Department of Computer Science and Software Engineering

MODULE HANDBOOK

CPT202
Software Engineering Group Project

Soon Phei, Tin

SECTION A: Basic Information

❑ Brief Introduction to the Module

Students will work in groups of seven to nine members to produce a working software system. The deliverables and working methods will be prescribed. To provide experience of group working; To provide experience of all aspects of the development of a moderately sized software system; To prepare students for their individual projects in the final year; To consolidate material from the first semester of the third year.

❑ Key Module Information

Module name: Software Engineering Group Project

Module code: CPT202

Credit value: 5

Semester in which the module is taught: 2

Pre-requisites needed for the module:

None are listed on Ebridge. Students will have covered various subjects including programming and database.

Programmes on which the module is shared:
BSc Information and Computing Science
BSc Information Management and Information Systems

❑ Delivery Schedule

Lecture room: TBA

Lecture time: *TBA*

Tutorial times: *TBA*

Module Leader and Contact Details

Name: Soon Phei, Tin

Email address: soon.tin@xjtlu.edu.cn

Room number and office hours: SD531

Preferred means of contact: email

- **Additional Teaching Staff and Contact Details**

Name: Yue Li

Email address: yue.li@xjtlu.edu.cn

Room number and office hours: SD457

Preferred means of contact: email

SECTION B: What you can expect from the module

- **Educational Aims of the Module**

Students will work in groups of seven to nine members to produce a working software system. The deliverables and working methods will be prescribed. to provide experience of group working; to provide experience of all aspects of the development of a moderately sized software system; to prepare students for their individual projects in the final year; to consolidate material from the first semester of the third year.

- **Learning Outcomes**

1. An understanding of working as part of a team;
2. Improved personal, interpersonal and communication skills;
3. A more in depth understanding of the software development process;
4. An ability to specify the requirements of a software system;
5. Experience in the design of a software system;
6. Practical experience in the implementation and testing of a moderately sized software system;
7. An awareness of project management issues;
8. Understanding of the process and role of software documentation;
9. Experience in the writing of a sizeable report on a software project

❑ Assessment Details

Project (SDLC, programming, presentation, written report) = 100%.

More details will be provided in class.

❑ Methods of Learning and Teaching

The overall strategy is to allow **self and peer guided learning** within a tightly defined framework. At the beginning of the module an introductory lecture will outline details of the project scheme, and documentation detailing the framework and expectations will be provided. Thereafter lectures will be given at the rate of one a week describing the key skills needed to carry out the project. Students will be put into teams of four, and thereafter will be expected to work largely autonomously. Teams will be expected **to hold regular project meetings**, the minutes of which will be monitored by staff. Certain software deliverables will be prescribed: the projects will produce a database front end tools for maintaining the database tools for accessing, analysing and presenting the data. The domain of the system must be selected by the team. The project will carry out following **Scrum framework**. The development process will be reviewed and assessed by staff. Staff will be available on an 'as needed' basis to offer support, guidance and to arbitrate any difficulties.

❑ Syllabus & Teaching Plan

14 hours of lectures will be given: Introduction to the scrum framework; team collaboration and project source code management; continuous integration and continuous deployment; requirements specification; software development; report writing, project misc.

The 14 hours of lecture material will be spread over the semester, but early in semester the lecture may go longer than one hour. As semester progresses the emphasis will switch to tutorials where student project groups will be expected to give a presentation of their project as it is developed. Students must be prepared to present at any time in any class. Student project groups will called out at random to present during the tutorial each week.

Initial student presentations will be an overview of their project requirements. A little later, students will present their project design. It is a chance for critique by their fellow students and the module leader. From that point on, groups will present their working application each week. Groups will be chosen at random, but typically students will present once every two weeks. All groups must have their project software ready to present at all times (in a state of partial completion, but runnable).

Week	Description	Note
1	• Module requirements • Project setup • Scrum Framework • Release of videos: ■ Scrum Product Backlog, Requirements and User Stories, Sprint, Sprint Planning, Sprint Execution. ■ Azure Boards	
2	• Azure DevOps • Source code management with Git • Release of videos: ■ Azure Repos, Azure Pipelines ■ Intro to Spring Boot framework, Database programming, Building a Login Process for Spring Boot App.	
3	• Start sprint 1	
4		
5	• Start sprint 2	
6		
7	• Start sprint 3	
8		
9	• Start sprint 4 • **Assignment 1** submission • **Assignment 1 Presentation**	
10		
11	• Start sprint 5	
12		
13	• Warp up	
14	• **Assignment 2** submission • Project exhibition (Subject to approval from Pandemic Prevention Control Party)	

- **Reading Materials**

Required (Essential) Textbook:

None

Recommended Texts:

Title	Author	ISBN/Publisher
ESSENTIAL SCRUM	KENNETH S. RUBIN	ADDISON WESLEY
DATABASE SOLUTIONS	T. CONNELLY AND C. BEGG	ADDISON WESLEY
COMPUTER PROJECTS: A STUDENT'S GUIDE	C. W. DAWSON	ADDISON WESLEY
PROJECTS IN COMPUTING AND INFORMATION SYSTEMS	C. W. DAWSON	PRENTICE HALL

SECTION C: Further Information

- **Student Feedback**
  The University is keen to require student feedback to make improvements for each module in every session. It is University policy that the preferred way of achieving this is by means of an Online Module Evaluation Questionnaire Survey. Students will be invited to complete the questionnaire survey for this module at the end of the semester.

You are strongly suggested to read policies mentioned below very carefully, which will help you better perform in your academic studies.

All the policies and regulations related to your academic study can be found in Student Academic Services section under the heading "Policies and Regulations" on E-bridge.

- **Plagiarism, Cheating, and Fabrication of Data.**
  Offences of this type can result in attendance at a University-level committee and penalties being imposed. You need to be familiar with the rules. Please see the "Policy for Dealing with Plagiarism, Collusion and Data Fabrication" document available on e-Bridge in the Student Academic Services section under the heading 'Policies and Regulations'.

- **Rules of submission for assessed coursework**
  The University has detailed rules and procedures governing the submission of assessed coursework. You need to be familiar with them. Details can be found in the "Code of Practice for Assessment" document available on e-Bridge in the Student Academic Services section under the heading 'Policies and Regulations'.

- **Late Submission of Assessed Coursework**
  The University attaches penalties to the late submission of assessed coursework. You need to be familiar with the University's rules. Details can be found in the "Code of Practice for Assessment" document available on e-Bridge in the Student Academic Services section under the heading 'Policies and Regulations'.

- **Mitigating Circumstances**
  The University is able to take into account mitigating circumstances such as illness or personal circumstances which may have adversely affected student performance on a module. It is the student's responsibility to keep their Academic

Adviser, Programme Director or Head of Department informed of illness and other factors affecting their progress during the year and especially during the examination period. Students who believe that their performance on an examination or assessed coursework may have been impaired by illness, or other exceptional circumstances should follow the procedures set out in the Mitigating Circumstances Policy, which can be found on e-Bridge in the Student Academic
Services section under the heading ‘Policies and Regulations’.

- **ICE**
  Copies of lecture notes and other materials are available electronically through ICE, the University’s virtual learning environment at: ICE @ XJTLU.