

THE UNIVERSITY OF
NEW SOUTH WALES



Australian School of Business
School of Information Systems, Technology and
Management

INFS2609
Systems Delivery and Implementation

COURSE OUTLINE
SESSION 1, 2008

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1. COURSE STAFF

Lecturer in charge:	A/Prof Fethi Rabhi	Quad 2099	f.rabhi@unsw.edu.au
Course tutor:	Hairong Yu	Quad 2100	hairong.yu@unsw.edu.au

Email is the preferred mode of contact. Please note that it is school policy that only emails from bona fide accounts, such as your student email account will be read.

Consultation with the lecturer will be during the laboratory session before the lecture (14:00-16:00). Appointments can be made to meet at other times should the need arise.

If you experience problems during the course that are likely to interrupt your attendance in class or delay submission of assignments please discuss this with the lecturer-in-charge at the earliest opportunity.

2. INFORMATION ABOUT THE COURSE

2.1 Teaching Times and Locations

Lectures: Wednesdays 16:00-17:00, Chemical Sc M11 (ex AppliedSc)

Supervised Lab Sessions: Wednesdays 14:00-16:00 (QUAD Lab 6), Wednesdays 17:00-19:00 (QUAD Lab 3)

2.2 Units of Credit

This course is worth 6 Units of Credit (UOC).

2.3 Parallel Teaching in the Course

There is no parallel teaching associated with this course.

2.4 Relationship of This Course to Other Course Offerings

The prerequisites are first year courses INFS1602, Information Systems in Business and INFS1603 Business Data Management which gives the fundamentals about computer and information systems. Since this course uses the Java programming language, it is related to the second-year course INFS2603, Systems Analysis and Design I, which introduces object-oriented design and analysis.

3. COURSE AIMS AND LEARNING OUTCOMES

3.1 Course Aims

INFS2609 introduces fundamental concepts for software implementation in the development of information systems. It provides a foundation for software implementation in the business context through the practical application of a commercial object-oriented programming language. Through laboratory exercises and a project, it exposes students to the practicalities of constructing and implementing systems that conform to an object-oriented design. The programming language used in the course is Java. Students will gain experience in the use of an IDE (interactive development environment) application for project programming requirements. Students will also get

exposed to software development issues such as collaborative development, testing strategies and change management.

The aims of the course are to provide students with:

1. An introduction to software engineering and the software development process within the context of information systems development
2. A general understanding of object-oriented programming with emphasis on the relationship to information systems development
3. Experience in working in a team environment, managing changes, testing and project reporting
4. Knowledge of the Java programming language which is used extensively in the domain of electronic commerce
5. Experience in the use of an IDE (interactive development environment) application for program development and access of program libraries.

3.2 Student Learning Outcomes

1. Awareness of the overall software development process in the implementation of information systems
2. Appreciation of the transition between an object oriented design and an object-oriented program
3. Familiarity in modelling systems requirements, and documenting and communicating systems design to stakeholders
4. Understanding of processes for software quality assurance, including planning, designing and testing
5. Experience in using a commercial programming language in an interactive development environment
6. Demonstrating an understanding of the core concepts and principles of the course through the development of practical applications

3.3 Approach to Learning and Teaching

This course adopts a project-based approach to Learning and Teaching where students learn through applying their knowledge in situations inspired from real-life. Software development in a group situation is encouraged with the lecturer guiding and providing continuous feedback to each group.

3.4 Teaching Strategies

The course is organised around a series of laboratory sessions in which students develop their programming skills through a series of laboratory exercises. Each session is supported by a lecture that explains the basic concepts used in the labs.

The course includes a group-based project which requires developing a large program that tackles a real-life problem over several weeks. This program must be developed and demonstrated in consultation with the lecturer acting as a client.

4. CONTINUAL COURSE EVALUATION AND IMPROVEMENT

Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's Course and Teaching Evaluation and Improvement (CATEI)

Process is one of the ways in which student evaluative feedback is gathered. Significant changes to courses and programs within the School are communicated to subsequent cohorts of students. Based on previous feedback for this course, it has been redesigned so that all practical activities (project and labs) build on each other as well as encourage self-learning using Web resources.

5. LEARNING ASSESSMENT

5.1 Formal Requirements

To receive a passing grade in this course, you must meet **ALL** of the following criteria:

- Attain an overall mark of at least 50%;
- Attain a mark of at least 40% in your final exam; and
- Attend at least 80% of the laboratory sessions

Note that each component of the course *may* be scaled.



5.2 Assessment Details

The assessable components for the course are divided into three distinct categories:

Assessable Component	Percentage	Learning Outcomes Assessed
I. Laboratory Work Regular lab exercises Assessments 1 and 2 (Due weeks 3, 7)	20%	3,6
II. Project Intermediate report (specs, design). Due week 6. Demonstration 1. Due Week 8 Demonstration 2. Due Weeks 11/12. Final report. Due Week 12.	40%	1,5,6
III. Final exam	40%	2,3,4

- The detailed requirements and format of each component will be on the course's Web site.
- Any number of the assessment components may be scaled

5.3 Late Submission

Late submission of assignments will incur a penalty of 10% of the maximum assessment per day. An extension in the time of submission will only be granted under exceptional circumstances by the lecture-in-charge. In all cases documented evidence must be provided

5.4 Special Consideration and Supplementary Examinations

It is recommended that you familiarise yourself with the School policies regarding:

[Post Examination Student Consultation](#)

[Application for Special Consideration](#)

[Plagiarism & Failure to Acknowledge Sources](#)

These policies can be found at the SISTM web site:

http://www2.sistm.unsw.edu.au/nps/servlet/portalservice?GI_ID=System.LoggedOutInheritableArea&maxWnd=CurrentPolicies

UNSW Policy and Process for Special Consideration

(see <https://my.unsw.edu.au/student/atoz/SpecialConsideration.html>)

- Applications for special consideration (including supplementary examinations) must go through UNSW Central administration (within 3 working days of the assessment to which it refers) – applications will **not** be accepted by teaching staff;
- Applying for special consideration does not automatically mean that you will be granted additional assessment or that you will be awarded an amended result;
- If you are making an application for special consideration (through UNSW Central Administration) please notify your Lecturer in Charge;
- Please note that a register of applications for Special Consideration is maintained. History of previous applications for Special Consideration is taken into account when considering each case.

ASB Policy and Process for Special Consideration and Supplementary Exams in Undergraduate Courses

In the ASB, requests for special consideration are determined by a Faculty wide panel which will advise the Lecturer in Charge of appropriate action.

If the Faculty panel (see above) grants a special consideration request, this may entitle the student to sit a supplementary examination. In such cases the following procedures will apply:

- Supplementary exams will be scheduled centrally and will be held approximately two weeks after the formal examination period. Actual date will be advised by mid-semester.
- Where a student is granted a supplementary examination as a result of a request for special consideration, the student's original exam (if completed) will not be marked and only the mark achieved in the supplementary examination will count towards the final grade.

Further information concerning supplementary examinations is available on the 'Policies and Guidelines for Current Students' page of the ASB website:

www.business.unsw.edu.au/currentstudents.

6. ACADEMIC HONESTY AND PLAGIARISM

The University regards plagiarism as a form of academic misconduct, and has very strict rules regarding plagiarism. For full information regarding policies, penalties and information to help you avoid plagiarism see:

<http://www.lc.unsw.edu.au/plagiarism/index.html>

Plagiarism is the presentation of the thoughts or work of another as one's own.* Examples include:

- direct duplication of the thoughts or work of another, including by copying work, or knowingly permitting it to be copied. This includes copying material, ideas or concepts from a book, article, report or other written document (whether published or unpublished), composition, artwork, design, drawing, circuitry, computer program or software, web site, Internet, other electronic resource, or another person's assignment without appropriate acknowledgement;
- paraphrasing another person's work with very minor changes keeping the meaning, form and/or progression of ideas of the original;
- piecing together sections of the work of others into a new whole;
- presenting an assessment item as independent work when it has been produced in whole or part in collusion with other people, for example, another student or a tutor; and,
- claiming credit for a proportion a work contributed to a group assessment item that is greater than that actually contributed.†

Submitting an assessment item that has already been submitted for academic credit elsewhere may also be considered plagiarism.

The inclusion of the thoughts or work of another with attribution appropriate to the academic discipline does *not* amount to plagiarism.

Students are reminded of their Rights and Responsibilities in respect of plagiarism, as set out in the University Undergraduate and Postgraduate Handbooks, and are encouraged to seek advice from academic staff whenever necessary to ensure they avoid plagiarism in all its forms.

