MONASH University

FIT3028
Multimedia concepts and application

Unit guide

Semester 2, 2008

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FIT3028 Multimedia concepts and application - Semester 2 , 2008

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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

ASCED Field of Education: 029999 Information Technology, Not Elsewhere Classified

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. In particular, this includes:

- Basic concepts of multimedia
- Processes required for analysis, design and producing a multimedia/web-based application
- Legal, security and privacy issues in multimedia information
- Multimedia elements including 3-D modeling techniques
- Multimedia authoring tools
- Fundmental concepts of Javascript, CGI and XML programming languages required for multimedia application development

Learning outcomes

On completion of this unit the students will have

Knowledge of:

- Basic concepts of multimedia including file types, applications, compression and delivery issues;
- Processes involved in the analysis, design and production of multimedia applications;
- Legal, security and privacy issues related to multimedia applications;
- Application and selection of different multimedia authoring tools in the development of multimedia applications;
- Basic principles of Internet and WWW in the context of web based multimedia development;
- Multimedia elements (text, image, animation, audio and video) and 3D modeling techniques;
- Basic programming techniques (such as javascript and CGI programming) to control different media such as audio, video, text and images
- Fundamentals of Extended Markup Language (XML);
- Database features which support multimedia applications.

Understanding of:

- Processes of analysis, design and producing of a multimedia application;
- Securities issues and corresponding services related to multimedia applications;
- Multimedia elements and 3-D modeling techniques.
- Development processes for functional specifications for multimedia/web-based applications based on user

> requirements;
- Basic concepts of organizing multimedia elements for multimedia applications based on user requirements.

Practical Skills in:

- Analysis, design and production of real world multimedia/web-based applications;
- Constructing applications comprising multimedia elements that include video and sound, javascript, CGI and XML programming;
- Producing formal documentation for developing and implementing multimedia applications

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

You should have knowledge of basic computer system operations, Windows platform experience, programming skills.

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.

Continuous improvement

Monash is committed to 'Excellence in education' 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. Two of the formal ways that you are invited to provide feedback are through Unit Evaluations and through Monquest Teaching Evaluations.

One of the key formal ways students have to provide feedback is through Unit Evaluation Surveys. It is Monash policy for every unit offered to be 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.

Student Evaluations

The Faculty of IT administers the Unit Evaluation surveys online through the my.monash portal, although for some smaller classes there may be alternative evaluations conducted in class.

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

Over the past few years the Faculty of Information Technology has made a number of improvements to its courses as a result of unit evaluation feedback. Some of these include systematic analysis and planning of unit improvements, and consistent assignment return guidelines.

Monquest Teaching Evaluation surveys may be used by some of your academic staff this semester. They are administered by the Centre for Higher Education Quality (CHEQ) and may be completed in class with a facilitator or on-line through the my.monash portal. The data provided to lecturers is completely anonymous.
Monquest surveys provide academic staff with evidence of the effectiveness of their teaching and identify areas for improvement. Individual Monquest reports are confidential, however, you can see the summary results of Monquest evaluations for 2006 at http://www.adm.monash.edu.au/cheq/evaluations/monquest/profiles/index.html

Improvements to this unit

This unit book has modified to incorporate the recent topics on Virtual Reality Modeling Language (VRML).

Unit staff - contact details

Unit leader

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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.

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.

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	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	20 August 2008
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	
11	JavaScript	Study guide 11	24 September 2008
Mid semester break			
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, 6th edition, Osbourne/McGraw-Hill, 2004. If sixth edition is not available, seventh edition will 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

Macromedia Dreamweaver 8, Flash 8 and Fireworks 8

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 Unit Book containing 11 Study Guides (302 pages), sent from the Gippland School and IT.
- This Unit Information outlining the administrative information for the unit
- The FIT3028 web site on MUSO, where lecture slides, weekly tutorial requirements, assignment specifications, sample solutions and supplementary material will be posted.
- Newsgroups/discussion groups that can be linked to from the Unit Homepage

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. Be sure to obtain a copy of the Library Guide, and if necessary, the instructions for remote access from the library website.

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:

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

To encourage consistent work throughout the semester in the assignments and exam, the final marks will be no more than 10% higher than the lower of the assignment and exam components Your score for the unit will be calculated by:

Final grade (%) = min (A + 10, E + 10, E * R + A * (1 - R))

Where A = Overall assignment percentage E = Examination percentage R = Exam weighting =0.4

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 : Designing an Instructional Multimedia Application

   Description :

   This assignment is required to develop a functional specification for a particular project.

   Weighting : 20%

   Criteria for assessment :

   For assessment, the criteria of the functional specification to be considered are : 1. Execute summary 2. Project overview 3. Node Map 4. Node by node descriptions 5. Screen layouts and 6. Hardware and software required to implement the project.

   Due date : 20 August 2008
- **Assignment Task**

   Title : Producing an Instructional Multimedia Application

   Description :

   Implementation of the project based on your developed functional specification for Assignment 1.

   Weighting : 40%

   Criteria for assessment :

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Forassessment, the criteria of producing the project are:

1. Implementation of projectbased on your developed functional specification for Assignment 1,
2. Creation of a bumper screen,
3. Creation of a CGI program to get feedback from a userand
4. Creation of a briefuser manual for your developed project.

Due date : 24 September 2008

Examinations

- ## Examination

  Weighting : 40%

  Length : 2 hours

  Type (open/closed book) : Closed book

Assignment submission

Assignments will be submitted by **electronic** submission to http://wfsubmit.its.monash.edu.au/.

Assignment coversheets

IAssignment coversheets can be found :

* 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 by email 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.

Contact the Unit Adviser by email to request extensions.

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.

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/

We will aim to have assignment results made available to you within two weeks after assignment receipt.

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 Student Rights and Responsibilities (http://www.infotech.monash.edu.au/about/committees-groups/facboard/policies/studrights.html) and the Faculty regulations that apply to students detected cheating as these will be applied in all detected cases.

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.