# MUS 302

Sound, Image and Interactive Media

D2 2012

*Media, Music, Communication and Cultural Studies*

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## Disclaimer

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General Information

Unit convenor and teaching staff
Unit Convenor
Alex Mesker
alex.mesker@mq.edu.au
Contact via alex.mesker@mq.edu.au
193K Y3A
Email for appointment

Credit points
3

Prerequisites
39cp

Corequisites

Co-badged status

Unit description
This unit addresses issues concerning the use of music, sound and image in multimedia applications. Technical aspects such as synchronisation are covered along with broader considerations including the function and affectivity of music and sound in relation to image. Two multimedia software applications will be covered (Cubase, Max/MSP/Jitter), where students realise three separate creative works involving the audio-visual space. Students also get to experiment with tactile control interfaces for interacting with sound and image. The core of the unit is the creation of multimedia works in Max/MSP/Jitter, a graphical programming environment for new media artists. No prior experience with either program is required.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at http://students.mq.edu.au/student_admin/enrolmentguide/academicdates/

Learning Outcomes
1. Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
2. Students should be able to demonstrate a knowledge, understanding and application of course concepts.
3. Students should have developed information and technological literacy.
4. Students will develop competence with material/programs taught (Max/MSP/Jitter)
5. Students will develop the ability to apply theoretical and technological concepts to creative works.
6. Students should be able to communicate creative concepts through sonic and visual media forms.
7. Students will develop problem-solving skills.

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Due</th>
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<tbody>
<tr>
<td>Workshop Fundamentals</td>
<td>20%</td>
<td>Weeks 2-5</td>
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<tr>
<td>Image Manipulation System</td>
<td>30%</td>
<td>Week 8 Class</td>
</tr>
<tr>
<td>Creative Brief</td>
<td>10%</td>
<td>Week 9</td>
</tr>
<tr>
<td>Interactive Multimedia Work</td>
<td>30%</td>
<td>Week 13 Class</td>
</tr>
<tr>
<td>Class Participation</td>
<td>10%</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Workshop Fundamentals

Due: **Weeks 2-5**  
Weighting: **20%**

Students are required to complete tutorial 'worksheets' in Max 5, and create micro-projects that demonstrate their understanding of fundamental Max/MSP/Jitter concepts. These worksheets will give students the skillset to develop their own creative works in Max 5.

Students' engagement with the worksheets will be formatively assessed during each tutorial. Feedback will consist of discussion with the tutor.

This Assessment Task relates to the following Learning Outcomes:

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students will develop problem-solving skills.
Image Manipulation System

Due: Week 8 Class
Weighting: 30%

Students will create a basic Max/Jitter patch that allows a user to load images or video, and 'cut' between parts. An interface of your choice should be mapped to act as a controller for your system.

A brief demonstration of your patch's functionality and usage will occur in Week 8 tutorial. A pass mark for this assessment will be granted for a demonstration of technical proficiency, and intention behind and understanding of the function of your patch.

This Assessment Task relates to the following Learning Outcomes:

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students should be able to communication creative concepts through sonic and visual media forms.
- Students will develop problem-solving skills.

Creative Brief

Due: Week 9
Weighting: 10%

Students must write a 500-word brief outlining their intended construction of a performable presentation/installation using Max/MSP. By now, students should have a firm understanding of the creative possibilities of Max/MSP, and should address technical concepts such as how the patch will function, how it will create/control visual/aural media, and how/whether special control interfaces will be used. Students will reflect on this written creative brief when demonstrating their completed work in Week 13.

This Assessment Task relates to the following Learning Outcomes:

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
Students will develop the ability to apply theoretical and technological concepts to creative works.

Students should be able to communicate creative concepts through sonic and visual media forms.

Interactive Multimedia Work

Due: **Week 13 Class**
Weighting: **30%**

Students must design and create an interactive sound/music/image/video based installation that employs elements of new media performance and demonstrates knowledge learnt throughout the course. The installation will be performed in Week 13 during 302 class time and must be accompanied by a 3 minute technical presentation outlining aims and outcomes.

This is a summative assessment that should incorporate many techniques and concepts practiced and discussed throughout the course. A pass mark for this assessment will be granted for a demonstration of technical proficiency and the ability to successfully realise a creative work in a multimedia form, integrating image and sound.

Group work (of two students) is welcomed in this assignment, and individual contribution to the final product will be monitored in the weeks preceding the final performance.

This Assessment Task relates to the following Learning Outcomes:

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students should be able to communication creative concepts through sonic and visual media forms.
- Students will develop problem-solving skills.

Class Participation

Due: **Ongoing**
Weighting: **10%**

At the end of the unit, marks will be awarded for tutorial participation and how students engaged with course material in classes.

Asking questions and demonstrating critical thinking are great ways to participate in tutorials.
This Assessment Task relates to the following Learning Outcomes:

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop problem-solving skills.

**Delivery and Resources**

Lecture time:

Wednesday 10am, Y3A 223

Tutorial times:

Wednesday 11am - 1pm, Y3A 223 Wednesday 1pm - 3pm, Y3A 223

As MUS 302 is a practical unit, students are expected to attend both lectures and practical tutorial workshops. Workshops are designed to give students time to develop practice-based learning with instructional support.

Students are required to bring headphones to class each week, and to source/create their own media (music, sound, images, film) for assignments, assessments, and performances.