The Learning Centre website is the central University online resource for staff and student information on plagiarism and academic honesty. It can be located at:

www.lc.unsw.edu.au/plagiarism

The Learning Centre also provides substantial educational written materials, workshops, and tutorials to aid students, for example, in:

- correct referencing practices;
- paraphrasing, summarising, essay writing, and time management;
- appropriate use of, and attribution for, a range of materials including text, images, formulae and concepts.

Individual assistance is available on request from The Learning Centre.

Students are also reminded that careful time management is an important part of study and one of the identified causes of plagiarism is poor time management. Students should allow sufficient time for research, drafting, and the proper referencing of sources in preparing all assessment items.

* Based on that proposed to the University of Newcastle by the St James Ethics Centre. Used with kind permission from the University of Newcastle

† Adapted with kind permission from the University of Melbourne.

7. STUDENT RESPONSIBILITIES AND CONDUCT

All students are expected to adhere to university policies in relation to class attendance and general conduct and behaviour. In addition, students are expected to understand their obligations in relation to workload and keeping informed. Information and policies on these topics can be found at: www.my.unsw.edu.au .

7.1 Workload

It is expected that you will spend at least ten hours per week studying this course. This time should be made up of reading, research, working on exercises and problems, performing computer tasks and attending classes. In periods where you need to complete assignments or prepare for examinations the workload may be greater.

Over-commitment has been a cause of failure for many students. You should take the required workload into account when planning how to balance study with employment and other activities.

7.2 Attendance

Your regular and punctual attendance at lectures and seminars is expected in this course. University regulations indicate that if students attend less than eighty per cent of scheduled classes they may be refused final assessment.

7.3 General Conduct and Behaviour

You are expected to conduct yourself with consideration and respect for the needs of your fellow students and teaching staff. Conduct which unduly disrupts or interferes with a class, such as ringing or talking on mobile phones, is not acceptable and students may be asked to leave the class. More information on student conduct is available at: www.my.unsw.edu.au

7.4 Keeping Informed

You should take note of all announcements made in lectures, tutorials or on the course web site. From time to time, the University will send important announcements to your university e-mail address without providing you with a paper copy. You will be deemed to have received this information. It is also your responsibility to keep the University informed of all changes to your contact details.

8. STUDENT RESOURCES

8.1 Course Resources

The recommended text for this course is:

- **C. Horstmann. Java Concepts, 5th Ed. 2008, John Wiley and Sons. ISBN 0-470-10555-9**

The recommended readings are:

- Charatan, Quentin & Aaron Kans. Java in Two Semesters, 1st Ed. 2002, United Kingdom, McGraw Hill. ISBN 0 07 709804
- Deitel, H.M & Deitel. P.J. Java, How to Program, 4th Ed. 2001, Saddle River, New Jersey, Prentice Hall
- Liang, Y. Daniel. Introduction to Java Programming, 3rd Ed. 2001, Upper Saddle River, New Jersey, Prentice Hall
- Wu, C. Thomas. An Introduction to Object Oriented Programming with Java, 2nd Ed. 2001, Boston, USA, McGraw Hill.
- Carnell John, Lauinger, Todd and Mukhar, Kevin. Beginning Java Database, 2001, Birmingham, USA, Wrox Press
- White, Seth et al. JDBC API Tutorial and Reference. 2nd Ed, 1999, San Francisco, USA, Addison Wesley

There are also many Web-based resources for learning Java on-line e.g.:

- <http://java.about.com>
- <http://java.sun.com>
- <http://www.ibm.com/developerworks/library/j-robocode/>

This course has a web site for notices, handouts, references and other useful information. It is suggested that you consult the web site at least once a week. The web site is accessible through Vista. To log in you will need your student number and unipass. Access is only available to students enrolled in INFS2609. Included on the Course Web Site will be:

- Lecture slides
- Notices
- Course lab notes
- Information on assignments and project deliverables

You are encouraged to visit this site regularly for updates and important notices.

8.2 Other Resources, Support and Information

The University and the ASB provide a wide range of support services for students, including:

Learning and Study Support:

- **ASB Education Development Unit**

The Education Development Unit (EDU) provides learning support and assistance to all students in the ASB, to enable them to enhance the quality of their learning. The EDU services are free, and tailored to meet the academic needs of students in the Australian School of Business.

