SCIT

School of Computing and Information Technology
Faculty of Engineering & Information Sciences

SIM Session 4, 2017 and SIM Session 1, 2018
Subject Outline
CSCI321 – Project

General Information

Assessors/Supervisors:	Various
Email:	Various
Subject Moderator:	Professor Willy Susilo
Credit Points:	12 credit points
Duration:	2 sessions
Lecture Times & Locations:	Refer to the SIM student portal.

Subject Description

Working in groups, students design, implement, and document a software system. Involves: project planning and scheduling, seminars and individual presentations, group coordination, research of proposed application domain, use of design methodologies, design documentation, coding, module and system integration, testing, verification, and implementation. A small number of project topics have been proposed. Students will form teams, each of which will design, implement and document a solution to one of the proposed projects. Teams will meet fortnightly with supervisors to discuss progress and problems.

Subject Learning Outcomes

This subject will develop the student's ability to handle the definition, design, programming and documentation of a non-trivial software project.

Graduate Qualities

"Graduate Qualities" are the aspirational qualities that students will progressively develop through their learning experiences at UOW. These Graduate Qualities are not achieved in a single subject - their development is an ongoing process across an entire program of study. This subject will contribute to the following Graduate Qualities:

Graduate quality	Covered in	Assessed in
Teamwork	Project	Project
Innovation and design	Project	Project
Informed	Project	Project
Independent learners	Project	Project
Problem solvers	Project	Project
Effective communicators	Project	Project
Responsible	Project	Project

Contact hours

Session 4-2017 Lecture Contact Hours:	2 x 3 hour lectures (Week One & Week Eleven) **COMPULSORY -** Attendance will be taken & letter of explanation is required for no show **STARTSMART** is **COMPULSORY** for all new UOW undergraduates http://www.uow.edu.au/student/attributes/ilip/module_01-starting.html
Team Meetings for group members: Team Meetings with Supervisor:*	1 hour per fortnight (Week One, Three, Five, Seven, Eight, Ten) 1 hour per fortnight (Week One, Three, Five, Seven, Eight, Ten)
Session 1-2018 Team Meetings for group members: Team Meetings with Tutor:*	1 hour per fortnight (Week One, Three, Six, Seven, Nine, Ten) 1 hour per fortnight (Week One, Three, Six, Seven, Nine, Ten)
Topic Submission Deadline:	**5 Sept 2017, 12 noon**
Confirmation of Topic & Supervisor:	**9 Oct 2017**
Date of Lectures (Compulsory):	**First – 14 Oct 2017** **Second – 6 Jan 2018**
Submission of Reports for presentation preview:	**24 Feb 2018, (arrangements with supervisors / assessors)**
Date / Venue / Time of Presentation (Compulsory):	**3 Mar 2018**

Any information posted on the SIM Portal is deemed to have notified to all students.

Attendance requirements

It is compulsory for ALL students enrolled in this project to attend the scheduled 3-hour lecture before the commencement and in the midst of the project.

Topics and Groups

A number of project topics have been proposed. The topics are available before the session starts. Students can get a list of all projects from the SIM Portal. The selection form must be returned via email to hamidahm@sim.edu.sg on or before the submission due date for confirmation of the selected topics. Students and Supervisors will be informed of the confirmed groups and topics assigned upon confirmation from UOW. For students who fail to submit their preferred topics by the scheduled deadline, topics will be randomly assigned to them.

The team will design, implement and document a solution for one of the proposed projects. Teams should meet as per the schedule with supervisors (see below) to discuss progress, project design issues and problems. Team size is typically 4 to 5 members but will vary with the project. A group that has less/more group members need to seek an approval from the subject coordinator for an extreme case.

A 3-hour lecture will be given in Weeks 1 & 11. The lectures will involve description of deliverables, tutorials on project development and description of documentation and techniques/ processes to ease the software development process. Attendance at lectures is **COMPULSORY**.

The team should meet for at least two hours in each of the specified weeks in both **Session 4 2017** and **Session 1 2018**. The first hour of each of the specified weeks should be a team meeting (group members only), and the second hour should be organised at a time which suits the supervisor. It is advised that the group meeting should happen before the Supervisor's meeting. During the meeting with the Supervisor, students will be assessed based on the project plan that will be discussed with the Supervisor on Week 1 (i.e. in the first meeting). Marks will be awarded progressively based on the progress of the project.

Subject Materials

There are no mandatory readings for this subject.

It is the students' responsibility to provide any necessary hardware/software required to complete their project. The project description needs to be discussed and consulted with the Supervisor.