Non-attendance to more than two lectures/tutorials without medical certification will result in a zero grade for participation in the unit.

Readings and extra curricular tasks will be disseminated via iLearn.

**Unit Schedule**

<table>
<thead>
<tr>
<th>Week</th>
<th>Course introduction. Overview and assignment guidelines. Past projects. No Tutorial</th>
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<tbody>
<tr>
<td>1</td>
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<table>
<thead>
<tr>
<th>Week</th>
<th>Fundamentals of Max/MSP/Jitter 1: Message Types, Programmatic Flow Tutorial Task: Max Worksheet 1</th>
<th>Assessment 1a: Max Worksheet 1</th>
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<tbody>
<tr>
<td>2</td>
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<table>
<thead>
<tr>
<th>Week</th>
<th>Fundamentals of Max/MSP/Jitter 2: introduction to MIDI Tutorial Task: Max Worksheet 2</th>
<th>Assessment 1b: Max Worksheet 2</th>
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<tbody>
<tr>
<td>3</td>
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<tr>
<td>Week</td>
<td>Task Description</td>
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<td>4</td>
<td>Fundamentals of Max/MSP/Jitter 3: Basic Input Controls (keys/mouse) Tutorial Task: Max Worksheet 3 <strong>Assessment 1c: Max Worksheet 3</strong></td>
<td></td>
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<tr>
<td>5</td>
<td>Fundamentals of Max/MSP/Jitter 4: Musical Control Tutorial Task: Max Worksheet 4 <strong>Assessment 1d: Max Worksheet 4</strong></td>
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<tr>
<td>6</td>
<td>Max 5: Working with Visuals 1 Introduction to video. Manipulation of video playback</td>
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<tr>
<td>7</td>
<td>Max 5: Working with Visuals 2, Interfaces Constructing controller interfaces for visual performance.</td>
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<tr>
<td>8</td>
<td>Max 5: Working with Audio Introduction to Audio. Synthesis and manipulation of sound playback. <strong>Assessment 2: Basic Video/Image Manipulation System</strong></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Max 5: Working with Audio 2, Human Interface Devices Constructing controller interfaces for sonic performance. <strong>Assessment 3: Creative Brief for Live Performance System</strong></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Audiovisual performance Integrating visuals and audio.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Max 5: Tying It All Together Semi-autonomous agents for live performance.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Free Lab Time Free Lab Time</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Max 5 Performances <strong>Assessment 4: Interactive Multimedia Work in Max/MSP/Jitter performances in tutorial</strong></td>
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</tbody>
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**Policies and Procedures**

Macquarie University policies and procedures are accessible from [Policy Central](http://unitguides.mq.edu.au/unit_offerings/34588/unit_guide/print). Students should be aware of the following policies in particular with regard to Learning and Teaching:
Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:
Learning outcomes

- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students should be able to communicate creative concepts through sonic and visual media forms.

Assessment tasks

- Creative Brief
- Interactive Multimedia Work
- Class Participation

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students should be able to communicate creative concepts through sonic and visual media forms.
- Students will develop problem-solving skills.
Assessment tasks

- Workshop Fundamentals
- Image Manipulation System
- Creative Brief
- Interactive Multimedia Work
- Class Participation

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students should be able to communicate creative concepts through sonic and visual media forms.
- Students will develop problem-solving skills.

Assessment tasks

- Workshop Fundamentals
- Image Manipulation System
- Interactive Multimedia Work
- Class Participation

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.
This graduate capability is supported by:

**Learning outcomes**

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students should be able to communicate creative concepts through sonic and visual media forms.
- Students will develop problem-solving skills.

**Assessment tasks**

- Workshop Fundamentals
- Image Manipulation System
- Creative Brief
- Interactive Multimedia Work
- Class Participation

**Creative and Innovative**

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

**Learning outcomes**

- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
- Students will develop the ability to apply theoretical and technological concepts to creative works.
- Students should be able to communicate creative concepts through sonic and visual media forms.
- Students will develop problem-solving skills.

**Assessment tasks**

- Image Manipulation System
Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation’s historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

• Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
• Students should have developed information and technological literacy.
• Students should be able to communicate creative concepts through sonic and visual media forms.

Assessment tasks

• Creative Brief
• Interactive Multimedia Work
• Class Participation

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcomes

• Students should have developed information and technological literacy.
• Students should be able to communicate creative concepts through sonic and visual media forms.

Assessment tasks

• Workshop Fundamentals
• Image Manipulation System
• Interactive Multimedia Work
Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

**Learning outcomes**

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
- Students should be able to demonstrate a knowledge, understanding and application of course concepts.
- Students should have developed information and technological literacy.
- Students will develop competence with material/programs taught (Max/MSP/Jitter)
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- Students will develop problem-solving skills.

**Assessment tasks**

- Workshop Fundamentals
- Image Manipulation System
- Interactive Multimedia Work

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

**Learning outcomes**

- Students should be able to think critically about the work of others and be able to understand, deconstruct, and apply these skills to their own work.
• Students should be able to demonstrate a knowledge, understanding and application of course concepts.
• Students should have developed information and technological literacy.
• Students will develop competence with material/programs taught (Max/MSP/Jitter)
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**Assessment tasks**

• Workshop Fundamentals
• Interactive Multimedia Work
• Class Participation