Course Outline Public

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Course Details

Course Code	COMP3601
Course Title	Design Project A
Convenor	Jorgen Peddersen (/users/z3058055)
Admin	Jorgen Peddersen (/users/z3058055)
Classes	**Lectures** : Timetable for all classes (/COMP3601/19T3/timetable)
Consultations	Contact jorgenp@cse.unsw.edu.au (mailto:mailto:jorgenp@cse.unsw.edu.au)
Units of Credit	6
Course Website	http://cse.unsw.edu.au/~cs3601/19T3/ (http://cse.unsw.edu.au/~cs3601/19T3/)
Handbook Entry	http://www.handbook.unsw.edu.au/undergraduate/courses/current/COMP3601.html (http://www.handbook.unsw.edu.au/undergraduate/courses/current/COMP3601.html)

Course Summary

This course aims to teach students how to design real world hardware/software co-design projects. Throughout the course of the semester, students will work in groups to achieve a complicated design using and FPGA and external hardware connected to a PC. At the beginning of the course, students will be assigned to a group and given a design task. Several required parameters for the task, including a budget, will be

provided to students. This course builds upon the skills you have learnt in other courses, such as COMP2121, COMP3222, electrical engineering and software design courses to complete a large project through group participation.

Assumed Knowledge

Before commencing this course, students should:

- know how to program an FPGA; and/or
- know how to construct circuits; and/or
- know how to program PC software.

These are assumed to have been acquired in the courses COMP3222, COMP2121, etc.

Student Learning Outcomes

After completing this course, students will:

- gain experience in co-operating and delegating within a group
- aid the design of a real system
- be able to interface external boards to the PC
- gain research skills in designing and purchasing components
- gain experience in building and prototyping external hardware
- write design documentation
- learn to work within a budget

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	Project design
Entrepreneurial leaders capable of initiating and embracing innovation and change, as well as engaging and enabling others to contribute to change	Group management
Professionals capable of ethical, self- directed practice and independent lifelong learning	Lectures
Global citizens who are culturally adept and capable of respecting diversity and acting in a socially just and responsible way	Group management

Teaching Strategies

Teaching for the course will be provided in a very limited basis. It is expected that the students will spend most of their contact hours working on the project. This teaching method supports the aims to give students the ability to manage themselved in a group situation to solve a large problem.

Contact hours will be provided as follows:

- Teaching in class will focus on areas of design that may benefit students. It is expected that these will last for 1 hour each week.
- Weekly/fortnightly meetings will be held where one member from each group (different each week) will provide feedback of the group's progress for the previous week.
- Laboratory times that will allow students to have contact with an experienced tutor.
- Other contact will exist between group members as they work on the design of the project .

Teaching Rationale

The course will be taught through a series of lectures that provide information relevant to project design. However, most of the learning will accomplished by the students themselves as they work towards the design of a complicated project in a group situation.

This is done to emulate the workplace situation where research direction must be discovered by the project team.

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)
- UNSW Plagiarism 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, if using. 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.

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. Plagiarism at UNSW is defined as using the words or ideas of others and passing them off as your own.

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 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)

Assessment

Item	Due	Marks
Group Meetings	Week 2-9	10%
Design Report: - Initial Design Report - Advertisement/Magazine - Operation Manuals - Final Design Report	(one each per group member) Week 4 Week 7 Week 8 Week 9	30%
Team Assessment	W10	10%
Project Design	W10	50%

Course Schedule

Week	Lectures	Assignments	Notes
1	Course intro, Music basics	-	-
2	FPGA Design Refresher	-	-
3	Communications via EPP	-	-
4	TBD	Initial Design Report due	-
5	TBD	-	-
6	TBD	-	-
7	TBD	Advertisement/Magazine Article due	-
8	TBD	Operational and Maintenance Manuals due	-
9	TBD	Final Design Report due	-
10	---	Project Assessment	-

Course Evaluation and Development

This course is evaluated each session using the myExperience system.

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Comments

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