FIT2053
Web-based information systems

Unit guide

Semester 1, 2009

Last updated : 20 Apr 2009

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FIT2053 Web-based information systems - Semester 1, 2009

Unit leader :

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Lecturer(s) :

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Tutors(s) :

Caulfield

- Martin Atchison
- Pamela Spink
- Nafisa Awwal

Introduction

Welcome to FIT2053 Web-based Information Systems for semester 1, 2009. This 6 point unit is core to the Information Systems and Information Management majors in the BITS. It is also appropriate for students of other BITS majors. The unit has been designed to provide you with an understanding of the nature of the web and its impact on information systems and systems development. It is not a heavily technical unit, though it does have some broad introductory content on web technology. Students who are interested in getting into web technology in depth are advised to try the Web Systems units - FIT1011, FIT2028 and FIT3043

Unit synopsis

Web-based information systems require a development approach, development skills and a range of participants unlike those used for other forms of information system. This unit aims to provide students with a broad understanding of the nature of the web-based information systems development process, and how it is applied in different types of information systems.

The unit will examine the following main areas:

the basic technologies associated with the internet and the world-wide web; the influence of these technologies on the use and development of information systems on the web; the development processes required to build systems which make use of web and internet technologies analysis and design issues and techniques for web-based systems issues in managing web development teams and web projects The emphasis throughout the unit will be on providing a broad overview of topics, rather than examining any one topic in great depth. There will be a strong emphasis on practical demonstration of the concepts being studied, and case studies will be used to highlight key aspects of theory.

Learning outcomes

On completion of this unit, students should have an understanding of:

the technological capabilities associated with the internet and the world-wide web and the basic technological capabilities required to develop web-based systems; the main tasks in the web-based information systems development process and the main techniques used to perform them the mixture of skills and competencies required for successful development of a web-based information system; the principles of good practice with respect to the management of web-based information systems project

On completion of this unit a student should have gained attitudes which enable them to:

Recognise the range of skills and competencies required in the development of web-based information systems Recognise the special expertise and skills which information professionals can contribute to the development of a web-based information system

On completion of this unit a student should have gained the skills required to:

Identify the range of technical and systems expertise needed in the development of a web-based system for a given set of circumstances; Perform some of the basic information analysis and design tasks required during development of a web-based information system;

On completion of this unit a student should have learned to:

Recognise the importance of a team-based approach to web-based information systems development; Interact with system users and with other members of a team in the tasks involved in the development of a web-based information system; Develop interpersonal communication skills with team members in Web-based systems developement activities

Workload

For on campus students, workload commitments are:

- two-hour lecture and
- two-hour studio session (requiring advance preparation)
- a minimum of 2 hours of personal study per one hour of contact time in order to satisfy the reading and assignment expectations.

Unit relationships

Prerequisites

There are no prerequisites for this unit.

Relationships

FIT2053 is a core unit in the Information management and Information Systems majors of the Bachelor of Information Technology and Systems. There are no prerequisites for this unit.

Continuous improvement

Monash is committed to 'Excellence in education' (Monash Directions 2025 -
http://www.monash.edu.au/about/monash-directions/directions.html) and strives for the highest possible quality in
teaching and learning.

To monitor how successful we are in providing quality teaching and learning Monash regularly seeks feedback
from students, employers and staff. One of the key formal ways students have to provide feedback is through Unit
Evaluation Surveys. The University's Unit Evaluation policy
(http://www.policy.monash.edu/policy-bank/academic/education/quality/unit-evaluation-policy.html) requires that
every unit offered is evaluated each year. Students are strongly encouraged to complete the surveys as they are an
important avenue for students to "have their say". The feedback is anonymous and provides the Faculty with
evidence of aspects that students are satisfied and areas for improvement.

Faculties have the option of administering the Unit Evaluation survey online through the my.monash portal or in
class. Lecturers will inform students of the method being used for this unit towards the end of the semester.

Student Evaluations

If you wish to view how previous students rated this unit, please go to
http://www.adm.monash.edu.au/cheq/evaluations/unit-evaluations/

Unit staff - contact details

Unit leader

Mr Martin Atchison
Senior Lecturer
Phone +61 3 990 31912
Contact hours : Wednesday 2-3; Thursday 11-12; Friday 11-12

Lecturer(s) :

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Contact hours : Tues 11-1; Wed 11-1

Tutor(s) :

Mr Martin Atchison
Senior Lecturer
Phone +61 3 990 31912
Ms Nafisa Awwal
Mrs Pamela Spink

Teaching and learning method

The lectures will be used to teach the basic factual core of the unit. They will provide students with a broad
theoretical framework of the nature of the web and its component technologies, the different types of web-based
systems and their differing development needs. This will be accompanied by a theoretical overview of the system
development process for web-based systems and the tasks involved in it.