The role of the EDU is to provide

- A range of support initiatives for students from the Australian School of Business in relation to their transition to university;
- Learning skills development, resources and activities for Business students
- Academic writing and skills workshops throughout the session;
- Printed and online study skills resources, such as referencing guides, report writing and exam preparation;
- A drop-in EDU Office containing books and resources that can be

borrowed;

- A limited consultation service for students with individual or small group learning needs.

The EDU website www.business.unsw.edu.au/edu contains information, online resources and useful links as well as providing information and dates for workshops. More information about the EDU services including resources, workshop details and registration, and consultation request forms are available from the EDU Office.

EDU Contact Details

Location Room GO7 Ground Floor,
West Wing, Australian School of Business Building
Telephone: 02 9385 5584
Email: Edu@unsw.edu.au
Website www.business.unsw.edu.au/edu

UNSW Learning Centre (<http://www.lc.unsw.edu.au>)

In addition to the EDU services, the UNSW Learning Centre provides academic skills support services for all UNSW students. The Learning Centre is located on Level 2 of the Library and can be contacted by phone: 9385 3890 or through their website.

Technical support: For any technical support issues (difficulty logging in to websites, problems downloading documents, etc) you can contact the UNSW IT Service Desk at:
(02) 9385 1333 ; Email: servicedesk@unsw.edu.au

Counselling support - <http://www.counselling.unsw.edu.au>

Students experiencing problems of a personal or academic nature are encouraged to contact the Counselling Service at UNSW. This consultation service is free and confidential and run by professional counsellors. The Counselling Service also conducts workshops on topics such as 'Coping With Stress' and 'Procrastination'. The Counselling Service is located on Level 2, Quadrangle East Wing, and can be contacted on 9385 5418.

Library training and support services - <http://info.library.unsw.edu.au>

Disability Support Services – Those students who have a disability that requires some adjustment in their teaching or learning environment are encouraged to discuss their study needs with the Course Coordinator or the Equity Officer (<http://www.studentequity.unsw.edu.au/disabil.html>). Early notification is essential to enable any necessary adjustments to be made.

In addition, it is important that all students are familiar with University policies and procedures in relation to such issues as:

- **Examination procedures** and advice concerning illness or misadventure
<https://my.unsw.edu.au/student/academiclife/assessment/examinations/examinationrules.html>
- **Occupational Health and Safety** policies and student responsibilities;
<https://my.unsw.edu.au/student/atoz/OccupationalHealth.html>

9. COURSE SCHEDULE

Wk	Commencing	Lecture topic	Lab/Project
1	10 March	Java Basics I Readings: Horstmann, Chapters 2 and 4	Introduction to Programming Environment Lab: Java Basics
2	17 March	Java Basics II Readings: Horstmann, Chapters 5 and 6	Lab: Java Basics
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3	31 March	Arrays and Array Lists Readings: Horstmann, Chapters 7	<u>Lab Assessment 1: Java Basics</u>
4	7 April	Objects and Classes Readings: Horstmann, Chapters 2 and 3	Lab: Strings & Arrays
5	14 April	Introduction to Graphical User Interfaces (GUIs) Readings: Horstmann, Chapter 9	Lab: Objects and Classes
6	21 April	GUI Objects and visual design Readings: Horstmann, Chapter 10	Lab: GUI Objects/Events <u>Submitting Project Intermediate Report</u>
7	28 April	Input/Output and Text Files Readings: Horstmann, Chapter 11	<u>Lab Assessment 2: Strings & Arrays</u> Lab: Text Files
8	5 May	Java Database Connectivity Readings: Course Lecture Notes	<u>Project Demonstrations 1</u>
9	12 May	Large Scale Java Programming: Packages, Design, Testing Readings: Horstmann, Chapter 8	Lab: JDBC
10	19 May	Advanced Object Oriented Concepts Readings: Horstmann, Chapters 9 and 10	Lab: Packages and Exceptions
11	26 May	Java Remote Method Invocation (RMI) Readings: Course Lecture Notes	<u>Project Demonstrations 2</u>
12	2 June	Managing the Development Process Readings: Course Lecture Notes	<u>Submitting Final Report</u> Lab: Java RMI