FIT3028
Multimedia concepts and application

Unit Guide

Semester 2, 2009

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FIT3028 Multimedia concepts and application - Semester 2, 2009

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Introduction

Welcome to FIT3028 Multimedia Concepts and Applications. This 6 point unit is introduced as a level three elective unit for the Bachelor of Information Technology and Systems (BITS). This unit has been designed to provide students with the opportunity to gain understanding and knowledge of the state of art, issues and technologies for building and developing multimedia applications, Students can develop not only theoretical and practical foundations but also skills for creating complete multimedia applications.

Unit synopsis

The unit provides the basic concepts of multimedia, multimedia elements and security and privacy issues required for multimedia applications. This unit also introduces the basic processes of analysis and design for developing a complete functional specification for a multimedia/web-based application. In addition to this, it also provides an overview of the application of programming languages and detailed knowledge of multimedia authoring tools required for implementing a multimedia/web-base application. Students will have hands-on experience on analysis, design and implementation of a multimedia/web-base application.

Learning outcomes

1. Basic concepts of multimedia including file types, applications, compression and delivery issues;
2. Processes involved in the analysis, design and production of multimedia applications;
3. Legal, security and privacy issues related to multimedia applications;
4. Application and selection of different multimedia authoring tools in the development of multimedia applications;
5. Basic principles of Internet and WWW in the context of web based multimedia development;
6. Multimedia elements (text, image, animation, audio and video) and 3D modeling techniques;
7. Basic programming techniques (such as javascript and CGI programming) to control different media such as audio, video, text and images;
8. Fundamentals of Extended Markup Language (XML);
9. Database features which support multimedia applications;
10. Processes of analysis, design and producing of a multimedia application;
11. Securities issues and corresponding services related to multimedia applications;
12. Multimedia elements and 3-D modeling techniques;
13. Development processes for functional specifications for multimedia/web-based applications based on user requirements;
14. Basic concepts of organising multimedia elements for multimedia applications based on user requirements;
15. Analysis, design and production of real world multimedia/web-based applications;
16. Constructing applications comprising multimedia elements that include video and sound, javascript, CGI and XML programming;
17. Producing formal documentation for developing and implementing multimedia applications.

Contact hours

one x 2hr Lecture/week; one x 2hr Tutorial/week

Workload

The student workload requirement is 12 hours of study per week for 13 weeks.

On-campus students will attend 2 hours of lectures and one 2 hour tutorial per week. Further, students are expected to spend 8 hours per week on individual study and assignment work, including library and computing laboratory

work beyond these normal class hours.

OCL students will spend 12 hours per week working though study guides and on-line learning materials, prescribed reading, practical and assignment work, and communications with lecturer and other students.

Unit relationships

Prerequisites

FIT2029 or equivalent

Prohibitions

BUS3400, IMS2402, IMS1403, GCO3822, GCO2823, MMS1403, MMS2402

Relationships

FIT3028 is an IT elective for level three students in the Bachelor of Information Technology and Systems with majors in Applications Development and Networks or Business Systems.

You may not study this unit and BUS3400, IMS2402, IMS1403, GCO3822, GCO2823, MMS1403, MMS2402 (Translation Set: GCO3822) in your degree.

Teaching and learning method

On-campus Teaching

Four hours per week, consisting of two hours of lectures and two hours of tutorials, with additional contact initiated by the student. The unit content will be disseminated to the students through classroom lectures and tutorials, and through on-line study guides and course materials.

Off-Campus Learning (OCL)

Unit Book and Reader that includes 12 study guides and also provision for contact through electronic mail and news. Access to the University's computer systems via modem is compulsory for OCL students, in order to maintain effective communication with staff and other students, and also for the submission of assignments and the provision of supplementary study material. Study guides will be uploaded on the unit homepage.

