- CLO3 : Build, articulate, and justify their own moral arguments - as well as how to analyse moral judgements and moral arguments in general.
- CLO4 : Discuss ethical dilemmas around specific technological case studies.
- CLO5 : Recognise ethical issues and pitfalls in the professional practice of developing novel technologies, including AI (e.g. fairness, transparency, accountability), and learn about existing efforts to mitigate these issues.

Project Report

Assessment Overview

Group report (marked individually). Marked to criteria given in the assignment description with extensive feedback to student.

Course Learning Outcomes

- CLO1 : Articulate the major normative and meta-ethical theories that underpin real, research-level moral debates in both academic and professional contexts.
- CLO2 : Define and employ ethical values, principles, and practices for responsible research and innovation of technological and computing advances.
- CLO3 : Build, articulate, and justify their own moral arguments - as well as how to analyse moral judgements and moral arguments in general.
- CLO4 : Discuss ethical dilemmas around specific technological case studies.

General Assessment Information

Grading Basis

Standard

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 0 : 5 February - 11 February	Other	Welcome to 24T1!
Week 1 : 12 February - 18 February	Lecture	Monday - Overview and Utilitarianism Wednesday - Deontological Ethics and Virtue Ethics
Week 2 : 19 February - 25 February	Lecture	Monday - Meta-ethics Wednesday - Extractivism and Ethics Washing
Week 3 : 26 February - 3 March	Lecture	Monday - Ethics in Computing and Research Integrity Wednesday - Leadership, and Professionalism + Academic Writing
Week 4 : 4 March - 10 March	Lecture	Monday - Trust, Automation, and Value Sensitive Design Wednesday - Big Data and Knowledge Production
Week 5 : 11 March - 17 March	Lecture	Monday - Accountability, fairness, and transparency: from humans to machines Wednesday - AI bias and fairness
Week 6 : 18 March - 24 March	Other	Flex Week!
Week 7 : 25 March - 31 March	Lecture	Monday - Transparency and XAI Wednesday - Fairness and algorithms
Week 8 : 1 April - 7 April	Lecture	Monday - NO LECTURE - Easter Monday Holiday Wednesday - Assertion, agency, and artificial general intelligence
Week 9 : 8 April - 14 April	Lecture	Monday - Interpretable ML Wednesday - Human centred design and smart cities
Week 10 : 15 April - 21 April	Lecture	Monday - What is at stake with AI and creative work? Wednesday - Course summary
Week 11 : 22 April - 28 April	Other	Good luck with your exams!

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

General Schedule Information

Please see lecture schedule below

Course Resources

Course Evaluation and Development

This course is evaluated each session using the MyExperience system.

This course is being redesigned continually! Firstly, the entire content and structure, from the lectures and tutorials, to the assessments, was new for Term 3, 2022, and convenors have been refining it constantly since then. It was a big adventure, a little bit of work, and a whole lot of fun.

Everyone's feedback at the end of 2022 and across 2023 was valuable.

The course now has new options for the essay due in Week 4. This will be marked quickly with lots of feedback so that students can use this feedback to inform their approach to the second essay due in Week 7 (which has new options also). The specs for the group presentation and group

report have been redesigned completely. The group presentation will now be marked collectively, with the group report being marked individually.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
	Sebastian Sequoi ah-Grayson					No	Yes

Other Useful Information

Academic Information

I. Special consideration and supplementary assessment

If you have experienced an illness or misadventure beyond your control that will interfere with your assessment performance, you are eligible to apply for Special Consideration prior to, or within 3 working days of, submitting an assessment or sitting an exam.

Please note that UNSW has a Fit to Sit rule, which means that if you sit an exam, you are declaring yourself fit enough to do so and cannot later apply for Special Consideration.

For details of applying for Special Consideration and conditions for the award of supplementary assessment, please see the information on UNSW's [Special Consideration page](#).

