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Table of Requirements

<table>
<thead>
<tr>
<th>Course/Stream</th>
<th>Graduate Certificate</th>
<th>Graduate Diploma</th>
<th>Master</th>
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<tr>
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<td>Min. Options</td>
<td>Max. Elective</td>
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<td>Audio and Acoustics</td>
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<tr>
<td>Building Services</td>
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<td>Design Computing*</td>
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<td>Digital Media*</td>
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<td>Facilities Management*</td>
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<td>Housing Studies</td>
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* Last admission Semester Two, 2008. ^ Facilities Management is available only as a secondary stream in the Master of Design Science.

Table G: Table of Graduate Units of Study

<table>
<thead>
<tr>
<th>Unit of Study</th>
<th>Credit Points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>Students must complete the core and optional units listed for their degree and/or stream to the minimum specified in the Table of Requirements. Electives for all degrees and streams may be chosen from anywhere in the table.</td>
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### Elective units

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<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
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<tbody>
<tr>
<td>ARCH9031 Research Report</td>
<td>12</td>
<td>Note: Department permission required for enrolment Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol. Available to Masters students only.</td>
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<td>Semester 1 Semester 2</td>
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<td>ARCH9061 East Asian Arch &amp; Urbanism (Classical)</td>
<td>6</td>
<td>N DESA2203, ARCH6202</td>
<td>This unit is offered in odd numbered years only.</td>
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<td>ARCH9064 East Asian Arch &amp; Urbanism (Modern)</td>
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<td>ARCH9073 Architecture Globalisation Urbanisation</td>
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<td>DESA9001 Graduate Art Studio (Graphic Design)</td>
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<td>DESA9002 Graduate Art Studio (Graphic Design 2)</td>
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<td>P DESA9001 or AWS2016</td>
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<td>Semester 2</td>
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Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Tin Sheds Gallery, Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit: allocation of spare places will be made at the first meeting. Students may incur costs for materials in some Art Workshops units.
### Unit of study Credit A: Assumed knowledge P: Prerequisites C: Corequisites N: Prohibition Session

**DESA9003 Graduate Art Studio (Photography)**
- Credit: 6
- A: N AWSS2023
- P: AWSS (2010 OR 2011) or equivalent
- C: Sufficient coursework to undertake guided professional work
- N: Masters students only. Graduate Diploma students with permission of the Program Coordinator.
- Semester 1 Semester 2

**DESA9005 Graduate Art Workshop**
- Credit: 6
- A: N AWSS2012
- P: Credit or better in a previous relevant art workshop.
- C: Sufficient coursework to undertake guided professional work
- N: Masters students only. Graduate Diploma students with permission of the Program Coordinator.
- Semester 1 Semester 2

**DESA9006 Ceramics 2**
- Credit: 6
- A: AWSS2023
- P: AWSS (2010 OR 2011) or equivalent
- C: Sufficient coursework to undertake guided professional work
- N: Masters students only. Graduate Diploma students with permission of the Program Coordinator.
- Semester 2

**DESA9007 Advanced Art**
- Credit: 6
- A: N AWSS2012
- P: Credit or better in a previous relevant art workshop.
- C: Sufficient coursework to undertake guided professional work
- N: Masters students only. Graduate Diploma students with permission of the Program Coordinator.
- Semester 1 Semester 2

**DESC9153 Graduate Internship**
- Credit: 6
- A: Sufficient coursework to undertake guided professional work
- P: Credit or better in a previous relevant art workshop.
- C: Sufficient coursework to undertake guided professional work
- N: Masters students only. Graduate Diploma students with permission of the Program Coordinator.
- Semester 1 Semester 2

**DESC9184 Computational Intelligence & Application**
- Credit: 6
- A: Assumed knowledge P: Prerequisites C: Corequisites N: Prohibition
- Session Semester 1

### General elective units

**ARCH9039 General Elective 1**
- Credit: 6
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1 Semester 2

**ARCH9040 General Elective 2**
- Credit: 6
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1 Semester 2

**ARCH9042 General Elective 4**
- Credit: 4
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1 Semester 2

**ARCH9044 General Elective 6**
- Credit: 2
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1 Semester 2

**ARCH9058 General Elective 7**
- Credit: 6
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1 Semester 2

**ARCH9059 General Elective 8**
- Credit: 6
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1 Semester 2

### Honours units

For the award of the Master degree with honours candidates must complete both the following units, either full time in one semester or part time over two semesters. A Weighted Average Mark of 75 is required for enrolment.

**ARCH9045 Dissertation 1**
- Credit: 12
- A: 48 credit points and a WAM of at least 75
- P: ARCH9046
- C: ARCH9031, ARCH9060, PLAN9010, PLAN9011, PLAN9018
- N: Department permission required for enrolment
- Semester 1 Semester 2

**ARCH9046 Dissertation 2**
- Credit: 12
- A: 48 credit points and a WAM of at least 75
- P: ARCH9046
- C: ARCH9045
- Semester 1 Semester 2

### Research student units

These units are primarily intended for students in research degrees (PhD, MPhil). Other students are welcome but should seek advice prior to enrolment.

**ARCF9001 Modes of Inquiry: Research & Scholarship**
- Credit: 6
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1 Semester 2

**DESC9184 Computational Intelligence & Application**
- Credit: 6
- A: Assumed knowledge
- P: Prerequisites
- C: Corequisites
- N: Prohibition
- Semester 1
## Certificate, Diploma and Master of Design Science

### Audio and Acoustics Stream

#### Core units

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<th>Session</th>
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<tr>
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<td>Audio Production</td>
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<td>Semester 1</td>
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<tr>
<td>DESC9115</td>
<td>Digital Audio Systems</td>
<td>6</td>
<td>Semester 1</td>
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<tr>
<td>DESC9117</td>
<td>Sound Design for New Media</td>
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<td>Semester 1</td>
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<tr>
<td>DESC9138</td>
<td>Architectural and Audio Acoustics</td>
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#### Optional units

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<th>Session</th>
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<td>Electrics Electronics &amp; Electroacoustics</td>
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<td>DESC9090</td>
<td>Audio Systems and Measurement</td>
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<td>DESC9116</td>
<td>Loudspeaker Design</td>
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<td>DESC9133</td>
<td>Architectural Acoustics Practice</td>
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<td>DESC9134</td>
<td>Audio and Acoustics Seminar</td>
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<td>DESC9135</td>
<td>Digital Audio Production with ProTools</td>
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<td>Music Technologies</td>
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<td>DESC9137</td>
<td>Spatial Audio</td>
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<td>DESC9153</td>
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<td>DESC9185</td>
<td>Structural Synthesis Models</td>
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## Building Stream

#### Core units

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<td>Building Construction Technology</td>
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<td>DESC9074</td>
<td>Project and Contract Management</td>
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<td>DESC9118</td>
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<td>Building Design Practice 2</td>
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<td>DESC9145</td>
<td>Sustaining the Built Environment</td>
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<td>Introduction to Building Services</td>
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- A: Assumed knowledge, P: Prerequisites, C: Corequisites, N: Prohibition
### Unit of study

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<tr>
<td>6</td>
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Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful please contact the Faculty of Architecture Student Administration Centre. Permission required in Semester One unless enrolled in Urban and Regional Planning.

<table>
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### Building Services Stream

#### Core units

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### Optional units

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## Design Computing Stream

Last admission to this degree was semester 2, 2008.

### Core units

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<tr>
<td>IDEA9101 Experimental Interfaces Laboratory</td>
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<td>IIDEA9102 Installation Studio</td>
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<td>IDEA9105 Human Computer Interaction</td>
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<td>IDEA9106 Design Thinking</td>
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### Optional units

Optional units for the Design Computing stream include any core unit from the Audio & Acoustics, Digital Media or Interaction Design and Electronic Arts programs.

## Digital Media Stream

Last admission to this degree semester 2, 2008

### Core units

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<tr>
<td>DESC9019 3D Computer Graphics Concepts</td>
<td>6</td>
<td>N DECO1008, DECO2103</td>
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<tr>
<td>DESC9092 3D Animation 1</td>
<td>6</td>
<td>P DESC9019</td>
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<td>DESC9117 Sound Design for New Media</td>
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### Session A: Assumed knowledge P: Prerequisites C: Corequisites N: Prohibition

#### Credit points

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<tr>
<td>DESC9156 Digital Compositing and Visual Effects</td>
<td>6</td>
<td>P DESC (9091 and 9092 and 9125) Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to Digital Media students. 2009 is the last year of offer for this unit.</td>
<td>Semester 1</td>
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<tr>
<td>IDEA9105 Human Computer Interaction</td>
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<td>IDEA9106 Design Thinking</td>
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### Unit of study - Credit points A: Assumed knowledge P: Prerequisites C: Corequisites N: Prohibition Session

**Illumination Design Stream**

**Core units**

- **DESC9164 Light Sources and Luminaires**
  - Credit points: 6
  - A: Assumed knowledge
  - P: DESC (9072 or 9166)
  - N: DESC9063
  - This unit of study is offered in odd numbered years only
  - Session: S2 Late Int

- **DESC9165 Lighting Design**
  - Credit points: 12
  - A: Assumed knowledge
  - P: DESC9064
  - Note: Department permission required for enrolment
  - N: DESC9072
  - This unit of study is offered in even numbered years only.
  - Session: S1 Intensive

- **DESC9166 Photo & Colorimetric Concepts & Mensuration**
  - Credit points: 6
  - A: Assumed knowledge
  - P: DESC9064
  - N: DESC9072
  - This unit of study is offered in odd numbered years only.
  - Session: S1 Late Int

- **DESC9167 Vision and Visual Perception**
  - Credit points: 6
  - A: Assumed knowledge
  - P: DESC9064
  - N: DESC9072
  - This unit of study is offered in odd numbered years only.
  - Session: S1 Late Int

- **DESC9168 The Visual Field and Human Factors**
  - Credit points: 6
  - A: Assumed knowledge
  - P: DESC (9085 or 9167)
  - N: DESC9064
  - This unit of study is offered in odd numbered years only.
  - Session: S2 Late Int

- **DESC9169 Daylight in Buildings**
  - Credit points: 6
  - A: Assumed knowledge
  - P: DESC9064
  - N: DESC9072
  - This unit of study is offered in even numbered years only.
  - Session: S1 Intensive

**Optional units**

- **DESC9019 3D Computer Graphics Concepts**
  - Credit points: 6
  - A: Assumed knowledge
  - P: DESC9064
  - N: DEC01008, DEC02103
  - Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.
  - Session: S1 Late Int

- **DESC9040 Electrical Services**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S1 Late Int

- **DESC9049 Financial Decision Making**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S1 Late Int

- **DESC9074 Project and Contract Management**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S2 Intensive

- **DESC9111 Energy Management in Buildings**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S2 Intensive

- **DESC9151 Introduction to Building Services**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S1 Intensive

- **DESC9152 Lighting Design Masterclass**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S1 Late Int

- **DESC9153 Graduate Internship**
  - Credit points: 6
  - A: Assumed knowledge
  - Note: Department permission required for enrolment
  - Session: S1 Late Int

- **DESC9154 Lighting Design Software**
  - Credit points: 6
  - A: Assumed knowledge
  - P: 24 credit points
  - This unit of study is offered in even numbered years only.
  - Session: S1 Intensive

- **DESC9160 Lighting Photography**
  - Credit points: 6
  - A: Assumed knowledge
  - Note: Department permission required for enrolment
  - Session: S1 Late Int

- **DESC9161 Theatre and Performance Lighting**
  - Credit points: 6
  - A: Assumed knowledge
  - Note: Department permission required for enrolment
  - Session: S2 Late Int

- **DESC9170 Services Control Systems**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S2 Intensive

### Unit of study - Credit points A: Assumed knowledge P: Prerequisites C: Corequisites N: Prohibition Session

**Sustainable Design Stream**

**Core units**

- **DESC9145 Sustaining the Built Environment**
  - Credit points: 6
  - A: Assumed knowledge
  - Session: S1 Intensive
  - Enrolment numbers limited by teaching resources. First preference to Sustainable Design students. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.
### Unit of study | Credit points | A: Assumed knowledge | P: Prerequisites | C: Corequisites | N: Prohibition | Session
--- | --- | --- | --- | --- | --- | ---
DESC9146 Climate, Comfort and Sustainable Design | 6 |  |  |  |  | S1 Late Int
DESC9147 Sustainable Building Design Principles | 6 |  |  |  |  | S2 Intensive
DESC9148 Sustainable Building Design Practice | 6 |  |  |  |  | S2 Late Int

**Optional units**

| Unit of study | Credit points | Session |
--- | --- | ---
DESC9015 Building Energy Analysis | 6 | S2 Late Int
DESC9111 Energy Management in Buildings | 6 | S2 Intensive
DESC9149 Sustainable Design Workshop | 6 | Semester 1
DESC9150 Sustainability Research Project | 6 | Semester 1
DESC9151 Introduction to Building Services | 6 | S1 Intensive
DESC9165 Lighting Design | 12 | S1 Intensive
Note: Department permission required for enrolment. This unit of study is offered in even numbered years only.
DESC9169 Daylight in Buildings | 6 | N DESC9064
This unit of study is not available in 2009
Note: Department permission required for enrolment. This unit of study is offered in even numbered years only.
PLAN9048 Environmental Design and Planning | 6 | S2 Late Int

### Unit of study | Credit points | A: Assumed knowledge | P: Prerequisites | C: Corequisites | N: Prohibition | Session
--- | --- | --- | --- | --- | --- | ---
Certificate, Diploma and Master of Design Science (Facilities Management)

The following units apply to the Graduate Certificate, Diploma and Master of Design Science (Facilities Management) as well as the Graduate Certificate, Diploma and Master of Facilities Management.

#### Core units

| Unit of study | Credit points | Session |
--- | --- | ---
DESC9047 Strategic Facility Management | 6 | S1 Intensive
DESC9048 Operational Facility Management | 6 | S2 Intensive
DESC9049 Financial Decision Making | 6 | S1 Late Int
DESC9071 Organisational Analysis and Behaviour | 6 | S1 Late Int
DESC9074 Project and Contract Management | 6 | S2 Intensive
DESC9183 Risk Management | 6 | A DESC9047 | S2 Intensive

#### Optional units

| Unit of study | Credit points | Session |
--- | --- | ---
ARCH9028 Conservation Methods and Practices | 12 | Semester 1
DESC9014 Building Construction Technology | 6 | Semester 1
DESC9111 Energy Management in Buildings | 6 | S2 Intensive
DESC9112 Service Provision | 6 | S1 Intensive
DESC9113 Computer Aided Facility Management | 6 | A DESC9047 and DESC9048 | S2 Intensive
DESC9151 Introduction to Building Services | 6 | S1 Intensive
DESC9170 Services Control Systems | 6 | P DESC9067 N DESC9077 | S2 Intensive
DESC9172 Building Asset Management | 6 | N DESC9088 | S1 Intensive

PLAN9061 Planning Procedures | 6 | N PLAN9020, PLAN9044 | S1 Intensive
Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful please contact the Faculty of Architecture Student Administration Centre. Permission required in Semester One unless enrolled in Urban and Regional Planning.
## Certificate, Diploma and Master of Heritage Conservation

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<td>ARCH9074 History and Theory of Conservation</td>
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<td>ARCH9075 New Design in Old Settings</td>
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<td>PLAN9061 Planning Procedures</td>
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<td>ARCH9031 Research Report</td>
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<td>ARCH9069 Conservation of Finishes</td>
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<td>PLAN9062 Planning Law</td>
<td>6</td>
<td>C PLAN9061, N PLAN9021</td>
<td></td>
<td></td>
<td></td>
<td>Semester 2</td>
</tr>
</tbody>
</table>

## Certificate, Diploma and Master of Interaction Design and Electronic Arts

Masters students should complete two studios and then the Graduation Studio.

### Core units

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDEA9101 Experimental Interfaces Laboratory</td>
<td>6</td>
<td>C IDEA9102</td>
<td></td>
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<td>Semester 1</td>
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<tr>
<td>IDEA9102 Installation Studio</td>
<td>12</td>
<td>C IDEA9101</td>
<td></td>
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</tr>
<tr>
<td>IDEA9201 Physical Computing Laboratory</td>
<td>6</td>
<td>C IDEA9202</td>
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</tr>
<tr>
<td>IDEA9202 Device Studio</td>
<td>12</td>
<td>C IDEA9201</td>
<td></td>
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<td>Semester 2</td>
</tr>
<tr>
<td>IDEA9301 Graduation Studio</td>
<td>12</td>
<td>P 48 credit points including 24 credit points from IDEA(9102, 9104, 9202 or 9204)</td>
<td>C IDEA (9101, 9103, 9201 or 9203)</td>
<td>Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to IDEA, Digital Media and MDesign Computing students only. Students may incur materials costs in this unit.</td>
<td></td>
<td>Semester 1, Semester 2</td>
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</table>

### Honours units

Candidates for the MIDEA with honours should complete two studios and both the following units.
### Unit of study

<table>
<thead>
<tr>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>48 credit points including 24 credit points from IDEA(9102, 9104, 9202 or 9204) and a WAM of at least 75</td>
<td>IDEA9302 Research Project and IDEA9303 IDEA Dissertation are required for the award of the Master Interaction Design and Electronic Arts with honours. The two units are not assessed separately, as a single result is given for the combined dissertation and project. Admission to this unit is merit-based and requires a minimum Weighted Average Mark (WAM) of at least 75. MIDEA students only.</td>
<td>IDEA9302</td>
<td>Semester 1 Semester 2</td>
<td></td>
</tr>
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</table>

### Optional units

<table>
<thead>
<tr>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Semester 1</td>
</tr>
<tr>
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<td>Semester 1</td>
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<td>Semester 2</td>
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</tbody>
</table>

### Unit of study

<table>
<thead>
<tr>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Semester 1 Semester 2</td>
</tr>
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</table>

### Certificate, Diploma and Master of Urban Design

**Without specialisation**

**Core units**

<table>
<thead>
<tr>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Semester 1 Semester 2</td>
</tr>
</tbody>
</table>

### Architectural and Urban Design Stream

These units are for the 96 credit point Master of Urban Design(Architectural & Urban Design). A maximum of 24 credit points of MARC Studios may be counted to the core requirements.

**Core units**

<table>
<thead>
<tr>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Semester 1 Semester 2</td>
</tr>
</tbody>
</table>

10

2009 Postgraduate Tables and Unit Descriptions - Architecture, Design and Planning
### Urban Design and Planning Stream

These units are for the 96 credit point Master of Urban Design (Urban Design & Planning). Students who want PIA accreditation should also include PLAN9018 Planning Report, in their final semester.

#### Core units

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARCH9001 Urban Design Studio A</td>
<td>12</td>
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<td></td>
<td></td>
<td></td>
<td>Semester 1</td>
</tr>
<tr>
<td>ARCH9002 Urban Design - Ideas and Methods</td>
<td>6</td>
<td>A Some prior study of architectural, urban or planning history.</td>
<td></td>
<td></td>
<td></td>
<td>Semester 1</td>
</tr>
<tr>
<td>ARCH9063 Urban Morphology</td>
<td>6</td>
<td>A Some prior study of architectural, urban or planning history.</td>
<td></td>
<td></td>
<td></td>
<td>Semester 2</td>
</tr>
<tr>
<td>PLAN9061 Planning Procedures</td>
<td>6</td>
<td></td>
<td>PLAN9020, PLAN9044</td>
<td></td>
<td></td>
<td>Semester 1</td>
</tr>
<tr>
<td>PLAN9062 Planning Law</td>
<td>6</td>
<td></td>
<td>PLAN9021</td>
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<td>Semester 2</td>
</tr>
<tr>
<td>PLAN9063 Foundations of Environmental Planning</td>
<td>6</td>
<td></td>
<td>PLAN9027</td>
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<td>Semester 1</td>
</tr>
<tr>
<td>PLAN9065 Resource and Environmental Management</td>
<td>6</td>
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<tr>
<td>PLAN9068 History and Theory in Urban Planning</td>
<td>6</td>
<td></td>
<td>PLAN9031</td>
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<tr>
<td>PLAN9069 Urban Design and Development Control</td>
<td>6</td>
<td></td>
<td>PLAN9051</td>
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<td>Semester 1</td>
</tr>
<tr>
<td>PLAN9064 Land Use and Infrastructure Planning</td>
<td>6</td>
<td></td>
<td>PLAN9028</td>
<td></td>
<td></td>
<td>Semester 2</td>
</tr>
</tbody>
</table>

### Certificate, Diploma and Master of Urban and Regional Planning

All Master degree candidates are required to complete either a Report or Dissertation. Candidates of sufficient merit, who complete the Dissertation, will qualify for the award of the degree with Honours.