Assessment

This subject has the following assessment components. All late submissions attract penalties of ***25% per day after the due date***. All due dates are on the meeting date with supervisor during the indicated week.

The assessment in this subject is done progressively. There are essentially two parts:

1. Project Activity: 30%, which will be awarded based on the completion of the project according to the project plan agreed in the first week provided by the Supervisor.
2. Project Report and Demonstration: 70%, which is distributed as follows:

Assessment Items & Format	Percentage of Final Mark	Due Date
First Session (Session 4 2017)	Total Marks: 30%	
Project Plan *Supervisor to submit to UOW for approval before working on project.*	**COMPULSORY**	Week 1 after the 1st 3-hr lecture
Project Diary. *minutes of meetings, records of milestones, client interactions, work done, etc.*	5 %	Week 5 & 9. The document should be submitted to the supervisor. Refer to point (g) for further information.
Preliminary Project Documents. *Preliminary User Manual and Preliminary Technical Design Manual*	10 %	Week 8 of the first project session. The document should be submitted to the supervisor. Refer to point (j) for further information.
Project Website. *The Project Website should advertise your products and contain online copies of the preliminary project documentation.*	10%	Week 9 of the first project session. Students should advise the supervisor of the page. Refer to point (l) for further information.
Meeting with the Supervisor & Assessor to discuss the project.	5%	Week 10 of the first project session. Refer to point (i) for further information.
Second Session (Session 1 2018)	**Total Marks: 70 %**	
2nd 3-hr Lecture	**COMPULSORY**	Week 1 of the second project session.
Project Diary. *minutes of meetings, records of milestone, etc.*	5%	Week 5 & 9 of the second project session. The document should be submitted to the supervisor. Refer to point (g) for further information.
Prototype Demonstration and meeting with Supervisor & Assessor to discuss the project. Demonstrate prototype meeting project specification.	20%	Week 6 of the second project session. Groups are to demonstrate to the project supervisor the initial version of their project. Refer to point (i) for further information.
Final Product (consists of the following deliverables). a. code. b. documentation. c. MPEG d. Presentation	 10% 20% 5% 5%	Week 9 of the second project session. Students should provide the supervisor with a hard copy of the code and project documentation including diaries. Students must also submit to their supervisor(s) the MPEG file containing their presentation (it could be submitted on CD-ROM). Refer to point (j) for further information. **Each student must contribute significant portion to the coding part (part a) in the project. Failure to comply with this rule may result in having a TF grade in the final marks.**
Project Web Site	5%	Week 9 of the second project session. The supervisor should be advised of the location of the final website. Refer to point (l) for further information.

Notes on Assessment

Weightings shown in brackets are subject to variation and intended mainly as a guide for assessing the final result. Where possible, each student's final result will be evaluated on his or her individual efforts and contributions.

Assessment

a) Failure to complete assessable tasks may result in a fail grade being recorded.
b) Any late assessment submission will result in deduction in the allocated marks (normally 25% per day)
c) Progressive feedback on submitted assessable items will be provided by the supervisor in the scheduled meetings.
d) Scaling may occur in this subject.
e) To pass this subject the group must obtain a pass mark in the assessments of the (1) Prototype demonstration and (2) Final Product in second session.

Submission

a) All assessable documents must be submitted according to the format specified in lectures.
b) Students should hand all assessable tasks to the supervisor by the due date.
c) Project diaries are due in Week 5 and 9 of both the first and second project sessions. The diaries should contain minutes from all meetings along with a description of activities performed by member. Diaries should be submitted to the supervisor in hardcopy form on the due dates. It is recommended that students use a weblog (blog) to store diaries. In this case they may be submitted electronically to the supervisor.
d) Preliminary project documentation is due Week 8 of the first project session. The documentation should consist of a technical manual containing architectural and design aspects of the project. In addition to this a user manual should be provided. The user manual should outline what the functionality of the software is and how a user may interact with it. It should be noted that this documentation is to be submitted to the supervisor in hardcopy form. A softcopy should be placed on your website.
e) Students should demonstrate an initial version of their software by Week 6 of the second project to the supervisor. The supervisor should provide feedback to the students on where things should be changed/ improved. A similar meeting is held in Week 10 of the first project session, although no demonstration of software is required at that stage.
f) Preliminary and Final project documentation are due in Week 8 and Week 9 of the first project session and the second project session respectively. Final documentation should be accompanied with the programs code. All documentation should be submitted in hardcopy form to both the supervisor and assessor. A copy of all documentation should be made available on the project site in PDF or Postscript formats.
g) In addition to submitting code students are required to submit a MPEG containing their presentation. The MPEG presentation is basically a recorded demonstration/ seminar on your product (refer to notes below).
h) Each project group is required to identify a suitable web space or blogs. Students should provide their supervisor with a link to a functional version of the website by Week 9 of the first project session. This site should be maintained for the duration of the project.
i) The product must be demonstrated to both the supervisor and assessor in Week 10 of the

second project session. Students are required to make a formal presentation to the panel of Supervisors and the Assessor for the final assessment. During this time, all the work must be finalized and properly demonstrated to the Supervisor and the Assessor, and the Website must also be ready with the complete contents.