Case studies of web development projects will be used to illustrate the development processes and activities integral to the development of different types of web-based system, and detailing the techniques of systems analysis, design and implementation used in the development process. The importance of team-based development approaches will be stressed. Particular emphasis will be given to consideration of the role of information profesionals in regard to the analysis, design and information management aspects of web-based systems.

Laboratory/tutorial work will require students to examine a range of technologies and techniques used in web systems development, and to carry out some key of the key development tasks for which information professionals would normally be responsible.

Assignments will be used to reinforce the formal teaching content, by requiring the students to apply them to the solution of practical problems.

Tutorial allocation

On-campus students should register for tutorials/laboratories using Allocate+.

Communication, participation and feedback

Monash aims to provide a learning environment in which students receive a range of ongoing feedback throughout their studies. You will receive feedback on your work and progress in this unit. This may take the form of group feedback, individual feedback, peer feedback, self-comparison, verbal and written feedback, discussions (on line and in class) as well as more formal feedback related to assignment marks and grades. You are encouraged to draw on a variety of feedback to enhance your learning.

It is essential that you take action immediately if you realise that you have a problem that is affecting your study. Semesters are short, so we can help you best if you let us know as soon as problems arise. Regardless of whether the problem is related directly to your progress in the unit, if it is likely to interfere with your progress you should discuss it with your lecturer or a Community Service counsellor as soon as possible.

Unit Schedule

Week	Topic	Key dates
1	Introduction to unit. The nature of the World Wide Web and web-based information systems. Issues in web site development and usage	
2	Information dissemination and connectivity. Connectivity requirements for information dissemination and access. Web technologies for sending, transmitting and receiving information. Implications for web-based information systems with particular emphasis on publishing systems	
3	Information collections, information architectures and Hypertext. Information requirements for structuring and managing large collections of information. Web technologies for information collections; Http, hypertext and their implications for site design and management. Introduction to information architecture	
4	Information architectures (cont). Classification of site content; Site navigation; content labelling; information architectures and site usability	Assignment 1 due
5	Representation of information - importance to meaning. Multimedia for web sites; text, graphics, sound, video, animation, etc. File formats, browsers and plug-ins, etc; bandwidth considerations in page design; compression	
6	Multimedia content design; usability issues in web content design. Implications for web-based systems with a particular emphasis on entertainment systems	

	Mid semester break	
7	Making information interesting and attractive. Introduction to mark-up languages for document display. HTML and CSS. Web page design and layout; fonts and typography. Page design and usability. Implications for web-based systems, with a particular emphasis on corporate web sites.	Unit test
8	Making information find-able. Mark-up languages for document search and retrieval. XML, schemas, DTDs. Implications for web-based systems, with a particular emphasis on educational web sites	
9	Re-constructing the web; the semantic web and Web 2.0	
10	Return to transaction-based systems. Web site interactivity; client and server-side scripting. AJAX.	
11	Web systems as transaction processing systems (cont). Introduction to Web services and service-oriented architectures.	
12	Managing web sites. Content management and CMS software; Site maintenance; Performance monitoring and site evaluation	Assignment 2 due
13	Revision and exam preparation.	

Unit Resources

Prescribed text(s) and readings

None

Recommended text(s) and readings

Extensive use wil be made of web site references which will be posted on the unit web site on a topic by topic basis during the semester. Students who wish to buy text books on specific topics should consider the following. Details as to which topics each book supports will be provided during semester.