#### All streams

#### Core units

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
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</thead>
<tbody>
<tr>
<td>PLAN9001 Planning Procedures</td>
<td>6</td>
<td></td>
<td>PLAN9020, PLAN9044</td>
<td></td>
<td></td>
<td>S1 Intensive</td>
</tr>
<tr>
<td>PLAN9003 Foundations of Environmental Planning</td>
<td>6</td>
<td></td>
<td>PLAN9027</td>
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<td>Semester 1</td>
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<td>PLAN9008 History and Theory in Urban Planning</td>
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<tr>
<td>PLAN9009 Urban Design and Development Control</td>
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<td>Semester 1</td>
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<tr>
<td>PLAN9002 Planning Law</td>
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<td></td>
<td>PLAN9061</td>
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<td>Semester 2</td>
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<tr>
<td>PLAN9004 Land Use and Infrastructure Planning</td>
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<td>PLAN9028</td>
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<td>Semester 2</td>
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<tr>
<td>PLAN9011 Planning Report</td>
<td>12</td>
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<td>PLAN9001, ARCH9031, ARCH9060, ARCH9045, ARCH9046, PLAN9010, PLAN9011</td>
<td>48 credit points</td>
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<td>Semester 1</td>
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<tr>
<td>PLAN9010 Planning Dissertation 1</td>
<td>12</td>
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<td>PLAN9018, ARCH9031, ARCH9045, ARCH9046, ARCH9060</td>
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<td>Semester 1</td>
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<tr>
<td>Unit of study</td>
<td>Credit points</td>
<td>A: Assumed knowledge</td>
<td>P: Prerequisites</td>
<td>C: Corequisites</td>
<td>N: Prohibition</td>
<td>Session</td>
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</tbody>
</table>
| PLAN9011 Planning Dissertation 2                 | 12            |                      | P WAM of at least 75 and 48 credit points being the core requirements for the MURP | C PLAN9010 | This unit is for Masters of Urban & Regional Planning students only. It MUST be taken in conjunction with PLAN9010 Planning Dissertation 1, either in the same or preceding semester. | Semester 1  
|                                                  |               |                      |                  |                |                | Semester 2    |
| Without specialisation                           |               |                      |                  |                |                |              |
| Elective units                                   |               |                      |                  |                |                |              |
| PLAN9045 Economic Tools and Community Development | 6             |                      |                  |                |                | S2 Intensive |
| PLAN9048 Environmental Design and Planning        | 6             |                      |                  |                |                | S2 Late Int  |
| PLAN9049 Development Project Planning and Design  | 6             |                      |                  |                |                | S1 Late Int  |
| This unit is offered in odd numbered years only. |               |                      |                  |                |                |              |
| PLAN9065 Resource and Environmental Management    | 6             |                      |                  |                |                | Semester 1    |
| PLAN9067 Metropolitan Planning                    | 6             |                      | P PLAN (9027 and 9028) or PLAN (9063 and 9064) | Note: Department permission required for enrolment | S2 Intensive |
| This unit of study is not available in 2009       |               |                      |                  |                |                |              |
| PLAN9070 Graduate Studio - Design Guidelines      | 12            |                      | P PLAN(9061 and 9065 and 9069) or ARCH(9001 and 9002) | Note: Department permission required for enrolment | Semester 2    |
| This unit of study is not available in 2009       |               |                      |                  |                |                |              |
| Note: Department permission required for enrolment |               |                      |                  |                |                |              |
| Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. |               |                      |                  |                |                |              |
| PLAN9073 GIS Based Planning Policy and Analysis   | 6             |                      |                  |                |                | Semester 2    |
| Heritage Conservation Stream                      |               |                      |                  |                |                |              |
| Optional units                                   |               |                      |                  |                |                |              |
| ARCH9028 Conservation Methods and Practices       | 12            |                      |                  |                |                | Semester 1    |
| ARCH9074 History and Theory of Conservation      | 6             | N ARCH9003           |                  |                |                | Semester 1    |
| Housing Studies Stream                            |               |                      |                  |                |                |              |
| Optional units                                   |               |                      |                  |                |                |              |
| PLAN9050 Housing for Health (Advanced)            | 6             | Note: Department permission required for enrolment |                  |                |                | S2 Intensive |
| This unit of study is not available in 2009       |               |                      |                  |                |                |              |
| PLAN9071 Housing & Urban & Regional Development   | 6             | N ARCH9057           |                  |                |                | S1 Late Int  |
| This unit of study is not available in 2009       |               |                      |                  |                |                |              |
| PLAN9072 Housing Policy and Assistance            | 6             | N ARCH9058           |                  |                |                | S2 Late Int  |
| This unit is offered in odd numbered years only. |               |                      |                  |                |                |              |
### Master of Architecture enrolment planner - semester one commencement

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Semester 1</th>
<th>Semester 2</th>
<th>Semester 3</th>
<th>Semester 4</th>
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<tbody>
<tr>
<td><strong>Design</strong></td>
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<tr>
<td></td>
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<td>* or for honours: MARF5201 Honours Studio (12) MARFS301 Honours Report (6)</td>
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<td>MARC5001 Graduation Studio (12)*</td>
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<td>48 credit points</td>
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<td>61.5% of mandatory credit points</td>
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<td>Research studios</td>
<td>Research studios</td>
<td>Research studios</td>
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<td></td>
<td>MARC4001 Urban Architecture (12) or MARC4002 Sustainable Architecture (12) or MARC4003 Digital Architecture (12)</td>
<td>MARC4001 Urban Architecture (12) or MARC4002 Sustainable Architecture (12) or MARC4003 Digital Architecture (12)</td>
<td>MARC4001 Urban Architecture (12) or MARC4002 Sustainable Architecture (12) or MARC4003 Digital Architecture (12)</td>
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<tr>
<td><strong>Architectural Science and Technologies</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>MARC4101 Advanced Technologies 1 (6) or MARC5101 Advanced Technologies 2 (6)</td>
<td>MARC4101 Advanced Technologies 1 (6) or MARC5101 Advanced Technologies 2 (6)</td>
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<td>MARC4002 Sustainable Architecture Research Studio</td>
<td>MARC4003 Digital Architecture Research Studio</td>
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<td>12.5% of MArch</td>
<td>15.4% of mandatory credit points</td>
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<td></td>
<td>MARC4201 Modern Architectural History (6)</td>
<td>MARC4102 Modern Architectural Theory (6)</td>
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<tr>
<td><strong>Professional Practice</strong></td>
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<td>MARC5102 Contract Documentation (6)</td>
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<td>18</td>
<td>18</td>
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</table>

### Table M: Master of Architecture

#### Core units of study

Candidates are required to complete the following core units of study:

**Architectural Design**

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARC4001 Urban Architecture Research Studio</td>
<td>12</td>
<td>Students may incur materials costs in this unit.</td>
<td></td>
<td></td>
<td></td>
<td>Semester 1 Semester 2</td>
</tr>
<tr>
<td>MARC4002 Sustainable Architecture Research Studio</td>
<td>12</td>
<td>Students may incur materials costs in this unit.</td>
<td></td>
<td></td>
<td></td>
<td>Semester 1 Semester 2</td>
</tr>
<tr>
<td>MARC4003 Digital Architecture Research Studio</td>
<td>12</td>
<td>Students may incur materials costs in this unit.</td>
<td></td>
<td></td>
<td></td>
<td>Semester 1 Semester 2</td>
</tr>
<tr>
<td>MARC5001 Graduation Studio</td>
<td>12</td>
<td>P MARC(4001, 4002 and 4003) N ARCH5201, MARFS201 Students may incur materials costs in this unit.</td>
<td></td>
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<td>Semester 1 Semester 2</td>
</tr>
</tbody>
</table>

**Architectural Science and Technology**

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARC4101 Advanced Technologies 1</td>
<td>6</td>
<td>C MARC(4001 or 4002 or 4003) N ARCH4202</td>
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<td>Semester 1</td>
</tr>
<tr>
<td>MARC5101 Advanced Technologies 2</td>
<td>6</td>
<td>C MARC(4001 or 4002 or 4003) N ARCH4203 This unit is offered in odd numbered years only and alternates with MARC4101.</td>
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<td>Semester 1</td>
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**Cultural Studies**

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARC4102 Modern Architectural Theory</td>
<td>6</td>
<td>N ARCH6104, ARCH9048, ARCH9049</td>
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<td>Semester 2</td>
</tr>
<tr>
<td>Unit of study</td>
<td>Credit points</td>
<td>A: Assumed knowledge</td>
<td>P: Prerequisites</td>
<td>C: Corequisites</td>
<td>N: Prohibition</td>
<td>Session</td>
</tr>
<tr>
<td>------------------------------------------------</td>
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<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>MARC4201 Modern Architectural History</td>
<td>6</td>
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<td>Semester 1</td>
</tr>
<tr>
<td>Professional Practice</td>
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</tr>
<tr>
<td>MARCS502 Contract Documentation</td>
<td>6</td>
<td>C MARC(4001, 4002, 4003, 5001 or 5201)</td>
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<td>N ARCH4103</td>
<td></td>
<td>Semester 2</td>
</tr>
</tbody>
</table>

**Elective units of study**

Master of Architecture students may complete any other unit of study listed in Table G, the Faculty’s table of graduate units of study, with permission of the unit coordinator concerned.

**Architectural Design**

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARC6202 Architecture Workshop A</td>
<td>6</td>
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<td></td>
<td>Note: Department permission required for enrolment Students may incur materials costs in this unit.</td>
<td></td>
<td>S2 Intensive</td>
</tr>
<tr>
<td>MARC6203 Architecture Workshop B</td>
<td>6</td>
<td></td>
<td></td>
<td>Note: Department permission required for enrolment Students may incur materials costs in this unit.</td>
<td></td>
<td>S2 Intensive</td>
</tr>
</tbody>
</table>

**Architectural Science and Technologies**

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESC9001 Air-Conditioning Design</td>
<td>6</td>
<td>P DESC9007</td>
<td></td>
<td>This unit of study is offered in odd numbered years only.</td>
<td></td>
<td>S2 Intensive</td>
</tr>
<tr>
<td>DESC9014 Building Construction Technology</td>
<td>6</td>
<td></td>
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<td></td>
<td>Semester 1</td>
</tr>
<tr>
<td>DESC9138 Architectural and Audio Acoustics</td>
<td>6</td>
<td></td>
<td></td>
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<td>Semester 1</td>
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<tr>
<td>DESC9185 Structural Synthesis Models</td>
<td>6</td>
<td></td>
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<td>Semester 1</td>
</tr>
<tr>
<td>DESC9191 Building Acoustics and Noise Control</td>
<td>6</td>
<td>A Undergraduate architecture or engineering degree.</td>
<td></td>
<td></td>
<td></td>
<td>S1 Late Int</td>
</tr>
<tr>
<td>MARCS501 Performance Based Modelling in Design</td>
<td>6</td>
<td>C MARC (4001,4002, 4003, 5001 or 5201)</td>
<td></td>
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<td>Semester 1</td>
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</tbody>
</table>

**Art Workshops**

<table>
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<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
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<tbody>
<tr>
<td>DESA9001 Graduate Art Studio (Graphic Design)</td>
<td>6</td>
<td>N AWS52016</td>
<td></td>
<td></td>
<td></td>
<td>Semester 1</td>
</tr>
<tr>
<td>DESA9002 Graduate Art Studio (Graphic Design 2)</td>
<td>6</td>
<td>P DESA9001 or AWS52016</td>
<td></td>
<td></td>
<td></td>
<td>Semester 2</td>
</tr>
<tr>
<td>DESA9003 Graduate Art Studio (Photography)</td>
<td>6</td>
<td>N AWS52023</td>
<td></td>
<td></td>
<td></td>
<td>Semester 1</td>
</tr>
<tr>
<td>DESA9004 Art: Materials, Process and Contexts</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S2 Intensive</td>
</tr>
<tr>
<td>DESA9005 Graduate Art Workshop</td>
<td>6</td>
<td>Note: Department permission required for enrolment Please seek permission from the Tin Sheds Gallery, Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit: allocation of spare places will be made at the first meeting. Students may incur costs for materials in some Art Workshops units.</td>
<td></td>
<td></td>
<td></td>
<td>Semester 2</td>
</tr>
<tr>
<td>DESA9006 Ceramics 2</td>
<td>6</td>
<td>P AWS5 (2010 OR 2011) or equivalent N AWS52012</td>
<td></td>
<td></td>
<td></td>
<td>Semester 2</td>
</tr>
<tr>
<td>DESA9007 Advanced Art</td>
<td>6</td>
<td>P Credit or better in a previous relevant art workshop Note: Department permission required for enrolment Enrolment numbers are limited by space and equipment constraints. Students should submit written permission from the Tin Sheds Gallery with their request to enrol. Students may incur costs for materials in some Art Workshops units.</td>
<td></td>
<td></td>
<td></td>
<td>S1 Intensive</td>
</tr>
</tbody>
</table>

**Digital Architecture**

<table>
<thead>
<tr>
<th>Unit of study</th>
<th>Credit points</th>
<th>A: Assumed knowledge</th>
<th>P: Prerequisites</th>
<th>C: Corequisites</th>
<th>N: Prohibition</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESC9019 3D Computer Graphics Concepts</td>
<td>6</td>
<td>N DECO1008, DECO2103</td>
<td></td>
<td></td>
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<td>Semester 1</td>
</tr>
<tr>
<td>IDEA9106 Design Thinking</td>
<td>6</td>
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<td></td>
<td>Semester 1</td>
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<tr>
<td>IDEA9205 Art, Technology and Culture</td>
<td>6</td>
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<td>Semester 2</td>
</tr>
<tr>
<td>Unit of study</td>
<td>Credit points</td>
<td>A: Assumed knowledge</td>
<td>P: Prerequisites</td>
<td>C: Corequisites</td>
<td>N: Prohibition</td>
<td>Session</td>
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<tr>
<td><strong>Heritage Conservation</strong></td>
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<tr>
<td>ARCH9074 History and Theory of Conservation</td>
<td>6</td>
<td>N ARCH9003</td>
<td></td>
<td></td>
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<td>Semester 1</td>
</tr>
<tr>
<td>ARCH9075 New Design in Old Settings</td>
<td>6</td>
<td>N ARCH9007 Students who take the studio stream will need to be a graduate in Architecture or other design-related degree.</td>
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<td>Semester 2</td>
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<tr>
<td><strong>Professional Practice</strong></td>
<td></td>
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<tr>
<td>DESC9047 Strategic Facility Management</td>
<td>6</td>
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<td>S1 Intensive</td>
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<tr>
<td>DESC9048 Operational Facility Management</td>
<td>6</td>
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<td>S2 Intensive</td>
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<tr>
<td>DESC9074 Project and Contract Management</td>
<td>6</td>
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<td>S2 Intensive</td>
</tr>
<tr>
<td>MARCH5201 Management in Architecture</td>
<td>6</td>
<td>N ARCH6201</td>
<td></td>
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<td>Semester 2</td>
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<tr>
<td><strong>Social Studies</strong></td>
<td></td>
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<tr>
<td>ARCH9061 East Asian Arch &amp; Urbanism</td>
<td>6</td>
<td>N DESA2203, ARCH6202</td>
<td></td>
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<td>Semester 2</td>
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<tr>
<td>(Classical)</td>
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<td>This unit is offered in odd numbered years only.</td>
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<tr>
<td>ARCH9064 East Asian Arch &amp; Urbanism (Modern)</td>
<td>6</td>
<td>N ARCH9054</td>
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<td>Semester 1</td>
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<tr>
<td>This unit of study is not available in 2009</td>
<td></td>
<td>This unit is offered in even numbered years only.</td>
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<tr>
<td>ARCH9073 Architecture Globalisation</td>
<td>6</td>
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<td>Semester 2</td>
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<tr>
<td>Urbanisation</td>
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<tr>
<td>MARCH5201 Design as Social Practice</td>
<td>6</td>
<td>P DAAE2002 or by permission</td>
<td>N DAAE2003</td>
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<td>Semester 2</td>
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<tr>
<td><strong>Sustainable Architecture</strong></td>
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<tr>
<td>DESC9015 Building Energy Analysis</td>
<td>6</td>
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<td>S2 Late Int</td>
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<tr>
<td>DESC9111 Energy Management in Buildings</td>
<td>6</td>
<td></td>
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<td>S2 Intensive</td>
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<tr>
<td>DESC9169 Daylight in Buildings</td>
<td>6</td>
<td>N DESC9106</td>
<td></td>
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<td>S1 Intensive</td>
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<tr>
<td>This unit of study is not available in 2009</td>
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<td>This unit is offered in even numbered years only.</td>
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<tr>
<td>DESC9192 Energy Code Compliance in Buildings</td>
<td>6</td>
<td>A Undergraduate architecture or engineering degree.</td>
<td></td>
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<td>S2 Late Int</td>
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<tr>
<td><strong>Environmental Design and Planning</strong></td>
<td>6</td>
<td></td>
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<td>S2 Late Int</td>
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<tr>
<td><strong>Urban Architecture</strong></td>
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<tr>
<td>ARCH9062 Urban Design - Ideas and Methods</td>
<td>6</td>
<td>A Some prior study of architectural, urban or planning history.</td>
<td>N ARCH9022</td>
<td></td>
<td></td>
<td>Semester 1</td>
</tr>
<tr>
<td>ARCH9063 Urban Morphology</td>
<td>6</td>
<td>A Some prior study of architectural, urban or planning history.</td>
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<td></td>
<td>Semester 2</td>
</tr>
<tr>
<td>ARCH9001 Urban Design Studio A</td>
<td>12</td>
<td>Permission of coordinator required unless enrolled in the Master, Grad Dip or Grad Cert of Urban Design or M UrbDes(UrbDes &amp; Plan) or M UrbDes(Arch &amp; UrbDes). It is recommended that the unit Urban Design - Ideas and Methods or Urban Morphology, is taken either before or concurrently with this studio.</td>
<td></td>
<td>Semester 1</td>
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<tr>
<td><strong>General Electives</strong></td>
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<tr>
<td>ARCH9039 General Elective 1</td>
<td>6</td>
<td>Note: Department permission required for enrolment Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.</td>
<td></td>
<td>S1 Intensive</td>
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<tr>
<td>ARCH9040 General Elective 2</td>
<td>6</td>
<td>Note: Department permission required for enrolment Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.</td>
<td></td>
<td>S1 Intensive</td>
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<tr>
<td>ARCH9058 General Elective 7</td>
<td>6</td>
<td>Note: Department permission required for enrolment Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.</td>
<td></td>
<td>S1 Intensive</td>
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<tr>
<td>ARCH9059 General Elective 8</td>
<td>6</td>
<td>Note: Department permission required for enrolment Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.</td>
<td></td>
<td>S1 Intensive</td>
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<tr>
<td><strong>Honours units of study</strong></td>
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<tr>
<td>For the award of Honours, students are required to complete the degree with degree WAM of at least 80. The Honours Studio replaces the Graduation Studio for students attempting the honours degree.</td>
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<tr>
<td>MARCH4001 Urban Architecture Research Studio</td>
<td>12</td>
<td>Students may incur materials costs in this unit.</td>
<td></td>
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<td>Semester 1</td>
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<td>Semester 2</td>
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<tr>
<td>Unit of study</td>
<td>Credit points</td>
<td>A: Assumed knowledge</td>
<td>P: Prerequisites</td>
<td>C: Corequisites</td>
<td>N: Prohibition</td>
<td>Session</td>
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<tr>
<td>MARC4002 Sustainable Architecture Research Studio</td>
<td>12</td>
<td>Students may incur materials costs in this unit.</td>
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<td></td>
<td>Semester 1 Semester 2</td>
</tr>
<tr>
<td>MARC4003 Digital Architecture Research Studio</td>
<td>12</td>
<td>Students may incur materials costs in this unit.</td>
<td></td>
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<td></td>
<td>Semester 1 Semester 2</td>
</tr>
<tr>
<td>MARF5201 Honours Studio</td>
<td>12</td>
<td>P 72 credit points and a WAM of at least 80</td>
<td>C MARF5301</td>
<td></td>
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<td>Semester 1 Semester 2</td>
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<td></td>
<td></td>
<td>Note: Department permission required for enrolment</td>
<td>N MARC5001</td>
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<td></td>
<td></td>
<td>To qualify for honours in the MArch students must achieve a WAM of at least 80 in all units of study attempted.</td>
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<tr>
<td>MARF5301 Honours Report</td>
<td>6</td>
<td>P 72 credit points with WAM of at least 80.</td>
<td>C MARF5201</td>
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<td>Semester 1 Semester 2</td>
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<td></td>
<td></td>
<td>Note: Department permission required for enrolment</td>
<td>N ARCF5301</td>
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<tr>
<td></td>
<td></td>
<td>To qualify for honours in the MArch students must achieve a WAM of at least 80 in all units attempted.</td>
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</table>
Postgraduate Unit Descriptions

Unit of study descriptions

ARCF9001  
Modes of Inquiry: Research & Scholarship  
Architecture, Design and Planning  
Credit points: 6  
Teacher/Coordinator: Prof Richard Hyde  
Session: Semester 1, Semester 2  
Classes: Five hours average class time per week, activities comprise lectures, seminars workshops and tutorials  
Assessment: Assessment is based on: (1) evidence of having completed and understood the reading assignments set, supported by evidence of critical contributions to class discussions and response to feedback, and (2) a preliminary research proposal in the area of interest, comprising between 2500-3000 words and no more than 15 pages. It is advisable that this proposal is carried out in conjunction with your supervisors.  
Final research proposals for partial satisfaction of probationary requirements will remain the responsibility of the student in association with your supervisors. In assessing submissions, attention is placed on: (1) understanding of the subject matter of different modes of inquiry, research approaches and research methods; (2) organisation of knowledge about research and scholarship; (3) ability to critically evaluate methods used in studies; and (4) original thinking regarding appropriate modes of inquiry and research methodology for the research problems and questions under investigation. All submissions are to conform to the style and format of the Publication Manual of the APA (latest ed.) or equivalent style guide in the discipline of the student.  
The unit is pass/fail only, but a minimum of a Credit level in all aspects is required to pass this unit of study.  
Mode of delivery: Normal (lecture/lab/tutorial) Day  
Note: Permission required unless enrolled in a research degree. This unit is a probationary requirement for all MPhil and PhD students in the Faculty of Architecture, Design and Planning.

Content: The unit is a seminar with mini-lectures, presentations by members of the academic staff about research and scholarship methods in which they are most expert, critical review of readings, and discussions based on the seminar material, readings and research pre-proposals.  
Objectives & Learning Outcomes: To provide newly admitted research students with a fundamental understanding of the nature of inquiry through research, the philosophy of scientific research and interpretive scholarship and a range of fundamentally different epistemologies or ‘modes of inquiry.’ The modes of inquiry explored includes (1) empirical, field-based epistemology used heavily in architecture science urban planning and other field-based research, including experimental, quasi-experimental, survey, naturalistic, ethnographic and case study methods; (2) text-based, interpretive epistemology used heavily in architecture and the allied arts and other humanities, including archival, historical, theoretical, interpretive, discourse analysis and other text based methods; (3) computationally-based epistemology used heavily in design computing and other IT-based disciplines, including axiom and conjecture based, simulation, virtual reality, and prototype development methods; and (4) policy-oriented, communication-contingency and modelling epistemologies used heavily in urban and regional planning and other policy-based disciplines, including archival, strategic and evidence-based policy research, communications and morphological analyses and quantitative modelling; as well as (5) interdisciplinary combinations, triangulations and mixed modes.

ARCH9002  
Urban Design Studio B  
Architecture, Design and Planning  
Credit points: 12  
Teacher/Coordinator: Mr Barrie Shelton  
Session: Semester 1, Semester 2  
Classes: Four hours per week studio work, presentations and critiques  
Prerequisites: ARCH9001  
Assessment: Design and design-related projects and assignments, 100%.  
Mode of delivery: Normal (lecture/lab/tutorial) Day  
Note: Permission required unless enrolled in the Master, Grad Dip or Grad Cert of Urban Design or M UrbDes(UrbDes & Plan) or M UrbDes(Arch & Urb Des). It is recommended that the unit Urban Design - Ideas and Methods or Urban Morphology, is taken either before or concurrently with this studio.

These studios are the heart of the urban design program. Values, knowledge and skills acquired in other units and from previous experience are supplemented and enhanced, and applied creatively to both the investigation and development phases of design projects at an urban scale. These may be concerned with the generation of strategies, frameworks, concepts, master plans, public space improvements, or other urban design purposes. They are chosen carefully to expose students to a range of contexts (central city, suburban, institutional campuses, etc) and contemporary issues concerning urban form, activity, transport and the implementation of projects.  
Students are expected to extend their presentation methods by developing illustrative, writing and verbal skills appropriate to urban design. It is usual for the backgrounds of those enrolled in the studios to span at least architecture, planning and landscape architecture, with inter-disciplinary group work an essential part. Visionary and innovative approaches are encouraged.  
Students will be expected to demonstrate appropriate (professional-level) problem recognition, investigative, analytical, interpretative, design and presentation skills and abilities on projects of an urban scale. Assessment may also embrace abilities to prepare and interpret project briefs, program proposals and work in groups.  
The central aim of this unit is to develop abilities and skills (investigation, analysis and interpretation, design development and presentation) which will enable students to carry out urban design projects such as the preparation of strategies, frameworks, concepts and master plans in a professional and visionary manner.

ARCH9002  
Conservation Methods and Practices  
Architecture, Design and Planning  
Credit points: 12  
Teacher/Coordinator: Mr Trevor Howells  
Session: Semester 1  
Classes: Four hours per week lectures and site visits  
Assessment: Three assignments (equally weighted)  
Mode of delivery: Normal (lecture/lab/tutorial) Day  
Note: Permission required unless enrolled in the Master, Grad Dip or Grad Cert of Urban Design or M UrbDes(UrbDes & Plan) or M UrbDes(Arch & UrbDes). It is recommended that the unit Urban Design - Ideas and Methods or Urban Morphology, is taken either before or concurrently with this studio.
The aims of this unit are to develop practical skills in the methods and practices of conservation at an accepted professional level, and to interpret and apply the theory of practice taught in the mandatory core of the course in practical, on-site projects.

The unit focuses on culturally significant structures and cultural landscapes and includes: methods of survey and documentation (locating, describing and recording components with possible heritage value; identifying and reading historic fabric; historic and archival research methods; thematic history methods; pattern recognition; natural systems; settlements; cultural mapping; aesthetic analysis; material and stylistic analysis); evaluation methodology (assigning heritage significance); assessment methodology (establishing conservation priorities); and appropriate conservation actions (conservation and management plans, policies and strategies).

At the end of the unit the student will successfully demonstrate: an understanding of the Australia ICOMOS Burra Charter and the ability to prepare, in accordance with current accepted professional practice, a conservation plan of a place or places of cultural significance; skill in methods and techniques of analysis, assessment and documentation of cultural significance; and the ability to develop relevant policies and strategies for the conservation of a variety places of cultural significance.

The intended outcomes are achieved through inquiry, individual study and research and are demonstrated by each student upon the successful completion of set assignments. The assignments are constructed to allow each student to demonstrate his or her level of understanding of the accepted professional methodology and practice in the preparation and presentation of a conservation plan. Assessment criteria based on unit outcomes are used for the examination of the assignments.

ARCH9031
Research Report
Architecture, Design and Planning
Credit points: 6 Session: S1 Intensive, S2 Intensive, Semester 1, Semester 2 Mode of delivery: Normal (lecture/lab/tutorial) Day

This elective allows an individual to pursue an agreed topic with a member of academic staff, or for a group of students to pursue a topic proposed by a member of academic staff in a formal learning environment.

For individual study arrangements this is an opportunity to develop independent study skills. The unit is undertaken with an agreement between the student and a supervisor on a topic related to the supervisor's expertise. The student will meet with the supervisor regularly to discuss progress.

