



## CS3214 Information Systems Development Project Module Description and Schedule Outline

### A. ESSENTIAL MODULE INFORMATION

The essential module information is extracted from the official NUS Bulletin 2008/2009. An online copy can be found on the website of the Registrar's Office at <http://www.nus.edu.sg/registrar/nusbulletin/>.

#### A.1. Module Description

Students are required to work (in groups) through a complete Systems Development Life Cycle to develop a business information system based on techniques and tools taught in CS2103 or CS2261. CS3214 can be viewed as a large-scale practical module of CS2103 or CS2261. They will also sharpen communication skills through close team interactions, consultations, and formal presentations. Emphasis will be placed on requirement analysis, system design, user interface design, database design and implementation efficiency. Students will be assessed based on their understanding and ability to apply software engineering knowledge on a real-life application system.

#### A.2. Prerequisites

- Students matriculated before AY 2005/06 – CS2103 Software Engineering.
- Students matriculated from AY 2005/06 to AY 2007/08 – CS2261 Enterprise Systems Development.
- Students matriculated from AY 2008/09 onwards – CS2261 Enterprise Systems Development and CS2301 Business and Technical Communication.

#### A.3. Workload

The weekly workload for CS3214 is divided into five components A-B-C-D-E with each letter referring to the number of hours for lecture, tutorial, laboratory, projects/assignments/fieldworks and preparatory work. The workload for the present semester is 1-1-0-10-8.

## B. SYLLABUS AND SCHEDULE OUTLINE

### B.1. Syllabus

CS3214 is a 100% team-based and project-based evaluative module. There is no final examination at the end of the semester. Instead, emphasis is placed on continuous assessment whereby students are required to submit deliverables at regular interval. The average team size is between six to seven students. Students are required to possess a satisfactory level of the following knowledge and skills, which are acquired from foundation/prerequisite modules offered by the School:

- Object oriented programming, data structures and algorithms using Java.
- Enterprise systems development using Java Platform, Enterprise Edition, together with a good working knowledge of Java Platform, Standard Edition.
- Web application development using Java Servlet Technology, JavaServer Pages Technology and Java API for XML Web Services.
- Object oriented system analysis and design using Unified Modeling Language.
- Relational database analysis and design.
- Good understanding of modern system development methodologies such as rapid application development, prototyping, Rational Unified Process and agile methodologies.
- Effective business requirements analysis skills.
- Effective system documentation skill.
- Effective oral presentation skills.
- Good understanding of general information systems concepts and theories.

In order to ensure that students taking this module are adequately prepared for the project, 5 days of intensive pre-semester workshops are conducted during week -1. The objective of the workshops is to help the students to refresh the knowledge and skills, which are listed above, required for the project. The workshops consist of lectures, instructor-lead practical sessions, mini team project, discussions and oral presentations. Attendance of the workshop is optional but strongly encouraged.

During the semester, students are only required to attend three lectures: 1) module introduction and release of project specification; 2) detailed analysis of project specification; and 3) documentation requirements and project management. The primary mode of instruction is team-based consultations. Each team is assigned a dedicated team advisor for the duration of the entire semester. The team advisor also functions as the end business user to guide the students in analyzing the project specification. The consultations are typically held on a weekly basis. In addition, students are provided with one technical helpdesk session

per week where they can seek assistance from senior undergraduates on coding and debugging problems.

The project specification is based on unique business and system domains that are changed every semester. In the past semesters, students had been asked to develop a hospital management system, human resource management system for an airline and a customer relationship management system for a private wealth management bank. The average size of the system to be developed is about eight to ten functional modules. In other words, each student is expected to contribute towards the actual development of approximately one and a half functional module over and above the documentation requirements.

## B.2. Schedule Outline

The requirement deliverables and the schedule outline are listed in the table below:

Instructional Weeks	Key Activities
-1	<ul style="list-style-type: none"> <li>Pre-semester Workshops</li> </ul>
0	<ul style="list-style-type: none"> <li>Self Study</li> </ul>
1-3	<ul style="list-style-type: none"> <li>Release of Project Specification</li> <li>Lectures</li> </ul>
5	<ul style="list-style-type: none"> <li>Submission of System Proposal</li> </ul>
7	<ul style="list-style-type: none"> <li>First System Release Presentation</li> </ul>
10	<ul style="list-style-type: none"> <li>Submission of System Analysis and Design Report</li> </ul>
11	<ul style="list-style-type: none"> <li>Second System Release Presentation</li> </ul>
13	<ul style="list-style-type: none"> <li>Submission of Final System Release</li> </ul>
Reading Week	<ul style="list-style-type: none"> <li>Final System Release Presentation</li> </ul>

## C. FURTHER INFORMATION

For additional information specific to CS3214, please contact the course instructor, Mr. TAN Wee Kek, at +65 6516 6731 (O) or [tanwk@comp.nus.edu.sg](mailto:tanwk@comp.nus.edu.sg).

For general information pertaining to the undergraduate programme offered by the Department of Information Systems, please contact the following personnel:

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For all other matters relating to undergraduate studies within the School of Computing, please contact the following personnel:

- Associate Professor KHOO Siau Cheng, Vice-Dean (Undergraduate Programme), +65 6516 4860, [khoosc@comp.nus.edu.sg](mailto:khoosc@comp.nus.edu.sg).
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## D. ABOUT US

The Department of Information Systems, School of Computing, National University of Singapore, aims to be a leading international institution in information systems education and research, and to be a strong institutional and consulting partner with local industries, government bodies and professional bodies. Visit our internet homepage at <http://www.comp.nus.edu.sg/is>.



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