Course Outline

Course Details

Course Code	COMP4920
Course Title	Professional Issues and Ethics in IT
Convenor	Wayne Wobcke (http://www.cse.unsw.edu.au/~wobcke)
Admin	Meredith Gee
Classes	

Seminar	Room	Facilitator
Tue 1.00-3.00 (A)	Quad G026	James Gray
Tue 1.00-3.00 (B)	Online	Ryan De Belen
Tue 1.00-3.00 (C)	Online	Jingying Gao
Tue 1.00-3.00 (D)	Online	Scott Watts
Tue 3.00-5.00 (A)	Online	Armin Chitizadeh
Tue 3.00-5.00 (B)	Online	Scott Watts
Tue 3.00-5.00 (C)	Online	Sara Mashayekh
Tue 5.00-7.00 (A)	Online	Ryan De Belen
Tue 5.00-7.00 (B)	Online	Sara Mashayekh
Wed 9.00-11.00 (A)	Online	Jingying Gao
Wed 9.00-11.00 (B)	Online	Ihsanullah
Wed 11.00-1.00 (A)	Online	Jingying Gao
Wed 11.00-1.00 (B)	Online	Ihsanullah
Wed 2.00-4.00 (A)	Online	Armin Chitizadeh
Wed 2.00-4.00 (B)	Online	Ihsanullah
Wed 4.00-6.00 (A)	Online	Ali Darejeh
Wed 5.00-7.00 (A)	Online	Amir Monfared
Thu 9.00-11.00 (A)	Online	Scott Watts
Thu 11.00-1.00 (A)	Online	Lina Phaijit
Thu 1.00-3.00 (A)	Quad G025	Lina Phaijit
Thu 1.00-3.00 (B)	Online	Sara Mashayekh
Thu 3.00-5.00 (A)	Online	Armin Chitizadeh
Thu 3.00-5.00 (B)	Online	Sara Mashayekh
Thu 3.00-5.00 (C)	Online	Ryan De Belen
Thu 5.00-7.00 (A)	Online	Ali Darejeh
Fri 11.00-1.00 (A)	Quad G025	James Gray
Fri 2.00-4.00 (A)	Online	Sara Mashayekh
Fri 2.00-4.00 (B)	Online	Lina Phaijit
Fri 4.00-6.00 (A)	Online	Sara Mashayekh
Fri 4.00-6.00 (B)	Online	Amir Monfared

Consultations	Tue 11.00-12.00
Units of Credit	6
Course Website	https://cse.unsw.edu.au/~cs4920/ (https://www.cse.unsw.edu.au/~cs4920/)
Handbook Entry	https://www.handbook.unsw.edu.au/undergraduate/courses/2021/COMP4920.html (https://www.handbook.unsw.edu.au/undergraduate/courses/2021/COMP4920.html)

Course Summary

This course is taken by Computer Science, Computer Engineering and Bioinformatics students under the code COMP4920, and Software Engineering students under the code SENG4920.

COMP4920/SENG4920 covers practical aspects of professional issues and ethics, and as such is critical preparation for the workforce, in addition to being essential for accreditation of the Computer Science, Software Engineering, Computer Engineering and Bioinformatics degree programmes.

The specific objective of the course is for students to appreciate the responsibilities of an IT professional and understand the ethical dimensions of the IT industry as applied to specific issues such as software quality, privacy and security, intellectual property and legal obligations of IT practitioners.

Students enrolling should be in the final year of study or nearing completion of their computing degree.

Assumed Knowledge

Students are assumed to be in the final year of study (or nearing graduation) of a computing degree **and** completed some of their Stage 3 or 4 courses, so are assumed to have reasonable knowledge and maturity in Computer Science, Software Engineering, Computer Engineering or Bioinformatics.

Course Learning Outcomes

After completing this course, students will:

1. Compare, critically evaluate and apply ethical frameworks to make professional judgements
2. Demonstrate understanding of several topical professional issues at the level of a starting professional engineer or computer scientist, such as software quality, intellectual property, data privacy, legal frameworks
3. Demonstrate the communication skills needed to present reasoned arguments

This course contributes to the development of the following graduate capabilities:

Graduate Capability	**Acquired in**
Scholars capable of independent and collaborative enquiry, rigorous in their analysis, critique and reflection, and able to innovate by applying their knowledge and skills to the solution of novel as well as routine problems	1–3
Entrepreneurial leaders capable of initiating and embracing innovation and change, as well as engaging and enabling others to contribute to change	1–3
Professionals capable of ethical, self-directed practice and independent lifelong learning	1–3
Global citizens who are culturally adept and capable of respecting diversity and acting in a socially just and responsible way	1–3

Teaching Strategies

The course has a mixture of guest lectures on topics of interest and seminars focusing on particular professional issues and case studies. The emphasis is on practical applications and case studies.