For group study arrangements the unit of study is available to engage in a topic that is organised by a member of academic staff. This allows a member of staff to teach a topic of special interest or for a visiting academic to teach a subject related to their specialty. Students will participate in lectures, tutorials, or other activities as needed to pursue the elective topic.

Students will develop an understanding of a special topic through reports, projects, and/or tutorial exercises.

ARCH9040
General Elective 2
Architecture, Design and Planning
Credit points: 6 Session: S1 Intensive, S2 Intensive, Semester 1, Semester 2 Mode of delivery: Normal (lecture/lab/tutorial) Day

This elective allows an individual to pursue an agreed topic with a member of academic staff, or for a group of students to pursue a topic proposed by a member of academic staff in a formal learning environment.

For individual study arrangements this is an opportunity to develop independent study skills. The unit is undertaken with an agreement between the student and a supervisor on a topic related to the supervisor's expertise. The student will meet with the supervisor regularly to discuss progress.

For group study arrangements the unit of study is available to engage in a topic that is organised by a member of academic staff. This allows a member of staff to teach a topic of special interest or for a visiting academic to teach a subject related to their specialty. Students will participate in lectures, tutorials, or other activities as needed to pursue the elective topic.

Students will develop an understanding of a special topic through reports, projects, and/or tutorial exercises.

ARCH9039
General Elective 1
Credit points: 6 Session: S1 Intensive, S2 Intensive, Semester 1, Semester 2 Mode of delivery: Normal (lecture/lab/tutorial) Day

This elective allows an individual to pursue an agreed topic with a member of academic staff, or for a group of students to pursue a topic proposed by a member of academic staff in a formal learning environment.

For individual study arrangements this is an opportunity to develop independent study skills. The unit is undertaken with an agreement between the student and a supervisor on a topic related to the supervisor's expertise. The student will meet with the supervisor regularly to discuss progress.

For group study arrangements the unit of study is available to engage in a topic that is organised by a member of academic staff. This allows a member of staff to teach a topic of special interest or for a visiting academic to teach a subject related to their specialty. Students will participate in lectures, tutorials, or other activities as needed to pursue the elective topic.

Students will develop an understanding of a special topic through reports, projects, and/or tutorial exercises.
a member of staff to teach a topic of special interest or for a visiting academic to teach a subject related to their specialty. Students will participate in lectures, tutorials, or other activities as needed to pursue the elective topic. Students will develop an understanding of a special topic through reports, projects, and/or tutorial exercises.

ARCH9044 General Elective 6 Architecture, Design and Planning
Credit points: 2  Session: Semester 1, Semester 2  Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment. Note: Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.

This elective allows an individual to pursue an agreed topic with a member of academic staff, or for a group of students to pursue a topic proposed by a member of academic staff in a formal learning environment. For individual study arrangements this is an opportunity to develop independent study skills. The unit is undertaken with an agreement between the student and a supervisor on a topic related to the supervisor’s expertise. The student will meet with the supervisor regularly to discuss progress. For group study arrangements the unit of study is available to engage in a topic that is organised by a member of academic staff. This allows a member of staff to teach a topic of special interest or for a visiting academic to teach a subject related to their specialty. Students will participate in lectures, tutorials, or other activities as needed to pursue the elective topic. Students will develop an understanding of a special topic through reports, projects, and/or tutorial exercises.

ARCH9045 Dissertation 1 Architecture, Design and Planning
Credit points: 12  Teacher/Coordinator: An academic supervisor is required. Discuss with your program coordinator.  Session: Semester 1, Semester 2  Classes: Research under academic supervision  Prerequisites: 48 credit points and a WAM of at least 75  Corequisites: ARCH9046 Prohibitions: ARCH9031, ARCH9060, PLAN9010, PLAN9011, PLAN9018  Assessment: 15000 to 25000 word dissertation.  Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment. Note: Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.

ARCH9045 and ARCH9046 Dissertation 1 and 2 are only available to candidates for the masters degree with honours, with permission from an appropriate supervisor. Planning students should take PLAN9010 and PLAN9011 Planning Dissertations 1 and 2. Students enrol either full time over one semester (ARCH9045 and ARCH9046) or part time over two semesters (ARCH9045 then ARCH9046). The units are not assessed separately - a single dissertation is required. The appointment of a supervisor will depend on the topic chosen for the dissertation by the student. Students and their supervisors should complete an Independent Study Approval form and return it to the Student Administration Centre to effect enrolment.

The aim of the dissertation is twofold: to train the student in how to undertake advanced study. The student should learn how to examine published and unpublished data, survey and experimental results, set objectives, organise a program of work, analyse information, evaluate this in relation to existing knowledge and document the work; and to allow the student to pursue an area of interest in greater depth than is possible in coursework or to investigate an area of interest which is not covered in coursework. The dissertation will normally involve a critical review of published material in a specified subject area, but it may also be an experimental or theoretical investigation, a feasibility study, a case study, a computer program, or other work demonstrating the student’s analytical ability. The dissertation should be 15000 to 25000 words in length. The dissertation should contain a literature review, a research methodology, analysis of data, a discussion of results and conclusions. The dissertation will be judged on the extent and quality of the student’s work, and in particular on how critical, perceptive and constructive the student has been in assessing his or her own work and that of others. Three typed A4 sized copies of the dissertation are required to be presented for examination. These may be in either temporary or permanent binding. If in temporary binding they must be able to withstand ordinary handling and posting. The preferred method is “perfect binding”; spring back, ring back or spiral binding is not permitted. Students are required to submit one copy in permanent binding on acid free paper for the library, including any emendations recommended by the examiners. For more detail see the requirements for the PhD thesis in the Postgraduate Research Studies Handbook. Dissertations are due at the end of the first week of exams for the semester in which you are enrolled for Dissertation 1. The assessment is based solely on the submission of your dissertation. The dissertation is generally marked by two examiners. A result of 75 is required for the award of the honours degree. Students with a result lower than 75 will be awarded the pass degree.

ARCH9046 Dissertation 2 Architecture, Design and Planning
Credit points: 12  Teacher/Coordinator: An academic supervisor is required. Discuss with your program coordinator.  Session: Semester 1, Semester 2  Classes: Research under academic supervision  Corequisites: ARCH9045 Assessment: 15000 to 25000 word dissertation.  Mode of delivery: Normal (lecture/lab/tutorial) Day

ARCH9045 and ARCH9046 Dissertation 1 and 2 are only available to candidates for the masters degree with honours, with permission from an appropriate supervisor. Planning students should take PLAN9010 and PLAN9011 Planning Dissertations 1 and 2. Students enrol either full time over one semester (ARCH9045 and ARCH9046) or part time over two semesters (ARCH9045 then ARCH9046). The units are not assessed separately - a single dissertation is required. The appointment of a supervisor will depend on the topic chosen for the dissertation by the student. Students and their supervisors should complete an Independent Study Approval form and return it to the Student Administration Centre to effect enrolment.

The aim of the dissertation is twofold: to train the student in how to undertake advanced study. The student should learn how to examine published and unpublished data, survey and experimental results, set objectives, organise a program of work, analyse information, evaluate this in relation to existing knowledge and document the work; and to allow the student to pursue an area of interest in greater depth than is possible in coursework or to investigate an area of interest which is not covered in coursework. The dissertation will normally involve a critical review of published material in a specified subject area, but it may also be an experimental or theoretical investigation, a feasibility study, a case study, a computer program, or other work demonstrating the student’s analytical ability. The dissertation should be 15000 to 25000 words in length. The dissertation should contain a literature review, a research methodology, analysis of data, a discussion of results and conclusions. The dissertation will be judged on the extent and quality of the student’s work, and in particular on how critical, perceptive and constructive the student has been in assessing his or her own work and that of others. Three typed A4 sized copies of the dissertation are required to be presented for examination. These may be in either temporary or permanent binding. If in temporary binding they must be able to withstand ordinary handling and posting. The preferred method is “perfect binding” spring back, ring back or spiral binding is not permitted. Students are required to submit one copy in permanent binding on acid free paper for the library, including any emendations recommended by the examiners. For more detail see the requirements for the PhD thesis in the Postgraduate Research Studies Handbook. Dissertations are due at the end of the first week of exams for the semester in which you are enrolled for Dissertation 2. The assessment is based solely on the submission of your dissertation. The dissertation is generally marked by two examiners. A result of 75 is required for the award of the honours degree. Students with a result lower than 75 will be awarded the pass degree.

ARCH9058 General Elective 7
Architectural Design and Planning

Credit points: 6 Session: S1 Intensive, S2 Intensive, Semester 1, Semester 2 Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Department permission required for enrolment. Note: Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.

This elective allows an individual to pursue an agreed topic with a member of academic staff, or for a group of students to pursue a topic proposed by a member of academic staff in a formal learning environment. For individual study arrangements this is an opportunity to develop independent study skills. The unit is undertaken with an agreement between the student and a supervisor on a topic related to the supervisor's expertise. The student will meet with the supervisor regularly to discuss progress. For group study arrangements the unit of study is available to engage in a topic that is organised by a member of academic staff. This allows a member of staff to teach a topic of special interest or for a visiting academic to teach a subject related to their specialty. Students will participate in lectures, tutorials, or other activities as needed to pursue the elective topic. Students will develop an understanding of a special topic through reports, projects, and/or tutorial exercises.

ARCH9059
General Elective 8

Architecture, Design and Planning

Credit points: 6 Session: S1 Intensive, S2 Intensive, Semester 1, Semester 2 Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Department permission required for enrolment. Note: Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol.

This elective allows an individual to pursue an agreed topic with a member of academic staff, or for a group of students to pursue a topic proposed by a member of academic staff in a formal learning environment. For individual study arrangements this is an opportunity to develop independent study skills. The unit is undertaken with an agreement between the student and a supervisor on a topic related to the supervisor's expertise. The student will meet with the supervisor regularly to discuss progress. For group study arrangements the unit of study is available to engage in a topic that is organised by a member of academic staff. This allows a member of staff to teach a topic of special interest or for a visiting academic to teach a subject related to their specialty. Students will participate in lectures, tutorials, or other activities as needed to pursue the elective topic. Students will develop an understanding of a special topic through reports, projects, and/or tutorial exercises.

ARCH9060
Urban Design Report

Architecture, Design and Planning

Credit points: 12 Teacher/Coordinator: Mr Barrie Shelton Session: Semester 1, Semester 2 Classes: Research under academic supervision Prerequisites: 48 credit points including ARCH9001 Prohibitions: ARCH9001, ARCH9045, ARCH9046, PLAN9001, PLAN9011, PLAN9018 Assessment: Urban design report approx 10000 to 15000 words (100%). Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Department permission required for enrolment. Note: Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol. This unit is for Masters students in an Urban Design stream only.

The Urban Design Report is a substantial project involving research conducted over one semester. It will usually take the form of an illustrated report (between 10000 and 15000 words) on an approved urban design subject of the student's choice. The subject may be of theoretical nature (e.g. review or preparation of an urban design project) or more theoretical (e.g. review of a conceptual viewpoint), or it may occupy the middle ground (e.g. exploration of a contemporary issue or review/testing of a method). If of a more practical nature, its theoretical underpinning should be explicit. If more theoretical, it should refer to its practical implications. The report is an opportunity to advance knowledge and skills in a particular area of urban design and so develop a "professional edge".

The aim of the Report is to enhance abilities and knowledge essential to the practice of urban design. These include the abilities to: define and address a practical or theoretical urban design problem; conduct such a project in an acceptable investigatory manner; think critically about the subject; identify, access and use appropriate and up-to-date information sources, including relevant theory and methods; and present the report, including appropriate illustrations, in a manner that shows both academic and professional competence. The report must demonstrate these features.

Permission to continue the Urban Design Report is subject to the approval of a satisfactory research proposal by week 3 of the semester in which the student is enrolled.

The Urban Design report is to be submitted by the end of the first week of the formal examination period for the semester in which the student is enrolled.

ARCH9061
East Asian Arch & Urbanism (Classical)

Architecture, Design and Planning

Credit points: 6 Teacher/Coordinator: Dr Peter Armstrong Session: Semester 2 Prohibitions: DESA2203, ARCH6002 Assessment: Assessment will be a series of analytical studies in drawn and written form. Practical field work: Investigations, field work. Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: This unit is offered in odd numbered years only.

The unit provides an introduction to the urban and architectural traditions of East Asia in the pre-industrial era. Beginning with the classical Chinese concept of cosmos, state and society, the unit examines the development of these concepts and their architectural expression in time and in the context of the cultures of China, Korea and Japan. The development of cities and the full range of building types are traced, with cultural interaction and patterns of influence shown in terms of both architecture and its social context.

On successful completion of the unit of study, students will be able to give a clear picture of the philosophical and cultural foundations of urbanism and architecture in the dominant cultures of East Asia; to elucidate the origins and development of urban form from Chinese models in the context of the development of Japanese, Korean & Vietnamese cultural traditions; to provide an understanding of the design and construction principles of the principal building types of the region within the broad context of the Chinese cultural base of architecture and applied arts; to examine and contrast the national characteristics of the major periods of architectural development in each country; and to understand the ongoing influence of building traditions in contemporary culture.

ARCH9062
Urban Design - Ideas and Methods

Architecture, Design and Planning

Credit points: 6 Teacher/Coordinator: Mr Barrie Shelton Session: Semester 1 Classes: Lect 2-3hrs/wk Prohibitions: ARCH9022 Assumed knowledge: Some prior study of architectural, urban or planning history. Assessment: Minor assignment, class presentation and major assignment (report) Mode of delivery: Normal (lecture/lab/tutorial) Day

During the first half of the Twentieth Century much of the influential literature on urban design / city planning was geared to the generation of new types of urban structure and building form for the construction of new cities and replacement of worn-out fabric in existing ones. Later decades (particularly the 1960s and1970s) were more circumspect with the most influential literature exploring the existing structure, form and character of cities as a basis for new design. In the process, the metaphor for the city changed from that of "machine" (to be "engineered") to "text" (to be "read"). Hence, terms such as "language", "legibility", and "meaning" came to the fore in urban design. At the same time there was a drift in sensibility, from the pursuit of "universal" to "place" based solutions. This change generated a spate of urban design primers in the 'Eighties which have in turn been challenged by more recent viewpoints. These viewpoints have drawn invariably upon other disciplines for their inspiration, resulting in notions...
such as “fractal cities” and “quantum city”. The unit reviews the content of the period’s key works with an emphasis on the methods promoted (or implied) for use in examining city form and generating design concepts.

Through the unit students are expected to develop a critical understanding of the key ideas and theories of the last century that have contributed to the designer’s understanding of urban spatial structure and built form. They are also expected to gain a working knowledge of associated methods for investigating and interpreting urban form, and generating design solutions.

At the conclusion students will demonstrate an understanding of the material by way of illustrated reports, and class presentations and discussions that: summarise the ideas and theories, and explore their origins, influence and application.

This is a core theory unit designed primarily to inform the Urban Design Studio units.

ARCH9063
Urban Morphology
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Mr Barrie Shelton Session: Semester 2 Classes: Lec 2-3hrs/wk Prohibitions: ARCH9021 Assumed knowledge: Some prior study of architectural, urban or planning history. Assessment: Minor assignment, class presentation and major assignment (report) Mode of delivery: Normal (lecture/lab/tutorial) Day

The unit first outlines the nature of urban morphology, and its rise as an area of study. It will then explore the evolution of city forms with an emphasis upon urban structure and built form typologies. Most designed components of our cities conform in their general characteristics to identifiable typologies; and reflect the cultural values and technological, economic and social circumstances of their times. These have been laid down, modified, superimposed and juxtaposed over particular landforms to result in usually complex, and often distinct, local patterns and forms - that is, urban morphologies. Further, they reflect and effect movement and function.

The ability to recognise, investigate and respond to these forms and relationships lies at the heart of good urban design. The development of an historical knowledge, and of sensibilities and skills in the recording and interpretation of urban pattern and form for design purposes is the unit's primary aim. As such, it examines the characteristics and dimensions of major urban typologies their origins and interrelationships, and explores typical issues surrounding their interpretation and treatment in today's cities. Case Studies are a major component.

The unit will develop abilities to make a more informed ‘reading’ of the urban landscape, and judgments about structure and form in contemporary urban design: retention, modification, transformation or replacement. On completion of the unit, a student will be better able to: recognise major structures and patterns, and key building and spatial types that contribute to city forms; record and describe these, investigate and explain their origins, and discuss informatively their place in urban change and contemporary urban design.

ARCH9064
East Asian Arch & Urbanism (Modern)
Architecture, Design and Planning
This unit of study is not available in 2009
Credit points: 6 Teacher/Coordinator: Mr Barrie Shelton Session: Semester 1 Classes: Two hours lectures per week Prohibitions: ARCH9054 Assessment: Minor assignment, class presentation and major assignment (report) Mode of delivery: Normal (lecture/lab/tutorial) Day Note: This unit is offered in even numbered years only.

The aim of this unit is to provide an introduction to architecture and urbanism in East Asia during the modern era - with an emphasis upon modern Japan from the Meiji period to the present. It explores particularly the relationship between architecture and the city during this period; and the relationship between built form and cultural traditions, design responses to outside influences, and similarities and differences between countries. Work of selected architects is highlighted. An important aim of the unit is to enable participants to be more critical of their own design values and viewpoints as shaped by their own cultures.

On successful completion of the program, students will have extended their understanding of the history and theory of architecture and urbanism in the East Asian cultural realm - by way of critical assignments, class discussions and presentations. They will have demonstrated an understanding:

- of built forms in the context of regional philosophical and cultural foundations;
- of the ongoing influence of design traditions in contemporary built form;
- of major themes in the history of architecture and urbanism in modern East Asia, particularly Japan.

ARCH9065
Trad Bldg and Conservation of Materials
Architecture, Design and Planning
This unit of study is not available in 2009
Credit points: 6 Teacher/Coordinator: Mr Trevor Howells Session: Semester 2 Classes: Lectures and site visits Prohibitions: ARCH9015 Assessment: Assignment (50 %) and seminar: presentation (25%), report (25%) Mode of delivery: Normal (lecture/lab/tutorial) Day Note: This unit of study is offered in even numbered years only.

Objectives
This unit gives students the opportunity to acquire a thorough understanding and appreciation of traditional building methods and to develop an understanding and knowledge of current and appropriate methods of materials conservation.

Content
The unit will consist of the following: traditional methods of construction (stone and brick masonry, vernacular and primitive building methods, timber construction, use of glass, glazed and unglazed tiles, cast iron, lead copper, corrugated iron); and the conservation of materials (stone, brick, pisé, timber, terracotta, glazed ceramic tiles, cast and corrugated iron, lead, copper and pressed metal).

Outcomes
At the conclusion of the unit the student will successfully demonstrate (1) an understanding of traditional methods of building materials and their attendant techniques, (2) an appreciation of the implications of the employment of traditional crafts in the current building environment, and (3) knowledge of appropriate methods of repair and conservation of traditional materials.

The intended outcomes, achieved through inquiry, individual and group study and research, will be demonstrated by each student upon the successful completion of the set assignments. The unit surveys the knowledge in the field and focuses on the major forms of traditional construction and materials. The assignment has been constructed to allow the student to demonstrate a detailed understanding of a selected material and the methods of its traditional use. Assessment criteria based on unit outcomes are used for the examination of the assignment.

ARCH9066
Conservation of Finishes
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Mr Howells Session: Semester 2 Classes: Lectures and site visits Prohibitions: ARCH9016 Assessment: Assignment (50 per cent) and seminar: presentation (25 per cent), report (25 per cent) Mode of delivery: Normal (lecture/lab/tutorial) Day Note: This unit of study is offered in odd numbered years only.

The unit will develop an understanding of traditional decorative finishes and their conservation, and of the requirements of modern services in historic structures and how they may be appropriately inserted. The unit will consist of the following: conservation of traditional finishes (plasterwork, painted surfaces, stencilling, wallpapers, embossed papers and materials, and other composite materials) and introduction of modern services (including electrical, communication systems,
ventilation, hydraulic installations (water, gas and other liquids), mechanical systems (lifts, escalators) and lighting).

At the conclusion of the unit the student will successfully demonstrate a detailed knowledge of the appropriate techniques of investigation, methods of conservation of traditional finishes, and an understanding of the needs of various modern services systems and the techniques of insertion of modern services.

The intended outcomes, achieved through inquiry, individual and group study and research, will be demonstrated by each student upon the successful completion of the set assignments. The unit surveys the knowledge in the identified fields and focuses on the major forms of traditional finishes and modern services in historic structures. The assignment has been constructed to allow the student to demonstrate a detailed understanding of a selected finish and the methods of its traditional use as well as the techniques for inserting services. Assessment criteria based on unit outcomes are used for the examination of the assignment.

ARCH9073
Architecture Globalisation Urbanisation
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Duanfang Lu Session: Semester 2 Classes: 2 hours per week Assessment: one 3000 word essay (60%), completing weekly readings and class presentation (25%), and participation in class mini conference (15%) Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit aims to provide a basis for better understanding the processes of globalisation in relation to architecture and urbanisation and its potential to affect people's lives. It will seek to enable a more comprehensive global perspective for design professionals, of value at home or abroad.

Increasingly architects from global metropolitan centres engage in work or competitions from around the world. Such activity often tends to be associated with major projects in developing countries. This unit will critically examine the phenomenon and processes of globalisation, and look at the ways in which architecture operates in a globalising world. In order to address these issues we will hear from design practices working in emerging global economies, and the ways in which cultural identity is mediated through the processes of globalisation. The concepts of critical regionalism, localisation, post colonialism, and the divided city will be explored in context of key texts, as well as through the experience of practice. Drawing on diverse disciplinary perspectives, the unit will provide an overview of various theoretical frameworks that have examined the interrelationship between space, society and power in a global context. By introducing topics including cultural habitats, urbanism and urbanisation, tourism and city marketing, the unit aims to enhance your capability to reflect on the values embedded in design and develop your own research agenda on architecture, globalisation and urbanisation.

Global trends will also be looked at in relation to the 2000 UN Millennium Declaration adopted by the world's leaders, and the goals established to reduce poverty, improve health and promote peace human rights and environmental sustainability. Particular attention will be paid to improving the lives of slum dwellers and housing poor people. Attention will also be given to the roles of design and planning professionals, NGOs, community based organisations, local government and the international community.

On successful completion of this unit students will have demonstrated: awareness and understanding of the processes of globalisation and urbanisation, and the impact on cities; awareness and understanding of key concepts such as critical regionalism, post colonialism, and the divided city; an awareness of architectural practice in a globalised world through case studies; an enhanced ability to evaluate the consequences of design for human experiences and activities in different societies; an understanding of multidisciplinary analytical tools related to the study of the built environment; and an increased confidence in working with different design situations.

This is a core unit for the Architectural History, Theory and Criticism program and optional unit for the Architectural Design program.

Contact hours: 2 hours per week. Class preparation: 2.5 hours per week. Assessment preparation: 19 hours per semester.

ARCH9074
History and Theory of Conservation
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Mr Trevor Howells & others Session: Semester 1 Classes: Lectures 2 hrs per week. Prohibitions: ARCH9003 Assessment: Two written essay assignments each worth 50% of total assessment Mode of delivery: Normal (lecture/lab/tutorial) Day

The purpose of this unit is to help students to be aware of an appropriate level of knowledge in the development of the ideas and practices of conservation over an historical perspective from Classical times to the present in the Western and Non-Western context. Particular emphasis will be placed on the theoretical ideas and practices of Sir George Gilbert Scott, John Ruskin, the Arts and Crafts Movement, SPAB in England, Eugene Voillet-le-Duc in France. The study of architectural history will provide a broad survey of the development of Western architecture and garden design from the time of the Ancient Egyptians to the present as well as examining in greater detail the development of Australian Architecture from 1788 till the present time.

The principal aims of the unit are to develop an understanding of the history and theoretical basis of the development if the idea and practice of conservation from Classical times to the present. Additional to this another main aim id to develop an understanding of the historical development of Western traditions of architectural and garden design, as well as to develop a sound intellectual basis for the understanding of the theory and practice of current conservation practice in Australia and beyond.

By the end of the unit the student will successfully demonstrate an understanding of the history of the development the idea of conservation through time and in Western and non-Western traditions; an understanding of the development of Western traditions of architecture and garden design; and skills in the applying this knowledge in the assessment of cultural significance in the Australian and international context.