Contribution

At the end of the project, each group member will be required to review other group members performance by completing the 'Peer Assessment & Group Work Contribution' form. This information will be used by supervisor and assessor to determine the final marks for participation and contribution of each individual towards the project. Please refer to the back page of the Contribution Form for method of calculation for individual mark.

Extension of Time (EOT)

Students seeking an extension past the due date for the submission of required assessment items should consult your supervisor in the 1st instance and check the Guide for Student's document http://www.uow.edu.au/student/calendar/rules/plagiarism.html. This also specifies the penalties imposed for the late submission of assessment items, copying and plagiarism.

Final Assessment

The product must be demonstrated to both the supervisor and assessor in Week 10 of session two. Students are required to make a *formal presentation* to the Supervisor and the Assessor for the final assessment. During this time, all the work must be finalised and properly demonstrated to the Supervisor and the Assessor, and the Website must also be ready with the complete contents.

Project Activities and Milestones

It is highly recommended that the following schedule be adhered to.

Time	Activity or Milestone
First Session, Week 1	Submit project plan to UOW for approval Commence design, prototyping and web site
Week 5	Submit project diary
Week 8	Submit preliminary technical manual and user manual. Look at finalizing aspects of the systems design.
Week 9	Demo project web site with product description and documentation to supervisor. Once this is done you can finalise your design of the system. Submit project diary
Week 10	Meet with supervisor to demonstrate preliminary working prototype.
Second Session, Week 6	Demonstrate rudimentary working system.
Week 9	Record 15 minute presentation movie in MPEG or Quicktime format for web site. Submit final source code, user manual, technical manual and web site. Present tradeshow style demonstration. Finalise the project web site.
Week 10	Final discussion with the project Supervisor and Assessor.

Not all assessment tasks are listed in the schedule above. The schedule is a guide to ensure smooth progression of the project.

Group Project Web Sites

The project web site need not be sophisticated. However, it should promote a "corporate" image and product to its intended customers, including:

a) home page with project name, group members & their tasks, supervisor, assessor and date last modified.
b) product description page(s)
c) documentation page (including user manual and technical manual links)
d) an MPEG video presentation of the project.
e) contact us page, FAQ page, etc.

The MPEG video documentation should basically provide a demonstration of your product and its functionality. It is common practice to integrate a PowerPoint Presentation into the video. Further information on how to create such a video will be provided during the semester. Some project groups may opt to put their project diaries up on the site (a weblog so to speak).

Meetings & Resources

The Supervisor's job is mainly to describe the product at a high level, resolve design issues & assess the work at different stages. The supervisor can be asked for advice. However, the supervisor should not be expected to do any substantial part of the design or implementation.

Automated generator tools or open source are **NOT ALLOWED** to be used as the main core to develop the final product.

Each group should run its own meetings on the specified weeks for a minimum of one hour (group members only). Minutes of each meeting MUST BE recorded and a Weblog may be used to hold minutes of meetings with supervisors and other members. The Weblog should be accessible from the projects site.

SIM-HQ Library

The SIM-HQ Library is useful for texts and journals. Supervisors may recommend the purchase of additional books for the SIM-HQ Library if you think they will be useful.

Students should be encouraged to search in other libraries. The Singapore, Ngee Ann, Nanyang and Temasek Polytechnic libraries are very good in terms of technical materials. If you are one of the many of our students to have graduated from one of these polytechnics, you should have lifetime access to these libraries for a minimal charge.

Documentation

The precise format and content of the final project documentation may vary from project to project. Consequently, the requirements of documentation should be discussed in detail with your supervisor. The final submitted project must include the following items (at least) to achieve a pass grade or better:

a) a user manual
b) a technical report (including minutes of meetings)
c) the source code
d) the web site

These documents are to be submitted to the supervisor in hardcopy and on CD ROM. An additional copy should be provided to the assessor. Where the source code or web site is considered too large to be printed, these items may be submitted on CD only. A copy of the CD must also be submitted to the coordinator for archives. Students should also advise the supervisor and assessor as to the URL of the website.