Lectures provide an overview of one particular aspect of software project management or professional and ethical issues. Guest lecturers are able to provide expertise in a variety of areas and the lectures provide an essential foundation to apply in seminars and the company case study. **Guest lecturers generally give permission for lectures to be recorded. However, due to the commercially sensitive nature of some of the material, these recordings cannot be redistributed outside the course cohort.**

Seminars provide students an opportunity for more in-depth discussion on particular topics and, in student seminars, enable students to develop skills in expression, critical analysis and presentation.

Essays enable students to study a range of professional issues in a specific context and promotes the development of critical thinking, analytical reasoning and written communication skills. The content required for the essay is given in a high level of detail for such an assessment item on the assignment page, and builds on the Week 3 seminar for ethical reasoning, the Week 4 seminar on social media ethics, and the Week 5 seminar on ethical arguments. Note that sample essays cannot be given out, as previous students have not given permission for their essays to be distributed in class.

Teaching Rationale

COMP4920/SENG4920 is an important course to ensure students are "job ready". The course covers professional issues and ethics as related to the IT industry. Students benefit by having the opportunity to interact with industry experts, hence **attendance at lectures is very important** , especially as the course focuses on "soft skills".

Teaching is based on seminar-style discussion groups, encouraging students to express their ideas and form their own judgements on specific issues relating to the IT industry on the basis of rational arguments. Seminars also promote team organization and presentation skills through team-based student seminar(s). Critical thinking is developed through researching and writing a case study in the form of an in-depth analytical essay covering a range of professional and ethical issues of relevance to the industry.

Time management is an important aspect of this course. It is expected that each student attends **all** lectures and seminars, prepares for each seminar by reading the relevant material **in advance** , contributes actively to discussion in seminars, and spends roughly 30 hours on seminars, 20 hours on the lecture summaries (including attendance), 15-20 hours on the student seminar, 10-15 hours on the movie reflection, and 30-35 hours on the company case study. Note that the workload of a standard 6 UoC UNSW course is expected to be 150 hours (https://student.unsw.edu.au/glossary#W) .

Student Conduct

The **Student Code of Conduct** (Information (https://student.unsw.edu.au/conduct) , Policy (https://www.gs.unsw.edu.au/policy/documents/studentcodepolicy.pdf)) sets out what the University expects from students as members of the UNSW community. As well as the learning, teaching and research environment, the University aims to provide an environment

that enables students to achieve their full potential and to provide an experience consistent with the University's values and guiding principles. A condition of enrolment is that students *inform themselves* of the University's rules and policies affecting them, and conduct themselves accordingly.

In particular, students have the responsibility to observe standards of equity and respect in dealing with every member of the University community. This applies to all activities on UNSW premises and all external activities related to study and research. This includes behaviour in person as well as behaviour on social media, for example Facebook groups set up for the purpose of discussing UNSW courses or course work. Behaviour that is considered in breach of the Student Code Policy as discriminatory, sexually inappropriate, bullying, harassing, invading another's privacy or causing any person to fear for their personal safety is serious misconduct and can lead to severe penalties, including suspension or exclusion from UNSW.

If you have any concerns, you may raise them with your lecturer, or approach the School Ethics Officer (mailto:ethics-officer@cse.unsw.edu.au) , Grievance Officer (mailto:grievance-officer@cse.unsw.edu.au) , or one of the student representatives.

Plagiarism is defined as (https://student.unsw.edu.au/plagiarism) using the words or ideas of others and presenting them as your own. UNSW and CSE treat plagiarism as academic misconduct, which means that it carries penalties as severe as being excluded from further study at UNSW. There are several on-line sources to help you understand what plagiarism is and how it is dealt with at UNSW:

- Plagiarism and Academic Integrity (https://student.unsw.edu.au/plagiarism)
- Plagiarism Management Procedure (https://www.gs.unsw.edu.au/policy/documents/plagiarismprocedure.pdf)

Make sure that you read and understand these. Ignorance is not accepted as an excuse for plagiarism. In particular, you are also responsible that your assignment files are not accessible by anyone but you by setting the correct permissions in your CSE directory and code repository. Note also that plagiarism includes paying or asking another person to do a piece of work for you and then submitting it as your own work. *Copying* (taking ideas and/or text from other students or the Internet and presenting them as your own) and *collusion* (working together on an assignment, or sharing parts of assignment solutions) are forms of plagiarism. In COMP4920/SENG4920, this applies particularly to the company case study, which must be written in your own words, and with properly cited sources.