Contribution of unit of study to its program: Core for the Heritage Conservation program.

Student workload effort expected: contact hours two per week; class preparation: three hours per week; assessment preparation 40 hours per semester.

ARCH9075
New Design in Old Settings
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Trevor Howells & others Session: Semester 2 Classes: Lectures 2 hours per week. Prohibitions: ARCH9007 Assessment: Two written essay assignments each worth 50% of total assessment (for students from an architecture background); or one written assignment and one design studio, each 50% of the total assessment (for students from an architecture or design-related background). Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Students who take the studio stream will need to be a graduate in Architecture or other design-related degree.

This unit will cover one of the most fundamental aspects of heritage conservation. Designing infill and new additions to historic buildings and precincts are the common practice of architecture over all time in all cultures. It is critical that all heritage conservation practitioners, irrespective of their disciplinary background and expertise develop skills of assessment of the impact of new on the heritage significance of existing contexts, visual and spatial literacy in the design of new fabric in old settings. This unit will offer various opportunities to the students who have disciplinary backgrounds. Whilst students with an architectural background will participate in design studios, students from other disciplines will be required to develop a critical ability of assessing appropriateness of new design in the context of the old. The unit will also offer a wide range of examples and approaches from an international perspective.
The aims of the unit are to develop an understanding of the history of designing and building new buildings in old settings; to develop an understanding of the major theoretical and practical issues in designing new buildings in old settings; and to develop a critical intellectual ability to assess the appropriateness of the design of new buildings in old settings.

By the end of the unit the student will successfully demonstrate: an understanding of appropriate approaches to the design of new buildings in old settings and the conservation issues that arise from such design proposals; an ability to make assessments of the impact of new designs on Heritage Items and Conservation Areas within the context of the NSW Environment and Protection and Heritage Acts; and skills in applying this knowledge in the Australian and international context within the assessment tasks.

Contribution of unit of study to its program: core for the Heritage Conservation program.

Student workload expected: contact hours two per week; class preparation three hours per week; assessment preparation 40 hours per semester.

DESA9001
Graduate Art Studio (Graphic Design)
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: Ms Teena Clerke
Session: Semester 1, Semester 2
Classes: 3hrs per week. Practical studio classes, slide lectures.

Prohibitions: AWSS2016
Assessment: Attendance, portfolio of studio exercises, research and final project using digital media and presented in either digital or print form.

Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Tin Sheds Gallery. Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit; allocation of spare places will be made at the first meeting.

Students may incur costs for materials in some Art Workshops units.

The unit offers a systematic approach to understanding and utilising the processes of designing for visual communications. A series of studio lectures and practical sessions provides students with an introduction to design history and basic skills for applying the principles of design. The unit addresses the elements of design, page composition and use of typography and image. As research, students will be required to apply weekly studio exercises created with hand-generated media to a specific contemporary design context using digital software.

The unit objective is for students to develop an understanding of the basic principles and processes of visual communication which will provide a basis for digital media design. These will be applied to a range of design contexts using different graphic techniques and media.

The outcomes involve the application of design principles to a range of design situations using hand-generated media. Students apply these exercises to a finished print outcome, using digital processes.

The final project submission will demonstrate an understanding of design purpose, suitability and style in a contemporary context. Students will be asked to evaluate design effectiveness and address the use of new technologies in a specified area of visual communication in a digital media presentation.

DESA9002
Graduate Art Studio (Graphic Design 2)
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: Ms Teena Clerke
Session: Semester 1, Semester 2
Classes: Three hours per week. Prerequisites: DESA9001 or AWSS2016
Assessment: Attendance, completion of three studio projects, each addressing the application and integration of type and image in a specified design context.

Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Tin Sheds Gallery. Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit; allocation of spare places will be made at the first meeting.

Students may incur costs for materials in some Art Workshops units.

On completion of Graphic Design 2, students will be able to apply the elements and principles of visual communication in a design context. These include typography, image generation and manipulation, layout and the use of colour and other graphic elements. Students will apply design thinking in the rendering of specific messages to defined audiences to prompt actions. They will be able to demonstrate the application of typefaces and images for print and screen design discuss and evaluate the effectiveness of contemporary design practice and its relationship to design history.

The unit offers a systematic approach to understanding and applying design principles in the communication of specified design objectives. There are three studio projects; each project will include a lecture series, a written brief, and the discussion of research methodologies, project specifications and presentation requirements. Emphasis is placed on the juxtaposition of type and manipulated image in different contexts. Students will learn to address issues of suitability, legibility and readability in the dynamic application of type for both print and screen. Students will be required to generate original images based on individual visual research using photography, illustration and other methods. It is anticipated that students will have access to, and be familiar with, digital graphic design programs in order to complete the projects.

The outcomes include presentation of three projects, each addressing an understanding of design purpose, suitability and style in a contemporary context. The first project will be designing for print media, the second is screen-based and the third is self-selected, focusing on students’ specific area of research. Students will be able to evaluate design effectiveness and address the use of new technologies in visual communication.

DESA9003
Graduate Art Studio (Photography)
Architecture, Design and Planning

Credit points: 6
Session: Semester 1, Semester 2
Classes: Practical studio classes, slide lectures, class discussions, gallery visits, one to one tutor crit sessions.
Assessment: AWSS2023
Attendance/darkroom practice 15%, test on darkroom practice and techniques 20%, presentation of ideas that reflects upon the relationship of photography to your coursework programme 15%, creative ideas/images 20%, technical skills 20%, presentation of finished work 10%
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Tin Sheds Gallery. Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit; allocation of spare places will be made at the first meeting.

Students may incur costs for materials in some Art Workshops units.

This practical unit aims to give students an understanding of how photography functions as a contemporary visual medium, including it’s historical development and it’s different applications in such areas as visual arts, architecture, mass media and digital media. Students will gain knowledge of the principles and practice of camera operations and the production of high quality black and white negatives and prints in small studio style classes. Students will begin to think about ways in which the photographs produced in this unit of study can be used in or relate to their coursework program. For example how darkroom based photography relates to digital media or exploring the connections between architecture and photography. This module covers the use of 35mm SLR camera, image composition, use of lighting, film developing, printing photographs and experimental techniques. Photographs of a wide range of subjects such as still lives, land and cityscapes and portraits will be produced. Practical work includes darkroom and studio work and gallery visits.

On the successful completion of this unit you will be able to: (1) demonstrate your knowledge of camera operations, film and print developing through darkroom practice and the production of a portfolio of black and white prints; (2) use an understanding of photography practice and theory to inform decision making in your creative process as well as entering into thoughtful debate; (3) reflect on your art practice through class and tutor crit sessions and from this point realistically evaluate your own work; (4) gain an awareness of how photography theory and practice relates your coursework.
Upon completion of this unit of study you will: have a body of knowledge in the field of photography; be able to exercise critical judgement, realistic self evaluation and imaginative thinking as outlined in the aims; be able to apply technical and conceptual skills as appropriate to photographic practice and furthermore develop your ideas about how these skills may be applied to new situations such as in your coursework program; develop the ability to plan and achieve a goal through a self directed final project.

DESA9004
Art: Materials, Process and Contexts
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Ms Jan Fieldsend
Session: S2
Intensive Classes: Three hours per week.
Assessment: Studio projects and associated assignments 100%.
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Tin Sheds Gallery, Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit; allocation of spare places will be made at the first meeting. Students may incur costs for materials in some Art Workshops units.
First preference Master of Architecture students.

This studio-based unit will address both the practice and the theory of art production. It will be in two parts - a studio section in which each student will undertake a course in art practice in three media areas (for example: digital photography, sculpture and mixed media) and create either individual or collaborative art works; and a theory section in which students will investigate the cross-currents between the different media through reflection, seminars and open jury presentations. The unit will include a gallery visit, review and lectures that will assist participants in their media investigations. The emphasis will be on the relationships between different media and skills (materials and process) and ideas. Contact hours: 3 hours studio (including 1 gallery visit) per week per semester= 39 hours. Class and exhibition preparation, independent study: = 39 hours

DESA9005
Graduate Art Workshop
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Ms Jan Fieldsend
Session: S1
Intensive, Semester 1, Semester 2 Classes: Three hours per week.
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment. Note: Please seek permission from the Tin Sheds Gallery, Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit; allocation of spare places will be made at the first meeting. Students may incur costs for materials in some Art Workshops units.

Students may enrol in art workshop units of study as listed below. These studio-based units provide participants with the opportunity to explore a wide range of art and design practices. An awareness of current ideas and practice in contemporary visual art and design as well as how this knowledge may relate to architectural design is integral to these workshops. At the successful completion of a particular medium students will have: produced a body of work in a particular medium, be able to use an awareness of contemporary art theory and practice to inform decision making in their creative work as well as being able to reflect upon and realistically evaluate their own work. Art workshops on offer are: Screen printing (intensive mode semester 1 only), Painting or Photography 2 (both available semesters 1 and 2).

DESA9006
Ceramics 2
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Mr Mark Jones
Session: Semester 2 Classes: Practical studio classes 3 hours per week.
Prohibitions: AWSS2010 (2010 OR 2011) or equivalent
Prerequisites: AWSS2012 Assessment: Attendance, application and participation (marks will be deducted after 1 missed class) ungraded 20% from tutor's record; technical development/workshop practice from weekly tasks 30% (graded); studio journal 20% (graded); final work/s 30% (graded)
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Tin Sheds Gallery, Wilkinson Building. Attendance at the first class is compulsory to maintain your place in the unit; allocation of spare places will be made at the first meeting. Students may incur costs for materials in some Art Workshops units.

This practical unit aims to give students the understanding to produce a number of individually designed ceramic works that develop and extend techniques learnt in level 1. Students will gain the knowledge to create larger and more advanced ceramic forms with combinations of different media and throwing techniques. Students will be introduced to plaster moulds for larger constructions and relief decorations. An individual approach to vessel and sculptural construction will be informed by historical and contemporary ceramic art and craft practices. In addition experimental surface treatments will be explored. Students of Architecture will be able to use this unit to explore architectural forms using ceramics and mixed media. The delivery mode will be practical ceramic studio work, demonstrations, side lectures, class discussions, gallery visits and one to one tutor crit sessions.

DESA9007
Advanced Art
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Ms Jan Fieldsend
Session: S1 Intensive, Semester 1, Semester 2 Classes: Practical studio classes three hours per week or in intensive mode.
Prerequisites: Credit or better in a previous relevant art workshop.
Assessment: Report/journal 25%; final work/exhibition install 60%; seminar 15%
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment. Note: Enrolment numbers are limited by space and equipment constraints. Students should submit written permission from the Tin Sheds Gallery with their request to enrol. Students may incur costs for materials in some Art Workshops units.

This unit aims to allow students to extend and develop skills and knowledge gained in the art workshops. Through an advanced use of media, art/architectural theory, seminars, the production of visual research journal and a final exhibition project, students will be able to integrate their skills and knowledge in the creation of an artwork. A critical and conceptual approach to image and object making will be further developed around a set theme. The theme changes each year and will be published prior to enrolment. Students will also be involved in catalogue production and exhibition set-up as well as a professional presentation of their work. Contact hours: 39 hrs./semester. Student effort expected for an average student to achieve a pass level result: class preparation and assessment: 39 hours per semester.

DESC9001
Air-Conditioning Design
Architecture, Design and Planning
Credit points: 6
Session: S2
Intensive Classes: Intensive Prerequisites: DESC9007 Assessment: 5 assignments (20% each)
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in odd numbered years only.

The unit will provide students with skills in the design of air-conditioning systems. The unit extends students' ability to design basic air-conditioning systems for buildings. It covers air-conditioning system selection; design for energy efficiency; quality of indoor air; air distribution; piped services; water treatment; and air-conditioning system components such as fans, coils, filters and heat rejection equipment. Students should gain the ability to make rational system and component selection decisions and to have practised the design of an air-conditioning system through the set of assignment projects. Assignments lead students through the processes of air-conditioning system selection, heat load estimation, and the design of air distribution, refrigerant and heat rejection systems.

DESC9011
Audio Production
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Mr Michael Bates
Session: Semester 1 Classes: 3 hours per week lectures and studio work
Assessment: A project and accompanying report
Mode of delivery: Normal (lecture/lab/tutorial) Day
The practice of audio production is a form of constructing discourse, with its own poetics i.e. its own grammar, its own conceptual shorthand, its own languages, and a multiplicity of genre, structures and forms that it sources and references albeit often tacitly or transparently.

This unit will look at the current tools and techniques, as well as the underlying strategies, processes and inherent philosophies involved in the various audio production modes. It will compare and contrast broadcast and other media production methods and ideologies including music recording, radio production, sound for picture, and new media, with reference to location recording practices.

The unit will examine various sound design philosophies, conventional and 'non-conventional' production models, different definitions by and of producers and provide by way of context a brief history of the impact on production practice by technological change. The producer's role in the process of the creation of meaning will be examined in cultural as well as technical contexts of compositional practices.

The unit will encourage debate about and a demystification of current production processes and will aim at developing and extending production techniques towards an individual aesthetic.

Students will achieve a basic familiarity and proficiency with mixing consoles, the fundamentals of multi track recording and digital editing; demonstrate an ability to communicate their ideas, and articulate the reasons for their choices of production methods; and work successfully within a group dynamic.

Students are expected to work in groups to produce an audio project in one or more of the following areas: drama, feature, documentary, sound composition, or music recording.

Students are expected to: participate in the workshops; complete class exercises/constructions; read additional materials to discuss in classes; submit a script, composition or otherwise detailed proposal for recording and postproduction with detailed raison d'etre of production values; produce and present on Audio CD a completed project, including documentation, evidence of background research, a commentary on the production and production outcomes, track sheets, mixing notes. It may be an adaptation or original work. Themes will be discussed in class.

DESC9014
Building Construction Technology
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: A/Prof Warren Julian
Session: Semester 1 Class: 3 hours per week
Assessment: 4 assignments (20%, 30%, 25%, and 25%)
Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit aims to provide students with knowledge of the environment in which professional engineers operate in the building industry; to introduce an understanding of the design and construction of building elements, the fundamentals of heat transfer and effects of external conditions on indoor comfort, and the fundamentals of vertical transportation within buildings; to explore the requirements of the Building Code of Australia (BCA); and to discuss influences on the indoor environment such as services coordination and vibration.

Students are provided with an appreciation of building construction technology relevant to the work of the building services engineer. The unit emphasises aspects of the built environment that are of concern to the building services engineer, particularly in the early design stages.

It is expected that students will acquire an understanding of requirements of the BCA and statutory regulations; a knowledge of principles for the design and construction of building structural elements; space requirements for the integration of services into the building fabric; and heat transfer through the building skin including solar effects on buildings.

Assignments will test students' understanding of BCA requirements, processes of structural system selection, interaction between the external and internal environments, and principles of vertical transportation.

DESC9015
Building Energy Analysis
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: Prof Richard Hyde
Session: S2 Late Int
Classes: Lectures, seminars
Assessment: 3 assignments
Mode of delivery: Normal (lecture/lab/tutorial) Day

The aim of the unit is to acquaint students with the range of analytical and design tools available for low energy building design; to provide the opportunity for students to become proficient at using some of these tools.

Among the techniques and tools explored are: climate data analysis; graphical and model techniques for solar studies; steady state and dynamic heat flow analysis; simplified methods for sizing passive solar elements; computer models of thermal performance; modelling ventilation; estimating energy consumption. Emphasis is given to tools which assist the design of the building fabric rather than building systems.

At the end of the unit it is expected that students will: be aware of the importance of quantitative analysis in the design of low energy buildings; have an understanding of the theoretical basis of a range of analytical techniques; be familiar with the range of techniques available for building energy analysis; be able to apply many of these to design analysis; be familiar with the range of thermal analysis computer software available; and be able to use a software package to analyse the thermal performance of a typical small scale building.

All of the assignments are designed to provide students with hands-on experience of each of the analysis tools.

DESC9019
3D Computer Graphics Concepts
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: Dr Marc Aurel Schnabel
Session: Semester 1, Semester 2 Classes: One hour lecture and two hour lab per week
Prohibitions: DECO1008, DECO2103
Assessment: Assessment is based on assignments that are intended to develop and demonstrate an understanding of the foundation concepts of 3D computer graphics.

Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

The objective of this unit is to serve as an introduction to 3D computer graphics technologies and photo-rendering. It will help students: understand specifications of 3D geometric entities within a sophisticated modelling package; assign colour and texture information to geometric entities; generate complex photorealistic images; develop skills processing images; and develop transferable conceptual skills that apply across different 3D packages and for different contexts such as modeling, animation, games assets, and photorealistic rendering.

This unit explores advanced systems of computer graphics in the context of design. A broad range of graphics technologies are considered with emphasis on 3D modelling and photorealism. This unit of study develops conceptual understanding and practical application of these techniques using commercial modelling and rendering packages.

At the conclusion of this unit students should be conversant with 3D modelling and photo-rendering terminology and have the ability to produce sophisticated photorealistic images using advanced visualisation systems.

DESC9040
Electrical Services
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: A/Prof Warren Julian
Session: S1 Late Int
Classes: Lectures
Assessment: Three assignments, equal weighting.
Mode of delivery: Normal (lecture/lab/tutorial) Day
The aim of this unit is to present basic principles of electricity and magnetism as necessary for an understanding of the application of electrical services in buildings; to introduce students to the applications of these principles to electrical distribution in buildings; to outline the principles of electric motors, transformers and switchboard design; and to introduce elementary principles of illumination and daylighting. An understanding of electrical services is an essential requirement for building services practitioners involved in the design professions and the construction and building management industries. The unit is designed to provide an introduction to these services for recent graduates or diplomates in engineering, architecture or science and for people involved at a professional level in the building industry who do not possess a background in electrical engineering.

By the conclusion of the unit it is expected that students will gain basic knowledge of components of the electricity generating and distribution network external to and within buildings; the types and use of cables and enclosures in and around buildings; methods of assessment of loads and cable sizes; principles of operation of transformers and motors and the design of switchboards and earthing, emergency evacuation lighting and early warning information systems; an introduction to the fundamental principles of lighting design for interior and exterior applications; and a basic understanding of data transmission via copper wire and optical fibre.

Assignments will test acquired skills in electrical load estimation and the design of simple electrical distribution and artificial and day lighting systems.

DESC9042
Electrics Electronics & Electroacoustics
Architecture, Design and Planning
Credit points: 8 Teacher/Coordinator: Dr Densil Cabrera Session: Semester 1 Classes: 3 hrs per week lectures and lab Assessment: Written assignments (50%) and practical tests (50%) Mode of delivery: Normal (lecture/lab/tutorial) Day

The aim of the unit is to give an understanding of electronic devices and terms, measurement units used in audio electronics, and basic DC and AC circuits; to demonstrate simple audio circuit characteristics (e.g. amplifier/filter characteristics), and simple construction/maintenance techniques; to give practice at reading schematics and circuit diagrams and using audio test equipment; and to examine safety aspects of using electrical/electronic equipment. This unit will give students an understanding of electronics and terms, and experience at using test equipment. Students will learn basic electric theory, electronic components and devices, measurement units, interpretation of schematics and circuit diagrams, use of audio test equipment, basic circuit construction and maintenance, fault-finding and safety issues.

By the end of the unit students will be expected to: be able to recognise electronic components as used in audio electronic circuits, and state their function; use appropriate units when discussing audio electronic concepts; understand the effect of frequency on various electronic devices and circuits; given a schematic or circuit diagram of a circuit, be able to explain its general operation, and pinpoint such elements as inputs, outputs, power supply and gain elements; be able to use appropriate test equipment correctly to find a simple fault in a circuit, and to analyse sound level and frequency distribution of a sound in a given space; be able to construct and test a simple circuit, given a circuit diagram, and to explain and verify the circuits operation; and be able to state important precautions to be taken when operating or handling audio components, and safety considerations when dealing with electrical systems.

Students will demonstrate their understanding of the theoretical component of the unit by performance in the written test, and will be required to demonstrate competence in using test equipment.

DESC9047
Strategic Facility Management

Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Leifer Session: S1 Intensive Classes: Lectures: Assessment: Two assignments 50% each Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit is an introduction to forward planning of facilities and its impact on their management, since adjustments and alterations to facilities occur much slower than corporate decision can be made. It is a management discipline, and as such relies on the central topics of business finance, information systems, and of course management per se.

The teaching proceeds from an examination of the purpose of organisations and how the facility assists (or hinders) it achieving its goals. Indeed, explaining this understanding is the subject of the first coursework assignment.

In this first half of the unit we will examine the purpose of 'organisations' and scrutinise what we mean by 'facilities' and how they assist organisations to meet their goals. This includes examination of their capital (CAPEX) and operating expenditures (OPEX) that the provision and operation of facilities involve. We shall consider the procedures necessary to obtain this information, and how to identify those areas that have 'elasticity' and are therefore amenable to management initiatives.

In the second half of the unit we will consider the overlap between the human resource and the facility, and the implications for the facility manager. In this regard, occupational health and safety issues are germane. The second coursework assignment will require attendees to consider the means to measure the performance of facilities in order to relate them to corporate purpose.

Textbooks

DESC9048
Operational Facility Management
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Leifer Session: S2 Intensive Classes: 4 day intensive Assessment: Two assignments of 50% each Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit is concerned with the day-to-day operations required to run an organisations facilities. The first part of the unit looks at external constraints on corporate priorities in which the issues are identified and discussed. This includes the theoretical issues influencing why an organisation locates where it does. It considers the legislative planning framework that might constrain free choice.

In the second part of the unit consideration is given to involving the workforce in the facilities management process, and an example will be presented for use by participants in their coursework assignment. The fundamentals of workplace ergonomics are introduced.

The second part of the unit will take an overview of four of the major facility operational areas that are amenable to management; Security, Cleaning, Energy, and Repairs and Maintenance, which between them consume the major portion of facilities costs.

Finally the establishment of management practices, policies and procedures will be discussed, and the basis for the second coursework assignment set.

DESC9049
Financial Decision Making
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Leifer Session: S1 Late Int Classes: 4 day intensive Assessment: Two group assignments (50% each) Mode of delivery: Normal (lecture/lab/tutorial) Day

Facilities management is a subset of business management: As such, no 'management' can be exercised without first matching the need for resources against the resources available. This necessarily involves the financial and accounting information systems of the organisation, and the 'tools' necessary to extract information in order to make informed decisions.
The unit is in two halves: The first deals with management accounting. Students will learn how to interpret the standard historical information regarding organisations via the balance sheet, profit and loss statement, and cash flow forecast. Students will gain an appreciation of the underlying assumptions behind these performance measures and will learn how to interpret this information in order to recognise good and poorly performing businesses.

The second half examines cost accounting, i.e., the internal generation and flow of management information for financial control. Students will also gain an appreciation of accounting as a forward-looking managerial tool for controlling the conduct of an organisation. This will include an understanding of the budgeting process and how it can be utilised to achieve the Facility Management mission.

**DESC9050 Fire Protection Services**

*Architecture, Design and Planning*

This unit of study is not available in 2009

**Credit points:** 6

**Session:** S2 Intensive

**Classes:** Lectures and computer laboratory

**Assessment:** Two assignments, 50% each.

**Mode of delivery:** Normal (lecture/lab/tutorial) Day

*Note: This unit of study is offered in even numbered years only.*

**Objectives:** To provide students with the knowledge and skills to design water-based fire suppression systems and fire detection systems for the more commonly encountered fire risks, and to impart an understanding of the basic principles of fire safety engineering. Content: fire safety in large modern buildings depends heavily on fire detection and suppression systems. This unit explores design rules for manual and automatic water-based systems intended to extinguish fires and detection systems designed to give early warning of fire. It also introduces the fundamental principles of fire safety engineering and their application in lieu of prescriptive rules. Outcomes: it is expected that students will be able to design fire hydrant and hose reel, automatic sprinkler and fire detection systems for large buildings and that they will have a broad understanding of the principles of fire safety engineering, sufficient to enable them to consider some of the alternatives to conventional prescriptive design. Assignments will test design skills learned during the progress of the course.

**DESC9059 Hydraulic Services**

*Architecture, Design and Planning*

This unit of study is not available in 2009

**Credit points:** 6

**Session:** S2 Intensive

**Classes:** Intensive

**Mode of delivery:** Normal (lecture/lab/tutorial) Day

*Note: This unit of study is offered in even numbered years only.*

**Presents principles, concepts assumptions, rules and regulations required for the analysis and design of hot and cold water supply systems, and stormwater drainage systems, including stormwater retention systems and systems for piped gases for commercial and industrial buildings.**

**DESC9067 Mechanical Services**

*Architecture, Design and Planning*

**Credit points:** 6

**Teacher/Coordinator:** Mr Alan Obrart

**Session:** S1 Late Int

**Classes:** 5 day intensive

**Assessment:** Six assignments (2 x 10 per cent, 2 x 15 per cent, 2 x 20 per cent) and a laboratory report (10 per cent)

**Mode of delivery:** Normal (lecture/lab/tutorial) Day

The objectives of this unit are to review relevant principles of thermodynamics and fluid mechanics; to introduce students to practical applications of these principles to the processes of heat load estimation and the distribution of fluids as heat transfer media and to the design of simple air conditioning and ventilation systems; to outline elementary principles of noise control in buildings; and to outline the basic principles of water supply, drainage and water-based fire suppression systems in buildings.

Mechanical services are an essential component of most modern commercial buildings with a strong influence on other services and the architecture. This unit provides an introduction to these services for recent graduates or diplomates in mechanical engineering and an understanding of fundamental principles and practice for people from backgrounds other than mechanical engineering.

Students should acquire skills in estimation of building cooling and heating loads, design of simple air-conditioning systems and the design of piped systems for the circulation of water and refrigerants as heat transfer media. Students should also gain an understanding of the principles of energy and mass transfer underlying mechanical services systems and fundamentals of noise control, water supply and drainage and fire suppression systems.

Assignments will test the students' ability to apply knowledge and skills gained in lectures. They include simple applications of thermodynamics and fluid mechanics, estimation of building cooling and heating loads and the design of a piped system for water circulation, a refrigerant transport system and a simple air-conditioning system.

**DESC9071 Organisational Analysis and Behaviour**

*Architecture, Design and Planning*

Credit points: 6

**Teacher/Coordinator:** Dr David Leifer

**Session:** S1 Late Int

**Classes:** Lectures

**Assessment:** Two assignments (50% each)

**Mode of delivery:** Normal (lecture/lab/tutorial) Day

Organisations exist because individuals can achieve far more when they work together than they can singly. However, individuals have to subordinate their own motives to that of the organisation. This unit examines the social science theories that offer explanations allowing organisations to harness the best from the individuals that comprise it. The physical workplace effects individuals, hence organisations. Of great importance to the organisations are the areas of industrial relations and human resource management, as they are key to maintaining a harmonious working environment. Clearly, the facilities manager is part of the team ensure harmony prevails.

This unit examines six areas: the individual in an organisation; groups in an organisation; the structure of the organisation; the way organisations evolve and change; organisational management; industrial relations.

**Textbooks**


**DESC9074 Project and Contract Management**

*Architecture, Design and Planning*

Credit points: 6

**Teacher/Coordinator:** Dr David Leifer

**Session:** S2 Intensive

**Classes:** 4 day intensive

**Assessment:** Two assignments (50% each)

**Mode of delivery:** Normal (lecture/lab/tutorial) Day

The ability to manage depends upon the availability of appropriate information. Collecting, storing, and maintenance of information have resourcing costs. Information needs have to be assessed, and systems produced to ensure that the correct data is collected, stored correctly, and up-dated.

Contracts are supported by a large body of law and precedents decided by courts. This body of knowledge needs to be understood in general terms.

Initially facility managers must identify and define the services that are needed, and that their employers are willing to endorse to sustain the facilities for which they are responsible. Facility managers then have to assess the best means of having those services.

Whatever the decisions on in-sourcing or out-sourcing, work specifications and contracts need to be developed, and means of performance measurement derived. Allocating the responsibility for supervision and policing of the work has to be defined.

Project management is a specific form of establishing, programming, and coordinating an activity having a specific start point and end point. This unit will develop the student's ability to ascertain and document
the scope of a project, schedule a program, and understand the difficulties in directing it.

Textbooks

DESC9090
Audio Systems and Measurement
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Densil Cabrera Session: Semester 2 Classes: Three hours per week lectures and lab. Assumed knowledge: DESC9138 Assessment: Laboratory, project Mode of delivery: Normal (lecture/lab/tutorial) Day

Students will learn to make and understand a wide range of acoustical and electroacoustical measurements, assessed through laboratory work; students will learn major aspects of sound system design, assessed through project work; students will work in small groups in laboratory and project work; Audio Systems and Measurement will develop knowledge and practical skills in electroacoustics; and the laboratory and project work will extend thinking and personal skills, so that students can apply the unit content to new situations.

Upon completing Audio Systems and Measurement, students will be expected to understand the implementation and limitations of a wide range of acoustical measurement techniques, such as sound pressure, sound intensity, sound power, source directivity, reverberation, intelligibility, echo interference, subjective quality, and component distortion. Students will also be expected to be able to design sound reinforcement systems, and to model system performance using various theoretical techniques.

DESC9092
3D Animation 1
Architecture, Design and Planning
Credit points: 6 Session: Semester 1, Semester 2 Classes: Three hours computer lab per week. Prerequisites: DESC9019 Prohibitions: DEC03006 Assessment: assessable class tutorials and stage submissions of the final project involving design and implementation of animation. Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment in the following sessions: Semester 2. Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to students in the Design Computing or Digital Media stream. This unit will only run in semester 2 subject to demand. 2009 is the final year of offer for this unit.

Conceptually based on traditional 2-dimensional animation, 3D Animation 1 introduces highly sophisticated computer animation workflow and techniques, which are the key to acquiring knowledge and skills in representing motion.

3D Computer Animation is a time based medium that utilises advanced software with an intuitive API to provide the user with tools for creative control on complex forms, characters, lighting, textures, cameras and much more. The process of rendering a consecutive sequence of images within a scene in which relative motion of objects, changes in objects over time, and camera movement, provide the illusion, also referred to as animation. The objective of this unit is to introduce storyboarding and keyframe-based animation methods in the framework of the 3-dimensional medium. Students are expected to gain a thorough understanding of the components that are involved in the development and implementation of an animated sequence in a 3-dimensional environment.

DESC9111
Energy Management in Buildings
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Leifer Session: S2 Intensive Classes: 5 day intensive Assessment: Two assignments (50% each) Mode of delivery: Normal (lecture/lab/tutorial) Day

The objectives of this unit are to give students an understanding of energy consumption issues in buildings through both design and through operation and to give students an awareness of energy auditing, and current energy conservation techniques.

This unit is primarily concerned with the management and control of electrical power delivered via the grid.

We start with the commercial electricity sales environment; the rental of transmission lines, the rental of the utility company's infrastructure, the non-fossil fuel obligation, and tariff structures.

We will concentrate on the processes and the considerations involved in undertaking an energy audit, which will also be the focus of assignment 1. The options for demand management, including outsourcing will be examined. Passive energy design, which 'locks in' future energy usage will be presented. Active energy systems and their fundamentals: lighting, air conditioning, hot water, ventilation, vertical transportation, and machinery, will be reviewed. Finally methods of assessing energy performance including computer simulation will be covered.

Textbooks

DESC9112
Service Provision
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Leifer Session: S1 Intensive Classes: 4 day intensive Assessment: Two assignments (50% each) Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit deals with facilities services delivery. The objectives of this unit are to give students tools to assess the financial viability of carrying out facility management tasks through in-house or out-sourced labour and to expose students to the range of service contracts available. Initially facility managers must identify and define the services that are needed, and that their employers are willing to endorse to sustain the facilities for which they are responsible. Facility managers then have to assess the best means of having those services delivered. The advantages and disadvantages of in-house and out-sourced servicing need to be considered. An understanding of workplace relations will be essential as most FM tasks are labour intensive. Dealing with direct in-house labour demands more of the facility manager than out-sourced labour.

Whatever the decisions on in-sourcing or out-sourcing, work specifications need to be developed, and means of performance measurement derived. Allocating the responsibility for supervision and policing of the work to be defined. If in-house, work needs to be programmed and resourced. If out-sourced, then various forms of contracting will need to be considered, and a tendering process undertaken. Change management is needed in moving from one form of servicing to another.

Textbooks

DESC9113
Computer Aided Facility Management
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Leifer Session: S2 Intensive Classes: Computer laboratory Assumed knowledge: DESC9047 and DESC9048 Assessment: One assignment (100%) Mode of delivery: Normal (lecture/lab/tutorial) Day

The ability to manage depends upon the availability of appropriate information. Collecting, storing, and maintenance of information has resource costs. Information needs have to be assessed, and systems produced to ensure that the correct data is collected, stored correctly, and up-dated. Currently an international communications protocol for building information transfer and sharing (ifc) is being promoted, and is likely to radically modify and ease facility management in the future. Managing large amounts of information requires a computer system. If, in facilities management operations, data needs to be connected to drawn information the necessary systems become more complex.

This unit presents: an awareness of the design and operation of databases and query languages; the resources available to establish, operate and maintain information systems; information need in terms of FM operations, key performance indicators, and continuous
improvement; information systems and quality assurance considerations; the range and types of reports required from the information systems also needs prior consideration.

DESC9115 Digital Audio Systems
Architecture, Design and Planning
Credit points: 6  Teacher/Coordinator: Dr Densil Cabrera  Session: Semester 1 1 Classes: Ten lectures (3 hours each) Three laboratory sessions (3 hours each)  Assessment: Three assignments: 20% Three laboratory reports: 30%  Practical field work: Practical exercises include programming a DSP chip in assembly language to perform real-time audio effects and the use of high-level software packages to generate, manipulate and analyse sounds. Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: Permission required unless enrolled in the Audio stream. Enrolment numbers are limited by teaching resources.

The objective of this unit is to provide both a strong theoretical understanding of digital audio and practical experience in applying these principles to digital audio systems.

This unit offers a systematic approach to understanding digital audio systems. Beginning with basic principles the unit provides a knowledge base for understanding advanced digital audio components, systems and techniques. Examples of everyday audio signals are used and characterised in terms of their temporal and spectral properties. Practical application is emphasised and is supported through laboratory exercises that include programming as well as the use of current hardware and software packages.

Topics include: digital principles, digital systems, sampling and quantisation, 1-bit and multi-bit conversion, digital signal processing, filtering, spectral analysis, sampling-rate conversion, data compression (MPEG etc), effects processing (echo, reverb etc), virtual reality audio, mixing, editing, optical storage (CD and DVD), magnetic storage (DAT and disks) and transmission formats (AES/EBU, SPDIF etc).

Having successfully completed this unit the student will have the tools to understand what happens to a digital audio signal when a given process is applied to it; how to best apply this process and how to successfully combine digital audio components.

DESC9116 Loudspeaker Design
Architecture, Design and Planning
Credit points: 6  Teacher/Coordinator: Neville Thiele  Session: Semester 2 2 Classes: Three hours per week  Assessment: Three exercise-based assignments  Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to students in the Audio or Acoustics streams.

This unit aims to give students thorough understanding of the structure of a loudspeaker, its mechanical, electrical and acoustical properties, the conceptual tools for designing the various components that comprise a loudspeaker system, the effective use of these tools and the influence on the performance of loudspeaker systems of the acoustic environments in which they operate.

Material covered: loudspeaker drivers: construction & sources of non-linearity (i.e. distortion); electrical & acoustical concepts; electrical equivalents of acoustical circuits; transfer functions: theile/small parameters; closed-box loudspeakers: box volume vs. parameters vs. sensitivity vs. low frequency response; vented-box loudspeakers: box volume vs. parameters vs. vent tuning vs. low frequency response; methods of measurement: testing; box & vent design & construction: proportions, damping, bracing, diffraction; multi-way loudspeakers: crossover networks; all-pass responses; directivity; interaction with crossover of response & impedance of drivers: phase response & time alignment; passive crossovers, advantages & disadvantages: components, coil design & construction; active crossovers: advantages & disadvantages: factorisation of transfer functions: equalisation; band-pass sub-woofers; horns; cables; the listening room & positioning of loudspeakers; subjective testing.

On completing the unit, students should be able to design loudspeaker systems, assess the qualities of existing systems that they encounter and estimate their appropriateness to the intended application.

DESC9117 Sound Design for New Media
Architecture, Design and Planning
Credit points: 6  Teacher/Coordinator: Mr Michael Bates  Session: Semester 1, Semester 2 2 Classes: Lectures, computer lab, and studio sessions  Assessment: Project work (50%), written assignment (35%), class attendance and participation (15%)  Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful please contact the Faculty of Architecture Student Administration Centre. First preference to students in the Audio or Digital Media streams.

The objectives of this unit are to introduce essential sound design concepts including editing, synchronisation, rhythm and audiovisual counterpoint; to provide an overview of the sound design for visual media process including development an understanding of the historical impact of film 'factory', radio and television broadcasting production antecedents on the design language; to learn skills in track-laying, mixing and mastering audio for different media and genres; to learn essential sound recording skills; to learn the creation of various psychoacoustic effects and atmospheres; and to learn essential post-production skills in computer-based sound design in a studio environment.

This unit is intended to give an understanding of the theory and practice of digital audio production for various visual media including digital video, web-based and interactive media.

Using the industry standard ProTools software the unit will look at current computer-based tools and techniques available to the sound designer, as well as examine the various underlying strategies, processes, and sound design philosophies. The unit will offer a grounding in the history, theory and criticism of sound design and its applicability to current digital visual media. It will introduce conventional and non-conventional production models across a range of media production modes in broadcasting and multimedia.

The sound designer's role in the process of creation of meaning will be examined in cultural as well as technical contexts of compositional practices. It is anticipated that the unit will encourage debate about and a demystification of current production practices. It will aim at developing and extending production techniques towards an individual aesthetic.

At the completion of this unit students will be expected to: understand the aural medium, essential concepts and terms; have an overview of film 'factory', radio and television broadcasting production antecedents on the design language; be acquainted with the history, theory and criticism of audiovisual technology and design; develop an audiovisual language; understand spatial aspects of sound design; and develop technical and conceptual skills in preproduction, general mixing techniques, post-synchronisation dialogue, mixing dialogue, producing sound effects, multi-track laying, selecting music, creating atmospheres and various psychoacoustic effects, synchronisation and related issues, and mixing sound for vision.

DESC9118 Building Design Practice 1
Architecture, Design and Planning
Credit points: 6  Teacher/Coordinator: Dr David Leifer  Session: S2 Late Int 4 Classes: Four intensive; Assessment: Assignment  Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: This unit is not available to Master of Architecture students.

The provision of good buildings that satisfy the wide range of client needs, community demands and social and environmental responsibility places significant demands upon building designers. The purpose of this unit is to introduce a performance-based approach on a range of single building design issues, with case studies, to provide guidelines in good design practice and their application. It is suitable for those with little or no building design experience.
By the completion of this unit the student will understand the principles of performance-based design and be able to apply it to simple design situations.

DESC9119
Building Design Practice 2
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Dr David Leifer
Session: S1
Intensive Classes: 4 day intensive
Prerequisites: DESC9116
Assessment: Assignment
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit is not available to Master of Architecture students.

This unit develops the performance-based approach presented in Building Design Practice 1 with more complex and interacting issues. It is suitable for those with building design experience and emphasis will be placed upon the application of this approach to the students' own projects in their workplace.

By completion of this unit the student will understand how interrelationships can be expressed with performance-based design and be able to apply it to more complex design situations.

DESC9133
Architectural Acoustics Practice
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Dr Densil Cabrera
Session: Semester 2
Classes: Three hours per week lectures and lab.
Assumed knowledge: DESC9138
Assessment: Two projects - one theoretical and one practical
Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit will cover a range of theoretical, practical and professional issues in architectural acoustics.

Codes and standards pertaining to architectural acoustics; Method and integrity of measurement; Room acoustical measurement, modelling, simulation and criteria; Sound absorption theory, measurement and specification; Sound insulation theory, measurement and specification; Design of spaces using acoustical criteria; Field assessment of acoustical problems in and around buildings.

By the completion of this unit students will acquire knowledge and experience in areas commonly dealt with by the acoustical consulting profession. They will gain an appreciation of current issues in architectural acoustics, possibly inspiring future research.

DESC9134
Architectural Acoustics Seminar
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Dr Densil Cabrera
Session: Semester 1
Semester 2 Classes: 1 hour seminar and individual supervision x 13 weeks
Prerequisites: DESC9136 or DESC9133
Assumed knowledge: DESC9138 and 9011
Assessment: Students will be required to do a small scale research project, which may be laboratory or studio based. This project will be presented in the seminar, and submitted with accompanying written report.
Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit introduces students to a broad range of current research in audio and acoustics, and gives them experience in research. It consists of a series of seminars on current research projects presented by active researchers in audio and acoustics, together with individual or small-group supervision of small-scale research projects.

By completing this unit students will gain an understanding of the research process, and receive some modest experience in research. They will appreciate a range of research methods and subject areas at the forefront of audio and acoustics. They will be in a good position to assess their interest in undertaking further academic research.

DESC9135
Digital Audio Production with ProTools
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Mr Michael Bates
Session: S1
Intensive, S1 Late Int
Classes: Lectures held as intensive weekend course (5 days) with computer laboratory sessions.
Assessment: Written project proposal demonstrating further research and comprehension of conceptual aspects of the production process, class presentation and project.
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Permission required unless enrolled in the Audio and Acoustics stream. Enrolment numbers are limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

This unit is intended to give an understanding of the principles and practice of computer-based audio production and post-production, through the focus of the industry standard ProTools software.

This unit will: introduce the student to multitrack audio production concepts and practices as used with a personal computer; give an understanding of the specialised approaches and techniques used with various media, genres and formats; teach skills in computer-based audio production by way of lectures, practical demonstrations and individual or small-group practical work, both in-class and by assignments.

Students will develop technical and conceptual digital sound recording skills across a wide range of production areas. They will gain an understanding of the implications of non-linear, hard disk based recording systems on production practices. They will develop sound design skills in composition, editing, signal processing and mixing, as well as data management and archiving.

DESC9136
Music Technologies
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Mr Michael Bates
Session: Semester 2
Classes: 3 hours per week lectures, computer laboratories, studio sessions
Assessment: Students will be assessed by a series of small assignments, as well as a larger scale final project.
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. First preference to students in the Audio stream. If your attempt to enrol online is unsuccessful please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

This unit will introduce a wide range of electronic and computational approaches to music production, with a focus on analogue and digital sound synthesis, MIDI and audio sequencing, sampling, and inter-application synchronisation.

A range of concepts and practices will be examined including: the implications of non-linear recording technologies on music composition, sound design and studio production practices; music production for the internet; interactive and intelligent computer-music systems; virtual musical instrument design; and computer music programming.

Content covered: Sound synthesis theory and practice; Symbolic music and sequencing; MIDI, M-LAN, MPEG 4 and other recent developments in music technology; Sampling and re-processing; Interactive music technology and virtual musicians; Computer programming for music production; Real-time interactive networked music; and music for new media.

By completing the unit students will gain an understanding of many approaches to music technology, and will become adept at music production using computers. The knowledge acquired in this unit will be applicable to a wide range of music and audio production contexts including film, video and new media.

DESC9137
Spatial Audio
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Dr Densil Cabrera
Session: Semester 1
Classes: Three hour seminar per week.
Assumed knowledge: DESC9136 and 9011
Assessment: Two assessment tasks - a theoretical exercise-based assignment, and a practical production-based assignment. The practical assignment will be flexible enough to accommodate a wide range of student interests.
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

Unit content: Stereophonic, surround sound and binaural sound production techniques; Theory of auditory space; Spatial sound representation via single channel systems; Beyond localisation: spatial sound quality; Impulse response theory, measurement and prediction, and convolution; Auralisation for architectural design; Virtual sound space synthesis; Hybrid real/virtual sound spaces; and Interactive sound spaces and internet applications.
By completing this unit students will acquire: strong theoretical foundations in spatial audio; experience in spatial audio systems (physical and computational); an appreciation of spatial audio potential of emerging technologies; and an ability to integrate spatial audio into their broader practice.

**DESC9138**

**Architectural and Audio Acoustics**

**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Dr Denis Cabrera  
**Session:** Semester 1  
**Classes:** Three hours seminar per week.  
**Assessment:** A series of small-scale assignments  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

This unit will introduce the fundamental concepts and issues of audio and architectural acoustics.

Unit content: basic acoustical concepts, quantities and units; principles of sound propagation; sound absorption and room acoustics; physiological and psychological acoustics; microphones and loudspeakers; spatial audio; noise measurement and specification; and principles and specification of sound insulation.

By completing this unit students will be able to understand acoustical terminology, and perform calculations applicable to sound in the environment, in buildings, and in audio contexts. They will have the ability to critically assess claims of acoustical performance. This unit will provide the theoretical foundation of advanced units in audio and acoustics.

**DESC9145**

**Sustaining the Built Environment**

**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Prof Richard Hyde  
**Session:** S1  
**Intensive Classes:** 5 day intensive  
**Assessment:** Written assignments  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

Note: Enrolment numbers limited by teaching resources. First preference to Sustainable Design students. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

The unit will aim to heighten student's awareness of the major environmental and resource issues facing the planners and designers of the built environment; introduce and explore concepts of ecological sustainable development as they apply to the built environment and debate the roles that designers and planners should play in the development of a sustainable future.

Unit content: an environmental history of 20th century urban growth and development; the impact of climate change and environmental degradation upon the planning and design of the built environment; energy and resource flows in the built environment; the dimensions of ecological sustainable development; urban and regional planning perspectives on a sustainable built environment; the roles of governments, industries and professions in creating a sustainable built environment; the role of architects in creating a sustainable built environment.

Students will be expected to take part in structured discussions relating to the design and planning of a sustainable built environment and prepare a personal response to the issues raised in these discussions and other unit material. The unit will broaden students understanding of the significance of sustainable architecture and practice and planning upon creating a sustainable future built environment.

**DESC9146**

**Climate, Comfort and Sustainable Design**

**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Prof Richard Hyde  
**Session:** S1 Late Int  
**Classes:** 5 day intensive  
**Assessment:** Written assignment, project  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

Note: Enrolment numbers limited by teaching resources. First preference to Sustainable Design students. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

The aims of this unit are to establish the importance of climate and human thermal comfort as external and internal influences upon the form and substance of sustainable buildings; introduce a basic understanding of the thermal and other processes which create climate and influence human thermal interactions with their environment; introduce techniques for analysing and interpreting climates and specifying appropriate thermal dimensions for the spaces within sustainable buildings.

Unit content: (1) Climate: the meaning of the concept of climate; the elements of climate: solar energy, the atmosphere, longwave radiation, the carbon cycle, the water cycle, winds, the earth's energy balance; the causes and likely impacts of global climate change; the influence of climate upon built form; the consequences of climate change upon building design practice; climate data and its interpretation. (2) Thermal Comfort: energy balance of the human body and its thermal environment; thermal spatial dimensions and their impact upon human thermal sensations; traditional methods for defining and measuring thermal comfort; cultural and climatic influences upon thermal comfort; the Adaptive Model of thermal comfort and its application to sustainable design of buildings. (4) Buildings as environmental filter.

At the conclusion of this unit students will be expected to demonstrate competence in understanding the operation of climates at global and local scales and in interpreting and analysing climate data for building design purposes; their ability to define appropriate thermal dimensions for buildings and their ability to apply this knowledge and these skills to a simple design exercise. The unit will broaden students understanding of the significance of considering climate and thermal comfort as essential design criteria for creating a more sustainable built environment.

**DESC9147**

**Sustainable Building Design Principles**

**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Prof Richard Hyde  
**Session:** S2 Late Int  
**Classes:** 5 day intensive  
**Assessment:** Written assignment, project  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

Note: Enrolment numbers limited by teaching resources. First preference to Sustainable Design students. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

The aims of this unit are to develop an understanding and knowledge of the principles underlying sustainable building design practice, in particular those principles which relate to the environmental attributes of the building fabric, the creation of healthy and comfortable interior environments, the selection of appropriate building materials and the minimisation of embodied and operational energy consumption.

Unit content: environmental and health impacts of building materials; indoor air quality; embodied energy of building materials; understanding energy flows between buildings and their environment; the principles of passive solar heating strategies in cold and temperate climates; strategies for controlling solar and other loads on the building fabric; principles of cooling by natural ventilation; low energy mechanical cooling strategies; hybrid and mixed-mode cooling strategies.

