School of Information and Physical Sciences

COMP3850: Computer Science Work Integrated Learning

Callaghan
Semester 1 - 2022

COURSE OUTLINE

OVERVIEW

Course Description

Through this course students will work in a project related to computer science area. The work will be undertaken in an organization (industry, research groups, labs) which require computer science skills into their practices. This direct experience will expose students to project management practices of managers and/or researchers. Under supervision and in a group work environment, students will undertake 100 hours work placement with appropriated organisation involved in computer science related areas.

Requisites

This course is only available to students active in the Bachelor of Computer Science [10177], Bachelor of Mathematics / Bachelor of Computer Science [10253] and Bachelor of Engineering (Computer) / Bachelor of Computer Science [12292] programs.

Assumed Knowledge

Successful completion of at least 140 units

Contact Hours

Callaghan
Lecture
Face to Face On Campus
2 hour(s) per Week for 4 Weeks

Workshop
Face to Face On Campus
2 hour(s) per Week for Full Term

Unit Weighting

10

Workload

Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

CONTACTS

Course Coordinator

Callaghan
Dr Alexandre Mendes
Alexandre.Mendes@newcastle.edu.au
(02) 4921 6172
Consultation: Tuesday, 1PM-3PM, via Zoom

Teaching Staff

Other teaching staff will be advised on the course Canvas site.

School Office

School of Information and Physical Sciences
SR233, Social Sciences Building
Callaghan
CESE-SIPS-Admin@newcastle.edu.au
+61 2 4921 5515
8:30am – 4:30pm (Tues, Wed, Fri)

School of Information and Physical Sciences
ES222a Engineering Sciences Building
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CESE-SIPS-Admin@newcastle.edu.au
+61 2 4921 5515
8:30am – 4:30pm (Mon, Thurs)

SYLLABUS

Course Content

The course comprises activities based on planning, developing, reporting and critically reflecting on a major activity related to the computer science area. Students will
1. Apply for, secure and complete an appropriate placement opportunity.
2. Prepare a 'Program of Activity Agreement', which should be signed by the student, workplace supervisor and by the Course Coordinator.
3. Collaborate to plan, carry out and report on an appropriate computer science project.
4. Complete an 80-100 hour placement with an organisation that requires computer science expertise.
5. Record, report and critically reflect on placement experiences.
6. Prepare and deliver a seminar to describe the activities undertaken during the project.
7. Describe and analyse ethical and technical issues relating to real-world research and practice.

Course Learning Outcomes

On successful completion of this course, students will be able to:
1. Apply a suite of computer science skills learnt in the program in a specific project.

2. Critically set objectives and evaluate outcomes

3. Develop skills required for the workplace, including both written and verbal communication and team work;

4. Demonstrate professional knowledge by undertaking computer science tasks.

5. Critically reflect on the ethical and technical issues facing computer sciences in the workplace.

Course Materials

Other Resources:

- To be provided on the course Canvas site.

ASSESSMENTS

This course has 5 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Project Plan	Week 5	Group	10%	1, 2, 3
2	Written Report	Week 13	Combination	60%	1, 2, 3, 4, 5
3	Seminar	Week 13	Group	15%	1, 2, 3
4	Quizzes	Weeks 1-13	Individual	15%	1, 2, 3, 4, 5
5	Supervisor Report	Week 13	Individual	Formative *	1, 2, 3

*This is a formative assessment and will not contribute to your final grade.

Late Submissions The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - Project Plan

Assessment Type Proposal / Plan
Purpose To report on the background of the project, aims and future activities of the semester. The goal of this proposal is to answer questions about feasibility of the project and its alignment with the expectations for a 3rd year level Computer Science project. In addition, it will expose any skills deficiencies that students might have and how those can be addressed.
Description This assessment item is to be written together with the supervisor of your project. A template will be provided on Canvas.
Weighting 10%
Due Date Week 5
Submission Method Online
Note that if the deliverables related to the project (including any source code) are not provided to the company (or project supervisor) after requested, and/or not deployed to the client's infrastructure satisfactorily, the student might be given an "I" (Incomplete) grade until those steps are completed.
Assessment Criteria To be posted on Canvas together with the assessment specifications.
Return Method Online
Feedback Provided Online

Assessment 2 - Written Report

Assessment Type Report
Purpose To report on the activities undertaken by the student during the semester.
Description A report on the overall project activities including the (a) background, (b) aims, (c) methods/design, (d) results, (e) ethical considerations, (f) individual contributions and (g) self-reflection. For group projects, parts (a)-(e) will be written by the group (20%) and parts (f)-(g) will be individual (40%).
Weighting 60%
Due Date Week 13
Submission Method Online
Note that if the deliverables related to the project (including any source code) are not provided to the company (or project supervisor) after requested, and/or not deployed to the client's infrastructure satisfactorily, the student might be given an "I" (Incomplete) grade until those steps are completed.
Assessment Criteria A marking guide will be provided on Canvas. If the project results are not at the level expected for a 3rd year level project, students might be given an extension (instead of a fail grade), and the resubmission will be capped at 50% of the maximum score.
Return Method Online
Feedback Provided Online