Format of the User Manual and Technical Manual

Both preliminary and final user manual and technical manual must conform to the following format:

- The final report must be written in English and free of any grammatical/spelling mistakes.
- The report (user manual and technical manual) should be approximately 50 – 100 pages, written in A4 paper size with 11 point Times New Roman font for text material (with 14 point bold underlined for headings; 12 point bold for section headings; 11 point bold italic for subheadings), single line spacing, 25mm top, bottom, left & right margins. Fully justified text, without indentation. Page numbers at bottom centre tables & figures properly labelled and sequentially numbered standard UOW submission cover sheet.
- The report must be bound using a simple metal bulldog clip in top left hand corner.
- **DO NOT** use fancy fonts, borders, clip-art inserts, clear acetate covers, plain or coloured page separators, spiral bindings or other elaborate presentation devices and embellishments. The examiners are interested **ONLY** in the report content, and any distracting presentation will just annoy them.

The technical report *must* be accompanied with a complete test report. You must run complete and formal testing procedures. When the result of the carried test report is too long, then you can label it appropriately (eg. Using the file name) in the report and put the complete report in the CD (no need to have it printed in the report).
The final technical report must be structured to illustrate the following important components:

1. Project Approach
2. Project management and Activity Planning
3. Software Development and Quality of Software (including Testing)

There is no restriction on how many chapters are required, etc. as long as it has captured the three components above.

The final user manual should contain the screen capture of the *top level* of your implementation only. DO NOT include all screen captures in the final report. If you really want to include them, then you can put them in the CD that you will provide in your final report.

Generate an index html page that will enable the user to use the CD that you will provide.
The index html page should contain all the pointers to all files supplied in the CD, including any screen capture required, test report, source code, MPEG files, etc.

You must state the contribution of each member (who has been doing which part of the project) in the technical manual and also in the CD that you will provide.

The user manual should be *at most* 20% of the total report submitted (which means that you need to have 80% of the report used for the technical manual). The technical manual must include all the technical detail, adhering software engineering development principle and state clearly which method that you have used/followed in your project.

Preliminary Documentation

In addition to the final documentation that you must submit at the end of the second project session, you must also submit a preliminary user manual and preliminary technical manual in Week 8 of the first project session. The preliminary user manual should contain the projected outcome of the project that includes some design/screen capture of the *top level* of your project. By reading this manual, the projected user of your project will gain an idea on what he/she can do with the result of your project. The preliminary technical manual should capture the methodology that you will use when you do your project. The format of this report should conform with the requirement above and the total number of pages should not exceed 100 pages, with at most 30% allocated for the preliminary user manual, and 70% allocated for the preliminary technical manual. If you need to do any preliminary research/reading for your project, you must write the activity that you have done in the preliminary technical manual.

Project Support & Student Contact

Questions about project design should be referred to the project supervisor. Problems with team administration should be discussed first with the project supervisor.

It is not appropriate for groups to "carry" members who are not contributing fully to the work. If this does happen, it is best to confront the situation as early as possible; being open and honest with each other. You must consult with your project Supervisor to discuss this matter as early as possible. Letting things go until submission deadlines occur is poor management. Raising such issues with SIM and UOW after the formal submissions have been made is not only VERY POOR management, it is also unethical since the submission is a formal indication that the work offered has been done by the whole group. The assessment for CSCI321 is made on the basis that **ALL** group members have contributed equally to the work.

Project Team Rules

The following rules will apply to team members:

a) Team members will co-operate to achieve a common goal. Often, each team member will work on a different sub-problem, so that the success of the team as a whole will depend on the individual work of all of its members. Sometimes several team members will independently solve a crucially important problem, so that a "best" or "correct" solution can be established by comparison.
b) Each team will elect a leader for the project or each phase of it. The project leader will be responsible for the co-ordination of the design, programming and background reading tasks performed by members of the group and communicating instructions from the supervisor to appropriate group members.
c) Each team member will write a significant portion of the code. The code must include clear documentation about who wrote it and who modified it.
d) The team leader is to ensure that team members contribute equally to the project.
e) Any problems must be discussed with the project supervisor as soon as they arise, **NOT** at a later stage when the problem cannot be resolved.

Additional Information

This outline should be considered in conjunction with policy documents available through the University of Wollongong website. Those policies are subject to revision.

Please see the additional documentation provided with this subject outline.