By the completion of this unit students will be expected to demonstrate their knowledge of the relevant properties of building materials and construction elements which impact upon the environmental performance of buildings and to demonstrate their competence at applying this knowledge to the formulation of appropriate sustainable design strategies.

**DESC9148**

**Sustainable Building Design Practice**

**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Prof Richard Hyde  
**Session:** S2 Late Int  
**Classes:** 5 day intensive  
**Assessment:** Written assignment, project  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

Note: Enrolment numbers limited by teaching resources. First preference to Sustainable Design students. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre.

The aims of this unit are to explore the implications of applying sustainable building design principles on design practice; to evaluate
and critique the sustainability of current design practice through an examination of current theory and professional ethics and the exploration of case studies; to explore the development of new sustainable design paradigms.

Unit content: the response of architectural practice to the rise of environmentalism in the 20th century; the emergence of passive solar architecture; ecologically sustainable design [ESD] and its impact upon current design practice; real and perceived barriers to a more sustainable design practice; impact of education and theory on practice; expressing the values of sustainability in built form; towards a new sustainable design paradigm.

By the completion of the unit students are expected to demonstrate an ability to critique current building design practice in relation to sustainable design principles; to demonstrate their knowledge of key recent buildings which their designers claim to be sustainable and their ability to evaluate these claims; to enunciate a personal position on the impact of applying sustainable design principles on future design practice. The unit will broaden students understanding of the principles of sustainable building design and their impact upon future design practice.

DESC9149 Sustainable Design Workshop
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: Prof Richard Hyde
Session: Semester 1, Semester 2
Classes: Project work - private study
Assessment: Project Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit of study provides an opportunity for applying the principles of sustainable design practice to a particular design project.

Unit content: the exploration of sustainable design principles in response to a design brief and the demonstration that the resulting design solution satisfies the intended sustainable design criteria.

By completion of this unit students are expected to demonstrate an ability to respond to the requirements of a design brief in order to produce a building design which demonstrably embodies the principles of sustainable design. The unit will broaden students understanding of the principles of sustainable building design and their impact upon future design practice.

DESC9150 Sustainability Research Project
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: Prof Richard Hyde
Session: Semester 1, Semester 2
Classes: Project work - private study
Assessment: Project Mode of delivery: Normal (lecture/lab/tutorial) Day

The unit will provide an opportunity for students to undertake supervised research on a topic related to Sustainable Design through intensive study of a particular aspect of sustainable building design. The study may take the form of a state of the art review, case studies, modelling, field study or a position paper on a particular issue. Students undertaking a masters dissertation could use this unit to explore and develop a potential topic.

Students are expected to demonstrate their ability to undertake, document and report upon a small piece of structured research related to Sustainable Design. The unit will broaden students understanding of the principles of sustainable design.

DESC9151 Introduction to Building Services
Architecture, Design and Planning

Credit points: 6
Session: S1 Intensive
Classes: 5 day intensive
Assessment: Assignments Mode of delivery: Block Mode

The objective of this unit is to provide students with sufficient knowledge of the principles of operation of the various services systems in buildings of larger than domestic scale in order to be able to contribute competently to the decisions that have to be made about these systems and to be aware of the implications of these decisions upon building design.

At the completion of this unit the student is expected to: understand the principles involved in the functioning of the systems (these principles should remain relevant in the future even if the technology changes); know about the technology currently available, and understand the issues involved in deciding between competing solutions (not necessarily to make a final choice but to contribute competently to a discussion about that choice); and be aware of the implications the system has on the planning of the building. This usually means the space occupied, the need for access for maintenance and the effect on floors below and above. In the case of lifts, escalators and stairs, the pedestrian traffic patterns created should be considered.

Topics covered include: strategic planning for services; air conditioning and ventilating systems; lifts and escalators; hydraulics systems; fire services; electrical services, lighting, security systems.

DESC9152 Lighting Design Masterclass
Architecture, Design and Planning

This unit of study is not available in 2009
Credit points: 6
Teacher/Coordinator: A/Prof Warren Julian
Session: 51 Late Int
Classes: Intensive study
Assumed knowledge: Lighting design fundamentals
Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in even numbered years only.

This is a studio-based program of advanced lighting design conducted by experienced practicing lighting designers. Application of lighting knowledge to the design of a lighting solution and its presentation in a form suitable for non-expert clients.

The student will learn how lighting design is conducted in a studio environment, from the brief, to understanding site conditions, to preliminary design, to the final design and client presentation skills.

DESC9153 Graduate Internship
Architecture, Design and Planning

Credit points: 6
Teacher/Coordinator: Relevant Program Coordinator
Session: Semester 1, Semester 2
Classes: Fieldwork
Assumed knowledge: Sufficient coursework to undertake guided professional work
Assessment: Log book signed by practice supervisor and 2000 word report on the benefits of the internship; pass/fail only
Mode of delivery: Professional Practice
Note: Department permission required for enrolment. Note: Masters students only. Graduate Diploma students with permission of the Program Coordinator.

The aims of the internship are to provide a direct link between the academic core of the course and the disciplines and methods of practice; to enable candidates to experience aspects of practice and provide the opportunity for them to work in areas of the field outside their specific expertise; to enable candidates to observe, analyse and comment on the interaction between theoretical and practical issues of their Program as it is practiced, and to establish connections between practice and the development of relevant research programs.

The internship is intended to provide the opportunity for students to work in various situations in their Program's area. A secondary intention is that students use the opportunities of placement to broaden their own experience beyond the limitations of their chosen discipline. Candidates must find a suitable professional placement. Permission to enrol is given after the proposed placement has been approved by the Program Coordinator. The host organisation will nominate a supervisor for the student for the internship. The student must complete at least 120 hours of full or part-time experience, supervised by a practicing designer (or other professional depending upon the field). A log-book of each day's work, signed by the supervisor must be submitted on completion. A 2000 word report on the benefits of the internship must also be produced.

At the end of the internship the student will: demonstrate that they have completed a program of work (through a log-book); present a report; analyse their experiences and compare these to the theoretical content of the units they have completed, and suggest appropriate research directions so as to improve the complementarity of theory to practice.
DESC9154
Lighting Design Software
Architecture, Design and Planning
This unit of study is not available in 2009
Credit points: 6 Teacher/Coordinator: A/Prof Warren Julian  Session: S1 Intensive
Classes: Lectures and lab tutorials  Prerequisites: DESC (9091 and 9092, and 9125)  Assessment: Project work demonstrating knowledge of software applications, resulting from production processes considered during the unit of study. Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to Digital Media students. 2009 is the last year of offer for this unit.

The objectives of the unit are to develop knowledge of digital image production, motion graphics, visual effects, sound synchronization and digital video; understand media types and functions; develop an in-depth understanding of the digital image and visual effects production process; and to develop skills using compositing, 3D animation, image editing, vector imaging, sound editing, video editing and burning (production) software applications.

Digital compositing is the integrated result of at least two source images or components. This unit of study focuses on developing an understanding of media types and functions. Students will expand media creation skills, utilising previously and newly acquired knowledge to develop a flowing, unified result.

Students will produce an integrated sequence from multiple images with synchronised sound, demonstrating understanding of the digital image and visual effects production process (output on VHS, CD, DV or DVD).

DESC9156
Digital Compositing and Visual Effects
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Kirsty Beilharz  Session: Semester 1 Classes: Lectures and lab tutorials  Prerequisites: DESC (9091 and 9125)  Assessment: Project work demonstrating knowledge of software applications, resulting from production processes considered during the unit of study. Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Four assignments limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to Digital Media students. 2009 is the last year of offer for this unit.

The objectives of the unit are to develop knowledge of digital image production, motion graphics, visual effects, sound synchronization and digital video; understand media types and functions; develop an in-depth understanding of the digital image and visual effects production process; and to develop skills using compositing, 3D animation, image editing, vector imaging, sound editing, video editing and burning (production) software applications.

Digital compositing is the integrated result of at least two source images or components. This unit of study focuses on developing an understanding of media types and functions. Students will expand media creation skills, utilising previously and newly acquired knowledge to develop a flowing, unified result.

Students will produce an integrated sequence from multiple images with synchronised sound, demonstrating understanding of the digital image and visual effects production process (output on VHS, CD, DV or DVD).

DESC9160
Lighting Photography
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Prof Warren Julian  Session: S1 Late Int Classes: Intensive and fieldwork  Assessment: Portfolio of completed photographs with notes on techniques used and an evaluation of the outcome. Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in odd numbered years only. Available to Graduate Diploma and Masters students only.

This unit introduces lighting photography by considering the principles of photography; issues in architectural photography and how lighting can be photographed. The photography of interior and exterior lighting is covered, including landscape and floodlighting.

Upon successful completion of this unit the student will be able to photograph interior and exterior lighting.

DESC9161
Theatre and Performance Lighting
Architecture, Design and Planning
This unit of study is not available in 2009
Credit points: 12 Teacher/Coordinator: A/Prof Warren Julian  Session: S1 Intensive Classes: Lectures and studio in intensive mode. Prohibitions: Department permission required for enrolment. Note: This unit of study is offered in odd numbered years only. Available to Graduate Diploma and Masters students only.

The unit is targeted at people interested in lighting design for theatre and other entertainment applications, to gain an insight into “theatre” lighting design as well as a working understanding of the associated technical elements of theatre lighting. The unit covers not only theatre lighting design techniques, but also other “event” lighting design from small low budget to large scale performances.

The unit of study has practical “hands on” workshops where students are expected to participate. Workshops include, rigging, focusing and plotting for scenes in a play, DMX addressing, data system layout for use with moving lights and programming moving lights for theatre and other events.

By completion of this unit the student will gain practical “hands on” experience of theatre lighting by participating in workshops on rigging, focusing and plotting for scenes in a play, DMX addressing , data system layout for use with moving lights and programming moving lights for theatre and other events.

DESC9164
Light Sources and Luminaires
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Prof Warren Julian  Session: S2 Late Int Classes: Lectures and demonstrations in intensive mode  Prerequisites: DESC (9072 or 9166)  Prohibitions: DESC9063  Assessment: Project work demonstrating knowledge of software applications, resulting from production processes considered during the unit of study. Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in odd numbered years only.

The objectives of this unit are to understand the major light source families; the performance properties of lamps; the various methods of light control; and the design, testing and manufacture of luminaires.

The various methods employed in the production of light and the performance criteria applied to the sources are discussed. Topics covered include: a historical outline of the development of sources; the practical requirements of light sources; black-body radiation; the sun; the sky; gaseous discharges; electro-luminescence; chemiluminescence; incandescent lamps; the halogen cycle; fluorescence; tubular fluorescent lamps; various high pressure and low pressure discharge lamps. Practical lamps are discussed in terms of luminous efficacy, spectral output, colour rendering, life, supply requirements, control gear, cost, etc.

The design, manufacture, testing and the provision of data on luminaires are discussed. Topics covered include: the requirements of luminaires; methods of light control; the properties of optical systems; refractors; reflectors and diffusers; luminance control techniques; manufacture of luminaires and auxiliaries; codes and provision of photometric data for indoor and outdoor luminaires; the calculation of utilisation factors; luminaire luminances; computerised testing; machine readable photometric data.

Laboratory exercises will demonstrate some lamp characteristics and luminaires are photometered and photometric data calculated. Upon successful completion of this unit the student will know the bases of light production and the characteristics of practical lamps, how luminaires operate, how to design reflector systems and relevant safety and other standards. Students will discover some of the outcomes through laboratory exercises and will demonstrate them in the assignments and examination.

DESC9165
Lighting Design
Architecture, Design and Planning
This unit of study is not available in 2009
Credit points: 12 Teacher/Coordinator: A/Prof Warren Julian  Session: S1 Intensive Classes: Lectures and studio in intensive mode. Prohibitions:
DESC9064  Assessment: 5 assignments (3 x 16.7 per cent and 2 x 25 per cent) Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment. Note: This unit of study is offered in even numbered years only.

Objectives: to develop the basic skills needed in the design of interior and exterior lighting. Content: this unit brings together the material of the four basic lighting units to develop the concepts and methodologies of interior lighting design. Topics covered include: the perception of colour, form, pattern and space, and issues relating to the perception and comprehension of the large-scale environment; aesthetics, perception and emotion; the limited quantitative procedures available for use in achieving the foregoing; the practical methods available for predicting illuminances from daylight and uniform arrays of luminaires; the prediction of discomfort; appraisals; codes of practice; economics; maintenance; integration of daylight and electric light. More advanced methods of interior lighting design follow, including: design appearance techniques; lighting systems; colour and atmosphere-creating; task analysis; choices of sources and luminaires; practical considerations of various lighting situations (e.g. domestic, offices, factories, hospitals, schools, etc.); special applications (stage, television, merchandising, agriculture, etc.). The requirements for various exterior lighting applications are discussed. Some topics are treated in greater depth (e.g. various floodlighting techniques) than others (e.g. road, tunnel, aircraft and navigation lighting). Topics covered include: general floodlighting requirements; floodlighting equipment; light distributions; calculation methods; area floodlighting; building floodlighting; road lighting; pedestrian lighting; tunnel lighting; vehicle lighting; traffic signals, airport lighting; navigation lighting; display lighting; advertising. Various computer-aided design methods are discussed and demonstrated. Assignments based on computer-aided design are used as part of the assessment. Outcomes: the student will be able to design simple and complex interior lighting using manual and computer-aided methods. The experience will include design for effect and atmosphere. The student will also be able to design exterior lighting for roads, sport and floodlighting. The outcomes will be demonstrated through individual design assignments.

DESC9169  Assessment: 3 assignments of equal value Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in odd numbered years only.

The objective of this unit is to introduce the student to the processes involved in seeing and the perception and appreciation of the luminous environment. This unit is an introduction to the science and art of illumination, examining how individuals maintain contact with and gather information about their environment via their sensory systems, and how this information is dealt with by the brain to create complex perception and awareness of the environment. After a brief general overview of human sensory systems the physiological and psychological processes in seeing are discussed. Topics covered are: the dual nature of light; the physiology of the eye and its musculature; light detection; the visual anomalies; contrast sensitivity; colour vision; adaptation; brightness and lightness. The processes involved in image detection and recognition are discussed including: edge detection; lightness determination; the association of the characteristics of patterns; camouflage; stereopsis; the importance of the visual attributes of tasks, such as alphabets; expectation. Some of the characteristics of seeing are explored in the laboratory, particularly the size-contrast-luminance relationship.

At the conclusion of the unit the student will have a knowledge of the anatomy, physiology and neurology of the visual system related to sight, including anomalies and age-related effects; the processes involved in vision; the distinguishing features of seeing; the physical, psychological and psychophysical processes involved in image detection, figure-ground, colour, form, texture and appreciation. The assignments will allow the student to demonstrate the achievement of this knowledge some of the work is related to their private environments.

DESC9166  Assessment: 3 assignments of equal value Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in odd numbered years only.

The objective of this unit is to understand the basic photometric and colorimetric terms, quantities and relationships and be able to apply these in practical and theoretical situations. This unit introduces the rational system of measurement of lighting qualities and provides the bases for photometric and colorimetric calculations. Topics include: the development of the system of measurement of luminous flux; luminous intensity; illuminance; luminance; reflectance; luminance factor; transmittance; mention of refraction, diffraction and reflection laws; relationships between luminous qualities; basic calculations involved with diffuse surfaces; inverse square law; cosine law; interreflections; Munsell Colour System; CIE Colour System; graphical representation of photometric data; measuring instruments; accuracy; repeatability; colorimetric calculations (chromaticity coordinates Xy, L*A*B*, Luv, correlated colour temperature, colour rendering indices); the integrating sphere; goniospectrophotometry; distribution photometry. Various measurement and calculation techniques are applied in the laboratory exercises which support the unit. Upon successful completion of this unit the student will know the basic photometric and colorimetric systems used in Australian and other national and international standards.

Students will discover some of the outcomes through laboratory exercises and will demonstrate them in the assignments and examination.

DESC9167  Assessment: 3 assignments of equal value Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in odd numbered years only.

The objective of this unit is to introduce the student to the processes involved in seeing and the perception and appreciation of the luminous environment. This unit is an introduction to the science and art of illumination, examining how individuals maintain contact with and gather information about their environment via their sensory systems, and how this information is dealt with by the brain to create complex perception and awareness of the environment. After a brief general overview of human sensory systems the physiological and psychological processes in seeing are discussed. Topics covered are: the dual nature of light; the physiology of the eye and its musculature; light detection; the visual anomalies; contrast sensitivity; colour vision; adaptation; brightness and lightness. The processes involved in image detection and recognition are discussed including: edge detection; lightness determination; the association of the characteristics of patterns; camouflage; stereopsis; the importance of the visual attributes of tasks, such as alphabets; expectation. Some of the characteristics of seeing are explored in the laboratory, particularly the size-contrast-luminance relationship.

At the conclusion of the unit the student will have a knowledge of the anatomy, physiology and neurology of the visual system related to sight, including anomalies and age-related effects; the processes involved in vision; the distinguishing features of seeing; the physical, psychological and psychophysical processes involved in image detection, figure-ground, colour, form, texture and appreciation. The assignments will allow the student to demonstrate the achievement of this knowledge some of the work is related to their private environments.

DESC9168  Assessment: 3 assignments of equal value Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is offered in odd numbered years only.

The objective of this unit is to show the basis for the standards and practices used in lighting analysis and design. This unit will develop material dealt with in the unit Vision and Visual Perception to examine full-field vision and the human factors involved in lighting the visual field. Topics covered include: the definition of the visual field with regard to size, luminance, contrast and time; the extension of threshold studies to practical task situations; the evaluation of visual tasks with regard to difficulty and complexity; the development of measures of discomfort and disability glare; the illuminance and glare scales used in practical standards; methods for the assessment of tasks and environments; experimental techniques of evaluation, such as multi-dimensional scaling. Laboratory exercises on the assessment of environments in physical and psychophysical terms are used to support the lectures and demonstrations.

At the conclusion of the unit the student will know the bases of the light-technical recommendations in Australian and other national and international standards. They will discover some through laboratory exercises will and will demonstrate them in the assignments and examination.

DESC9169  Assessment: 3 assignments of equal value Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit of study is not available in 2009
Credit points: 6  

**Teacher/Coordinator:** Dr Simon Hayman  
**Session:** S1 Intensive  
**Classes:** Lectures in intensive mode.  
**Prohibitions:** DESC9084  
**Assessment:** Design or research study  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day  

Note: This unit of study is offered in even numbered years only.

**Objectives:** The unit will introduce the physical processes behind the availability of daylight; explore the techniques for modelling daylight; explore design issues that result from daylighting needs; provide design information for the resolution of daylighting design problems; and outline the issues involved in integration of daylight and electric lighting.

**Content:** This unit provides an overview of research in daylight measurement and knowledge about the possibilities for daylight design for buildings. Topics include the atmosphere and daylight; sky luminance distributions; daylight measurement; daylight modelling including illuminance and lumiance models; traditional daylighting techniques including building form, openings, glass and control devices; innovative daylight technologies including 'light shelves', 'beam' lighting and photochromic glasses; and economics of daylight including electric light supplementation.

**DESC9170**  
**Services Control Systems**  
**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Mr Alan Obrart  
**Session:** S2 Intensive  
**Classes:** Lectures and demonstrations in intensive mode  
**Prerequisites:** DESC9067  
**Assessment:** 8 assignments (3 x 5 per cent, 2 x 30 per cent, 3 per cent, 7 per cent, 15 per cent)  
**Mode of delivery:** Block Mode

The unit will provide knowledge of electric control circuits and electric and pneumatic control elements as applied to the design of automatic control systems for air handling and refrigeration systems, and create an understanding of the selection and application of electronic, programmable logic and direct digital control systems.

Automatic control is an essential part of all air-conditioning systems. Satisfactory performance requires not only a well-designed control system but also an air-conditioning system designed to be controllable. This unit addresses practical application of automatic controls to common types of air-conditioning systems. Automatic control principles discussed are applicable to systems other than air-conditioning. By completion of this unit it is expected that students will gain a knowledge of the capabilities and limitations of electric, electronic, pneumatic and computer-based control systems for HVAC applications with an understanding of the types of controllers available to perform automatic control functions; and that they will be able to design automatic control systems for HVAC applications and to prepare and understand control diagrams.

Assignments will test the knowledge gained by students in the above areas.

**DESC9171**  
**Vertical Transportation Services**  
**Architecture, Design and Planning**

**This unit of study is not available in 2009**

**Credit points:** 6  
**Session:** S2 Intensive  
**Classes:** Lectures in intensive mode.  
**Prohibitions:** DESC9084  
**Assessment:** Two assignments, 50% each.  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day  

Note: Department permission required for enrolment. Note: This unit of study is offered in even numbered years only.

**Objectives:** To present an understanding of the movement of people through high-rise buildings; to instruct students in regulations and standards affecting the vertical transportation industry; to examine available types of lifts, escalators and moving walks; to present the methodology of lift traffic studies and manual and computer-aided lift system design; to develop an understanding of lift power and control systems; and to discuss maintenance and repair and to consider possibilities for the future in the lift industry.

**Content:** Many modern building projects require installation of lifts or other means of moving people vertically. An understanding of the equipment used for this purpose together with associated design skills is therefore a valuable attainment for professionals and managers engaged with the building industry. This unit is designed to provide that understanding of underlying principles and practice.

**Outcomes:** It is expected that students will acquire a knowledge of the relationships between buildings, building populations and the lift installation; regulations and standards affecting lift, escalator and moving walk installations in Australia; the elements and construction of vertical transportation equipment; lift power and control systems; and traffic analysis calculations. Assignments will test the ability of students to apply the knowledge gained to the solution of practical problems in lift system design.

**DESC9172**  
**Building Asset Management**  
**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Dr David Leifer  
**Session:** S1 Intensive  
**Classes:** 4 day intensive  
**Prohibitions:**  
**Assessment:** Two assignments each at 50%  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

This unit will examine the objectives of both private and public mass rental housing providers and consider the role that the built assets play. The buildings per se are a means to an end, as well as a 'product' in their own right. This examination will involve financial considerations of capital and operating costs. Also, 'market' research needs to be considered to ensure that the 'customers get what they want' as their needs and circumstances change over time. The second half of the unit will look at the principles and practices of managing the fabric of housing. The mechanics of maintenance, and the background systems that have to be put in place in order to keep this aspect of operations under control. The special considerations of Heritage buildings will be explored. At the successful completion of this unit students are expected to have an awareness of the internal and external factors that influence the management of mass housing, and be able to understand how these impacts on the organisations responsible. Students will be able to describe the 'functionality' of houses, and how they are supposed to work. Students will be able to structure and implement Management Information Systems from asset registration through condition and maintenance schedules. At the successful completion of this unit students will have demonstrated: an understanding of the external drivers that impinge on both public and private housing combines; an understanding of the internal drivers that impinge on housing combines; an ability to describe to a lay-person how a house is intended to work; an ability to create a structured asset register, and to identify key assets; an ability to include condition, and maintenance task schedules, and so be able to map future capital expenditures to maintain the housing stock at an appropriate level.

Student effort expected: contact hours: 24 hours per semester; class preparation: 8 hours per semester; assessment preparation: 46 hours per semester.

**DESC9183**  
**Risk Management**  
**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Dr David Leifer  
**Session:** S2 Intensive  
**Classes:** 24 hrs in intensive mode  
**Assumed knowledge:** DESC9047  
**Assessment:** Two assignments weighted 50% each. The first being formative, the second summative.  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

At the end of the unit successful students will: have an ability to undertake a workplace risk identification study; have an understanding of the process of prioritising risk; have an ability to generate and assess risk management options and lead the discussion in the selection of the most appropriate management strategy; understand the procedure necessary to assess risk, and the options available to control it; be aware of the obligations on organisations with respect to OH&S in their workplaces; understand the policies and processes that their organisation need to put in place to satisfy the legislation. Upon completing this unit, students will: be able to undertake an analysis of the areas of risk relating to their own work and having an impact on their missions and goals; understand the process for assessing risk in terms of 'best practice'; demonstrate their ability
to present appropriate risk management options; be aware of the Occupational Health and Safety regulations and will understand the impact of these on their workplaces; and be able to implement OH&S management procedures.

Student workload effort expected: contact hours: 24 hrs in intensive mode; class preparation: 6 hours per week; assessment preparation: 24 hours per semester.

DESC9184
Computational Intelligence & Application
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Gunarathnam Session: Semester 1 Classes: Three hours per week lectures/computer labs Assessment: Three assignments (one based on student’s research interest) Mode of delivery: Normal (lecture/lab/tutorial) Day

The unit aims to introduce students to the four major computational intelligence paradigms: neural networks, fuzzy logic, evolutionary computing, and swarm intelligence. It explores and identifies generic classes of problems, in different application areas that can be solved by using the four paradigms, and introduces the different models and methods available for solving generic problems in each of the four paradigms. It investigates the different pre-processing techniques, representational schemes and strategies available for improving the performance of each of the paradigms and explores hybrid approaches based on two or more of the paradigms for solving generic problems.

At the completion of the unit each student is expected to have demonstrated through the assessment tasks: a good understanding of the characteristics and capabilities of the different computational intelligence models and methods; an ability to associate a problem in a given application area with a generic problem class and select and develop an appropriate computational model; a good understanding of the theoretical bases for the features in the software tools available for the different paradigms; an ability to develop computational models for applications within their own disciplines based on at least one of the paradigms.

Student workload effort expected: Contact hours three hours per week; class preparation one hour per week; assessment preparation 39 hours per semester.

DESC9185
Structural Synthesis Models
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Gunarathnam Session: Semester 1 Classes: One hour lecture and two hours computer lab per week. Assessment: Three assignments Mode of delivery: Normal (lecture/lab/tutorial) Day

The main aim of the unit is to introduce students to a number of structural synthesis models currently available for generating structural solutions within the design process, including both top down and bottom up generative processes, as well as those inspired by processes in nature. The unit is also designed to provide information for evaluating the solutions generated by the models, for feasibility based on behavioural requirements, for performance based on the key decision criteria, and for classifying the solutions into appropriate structural categories.

At the completion of the unit each student is expected to have demonstrated through the assessment tasks: a good understanding of the different structural synthesis models available for use within the design process; the ability to use one or more of the models for generating feasible and optimal structural solutions; the ability to use the behavioural and synthesis models to evaluate an existing building for feasibility and structural performance; the ability to associate the different structural features of existing building designs to the structural design criteria and constraints.

Contribution of unit of study to its program: Core unit for the Building Stream.

Student workload effort expected: contact hours 3 hours per week; class preparation 1 hour per week; assessment preparation 39 hours per semester.

DESC9191
Building Acoustics and Noise Control
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Mr Alan Obrart Session: S1 Late Int Classes: Five days intensive. Assumed knowledge: Undergraduate architecture or engineering degree, Assessment: One Assignment (100%). Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit investigates the attenuation and control of noise generated by mechanical building services systems. This will impart in students an understanding of the basics of sound transmission; sound pressure and power; and the fundamentals of the human auditory response. Students will further have an awareness of the statutory noise control requirements, current standards and sources of data. Moreover, students will obtain an ability in design and selection of acoustic treatment methods to meet those statutory requirements.

At the successful completion of this Unit students will have an awareness of the statutory noise control requirements, current standards and sources of data; an understanding of the fundamentals of the basics of sound transmission; sound pressure and power; and human auditory response; and an ability in design and selection of acoustic treatment methods to meet those statutory requirements.

DESC9192
Energy Code Compliance in Buildings
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Mr Alan Obrart Session: S2 Late Int Classes: Four days intensive. Assumed knowledge: Undergraduate architecture or engineering degree. Assessment: One Assignment (100%) Mode of delivery: Block Mode

The aim of this unit of study is to impart an understanding of the regulatory framework that applies to the energy efficient design of commercial buildings in Australia. Students will examine the energy provisions of the Building Code of Australia (Section J), and an understanding of selected approved energy modelling tools. Students will gain an ability to source necessary data.

At the successful completion of this course students will have an understanding of the ‘deemed-to-satisfy’ prescriptive provisions of Section J of the Building Code of Australia with respect to mechanical/electrical services, building fabric, sealing and insulation, cooling and heating; an understanding of verification methods requiring energy modelling; hands-on experience of two computer building energy simulation programs; and an understanding of the design process in order to fulfil the requirements of the code.

IDEA9101
Experimental Interfaces Laboratory
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Petra Gemeinboeck and Dr Rob Saunders Session: Semester 1 Classes: 3 hrs/wk Corequisites: IDEA9102 Assessment: 3 x technical exercises, involving design, implementation (40%), presentation (20%), and technical documentation (40%) Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: This unit is offered in odd numbered years only. Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to IDEA, Digital Media and Design Computing students.

The aim of this unit of study is to support IDEA9102 Installation Studio concerned with interaction, using installation as the experimental interface. The studio encompasses a wide array of advanced, sensor-based interfaces for responsive environments. It supports the learning of important technical skills required to develop the hardware and software necessary for experimenting with sensor-based interfaces.

This workshop will provide a framework for students to learn new technical skills and integrate processes from human-computer interaction, multimedia, and advanced sensor technologies within the context of a series of practical exercises. These skills and processes will support the students in designing prototypes of experimental interfaces on a human scale to produce performative architectures, and responsive environments.
Through a series of exercises, students will develop both the hardware and the software for responsive environments. The aim of these exercises is to provide students with an introduction to the technological platforms available for building advanced, sensor-based interfaces. Through these exercises, students will gain an understanding of the challenges and possibilities of designing interactive installations.

IDEA9102
Installation Studio
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Petra Gemeinboeck and Dr Rob Saunders Session: Semester 1 Classes: Six hours per week Corequisites: IDEA9101 Assessment: Participation 15%, technical competency & idea proposal demonstration: 15%, research report and design process documentation: 25%, design major project and exhibition: 50% Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit is offered in odd numbered years only. Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to IDEA, Digital Media and Design Computing students.

The aim of this unit of study is to explore interaction, using installation as the interface. This investigates the relationship between our environments, bodies and technologies in a practice-led fashion. It involves a discourse on the next generation of mixed-media installations, involving their history, their evolution, and their cultural context.

This studio will provide a platform for students to integrate knowledge of interaction design, multimedia, and advanced sensor technologies within the context of installation art and design. Students will have the opportunity to develop in-depth knowledge through practice by developing prototypes of experimental interfaces on a human scale. These prototypes will culminate in the form of a performance or an installation, producing performative architectures, and responsive environments.

The aim of this design process is to explore the potential for responsive, adaptive and proactive spaces that enhance our relationship with our environment and extend our social interactions. Students will participate in the entire design process from concept to completion, developing their own software and hardware as required. Through this process, students will gain an understanding of the challenges and possibilities of designing technologies to perform as interfaces to our shared physical, social and cultural environments.

IDEA9105
Human Computer Interaction
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Xiangyu Wang and Prof. Mary Lou Maher Session: Semester 1 Classes: One hour lecture and two hours tutorial per week Assessment: Weekly tutorial submissions (30%), individual design project submission (40%), exam (30%) Mode of delivery: Normal (lecture/lab/tutorial) Day
This unit is a foundation unit that provides a theoretical perspective on the concept of interaction with the Interaction Design and Electronic Arts (IDEA) stream. The aim of this unit of study to introduce Human Computer Interaction (HCI) design principles and methods. It introduces students to valuable tools, techniques, and sources of information about HCI and provides a systematic approach to the design and evaluation of alternative ways in which people interact with various types of computational environments. The unit increases awareness of good and bad design through observation of existing technology, and teaches the basic skills of task analysis, and analytic and empirical evaluation methods. Students will learn to apply knowledge of HCI theory and processes by conducting a case study to different types of interfaces; to critically read and examine research papers; to develop an experimental study on one developed or existing human-computer interface; to analyse the interface issues and effectiveness using HCI evaluation techniques.

IDEA9106
Design Thinking

Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Paul Murty Session: Semester 1 Classes: One hour lecture, two hours seminar per week. Assessment: 4 x 3000 word reports and oral presentations (40%), student blog (60%) Mode of delivery: Normal (lecture/lab/tutorial) Day
The prolific growth of computing and its extensions, including the internet, digital media, interactive entertainment and mobile communication, have stimulated development of new, substantially different design fields. This unit aims to give students, with an interest in this rapidly emerging field, a fuller awareness of designing as both: 1) a holistic but complex cognitive activity by which a designer integrates knowledge and skills, both general and specific to many particular experiences, settings and requirements, to create unique works; and 2) a dynamic process of situated practice in which the designer by intentional acts and unexpected discoveries develops individual designerly ways. The unit investigates the mentality of designing, by presenting elements of the theoretical background of creative design, significant issues and the first hand accounts of current practitioners, and by providing the challenge to explore, analyse, reflect upon a diverse array of designerly acts. An important aspect of this approach is to enable the arts, technologies, theories and practice of designing in all domains, not only electronic, to be considered as a common discipline. Next to the body of knowledge from studies in design science, this unit of study will be informed by several guest lectures from practitioners and researchers in related design fields, such as fashion design, industrial design, architectural design, software design, web design, graphic design, art and so on.

IDEA9201
Physical Computing Laboratory
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Andrew Vande Moere Session: Semester 2 Classes: Three hours per week Corequisites: IDEA9202 Assessment: Participation: 15%, summative technical competency tasks: 85% Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit is offered in odd numbered years only. Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to IDEA, Digital Media and Design Computing students.

The aim of this unit of study is to support IDEA9202 Devices Studio concerned with interaction, using devices, e-fashion/e-jewellery, and ubiquitous computing as the interface. The studio encompasses a wide array of physical computing devices (wearable, mobile, portable, tangible ‘things’ in which the computational technology is embedded in the device or artefact). The lab teaches students technical skills for operating the devices, microprocessors, sensors, other relevant hardware, and the important industry-standard softwares pertinent to the development of physical computing devices, such as object-oriented real-time responsive audio-visual programming environments (e.g. Max/MSP or Processing). In the lab, students will foster their conceptual and skill knowledge necessary for the implementation of ideas borne out in the studio. Hence it will support a number of modes for visual, sonic, textile or material expression of ideas.

IDEA9202
Device Studio
Architecture, Design and Planning
Credit points: 12 Teacher/Coordinator: Dr Andrew Vande Moere Session: Semester 2 Classes: Six hours studio per week Corequisites: IDEA9201 Assessment: Participation: 15%; technical competency & idea proposal demonstration: 15%; design process documentation: 20%; design major project and exhibition: 50% Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit is offered in odd numbered years only. Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. First preference to IDEA, Digital Media and Design Computing students.

The aim of this unit of study is to explore interaction, using miniature devices as the interface. This encompasses a wide array of physical computing devices, such as wearable, mobile, portable or tangible.
requirements of the studio by bringing together the knowledge acquired in undergraduate studies. The student will develop a major project and exhibition: 50%; proposal demonstration: 15%; design process documentation: 20%; design major project and exhibition: 50%. Mode of delivery: Normal (lecture/lab/tutorial). Day

This unit is a foundation unit that provides a theoretical perspective on the core concepts underlying the trans-disciplinary discourse of the Interaction Design and Electronic Arts (IDEA) stream. It aims to create a critical dialogue between the fields of aesthetic expression, cultural history, and emerging computing technologies. Objectives include the development of a deeper understanding of the complex interactions between modern technology and popular culture, and the conceptualisation and formulation of the issues arising from these interactions in the creative design process.

The unit of study sets out as an investigatory process, investigating a set of artistic, cultural, and social practices that both constitute and reflect the theoretical foundations of aesthetics, culture, and technology. The investigation is shaped and structured as a platform for discussions, readings, screenings, writings, concept proposals, and presentations. The students' investigatory process is grounded in a wide set of readings, including cultural studies, digital culture, critical theory, feminist studies, science fiction, science and technology and visual culture. This theoretical discourse is extended and provoked by a wide collection of materials and screenings, originating from electronic art, experimental film, live performance, and popular culture. Major investigatory narratives include the mechanisms of control and power (i.e. authorship, censorship, surveillance), the re-conception of identity and the reconstruction of the human body.

IDEA9301 Graduation Studio
Architecture, Design and Planning
Credit points: 12 Teacher/Coordinator: Coordinators of the IDEA studio in the concurrent semester Session: Semester 1, Semester 2 Classes: Studio six hours per week Prerequisites: 48 credit points including 24 credit points from IDEA (9102, 9104, 9202 or 9204) Corequisites: IDEA (9101, 9103, 9201 or 9203) Assessment: Participation: 15%; technical competency & idea proposal demonstration: 15%; design process documentation: 20%; design major project and exhibition: 50%. Mode of delivery: Normal (lecture/lab/tutorial). Day
Note: Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful, please seek permission from the Faculty of Architecture, Design and Planning Student Administration Centre. MIDEA, MDigital Media and MDesign Computing students only. Students may incur materials costs in this unit.

This is the culminating studio of the Master of Interaction Design and Electronic Arts that provides students with a capstone experience. The aim of this studio is to draw together and synthesise the learning that has taken place during the whole degree. The student will develop a graduation design project based on the theme from the concurrent studio. The design project must exceed the normal submission requirements of the studio by bringing together the knowledge acquired during the whole degree in a more sophisticated, rigorous result and a more detailed documentation. The project undertaken will be supported by an in-depth artistic reflection or written report demonstrating the independent exploration of relevant theories and issues raised during the design.

Alternatives to the Graduation Studio include enrolment in DESC9153 Graduate Internship or participation in and approved international exchange.

IDEA9302 IDEA Research Project
Architecture, Design and Planning
Credit points: 12 Teacher/Coordinator: Dr Andrew Vande Moere Session: Semester 1, Semester 2 Classes: Individual supervision 1 hour per week. Prerequisites: 48 credit points including 24 credit points from IDEA (9102, 9104, 9202 or 9204) and a WAM of at least 75. Corequisites: IDEA9303 Mode of delivery: Normal (lecture/lab/tutorial). Day
Note: Department permission required for enrolment. Note: IDEA9302 Research Project and IDEA9303 IDEA Dissertation are required for the award of the Master Interaction Design and Electronic Arts with honours. The two units are not assessed separately, as a single result is given for the combined dissertation and project. Admission to this unit is merit-based and requires a minimum Weighted Average Mark (WAM) of 75. MIDEA students only.

IDEA9302 Research Project and IDEA9303 IDEA Dissertation are required for the award of the Master Interaction Design and Electronic Arts with honours. The two units are not assessed separately, as a single result is given for the combined thesis and project. Admission in this unit is merit-based and requires a minimum Weighted Average Mark (WAM) of 75.

The appointment of a supervisor depends on the research topic chosen for the dissertation by the student. On the successful completion of this unit, students will have demonstrated an ability to develop a theoretical, practice-based or research project in the field of Interaction Design or Electronic Arts; an ability to undertake this project in an independent way, incorporating all technical and theoretical aspects appropriate and related to the previous units of study taken, and an ability to communicate and present their ideas embedded in the appropriate theoretical foundation. A research thesis should be 15,000 to 25,000 words in length, or equivalent in the form of software programming, hardware development or any other artefacts that can be construed as research. The research project and dissertation will be assessed by a minimum of two independent academic examiners on the merits of its underlying design rationale or original conceptual thinking, its implementation in the form of software, hardware, theoretical discourse or other physical manifestation, while the dissertation is assessed on its design rationale, empirical evaluation, analysis or description within related theories or critical reflection, and the presentation, using appropriate visual, written, verbal and multimedia presentation techniques.

IDEA9303 IDEA Dissertation
Architecture, Design and Planning
Credit points: 12 Teacher/Coordinator: Dr Andrew Vande Moere Session: Semester 1, Semester 2 Classes: Individual supervision 1 hour per week Corequisites: IDEA9302: Assessment: Attendance, intermediate presentation (20%). Final dissertation: Design (Concept). Implementation, Evaluation or Reflection, Presentation and Documentation (80%). Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: IDEA9302 IDEA Research Project and IDEA9303 IDEA Dissertation are required for the award of the Master Interaction Design and Electronic Arts with honours. The two units are not assessed separately - a single result is given for the combined project and dissertation. Admission to this unit is merit-based and requires a minimum Weighted Average Mark (WAM) of at least 75.

IDEA9302 Research Project and IDEA9303 IDEA Dissertation are required for the award of the Master Interaction Design and Electronic Arts with honours. The two units are not assessed separately, as a single result is given for the combined thesis and project. Admission in this unit is merit-based and requires a minimum Weighted Average Mark (WAM) of 75.

The appointment of a supervisor depends on the research topic chosen for the dissertation by the student.
On the successful completion of this unit, students will have demonstrated: an ability to develop a theoretical, practice-based or research project in the field of Interaction Design or Electronic Arts; an ability to undertake this project in an independent way, incorporating all technical and theoretical aspects appropriate and related to the previous units of study taken, and an ability to communicate and present their ideas embedded in the appropriate theoretical foundation.

A research thesis should be 15,000 to 25,000 words in length, or equivalent in the form of software programming, hardware development or any other artefacts that can be construed as research. The research project and dissertation will be assessed by a minimum of two independent academic examiners on the merits of its underlying design rationale or original conceptual thinking, its implementation in the form of software, hardware, theoretical discourse or other physical manifestation, while the dissertation is assessed on its design rationale, empirical evaluation, analysis or description within related theories or critical reflection, and the presentation, using appropriate visual, written, verbal and multimedia presentation techniques.

MARC4001 Architectural Research Studio
Architecture, Design and Planning

Credit points: 12 Teacher/Coordinator: Dr Peter Armstrong Session: Semester 1, Semester 2 Classes: Six hours per week for 11 weeks Assessment: Attendance; lecture and tutorial participation; staged exercises; developed design including research or technical report. Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Students may incur materials costs in this unit.

The studio examines the nature of architecture in the urban context in terms of the internal and external parameters which act on the design process at incremental urban scales and intensities of use. The studio also examines the societal, financial, legislative and managerial framework which determines the envelope within which development may occur. The evolutionary nature of urban fabric and the historical processes acting on the urban form and on individual projects will be researched as a foundational process in the development of design projects as well as the evolving statutory environment. Each studio will require the presentation of a developed design project substantiated by a researched report defining the foundations on which the project rests.

MARC4001 Studio A Urban Architecture, MARC4002 Studio B Sustainable Architecture and MARC4003 Studio C Digital Architecture are all available in both semesters 1 and 2. Students may enrol or pre-enrol freely, but some will be asked to swap to create equal groups. After three semesters each student will have done each of the studios. The studios examine the relationships between architecture and urbanism; architecture and sustainability; and architecture and digital design. Each is based around one or more design projects which address a specialised area of study, supported by lectures and seminars which introduce the relevant theory, knowledge and design precedents. Studios undertaken in semester 1 require the submission of a technical report demonstrating in-depth investigation of key technical issues and systems, and their innovative integration in the design, with the preparation of appropriate contract documents. Studios undertaken in semester 2 require the submission of a research report demonstrating independent exploration of issues raised by the design project. On the successful completion of these units, students will have demonstrated: an ability to formulate, interpret and communicate appropriate concepts derived from the study of brief and site; an ability to extend these starting points into a working design proposal; an ability to develop the design proposal in response to critique, and produce a building design which demonstrably embodies understanding of the principles associated with the specialised study area; an ability to communicate the design ideas effectively through appropriate graphic and three-dimensional means using architectural conventions; and an ability to cohesively design and execute a comprehensive presentation of the project. These units are core to the Master of Architecture.

Contact hours: 6 hours per week for 11 weeks. Class preparation: 10 hours per week for 8 weeks. Assessment preparation: 28 hours per semester.

MARC4002 Sustainable Architecture Research Studio
Architecture, Design and Planning

Credit points: 12 Teacher/Coordinator: Dr Glen Hill Session: Semester 1, Semester 2 Classes: Six hours per week for 11 weeks. Assessment: Attendance; lecture and tutorial participation; staged exercises; developed design including research or technical report. Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Students may incur materials costs in this unit.

MARC4002 Studio B Sustainable Architecture will focus on the theories, technologies and techniques that promote the creation of a sustainable built environment. The studio projects will directly explore the interdependent issues of environmental, social and economic sustainability. The studio will prompt students to develop critical positions in regard to sustainability and to extend and explore those positions through the architectural design process.

MARC4001 Studio A Urban Architecture, MARC4002 Studio B Sustainable Architecture and MARC4003 Studio C Digital Architecture are all available in both semesters 1 and 2. Students may enrol or pre-enrol freely, but some will be asked to swap to create equal groups. After three semesters each student will have done each of the studios. The studios examine the relationships between architecture and urbanism; architecture and sustainability; and architecture and digital design. Each is based around one or more design projects which address a specialised area of study, supported by lectures and seminars which introduce the relevant theory, knowledge and design precedents. Studios undertaken in semester 1 require the submission of a technical report demonstrating in-depth investigation of key technical issues and systems, and their innovative integration in the design, with the preparation of appropriate contract documents. Studios undertaken in semester 2 require the submission of a research report demonstrating independent exploration of issues raised by the design project. On the successful completion of these units, students will have demonstrated: an ability to formulate, interpret and communicate appropriate concepts derived from the study of brief and site; an ability to extend these starting points into a working design proposal; an ability to develop the design proposal in response to critique, and produce a building design which demonstrably embodies understanding of the principles associated with the specialised study area; an ability to communicate the design ideas effectively through appropriate graphic and three-dimensional means using architectural conventions; and an ability to cohesively design and execute a comprehensive presentation of the project. These units are core to the Master of Architecture.

Contact hours: 6 hours per week for 11 weeks. Class preparation: 10 hours per week for 8 weeks. Assessment preparation: 28 hours per semester.

MARC4003 Digital Architecture Research Studio
Architecture, Design and Planning

Credit points: 12 Teacher/Coordinator: Dr Marc Aurel Schnabel Session: Semester 1, Semester 2 Classes: Six hours per week for 11 weeks. Assessment: Attendance; lecture and tutorial participation; staged exercises; developed design including research or technical report. Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Students may incur materials costs in this unit.

MARC4003 Studio C Digital Architecture explores theories, media and techniques that involve digital mediation to create engaging architectural designs that stimulate all human senses in their relationship with the built environment. The studio addresses various issues of digital media, digital design techniques, design theories, computational concepts and other factors influencing the development of architectural production using digital tools. The studio prompts critical reflections on design conventions and creates novel design positions.
MARC4001 Studio A Urban Architecture, MARC4002 Studio B Sustainable Architecture and MARC4003 Studio C Digital Architecture are all available in both semesters 1 and 2. Students may enrol or pre-enrol freely, but some will be asked to swap to create equal groups. After these two semesters each student will have done each of the studios. The studies examine the relationships between architecture and urbanism; architecture and sustainability; and architecture and digital design. Each is based around one or more design projects which address a specialised area of study, supported by lectures and seminars which introduce the relevant theory, knowledge and design precedents. Studios undertaken in semester 1 require the submission of a technical report demonstrating in-depth investigation of issues and systems, and their innovative integration in the design, with the preparation of appropriate contract documents. Studios undertaken in semester 2 require the submission of a research report demonstrating independent exploration of issues raised by the design project. On the successful completion of these units, students will have demonstrated: an ability to formulate, interpret and communicate appropriate concepts derived from the study of brief and site; an ability to extend those starting points into a working design proposal; an ability to develop the design proposal in response to critique, and produce a building design which demonstrably embodies understanding of the principles associated with the specialised study area; an ability to communicate the design ideas effectively through appropriate graphic and three-dimensional means using architectural conventions; and an ability to cohesively design and execute a comprehensive presentation of the project. These units are core to the Master of Architecture. Contact hours: 6 hours per week for 11 weeks. Class preparation: 10 hours per week for 8 weeks. Assessment preparation: 28 hours per semester.

MARC4101
Advanced Technologies 1
Architecture, Design and Planning
This unit of study is not available in 2009
Credit points: 6
Teacher/Coordinator: Peter Armstrong
Session: Semester 1
Classes: Two hours lectures and one hour tutorial per week.
Corequisites: MARC4001 or 4002 or 4003
Prohibitions: ARCH4202
Assessment: Case study report; design technology research report - assessed in Design and Adv. Tech. 1; site visit and details report; structures quiz; services report - group; attendance of 90% for all components
Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit aims to give students the tools to initiate and develop their design intentions in relation to structural, construction and services technologies. The knowledge will move from an understanding of the nature and impact of materiality on the architectural design process through to the implementation of this knowledge in the practice of a professional architect through design, consultation and building processes. The unit aims to examine the foundation and structural systems of large scale public buildings, the construction of the elements of the external fabric and the impact on the design process of the anthropomorphic, environmental and engineering requirements of the internal spaces. The unit of study stresses the primacy of detailing, skills in the development of individual design processes, and the understanding of design principles of construction materials in relation to structural and environmental concerns.