All students will complete a range of hands-on development exercises detailed and posted on the Web page designated for this unit. These exercises are designed to enhance students' practical skills needed for completion of the assignments and developing a multimedia application, while the study materials used by OCL students and the lectures offered to the internal students will address the theoretical aspects.

Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, http://mutts.monash.edu.au/MUTTS/

Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system:
http://allocate.cc.monash.edu.au/

Unit Schedule

Week	Topic	Study guide	Key dates
1	Introduction to Multimedia	Study guide 1	
2	Multimedia Project Discovery, Planing and Costing	Study guide 2	
3	Multimedia Designing and Producing	Study guide 3	
4	Legal, Security and Privacy Issues in Multimedia	Study guide 4	
5	Multimedia authoring tools, Internet and WWW	Study guide 5	
6	Fundamentals of Extended Markup Language (XML)	Study guide 6	19 August 2009
7	3D images and virtual reality	Study guide 7	
8	Animation	Study guide 8	
9	Video and Audio	Study guide 9	
10	CGI programming	Study guide 10	
Mid semester break			
11	JavaScript	Study guide 11	23 September 2009
12	Java Applet	Study guide 11	
13	Exam Preparation	Study guides 1-11	

Unit Resources

Prescribed text(s) and readings

- T. Vaughan, Multimedia: Making It Work, 7th edition, Osbourne/McGraw-Hill, 2008. Sixth edition will also be ok.

Text books are available from the Monash University Book Shops. Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

Recommended text(s) and readings

- L. Elin, Designing and Developing Multimedia, Allyn and Bacon, 2001.
- M. Hall, Core Web Programming, Prentice-Hall, Inc., 1998.
- J. Burger, Desktop Multimedia Bible, Addison-Wesley Publishing Company, 1993.
- N. & J. Chapman, Digital Multimedia, John Wiley & Sons, Ltd. 2000.
- N. & J. Chapman, Digital Media Tools, John Wiley & Sons, Ltd. 2002.
- F. T. Hofstetter, Multimedia Literacy, New York: McGraw-Hill, 1995.

Required software and/or hardware

Multimedia authoring tools (Dreamweaver, Flash and Fireworks), javascript and CGI programming laguages such as PERL

Adobe Dreamweaver CS3, Flash CS3 and Fireworks CS3

Software may be:

- downloaded from http://www.macromedia.com/
- purchased at academic price at good software retailers

Equipment and consumables required or provided

Students may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook.

Study resources

Study resources we will provide for your study are:

- A printed Reader, sent from the Gippland School and IT.
- This Unit Information outlining the administrative information for the unit
- The FIT3028 web site on MUSO, where weekly study guides, lecture slides and tutorial requirements, assignment specifications, sample solutions and supplementary material will be posted.
- Newsgroups/discussion groups that can be linked to from the unit homepage

Assessment

Overview

Exam (3 hours): 40%;
Assignments: 60%

Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total 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 total assessment, and the total mark for the unit is greater than 44% then a mark of no greater than 44-N will be recorded for the unit.

Assignment tasks

Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

Assignment submission and return procedures, and assessment criteria will be specified with each assignment.

- **Assignment task 1**

  Title:
  > Designing an Instructional Multimedia Application
  Description:
  > This assignment is required to develop a functional specification for a particular project.
  Weighting:
  > 20%
  Due date:
  > 19 August 2009

- **Assignment task 2**

  Title:
  > Producing an Instructional Multimedia Application
  Description:
  > Implementation of the project based on your developed functional specification for Assignment 1.
  Weighting:
  > 40%
  Due date:
  > 23 September 2009

Examination

- **Weighting:** 40%
  Length: 2 hours
  Type (open/closed book): Closed book

See Appendix for End of semester special consideration / deferred exams process.

Due dates and extensions

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 not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms: http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

Late assignment

Assignments received after the due date will be subjected to a penalty of one grade per four days or part thereof up to one week late. Assignments received later than one week after the due date will not normally be accepted.

Return dates

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

Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams