MONASH University

**MMS2411
Digital audio technologies**

Unit guide

Semester 2, 2008

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Unit leader :

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Tutors(s) :

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Introduction

Welcome to MMS2411 Digital Audio Technologies for semester 2 2008. This 6 point unit is an elective available to all students. The unit has been designed to give you an understanding of how audio is recorded, edited and included in multimedia products.

Unit synopsis

This unit focuses on the use of audio based multimedia tools, and the creation and manipulation of digital sound for a variety of multimedia applications. Topics covered include anatomy of sound, nature of analogue and digital sound, formats, frequency and bit depth, characteristics of microphones, mini disk, hard disk recording. Recording techniques. Cool Edit pro, manipulation of digital audio files, digital audio and compression, use of sound for interactive environments and matching audio to visual elements, digital audio and compression, use of sound for interactive environment, matching audio to visual elements, Acid, sound loop construction and manipulation. Elements of sound (atmos, spot FX, soundtracks, musical FX, dialogue and voice over) will also be examined.

Learning outcomes

Knowledge and Understanding

- have knowledge of the characteristics of a range of software and hardware which are used in the development of multimedia audio systems
- understand file formats, compression issues associated within multimedia audio content
- understand the function and implementation of audio as a media element

Attitudes, Values and Beliefs

- appreciate the options available within current multimedia delivery platforms and potential future directions
- appreciate the need for the efficient management and control of the multimedia development process
- have flexibility in the development process from an ethical and professional point of view

Practical Skills

- integrate basic audio for multimedia installations and presentations
- create professional audio using a variety of applications and peripheral devices
- identify and manipulate a variety of digital audio file formats

Relationships, Communication and TeamWork

- ability to work within a team and discuss ethical and professional issues objectively
- development of group building roles
- development of management skills

Workload

For on campus students, the weekly workload commitments are:

- one hour of lectures,
- three hours of studio, and
- eight hours of self directed study - this will include reading and computer/audio studio based activities.

Unit relationships

Prerequisites

Before attempting this unit you must have satisfactorily completed

FIT2012 (formerly MMS2402), or equivalent.

Relationships

MMS2411 is an elective unit in the Bachelor of Information Technology (Multimedia Applications), Berwick.

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

Unit staff - contact details

Unit leader

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Lecturer(s) :

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Tutor(s) :

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Teaching and learning method

This unit uses the Studio mode of teaching.

Lectures are provided to guide students through the requirements of the unit as well as the expected deliverables.

Studio sessions are designed to provide an environment where you will work on your audio projects with access to staff and the requisite technologies, including the sound studio.

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	
2	Sound basics	
3	Capturing Techniques	
4	Physics of Sound	
5	Importing Sound	Audio story - 30%
6	Composing and Foley	
7	Compiling Stereo and 5.1	
8	Examining the impact of Sound on Film	
9	Music & SFX in Games	
10	Forms of audio compression	Audio loop - 30%
11	Cinematic Sound	
	Mid semester break	
12	Cinematic Sound	Major assignment - 40%
13	Audio Presentation	

Unit Resources

Prescribed text(s) and readings

Internet resources will be made available during the semester as required.

Recommended text(s) and readings

N/A

Required software and/or hardware

Audacity is highly recommended and can be downloaded for free for Mac or PC (http://audacity.sourceforge.net/).

Equipment and consumables required or provided

On-campus students, and those studying at supported study locations 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 12 hours per week for use of a computer, including time for newsgroups/discussion groups.

You should have a pair of headphones and some form of electronic (usb/firewire HDD) storage device to transport your work to and from class .

Study resources

Study resources we will provide for your study are:

N/A

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:

- attend a minimum of 80% of the studio sessions, and
- achieve a minimum of 50% for your total grade for the assessment in the unit.

If a student does meet these two requirements then a mark of no greater than 44-N will be recorded for the unit.

Assignment tasks

- **Assignment Task**

   Title : Audio Story

   Description :

   Tell/retell a story through audio:

   - Tell a story with the use of narration, sound effect, music and ambience.
   - You can script your own story or rework an existing one. I.e. a children story, poem, proses, anecdotes, a joke etc.
   - The story should be complete and self contained.
   - You must use live captured sounds.
   - 1 to 3 minutes long.

   Weighting : 30%

   Criteria for assessment :

   Due date : Week 5 (in studio)
- **Assignment Task**

   Title : Composition Assignment

   Description :

   Composition Assignment – set a mood using SFX, music and instruments:

   - Produce an audio score to an animation or video (supplied)
   - You must set a theme
   - You must create emotional impact
   - You must use all SFX, Music and Instruments

   - Alternatively you can compose a piece of music in your own style.

   Weighting : 30%

   Criteria for assessment :

   Due date : Week 10 (in studio)

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- **Assignment Task**

  Title : Major Assignment

  Description :

  Composition with chosen footage:

  You are to compose a score for a Special Effects Reel for Digital Post Production Final Assignment. You will need to demonstrate all the learned techniques and create an interesting and provocative audio piece for the visual material.

  In the case where an appropriate piece of vision is not available other arrangements will be made.

  Weighting : 40%

  Criteria for assessment :

  Due date : Week 12 (in studio)

  Remarks (optional - leave blank for none) :

  Due date for this assignment is subject to change based on footage chosen.

Examinations

- **Examination**

  Weighting : 0%

  Length :

  Type (open/closed book) :

Assignment submission

Assignments will be submitted on CD as a .wav (44.1 kHz, 16 bit stereo) Or on a DVD in AC3 format if required for 5.1 sound.

Assignment coversheets

Assignment coversheets are available as 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.

The only exception to this is in the case of illness or other serious cause. In any such cases, proper third party documentation (e.g. a doctor's certificate) will have to be supplied.

This policy is strict because comments or guidance will be given on assignments as they are returned.

Students should note that they are, at all times responsible for their work. All relevant data should be backed up on a regular basis. The university has the CD/DVD Burners in the computer labs and blank CD/DVDs may be purchased through ITS. Loss of project work through hardware failure, virus or left somewhere are not accepted as reasons for late or non-submission of work.

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 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.