MONASH University
Information Technology

FIT3033
Principles of educational multimedia

Unit Guide

Semester 1, 2010

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Table of Contents

FIT3033 Principles of educational multimedia - Semester 1, 2010

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Introduction

Welcome to FIT3033 Principles of Educational Multimedia for semester 1, 2010. This 6 point unit is a component of the Bachelor of Information Technology and Systems degree Multimedia Applications major. The unit has been designed to provide you with an understanding of educational multimedia applications. It explores many aspects of learning, teaching and interactive multimedia.

Unit synopsis

This unit examines the diversity of theoretical and conceptual frameworks which influence current research and production of educational multimedia applications. Topics will include: educational theory and practice, cognition and cognitive development, the differentiation between child and adult learners, catering to differences in the capacity to learn, for example, gifted and disabled learners, creating immersive and interactive learning environments, current debates surrounding e-Learning, and enabling equitable access to learning technologies. Students will be given an overview of issues and techniques for applying information technology to support instruction in educational and training contexts and gain practical experiences in managing a design process involving competing aspects of learning theories, content characteristics, audience needs and software development practices.

Learning outcomes

At the completion of this unit students will have -
A theoretical and conceptual understanding of:

- the diversity of theoretical and conceptual frameworks which contribute to the current research and application of educational multimedia;
- the uniquely immersive, engaging and interactive nature of educational multimedia learning environments; and
- the correlation of the individual needs of a learner with an appropriate digital environment for the delivery of educational material and learning experiences.

Developed attitudes that enable them to:

- be acquainted with and value the diversity of learning styles and requirements within the community; and
- appreciate the need for an adaptive approach in the modification of technology to the requirements of both the learner and the educational content.

Developed the skills to:

- design and produce documents relating to the conceptual development of educational learning environments;
- develop applications of learning environments for specific learning needs; and
- utilise appropriate techniques and be able to select tools to meet the requirements of specific learning environments.

Demonstrated the teamwork skills necessary to:

- recognise the potential of multimedia in enabling educational access and equity;
- further develop communication and group work skills;
- understand the importance of the functional and structural role of multimedia in contemporary educational practice; and

- recognise the significance and ubiquity of educational products in the multimedia industry and the need for quality assurance in production processes.

Contact hours

2 hrs lectures/wk, 2 hrs laboratories/wk

Workload

For on campus students, workload commitments are:

- two-hour lecture and
- two-hour tutorial
- a minimum of 8 hours of personal study in order to satisfy the reading and assignment expectations.

Unit relationships

Prerequisites

FIT2012 and FIT2016

Prohibitions

MMS2701

Teaching and learning method

Teaching approach

Weeks 1 to 5 and 13 will involve lecturer delivered content.

 Weeks 6 to 12 will involve student delivered seminars, supplemented with micro lectures.

The unit will use the Moodle open source online learning system.

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.its.monash.edu.au/

Unit Schedule

Week	Date*	Topic	Key dates
1	01/03/10	Educational Multimedia, Introduction, Assessment and Seminar Topics	Seminar Topic Selection
2	08/03/10	Knowledge, Learning and Pedagogy	
3	15/03/10	Cognitive Architecture, Schema Theory and Cognitive Development	
4	22/03/10	Learning Theories - 1	
5	29/03/10	Learning Theories - 2	Assignment 1: Group Seminar and Sides (20%) Due Friday 3 pm week 5
		Mid semester break	
6	12/04/10	Micro Lecture - Student Seminars	Assignment 2: Group Design Document 20%) Due Friday 3 pm week 6
7	19/04/10	Micro Lecture - Student Seminars	
8	26/04/10	Micro Lecture - Student Seminars	
9	03/05/10	Micro Lecture - Student Seminars	
10	10/05/10	Micro Lecture - Student Seminars	
11	17/05/10	Micro Lecture - Student Seminars	
12	24/05/10	Micro Lecture - Student Seminars	
13	31/05/10	Review	Assignment 3: Group Interactive

				Educational Multimedia Application (35%) Due Friday 3 pm week 13. Examination 25%

*Please note that these dates may only apply to Australian campuses of Monash University. Off-shore students need to check the dates with their unit leader.

Improvements to this unit

Examination has been added to focus on educational theory, 25% weighting.

Student Seminars have been used to ensure student engagement with the content and to point out the relevance of the content to student learning. Seminars will be peer assessed inconjunction with teaching staff.

Micro lectures will supplement content delivered by students in seminar weeks.

Reviewed and Updated Seminar Topics.

The due date of the project documentation has been moved forward to allow greater time for project development.