Assessment 3 - Seminar

Assessment Type	Presentation
Purpose	To demonstrate organizational and presentation skills by the student.
Description	This task will require individual students and groups to prepare a professional presentation where they will present the results of the project. Each presentation will be between 10 and 30 minutes long, depending on the size of the group.
Weighting	15%
Due Date	Week 13
Submission Method	Specific Location Presentations will be done during the Research Day for Computing. It is a 2-day long event for PhD, Honours and WIL students. The exact date and timetable for the presentations will be communicated at least 1 week before the actual event takes place.
Assessment Criteria	To be posted on Canvas together with the assessment specifications.
Return Method	Online
Feedback Provided	Online

Assessment 4 - Quizzes

Assessment Type	Report
Purpose	To report on the activities undertaken during the semester.
Description	1) Description of the contributions by each individual towards the project (every fortnight). Those contributions will cover self-learning, organizational/development activities related to the deliverables, and overall responsibilities within the team. Students also need to report on the use of project management tools. (7.5%) 2) Quizzes and reports on contemporary topics and activities conducted in the workshops (every fortnight). (7.5%) 3) Meeting minutes for the groups doing the prescribed projects. (Formative) 4) Updates on group communication and code version control. (Formative)
Weighting	15%
Due Date	Weeks 1-13
Submission Method	Online
Assessment Criteria	To be posted on Canvas together with the assessment specifications.
Return Method	Online
Feedback Provided	Online

Assessment 5 - Supervisor Report

Assessment Type	Report
Purpose	To obtain feedback from the supervisor about the student's performance.
Description	The feedback is related to the characteristics that graduates need to have in order to succeed in the workplace, including technical and soft skills, and professionalism.
Weighting	This is a formative assessment and will not contribute to your final grade.
Due Date	Week 13
Submission Method	Online The supervisor will e-mail the feedback directly to the course coordinator.
Assessment Criteria	To be sent to supervisor with the report specifications.
Return Method	Online
Feedback Provided	NA

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.
- Face to Face: Communication will be provided via face-to-face meetings or supervision.

Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.

Oral Interviews

As part of the evaluation process of any assessment item in this course an oral examination may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the Oral Examination Guidelines. In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the Student Conduct Rule.

Academic Misconduct

All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to https://policies.newcastle.edu.au/document/view-current.php?id=35.

Adverse Circumstances

The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:

1. the assessment item is a major assessment item; or
2. the assessment item is a minor assessment item and the Course Coordinator has

specified in the Course Outline that students may apply the online Adverse Circumstances system;
3. you are requesting a change of placement; or
4. the course has a compulsory attendance requirement.

Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at:
https://policies.newcastle.edu.au/document/view-current.php?id=236

Important Policy Information

The 'HELP for Students' tab in UoNline contains important information that all students should be familiar with, including various systems, policies and procedures.

GRADUATE PROFILE STATEMENT

	University of Newcastle Computer Science Graduate Profile Statements	Taught	Practiced	Assessed	Level of Capability
1	Knowledge of basic science and computer science fundamentals.				
2	In depth technical competence in the discipline of computer science				
3	An ability to carry out problem analysis, requirements capture, problem formulation and integrated software development for the solution of a problem.	☑·	☑·	☑·	3
4	Capacity to continue developing relevant knowledge, skills and expertise in computer science throughout their careers.				
5	An ability to communicate effectively with other Computer Scientists, Software Engineers, other professional disciplines, managers and the community generally.	☑·	☑·	☑·	3
6	Ability to undertake and co-ordinate large computer science projects and to identify problems, their formulation and solution.	☑·	☑·	☑·	3
7	Ability to function effectively as an individual, a team member in multidisciplinary and multicultural teams and as leader/manager with capacity to assist and encourage those under their direction.	☑·	☑·	☑·	3
8	Understanding of social, cultural, global and business opportunities of the professional computer scientist; understanding the need for and principles of sustainability and adaptability	☑·	☑·	☑·	3
9	Understanding of professional and ethical responsibilities and a commitment to them.	☑·	☑·	☑·	3
10	Understanding of entrepreneurship; need of and process of innovation, as well as the need of and capacity for lifelong learning.	☑·	☑·	☑·	3

	University of Newcastle Information Technology Graduate Profile Statements	Taught	Practiced	Assessed	Level of Capability
1	Demonstrate a comprehensive understanding of the discipline of information technologies with an emphasis on net-centric applications, information management, and user requirements for ethical professional practice.	☑·	☑·	☑·	3
2	Apply critical reasoning and systems thinking to understand and support the operation and constraints of contemporary enterprises and their dynamic environment.	☑·	☑·	☑·	3
3	Work independently and collaboratively to locate, manage and organise information and resources and apply evidence-based methodologies to create, modify and maintain designs and design solutions.	☑·	☑·	☑·	3
4	Use creativity, problem solving skills, project management skills and technical expertise to analyse, interpret, evaluate and generate solutions to complex technical and organisational problems.	☑·	☑·	☑·	3
5	Demonstrate professional judgement and responsibility by communicating information technology principles, practices, standards to specialist and non-specialist audience clearly and persuasively.	☑·	☑·	☑·	3

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.