II. Administrative matters and links

All students are expected to read and be familiar with UNSW guidelines and polices. In particular, students should be familiar with the following:

- [Attendance](#)
- [UNSW Email Address](#)
- [Special Consideration](#)
- [Exams](#)
- [Approved Calculators](#)
- [Academic Honesty and Plagiarism](#)
- [Equitable Learning Services](#)

III. Equity and diversity

Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the course convener prior to, or at the commencement of, their course, or with the Equity Officer (Disability) in the Equitable Learning Services. Issues to be discussed may include access to materials, signers or note-takers, the provision of services and additional exam and assessment arrangements. Early notification is essential to enable any necessary adjustments to be made.

IV. Professional Outcomes and Program Design

Students are able to review the relevant professional outcomes and program designs for their streams by going to the following link: <https://www.unsw.edu.au/engineering/student-life/student-resources/program-design>.

Note: This course outline sets out the description of classes at the date the Course Outline is published. The nature of classes may change during the Term after the Course Outline is published. Moodle or your primary learning management system (LMS) should be consulted for the up-to-date class descriptions. If there is any inconsistency in the description of activities between the University timetable and the Course Outline/Moodle/LMS, the description in the Course Outline/Moodle/LMS applies.

Academic Honesty and Plagiarism

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW students have a responsibility to adhere to this principle of academic integrity. Plagiarism undermines academic integrity and is not tolerated at UNSW. *Plagiarism at UNSW is defined as using the words or ideas of others and passing them off as your own.*

Plagiarism is a type of intellectual theft. It can take many forms, from deliberate cheating to accidentally copying from a source without acknowledgement. UNSW has produced a website with a wealth of resources to support students to understand and avoid plagiarism, visit: <student.unsw.edu.au/plagiarism>. The Learning Centre assists students with understanding academic integrity and how not to plagiarise. They also hold workshops and can help students one-on-one.

You are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting and the proper referencing of sources in preparing all assessment tasks.

Repeated plagiarism (even in first year), plagiarism after first year, or serious instances, may also be investigated under the Student Misconduct Procedures. The penalties under the procedures can include a reduction in marks, failing a course or for the most serious matters (like plagiarism in an honours thesis or contract cheating) even suspension from the university. The Student Misconduct Procedures are available here:

www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf

Submission of Assessment Tasks

Work submitted late without an approved extension by the course coordinator or delegated authority is subject to a late penalty of five percent (5%) of the maximum mark possible for that assessment item, per calendar day.

The late penalty is applied per calendar day (including weekends and public holidays) that the assessment is overdue. There is no pro-rata of the late penalty for submissions made part way through a day. This is for all assessments where a penalty applies.

Work submitted after five days (120 hours) will not be accepted and a mark of zero will be awarded for that assessment item.

For some assessment items, a late penalty may not be appropriate. These will be clearly indicated in the course outline, and such assessments will receive a mark of zero if not completed by the specified date. Examples include:

- Weekly online tests or laboratory work worth a small proportion of the subject mark;
- Exams, peer feedback and team evaluation surveys;
- Online quizzes where answers are released to students on completion;
- Professional assessment tasks, where the intention is to create an authentic assessment that has an absolute submission date; and,
- Pass/Fail assessment tasks.

Faculty-specific Information

[Engineering Student Support Services](#) – The Nucleus - enrolment, progression checks, clash requests, course issues or program-related queries

[Engineering Industrial Training](#) – Industrial training questions

[UNSW Study Abroad](#) – study abroad student enquiries (for inbound students)

UNSW Exchange – student exchange enquiries (for inbound students)

UNSW Future Students – potential student enquiries e.g. admissions, fees, programs, credit transfer

Phone

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

School Contact Information

CSE Help! - on the Ground Floor of K17

- For assistance with coursework assessments.

The Nucleus Student Hub - <https://nucleus.unsw.edu.au/en/contact-us>

- Course enrolment queries.

Grievance Officer - grievance-officer@cse.unsw.edu.au

- If the course convenor gives an inadequate response to a query or when the course convenor does not respond to a query about assessment.

Student Reps - stureps@cse.unsw.edu.au

- If some aspect of a course needs urgent improvement. (e.g. Nobody responding to forum queries, cannot understand the lecturer)