UNSW has an ongoing commitment to fostering a culture of learning informed by academic integrity. All UNSW staff and students have a responsibility to adhere to this principle of academic integrity. Plagiarism undermines academic integrity and is not tolerated at UNSW.

If you haven't done so yet, please take the time to read the full text of

- UNSW's policy regarding academic honesty and plagiarism (https://student.unsw.edu.au/plagiarism)

The pages below describe the policies and procedures in more detail:

- Student Code Policy (https://www.gs.unsw.edu.au/policy/documents/studentcodepolicy.pdf)
- Student Misconduct Procedure (https://www.gs.unsw.edu.au/policy/documents/studentmisconductprocedures.pdf)
- Plagiarism Policy Statement (https://www.gs.unsw.edu.au/policy/documents/plagiarismpolicy.pdf)
- Plagiarism Management Procedure (https://www.gs.unsw.edu.au/policy/documents/plagiarismprocedure.pdf)

You should also read the following page which describes your rights and responsibilities in the CSE context:

- Essential Advice for CSE Students (https://www.engineering.unsw.edu.au/computer-science-engineering/about-us/organisational-structure/student-services/policies/essential-advice-for-cse-students)

As applied to COMP4920/SENG4920, copying or sharing material from the Internet such as slides or text (that is, without proper citation) counts as plagiarism and is unacceptable. In the student seminar, movie reflection and company case study, all material must be in the student's own words (except quotations, which should be kept to a minimum and must be clearly identified as such). References must be from primary sources (i.e. do not cite *Wikipedia* articles or the like). Submissions will be run through *turnitin* for plagiarism detection.

Assessment

Students should be aware that an ethics course is different from a standard programming-type course in CSE, due to the emphasis on conceptual understanding and argumentation, and assessment items focusing on presentation and writing, so marking schemes differ from other CSE courses accordingly. Very roughly, the course is more like a first-year Arts course in assessment style, particularly with a major essay but no final exam, and with no programming assignments where full marks can be obtained by correctly implementing a given algorithm. This also means that there is more emphasis on continuous assessment during term.

Mark distributions are affected by the nature of the assessment and also by teamwork, for example in student seminars: while teamwork makes it harder for students to achieve high marks (80–90%), it also means not many students receive low marks (50–60%). Mark distributions overall are in line with UNSW grade distribution policies (https://student.unsw.edu.au/grades-comparison-of-grading-systems) . The marking criteria are also influenced by the absence of a final exam, which tends to have much lower individual marks in typical CSE courses compared to assignment marks.

The assessment items and their due dates and weightings are as follows:

Item	Topics	Due	Marks	Contributes to
Seminar Participation	Ethics	Weeks 1-5,7-10	10%	1–3
Lecture Summaries	Ethics	Weeks 3,7	10%	1–3
Movie Review	Ethics	Week 5	20%	1–3
Student Seminar	Ethics	Weeks 7–10	20%	1–3
Company Case Study	Ethics	Week 10	40%	1–3

The marking rubric for seminar participation follows that on the UNSW Teaching website (https://teaching.unsw.edu.au/assessing-classroom-participation) where there is further information on why and how participation is assessed. We would like to strongly emphasize that the mark is based on the *quality* , not quantity, of student contributions, and seminar facilitators will ensure that every student has sufficient opportunity to speak in the seminars to ensure a fair mark.

The marking rubrics for student seminars and essays (movie reflection and company case study) are highly specific for the nature of the assessments and were defined after an extensive search across many comparable courses in Australia and North America, and written to the level of detail expected of an introductory Arts course. The aim is to limit subjectivity and ensure consistency of marking. The movie reflection will involve reflective writing: students should consult the UNSW student support page on reflective writing (https://student.unsw.edu.au/reflective-writing) for explanation and examples. Seminar facilitators endeavour to provide feedback on student seminars on the day of the seminar, however the online setting may make this more difficult. Students are encouraged to proactively seek feedback from facilitators. Again, the general rule is that marks are awarded based on the quality of presented and submitted work.

To determine the final mark for the course, the component marks for the above assessment items are added together according to their respective weightings to give a mark out of 100.

Important: There is a hurdle of 40% on the company case study, otherwise a grade of UF is returned.

Late submission policy for assignments: There is no provision for a late penalty; assessment items submitted late receive a 0 mark. The reasons for this are to minimize delays in providing feedback and to comply with UNSW rules on assessment dates.

Course Schedule

Week	Lecture	Seminar	Assignment
1	Introduction to Professional Issues and Ethics	Engineering as a Profession	
2	Theoretical Underpinnings of Ethics	Killer Robot	
3	Moral Reasoning and Professional Ethics	Ethical Reasoning	Lecture Summaries
4	–	Social Media Ethics	
5	Legal Perspectives on the Software Industry	Ethical Argument	Movie Review
6	–	–	Company Case Study Essay Plan
7	Intellectual Property and Software Patents	Essay Plan Feedback Student Seminars	Lecture Summaries
8	–	Student Seminars	
9	–	Student Seminars	
10	–	Student Seminars	Company Case Study Essay

Resources for Students

The following textbook might help with background material and the *style* of ethical reasoning, but (i) the actual arguments in the book are not of a high standard, and (ii) the author resists making any ethical judgements, which is a key requirement of this course assessed in seminars and essays.

- Quinn, M.J. *Ethics for the Information Age.* (https://www.pearson.com.au/9780135218006) Eighth Edition. Pearson Education, Hoboken, NJ, 2020.

Course Evaluation and Development

Computer Science and Engineering courses are evaluated by student survey each time they are taught. The survey includes standard questions asked of all comparable courses so that it is possible to compare a course with other relevant UNSW courses, and also includes space for free-form comments. Survey responses are anonymous. The completed survey forms are analysed statistically by someone independent of the course staff, and the results, including free-form comments, are made available to the lecturer in charge *after* grades have been reported and released.

The 2019 course offering that combined ethics and project management highlighted two main issues with the course under the new 10-week term structure: (i) the number of assessment items, with due dates around the same time as a consequence of there being fewer weeks to spread the load, and (ii) the overlap between the project management component of the course and COMP3900. For 2020, the overlap with COMP3900 was addressed by removing project management entirely, so COMP4920 was run solely as an ethics course. Workload issues were addressed by reducing the number of assessment items, removing the "debate" activity and the final exam from previous offerings of CSE ethics courses. This is on top of previously reducing the number of lectures (from 12 to 8 and now 5). To give a single point of comparison, the workload and assessment for COMP4920 in 2016 included 12 lectures, 5 of which were assessed in lecture summaries (10%), 6 seminars plus a student seminar in teams of 5-6 students (10%), seminar participation (10%) and a 2000-word essay (20%), *plus* a software project worth 50%, which included a project plan presentation (10%), a project plan document (10%), two sprint reviews and assessment of the software project and project management practices (30%).

For 2021, following a complaint from stureps and the reply from the Head of School written after consultation with both lecturers, further changes will be made to clarify the marking schemes used in the course and to provide more guidance for the final essay, and in the conduct of the course and the assessment. In particular, we are removing the second student seminar and adding two new seminars, one on evaluating ethical arguments taken from the textbook by Quinn, another reflecting on IT-related issues raised in the movie "The

Social Dilemma". The latter seminar will motivate a new assessment item, a short reflection/analysis of the movie, that serves as a practice essay so that more feedback can be given to students before the final essay (the company case study). Taken together, these seminars should clarify the marking criteria for the student seminar and the essay. The company case study essay plan will also be due earlier in the term (Week 6) to enable more timely feedback, the required length of the final essay will be reduced, and the flexibility previously allowed for the final essay will be limited by having stricter instructions on choice of topics and the required length.

For 2021, there will also be numerous other changes to the conduct of the course and the assessment. (1) To reduce confusion surrounding assignment submission, all assignments will be submitted on Moodle, and the course website has been revamped to provide a more modern look and feel, and to include a weekly "feed" for due dates of assessment items and links for submission. (2) Some lectures and some seminars will be offered face-to-face, depending on the availability of (guest) lecturers and student preferences. (3) The ethics content of the first lecture will be expanded to explain the rationale behind the marking rubrics in the course, and to provide an introduction to ethical argumentation. (4) It will be emphasized more that marks are given based on the *quality* , not quantity, of work, and that marking rubrics are followed rigorously in all instances. (5) As a significant number of students in 2020 treated seminar participation as a competition (as reported in one grievance), with the aim of dominating the discussion so as to maximize their mark and minimize that of other students, the seminar participation mark weighting will be reduced from 20% to 10% (with the approval of the grievance officer). This will reduce stress on both students and seminar facilitators, especially in online seminars, which are more difficult to manage than face-to-face seminars. (6) Student seminars will be recorded to facilitate dispute resolution of both participation marks and seminar marks. (7) The practice of double (or triple) marking a sample of final essays will be continued to ensure consistency of marking and adherence to the rubric.(8) An "assistant tutor" role will be created for helping with some tutorials and student seminar and essay marking

Last modified: Sep 9, 2021

Resource created 9 months ago (Thursday 04 March 2021, 09:57:25 PM), last modified about a month ago (Monday 18 October 2021, 11:46:50 AM).