Chapman N & Chapman J (2006) Web Design, John Wiley & Sons Flanders V & Peters D (2002) Son of web pages that suck: Learn good design by looking at bad design, Sybex Goldfarb C (2004) XML Handbook (5th ed), Pearson Prentice HallKrug S (2005) Don't make me think: A common-sense approach to web usability, New Riders McCracken D & Wolfe R (2004) User-centered web site development, Pearson Prentice HallNielsen, J. (2000). Designing Web Usability. New RidersRosenfeld, L. & Morville, P. (2002) Information Architecture for the World Wide Web, O'Reilly Siegel, D (1997) Secrets of Successful Web Sites: Project Management on the World Wide Web, Hayden BooksVaughan, T. (2001). Multimedia: Making it work (5th edn.). Osborne

Equipment and consumables required or provided

Students will need access to:

- a personal computer with Windows XP
- the internet, preferably by broadband
- a printer for assignments

Study resources

Study resources we will provide for your study are:

- Weekly detailed lecture notes outlining the learning objectives, discussion of the content, required readings and exercises;
- Weekly tutorial or laboratory tasks and exercises with some sample solutions;
- Assignment specifications and some sample solutions;
- Sample examination questions and solutions;
- This Unit Guide outlining the administrative information for the unit;
- The unit web site on MUSO, where resources outlined above will be made available.

Library access

The Monash University Library site contains details about borrowing rights and catalogue searching. To learn more about the library and the various resources available, please go to http://www.lib.monash.edu.au.

The Educational Library and Media Resources (LMR) is also a very resourceful place to visit at http://www.education.monash.edu.au/library/

Monash University Studies Online (MUSO)

All unit and lecture materials are available through MUSO (Monash University Studies Online). Blackboard is the primary application used to deliver your unit resources. Some units will be piloted in Moodle. If your unit is piloted in Moodle, you will see a link from your Blackboard unit to Moodle (http://moodle.monash.edu.au) and can bookmark this link to access directly. In Moodle, from the Faculty of Information Technology category, click on the link for your unit.

You can access MUSO and Blackboard via the portal: http://my.monash.edu.au

Click on the Study and enrolment tab, then Blackboard under the MUSO learning systems.

In order for your Blackboard unit(s) to function correctly, your computer needs to be correctly configured.

For example:

- Blackboard supported browser
- Supported Java runtime environment

For more information, please visit: http://www.monash.edu.au/muso/support/students/downloadables-student.html

You can contact the MUSO Support by phone : (+61 3) 9903 1268

For further contact information including operational hours, please visit:
http://www.monash.edu.au/muso/support/students/contact.html

Further information can be obtained from the MUSO support site:
http://www.monash.edu.au/muso/support/index.html

Assessment

Unit assessment policy

To pass this unit, a student must obtain :

- 40% or more in the unit's examination and

- 40% or more in the unit's non-examination assessment
  and
- an overall unit mark of 50% or more

If a student does not achieve 40% or more in the unit examination or the unit non-examination assessment then a mark of no greater than 44-N will be recorded for the unit.

Assignment tasks

- ## Assignment Task

  Title : Assignment 1

  Description :

  Prepare and present to the tutorial class a comparative analysis of a set of web sites, highlighting the strengths and weaknesses of the web as an information management and communication medium.

  Weighting : 10%

  Criteria for assessment :

  Criteria for assessment will be handed out with the assignment details in week 1 of semester
  Due date : Weeks 4 and 5 during tutorial
- ## Assignment Task

  Title : Assignment 2

  Description :

  Make a tutorial presentation on a selected paper or group of papers relating to a topic of interest and importance for web design

  Weighting : 10%

  Criteria for assessment :

  Criteria for assessment will be handed out with the assignment details in week 5 of semester
  Due date : Date of submission will vary from student to student. Arrangements will be organized in tutorial classes during the semester
- ## Assignment Task

  Title : Assignment 3

  Description :

  Prepare a secification of a web site design to meet a given set of user requirements

  Weighting : 20%

  Criteria for assessment :

  Criteria for assessment will be handed out with the assignment details in week 5 of semester
  Due date : Week 12 during tutorial

Examinations

- ## Examination 1

Weighting : 50%

Length : 3 hours

Type (open/closed book) : Closed book

Remarks (optional - leave blank for none) :

Runs in formal examination period at end of semester

- ## Examination 2

Weighting : 10%

Length : 1.5 hours

Type (open/closed book) : Closed book

Remarks (optional - leave blank for none) :

Unit Test runs during class in week 7 of semester

Assignment submission

Assignments will be submitted to your tutor.

Assignment coversheets

The assignment coversheet sheet contains information on plagiarism, and the student declaration on plagiarism, it can be obtained via the "Student assignment coversheets" (http://infotech.monash.edu.au/resources/student/assignments/) page on the faculty website

University and Faculty policy on assessment

Due dates and extensions

The due dates for the submission of assignments are given in the previous section. Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are seldom regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Requests for extensions must be made to the unit lecturer at your campus at least two days before the due date. You will be asked to forward original medical certificates in cases of illness, and may be asked to provide other forms of documentation where necessary. A copy of the email or other written communication of an extension must be attached to the assignment submission.