The practical assignments, documentation and multimedia project, are intended to allow students to work on a real educational multimedia package and to practice their multimedia authoring and media creation skills.

In past years learning applications have focused on children as an audience. A wider range of target audiences and contexts will be allowed this year, including adult instruction, workplace instruction and online packages.

Unit Resources

Prescribed text(s) and readings

No Set Text

Recommended text(s) and readings

Recommended Reading (*indicates Highly Recommended for this unit)

* Alessi, S. and Trollip, S. (2001). *Multimedia for Learning: Methods and Development*. 3nd ed. Allyn and Bacon. Sydney.

*Berg, G. A. (2003) The Knowledge Medium: Designing Effective Computer Based Learning Environments. Information Science Publishing. Hershey. *Boyle, T. (1997). Design for Multimedia Learning. Prentice Hall. London. Castells, M. Flecha, R . Freire, P. Giroux, H. Macedo, D. and Willis, P. (1999) Critical Education in the New Information Age. Rowman and Littlefield. Lanham, MD. Fenrich, P. (1997) Practical Guidelines for Creating Instructional Multimedia Applications. International Thomson Publishing. Gardner, H. (1999) Disciplined Mind: What All Students Should Understand. Simon and Schuster. NY. Hricko, M. (2003) Design and Implementation of Web-Enabled Teaching Tools. Information Science Publishing. *Mayer, R.E. (2001). Multimedia Learning. Cambridge University Press. Scherer, M. (2004) Connecting to Learn: Educational and Assistive Technology for People with Disabilities. American Psychological Association. *Snelbecker, G. E. (1985) Learning Theory, Instructional Theory, and Psychoeducational Design. University Press of America. Snyder, I. (2002) Silicon Literacies: Communication, Innovation and Education in the Electronic Age. Routledge. Sprenger, M. (1999) Learning and Memory: The Brain in Action. Association for Supervision

Required software and/or hardware

The software required for this unit is available in the multimedia labs at the Berwick campus and includes:

Macromedia Flash

 Macromedia Dreamweaver

Adobe Photoshop

Adobe Illustrator

Software may be:

• purchased at academic price at good software retailers

Equipment and consumables required or provided

On-campus 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. You will need to allocate up to 10 hours per week for use of a computer, including time for newsgroups/discussion groups.

Study resources

Study resources we will provide for your study are:

- the FIT3033 web site on Moddle
- weekly lecture slides
- weekly tutorial requirements
- assignment specifications, sample solutions and
- supplementary material

These resources will be made available through the MUSO website.

Assessment

Overview

Examination (2 hours): 25%; In-semester assessment: 75%

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 50% then a mark of no greater than 49-N will be recorded for the unit.

To pass this unit you must:

- Attempt all assessment tasks
- It is your responsibility to advise lecturing staff immediately if members in group assessment tasks are not contributing equitably so that appropriate action can be taken.
- If students are not contributing to group assignments equitably their marks for the assessment task may be scaled down by up to 50% to reflect their lack of contribution to the group.

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:
    Assignment 1: Group Seminar and Seminar Slides
    Description:
    A Group Seminar presentation of 20 minutes and 10 minutes questions. Groups to be of two or three students and presentations to be delivered to class in lectures in weeks 6 to 12. Seminars will be peer assessed in conjunction with lecturing staff. With presentation slides to be submitted to the lecturer for uploaded to the FIT3033 MUSO site by Friday 3 pm week 5.

    Seminar topics selected from the list provided.
    Weighting:
    20%

Due date:
Friday 3 pm week 5

• **Assignment task 2**

Title:
Assignment 2: Group Design Document
Description:
Presentation by the group of a detailed project plan for an interactive multimedia learning environment and to be targeted at a given instructional methodology.
Weighting:
20%
Due date:
Friday 3 pm week 6

• **Assignment task 3**

Title:
Assignment 3: Group Interactive Educational Multimedia Application
Description:
Production of a multimedia learning environment for a specific audience and context, that demonstrates; 1) clear instructional objects, 2) the appropriate formatting and use of media for the presentation of content, 3) an effective instructional strategy that includes interactive elements, and 4) an appropriate assessment strategy.

Your learning environment may target:

1) Child learners

2) Adult learners

3) Workplace learning

4) Online learning
Weighting:
35%
Due date:
Friday 3 pm week 13

Examination

• **Weighting:** 25%
Length: 2 hours
Type (open/closed book): Closed book
Remarks:

Focusing on educational theory.

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 subject to a penalty of a **5 % reduction in marks** for each day (including weekends) the assignment is late. Assignments will not normally be accepted if handed in more than 2 weeks after the due date.

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