Late assignment

Assignments received after the due date will be subject to a penalty of 5% per day, including weekends. Assignments received later than one week (seven days) after the due date will not normally be accepted. In some cases, this period may be shorter if there is a need to release sample solutions.

This policy is strict because comments or guidance will be given on assignments as they are returned, and sample solutions may also be published and distributed, after assignment marking or with the returned assignment.

Return dates

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Assessment for the unit as a whole is in accordance with the provisions of the Monash University Education Policy at http://www.policy.monash.edu/policy-bank/academic/education/assessment/

Plagiarism, cheating and collusion

Plagiarism and cheating are regarded as very serious offences. In cases where cheating has been confirmed, students have been severely penalised, from losing all marks for an assignment, to facing disciplinary action at the Faculty level. While we would wish that all our students adhere to sound ethical conduct and honesty, I will ask you to acquaint yourself with the University Plagiarism policy and procedure (http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html) which applies to students detected plagiarising.

In this University, cheating means seeking to obtain an unfair advantage in any examination or any other written or practical work to be submitted or completed by a student for assessment. It includes the use, or attempted use, of any means to gain an unfair advantage for any assessable work in the unit, where the means is contrary to the instructions for such work.

When you submit an individual assessment item, such as a program, a report, an essay, assignment or other piece of work, under your name you are understood to be stating that this is your own work. If a submission is identical with, or similar to, someone else's work, an assumption of cheating may arise. If you are planning on working with another student, it is acceptable to undertake research together, and discuss problems, but it is not acceptable to jointly develop or share solutions unless this is specified by your lecturer.

Intentionally providing students with your solutions to assignments is classified as "assisting to cheat" and students who do this may be subject to disciplinary action. You should take reasonable care that your solution is not accidentally or deliberately obtained by other students. For example, do not leave copies of your work in progress on the hard drives of shared computers, and do not show your work to other students. If you believe this may have happened, please be sure to contact your lecturer as soon as possible.

Cheating also includes taking into an examination any material contrary to the regulations, including any bilingual dictionary, whether or not with the intention of using it to obtain an advantage.

Plagiarism involves the false representation of another person's ideas, or findings, as your own by either copying material or paraphrasing without citing sources. It is both professional and ethical to reference clearly the ideas and information that you have used from another writer. If the source is not identified, then you have plagiarised work of the other author. Plagiarism is a form of dishonesty that is insulting to the reader and grossly unfair to your student colleagues.

Register of counselling about plagiarism

The university requires faculties to keep a simple and confidential register to record counselling to students about plagiarism (e.g. warnings). The register is accessible to Associate Deans Teaching (or nominees) and, where requested, students concerned have access to their own details in the register. The register is to serve as a record of counselling about the nature of plagiarism, not as a record of allegations; and no provision of appeals in relation to the register is necessary or applicable.

Non-discriminatory language

The Faculty of Information Technology is committed to the use of non-discriminatory language in all forms of communication. Discriminatory language is that which refers in abusive terms to gender, race, age, sexual orientation, citizenship or nationality, ethnic or language background, physical or mental ability, or political or religious views, or which stereotypes groups in an adverse manner. This is not meant to preclude or inhibit legitimate academic debate on any issue; however, the language used in such debate should be non-discriminatory and sensitive to these matters. It is important to avoid the use of discriminatory language in your communications and written work. The most common form of discriminatory language in academic work tends to be in the area of gender inclusiveness. You are, therefore, requested to check for this and to ensure your work and communications are non-discriminatory in all respects.

Students with disabilities

Students with disabilities that may disadvantage them in assessment should seek advice from one of the following before completing assessment tasks and examinations:

- Faculty of Information Technology Student Service staff, and / or
- your Unit Coordinator, or
- Disabilities Liaison Unit

Deferred assessment and special consideration

Deferred assessment (not to be confused with an extension for submission of an assignment) may be granted in cases of extenuating personal circumstances such as serious personal illness or bereavement. Information and forms for Special Consideration and deferred assessment applications are available at http://www.monash.edu.au/exams/special-consideration.html. Contact the Faculty's Student Services staff at your campus for further information and advice.