It also aims to develop an understanding of the impact of the BCA and relevant Australian Standards on the building interior and exterior. Knowledge required for the selection of structural strategies, structural systems and materials, for a variety of design situations, is assessed through a series of reports and an examination. This unit is core to the Master of Architecture.

MARC4102
Modern Architectural Theory
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Dr Ross Anderson
Session: Semester 2
Classes: Two hours lectures and one hour tutorial per week.
Prohibitions: ARCH4104, ARCH5048, ARCH8049
Assessment: There will be three principle assignment tasks: weekly written critical summaries of reading and lecture content plus formulation of questions intended to generate group discussion, one tutorial presentation, and one critically researched and referenced 3000 word paper on an individually selected topic that will be assessed both in its proposal stage and as a finished essay.
Mode of delivery: Normal (lecture/lab/tutorial) Day

The objective of the Modern Architectural Theory unit is to equip students with a critical understanding of key Western architectural theories from the Enlightenment to the present. Emphasis is placed on the specific historical situations and cultural and philosophical contexts in which those theories arose, and ultimately how they were represented within the domain of architectural embodiment. It is organized predominantly as a chronological survey which clearly identifies particular trains of thought in their continuity and transformation throughout history. Students will become generally conversant in the principles of central theories, and will understand their terms and references. Through readings, lectures, and tutorial sessions, students will acquire the literacy required to perceive and articulate contemporary theoretical viewpoints, and will refine their research and writing skills through independent research into a particular aspect of recent architectural theory and history related to their concurrent studio design project. Close attention will be paid to the exchange between practice and theory and the relevance of the discussed theories to the formation of current circumstances, and to the place of architecture within contemporary culture as a whole.

MARC4201
Modern Architectural History
Architecture, Design and Planning
Credit points: 6
Teacher/Coordinator: Dr Greg Castillo
Session: Semester 1
Classes: Two hours lectures and one hour tutorial per week.
Prohibitions: ARCH44102
Assessment: There will be three principle assignment tasks: weekly written critical summaries of reading and lecture content plus formulation of questions intended to generate group discussion, one tutorial presentation, and one critically researched and referenced 3000 word paper on an individually selected topic that will be assessed both in its proposal stage and as a finished essay.
Mode of delivery: Normal (lecture/lab/tutorial) Day

This unit presents foundational knowledge concerning modern movements in global architecture and urbanism, from the early-20th century to the present. It explores the relationships between developments in architectural practice and broader dynamics of 20th century history. Organised as a chronological survey focused on case studies of individual buildings, the course uses architectural exemplars to explore the social, political, technological, economic, and aesthetic guises of modernity. In addition to developing student analytical skills, the unit seeks to introduce students to formal and conceptual approaches to architectural modernity, provide a critical overview of the architectural profession and its historical context over the last century, and impart knowledge of the major periods and developments of modern movements in architecture and their relationship to the multiple guises of modernity in which they were embedded.

Through readings and lectures, students will acquire the architectural literacy required to perceive the contemporary built environment as an artefact of modernity’s varied legacies. In addition, students will be expected to refine their research and writing skills through their individual investigations of a particular aspect of modern architecture.

MARC5001
Graduation Studio
Architecture, Design and Planning
Credit points: 12
Session: Semester 1, Semester 2
Classes: Six hours per week for 11 weeks.
Prerequisites: MARC4001, 4002 and 4003
Prohibitions: ARCH8201, MARF8201
Assessment: Attendance; lecture and tutorial participation; staged exercises; developed design including research report.
Mode of delivery: Normal (lecture/lab/tutorial) Day

Note: Students may incur materials costs in this unit.

This is the culminating studio of the Master of Architecture degree and provides students with the opportunity to develop a complex architectural project on a theme from the preceding digital, sustainable or urban architecture studios. With permission, the theme may be of a student’s own choice. The project will be supported by a comprehensive research report demonstrating independent exploration of relevant theories and issues raised during the design. This unit is core to the Master of Architecture. Contact hours: 6 hours per week.
for 11 weeks. Class preparation: 10 hours per week for 8 weeks. Assessment preparation: 28 hours per semester.

MARC5101 Advanced Technologies 2 Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: David Gunaratnam Session: Semester 2 Classes: 6 hours per week Corequisites: MARC(4001 or 4002 or 4003) Prohibitions: ARCH4203 Assessment: Case study reports and examination Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit is offered in odd numbered years only and alternates with MARC4101.

The unit introduces students to concepts, issues and techniques relating to the design of more advanced and complex structural, construction and services systems. It explores in depth the integration of these systems within the design decision making process. This unit also has a modular structure and aims to give students the ability to realize their design intentions initially in the studio projects of the degree; to understand the nature and impact of materiality on the architectural design process; and then in subsequent practice, to provide the basis for the development of technical and design skills required of a professional architect. This unit reviews the recent developments and trends in the design of more advanced structural systems for buildings, including those inspired by nature, and explores the nature of both the building fabric and, the environmental and managements systems which enable the building to function in a complex and changing urban environment. Students are expected to research alternative structural, environmental and construction systems that satisfy the aesthetic requirements of their design and to evaluate them based on clearly articulated decision criteria. Knowledge required for the selection of strategies, systems, and the integration of the systems for a variety of design situations, is assessed through case study assignments and an examination. This unit is core to the Master of Architecture. Contact hours: 6 hours per week (lecture and tutorial); student effort expected for an average student to achieve a pass level result: class preparation: 2 hours per week; assessment preparation: 30 hours per semester.

MARC5102 Contract Documentation Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Peter Armstrong Session: Semester 2 Classes: Three hours per week Corequisites: MARC(4001, 4002, 4003, 5001 or 5201) Prohibitions: ARCH4103 Assessment: Preparation of a set of basic building contract documentation including working drawings and specifications; submission of papers, including rudimentary cost estimates, based on class work. Mode of delivery: Normal (lecture/lab/tutorial) Day

The unit aims to provide knowledge of basic contract law and building contracts; as well as information about, and skills in, the production of working drawings, specifications and opinions of probable construction costs, as commonly prepared by an architect. On the successful completion of this unit of study, students will have demonstrated: a competent ability in the production of working drawings, specifications and cost control for the building designed during the semester studio; an ability to communicate this documentation to clients, statutory authorities, consultants, tenderers, contractors and sub-contractors etc. such that they are able to understand and require to be built; an understanding of the significance of contract documents in contracts, the relationship between contract documents and relevant law, and the provision of a context for understanding the full examination of commonly used building contracts in the Management in Architecture unit of study; an ability in the making of working drawings and specifications, the coordination of these documents into contract documents; an understanding of the role of consultants with specific reference to cost control, and the management of the process. This unit is core to the Master of Architecture.

Contact hours: 3 hours per week. Class preparation and assessment preparation: 39 hours per semester.

MARC5201 Management in Architecture Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr Peter Armstrong Session: Semester 2 Classes: Three hours per week Prohibitions: ARCH6201 Assessment: written exercises, tutorial participation, examination. Mode of delivery: Normal (lecture/lab/tutorial) Day

Students are expected to demonstrate a capacity to identify specific issues and articulate methods of resolving related problems with specific reference to the links between the contacts, their administration, the architect’s responsibility to the contracted parties, and how these issues can impact on the design and construction of a building project.

This unit provides information on the practice of architecture with particular emphasis on the obligations and responsibilities of architects to clients, builders, consultants and the community and to the administration of contracts commonly used in the procurement of buildings.

The unit provides instruction in: the regulation of the architectural profession; roles of consultants and their selection, engagement, coordination and responsibilities; modes of practice, conditions of engagement for architects; fee structures; meeting procedures; pre-contract management; contract selection and administration; alternative procurement methods and the relationship of these factors in completing a building project.

On the successful completion of this unit of study, students will have demonstrated: an understanding of an architect's responsibilities; an understanding of the management of architectural practices; an understanding of the manner in which architects are involved in contract administration, and commonly used procurement methods within the building industry.

This unit is core in the Bachelor of Architecture. Contact hours: 3 hours per week. Class preparation: 1 hour per week. Assessment preparation: 26 hours per semester.

MARC6101 Performance Based Modelling in Design Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Dr David Gunaratnam and Professor Richard Hyde Session: Semester 1 Classes: Three hours per week lecture and lab Corequisites: MARC(4001, 4002, 4003, 5001 or 5201) Assessment: One assignment linked to the design project. Mode of delivery: Normal (lecture/lab/tutorial) Day

The unit aims to introduce students to selected state-of-the-art applications-software for performance-based modelling of buildings through simulation and optimisation of structural and environmental systems. It provides hands-on experience in the use of these applications software for decision making at the conceptual stage of the design process. It provides a framework for integrating and optimally responding to the technical opportunities and constraints during the conceptual design phase. It will facilitate and extend students' capability to explore and develop novel innovative technical solutions in resolving their design problems.

At the completion of the unit each student is expected to have demonstrated through the assessment tasks a good understanding of the capabilities of the different research and applications software presently available; an ability to interpret the performance information and make conceptual design decisions; a good understanding of the theoretical bases for the features in the research and applications software; and an ability to develop design solutions that optimally integrates the technical aspects of design.

MARC6201 Design as Social Practice Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Associate Professor Anna Rubbo Session: Semester 2 Classes: Two hours seminar per week intensive component. Prerequisites: DAAE2002 or by permission Prohibitions: DAAE2003 Assessment: Attendance; seminar presentation; fieldwork; paper. Mode of delivery: Normal (lecture/lab/tutorial) Day
Through the study of selected building types and settings the unit aims to explore the ways in which cultural and social factors influence design, and how design can be inclusive of, and responsive to, a range of user groups. Building types might be housing, educational, religious, and institutional or community buildings. The type and the approach will be introduced in lectures and seminars, and an understanding of the type gained through fieldwork using mixed mode research approaches taking into account the environmental context. It is intended that the building type and setting will vary each year the unit is offered. Through an increased capacity for critical analysis and interpretation, this research led learning unit will provide students with useful knowledge of the design of socially responsive and inclusive environments.

This elective unit will contribute to knowledge of design as a social practice, and provide an interdisciplinary learning setting in which to consider the design of the built environment. Design as Social Practice will enhance participants’ capacity to analyse how social and cultural factors influence design, and how design can be socially responsive and inclusive. It is intended that students in other disciplines will develop a means of interpreting buildings that will enhance their appreciation of design as a social practice.

MARCS6202
Architecture Workshop A
Architecture, Design and Planning
Credit points: 6  Teacher/Coordinator: Professor Tom Heneghan  Session: S2 Intensive  Classes: 40 hours intensive mode  Assessment:  Design jury.  Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: Department permission required for enrolment. Note: Students may incur materials costs in this unit.

Through design projects offered by visiting national and international design practitioners and Faculty staff, this unit of study will provide students with the opportunity to explore a wide range of design issues and ideas in an intensive design studio environment. At the successful completion of this unit of study students will have: extended their ability to develop creative responses to a design brief or situation; extended their understanding of the theoretical, historical, cultural, environmental or technical framework of design; applied these understandings and demonstrated good architectural judgement; and communicated these ideas and understandings effectively through presentation means including drawings, models and CAD, which are assessed in a jury context. This unit is Pass/Fail. Contact hours: 40 hours intensive. Assessment and preparation: 38 hours.

MARCS6203
Architecture Workshop B
Architecture, Design and Planning
Credit points: 6  Teacher/Coordinator: Professor Tom Heneghan  Session: S2 Intensive  Classes: 40 hours intensive mode  Assessment:  Design jury.  Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: Department permission required for enrolment. Note: Students may incur materials costs in this unit.

Through design projects offered by visiting national and international design practitioners and Faculty staff, this unit of study will provide students with the opportunity to explore a wide range of design issues and ideas in an intensive design studio environment. At the successful completion of this unit of study students will have: extended their ability to develop creative responses to a design brief or situation; extended their understanding of the theoretical, historical, cultural, environmental or technical framework of design; applied these understandings and demonstrated good architectural judgement; and communicated these ideas and understandings effectively through presentation means including drawings, models and CAD, which are assessed in a jury context. This unit is Pass/Fail. Contact hours: 40 hours intensive. Assessment and preparation: 38 hours.

MARF5301
Honours Report
Architecture, Design and Planning
Credit points: 6  Teacher/Coordinator: Dr Glen Hill  Session: Semester 1, Semester 2  Classes: Half hour per week with supervisor.  Prerequisites: 72 credit points with WAM of at least 80. Corequisites: MARF5201 Prohibitions: ARCF5301 Assessment: Report: Report developed through design project; art project presented with supporting text or other by formal agreement.  Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: Department permission required for enrolment. Note: To qualify for honours in the MArch students must achieve a WAM of at least 80 in all units attempted.

The Honours Report allows Master of Architecture students to explore and research an area of architectural study in depth. Areas of research might include sustainability, urban design, digital media and design, architectural history, architectural theory, design science, and art in relation to architecture. The research may be developed through MARF5201 Honours Studio such that the design project forms part of the honours submission. The unit facilitates students completing their research under the direction of their individual supervisor. The outcome of the research is presented for assessment in a form appropriate to the research topic (which might include, but not be limited to, a short dissertation, or a design or art project presented with supporting text.) A copy of the report describing the outcome of the research is required to be hardbound and submitted for lodgement in the Audiovisual Library.
Contact hours: Honours preparation class: 20 hours nominal. 0.5 hours per week with individual supervisor.

PLAN9010
Planning Dissertation 1
Architecture, Design and Planning
Credit points: 12  Teacher/Coordinator: Dr Krishna Shrestha and Mr Martin Payne  Session: Semester 1, Semester 2  Classes: Independent study + 7 meetings.  Prerequisites: WAM of at least 75 and 48 credit points being the core requirements for the MURP. Prohibitions: PLAN9018, ARCH9031, ARCH9045, ARCH9046, ARCH9099 Assessment: Class participation 5%, proposition preparation and presentation 10%, final presentation 15%, dissertation of at between 15000 and 25000 words 70%  Mode of delivery: Normal (lecture/lab/tutorial) Day  Note: Department permission required for enrolment. Note: Submit an Independent Study Approval Form, signed by your proposed supervisor, with your request to enrol. This unit is for Masters of Urban & Regional Planning students only. It MUST be taken in conjunction with PLAN9011 Planning Dissertation 2, either in the same or following semester.
The planning dissertation is a substantial piece of research, conducted full time over one semester (by enrolment in PLAN9010 and PLAN9011), or part time over two semesters (by consecutive enrolment in these units). It takes the form of a document (between 15000 and 25000 words) on an approved urban and regional planning subject of your choice. Students electing to do a stream in the MURP program must select a topic relevant to their chosen stream. There is also an option for students to prepare a shorter document suitable for publication in a refereed journal. The planning dissertation is an opportunity to advance your knowledge and skills in a particular area and so develop a "professional edge". For those intending to undertake further academic study, the dissertation also provides an opportunity for you to develop your research skills and qualify for the degree with honours.

The objective of the dissertation is to allow you to develop higher order research and analytic skills by undertaking an in depth study of your own selection. The expected learning outcomes of the dissertation include the ability to: think critically about a planning problem and develop an appropriate research methodology or analytical approach to address it; identify and access appropriate sources of information, research and literature relevant to urban and regional planning issues; undertake primary and secondary research; present your findings in a way that demonstrates academic and professional competence.

A dissertation generally includes: a literature review to delineate a problem or gap in knowledge; a statement of research aims or objectives, as well as research questions and / or hypotheses; explanation of research methods; presentation and analysis of data; discussion of conclusions; an abstract.

Permission to continue the Planning Dissertation is subject to a satisfactory research proposal which must be approved by your supervisor by week 3 of semester.

The dissertation will be marked by two examiners. Dissertations are due at the end of the first week of exams for the semester in which you are enrolled in Planning Dissertation 2. Note that only one submission is required for both Planning Dissertation 1 and 2. It is not possible to complete Dissertation 1 independently of Dissertation 2. Students who intend a shorter project should enrol in PLAN9018 Planning Report.

A result of 75 is required for the award of the honours degree. Students with a result lower than 75 will be awarded the pass degree.

PLAN9011 Planning Dissertation 2
Architecture, Design and Planning

Credit points: 12
Teacher/Coordinator: Dr Krishna Shrestha and Mr Martin Payne
Session: Semester 1, Semester 2
Classes: Independent study + 7 meetings.
Prerequisites: WAM of at least 75 and 48 credit points being the core requirements for the MURP Corequisites: PLAN9010 Assessment: Class participation 5%, proposal preparation and presentation 10%, final presentation 15%, dissertation of between 15000 to 25000 words 70%. Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: This unit is for Masters of Urban & Regional Planning students only. It MUST be taken in conjunction with PLAN9010 Planning Dissertation 1, either in the same or preceding semester.

The planning dissertation is a substantial piece of research, conducted full time over one semester (by enrolment in PLAN9010 and PLAN9011), or part time over two semesters (by consecutive enrolment in these units). It takes the form of a document (between 15000 and 25000 words) on an approved urban and regional planning subject of your choice. Students electing to do a stream in the MURP program must select a topic relevant to their chosen stream. There is also an option for students to prepare a shorter document suitable for publication in a refereed journal. The planning dissertation is an opportunity to advance your knowledge and skills in a particular area and so develop a "professional edge". For those intending to undertake further academic study, the dissertation also provides an opportunity for you to develop your research skills and qualify for the degree with honours.

The objective of the dissertation is to allow you to develop higher order research and analytic skills by undertaking an in depth study of your own selection. The expected learning outcomes of the dissertation include the ability to: think critically about a planning problem and develop an appropriate research methodology or analytical approach to address it; identify and access appropriate sources of information, research and literature relevant to urban and regional planning issues; undertake primary and secondary research; present your findings in a way that demonstrates academic and professional competence.

A dissertation generally includes: a literature review to delineate a problem or gap in knowledge; a statement of research aims or objectives, as well as research questions and / or hypotheses; explanation of research methods; presentation and analysis of data; discussion of conclusions; an abstract.

Permission to continue the Planning Dissertation is subject to a satisfactory research proposal which must be approved by your supervisor by week 3 of semester.

The dissertation will be marked by two examiners. Dissertations are due at the end of the first week of exams for the semester in which you are enrolled in Planning Dissertation 2. Note that only one submission is required for both Planning Dissertation 1 and 2. It is not possible to complete Dissertation 1 independently of Dissertation 2. Students who intend a shorter project should enrol in PLAN9018 Planning Report.

A result of 75 is required for the award of the honours degree. Students with a result lower than 75 will be awarded the pass degree.

PLAN9018 Planning Report
Architecture, Design and Planning

Credit points: 12
Teacher/Coordinator: Dr Krishna Shrestha and Mr Martin Payne
Session: Semester 1, Semester 2
Classes: Independent study + 7 meetings.
Prerequisites: 48 credit points
Prohibitions: ARCH9031, ARCH9060
Assessment: Class participation 5%, proposal preparation and presentation 10%, final presentation 15%, report of between 10000 and 15000 words. Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment. Note: Submit an Independent Study Approval form, signed by your proposed supervisor, with your request to enrol. This unit is for Masters of Urban & Regional Planning students only. MURP students taking the Urban Design stream should enrol in ARCH9060 Urban Design Report.

The planning report is a substantial piece of research conducted over one semester. It takes the form of report (between 10000 and 15000 words) on an approved urban and regional planning subject of your choice. Please note however that students electing to do a stream in the MURP program should select a topic relevant to their chosen stream.) The planning report is therefore an opportunity to advance your knowledge and skills in a particular area and so develop a "professional edge".

The objective of the planning report is to allow you to develop research and analytic skills by undertaking an in depth study of your own selection. The expected learning outcomes of the report include the ability to: think critically about a planning problem and develop an appropriate research methodology or analytical approach to address it; identify and access appropriate sources of information, research and literature relevant to urban and regional planning issues; undertake primary and secondary research relevant to problems in planning practice; present your findings in a way that demonstrates academic and professional competence.

A planning report generally includes: a literature review to delineate a planning problem or gap in knowledge; a statement of research aims or objectives, as well as research questions and / or hypotheses; explanation of research methods; presentation and analysis of data; discussion of conclusions.

Permission to continue the Planning Report is subject to a satisfactory research proposal which must be approved by your supervisor by week 3 of semester.

Planning reports are due at the end of the first week of exams for the semester in which you are enrolled.

PLAN9045
Economic Tools and Community Development
content and implementation place particular demands on development assistance work. Differences in context, approach, and European nations. There are many parallels between urban and Banks and those of the largest donor countries of Japan, United States of the multilateral agencies like the World and Asian Development (east, south and north) and the Pacific. Additionally are the programs significantly through projects and technical assistance in Africa, Asia
This unit is designed to fill a significant gap in the evolution of the delivery:
Classes: Intensive module, run over a three-day period; lectures, seminars, reports and designs.
The key attributes engendered by the unit are: to be able to use
environmental and sustainability focused development objectives; family with the scope and character of urban and regional planning project design and implementation in the Asia-Pacific region; and an understanding of quality assurance methodology in development project assessment. The unit reflects the increasing internationalisation of Australian planning practice. It caters to the needs of local and international students intending to work on urban and regional planning projects within a development assistance context.
This unit of study is not available in 2009
Architecture, Design and Planning
This unit is designed for planners who may work in the field of international development.
By the end of this unit of study you should have an understanding of the role and scope of development assistance project planning; an ability to undertake the studies required at each stage of the development project activity cycle; familiarity with the fundamentals of development project design; ability to comply with design conditions imposed by the key policy themes of: poverty, gender equity, environmental and sustainability focused development objectives; familiarly with the scope and character of urban and regional planning project design and implementation in the Asia-Pacific region; and an understanding of quality assurance methodology in development project assessment. The unit reflects the increasing internationalisation of Australian planning practice. It caters to the needs of local and international students intending to work on urban and regional planning projects within a development assistance context.

Architecture, Design and Planning
Credit points: 6 Session: S2 Intensive Classes: 5 day intensive Assessment: Students will be assessed on the basis their ability to use key concepts and methods in undertaking practical projects. Assessment will be based on a student's ability to: critically analyse regional economic impact and project evaluation documents; undertake a literature review using a variety of sources; use the internet as a research tool; apply the main concepts of input-output analysis, economic and project evaluation (including discount rate, net present value, internal rate of return); and consider intangible items in economic evaluation. Mode of delivery: Block Mode
This specialisation unit is concerned with: project and program evaluation; economic and social impact analysis; regional planning and development; and assessment of benefits and costs, and justification for public funding.

On completion of the unit students should be able to: critically review a cost-benefit analysis, a feasibility study, economic impact analysis and a social impact analysis; generate an economic development strategy for a region; analyse a regional planning policy; understand the social and economic impacts of tourism; apply theoretical concepts and methods to practical problem; think creatively and critically about planning issues; use the available computer and information technology; and apply technical skills in a sound and useful manner.

PLAN9048 Environmental Design and Planning
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Mr Martin Payne Session: S2 Late Int Classes: 4 days intensive Assessment: One report, 6000 - 7000 words (100%) Mode of delivery: Block Mode
The unit teaches knowledge and skills relevant to designing and planning the built environment. It engenders capability with designing buildings, places and urban form, having regard to a range of environmental design, planning and sustainability considerations.
The unit covers a range of related concepts and topics: designing for user comfort, quality built environments, and sustainability; key environmental design factors (air flow and ventilation; natural and artificial lighting; solar provisions; noise; energy efficiency, waste management etc); urban ecology and landscapes; natural environments and urban systems; innovative hydraulic systems; sustainable architectural and urban design; social dimensions of environmental design; lighting public places for safety, amenity and enclosure; designing secure and manageable public places; implementing ESD with instruments, guidelines and approvals; and environmental studies and development approval.
The key attributes engendered by the unit are: to be able to use concepts and methods in a sound and creative manner; to be able to solve relevant design problems; to be able to apply appropriate technical skills and knowledge; and to be able to produce appropriate reports and designs.

PLAN9049 Development Project Planning and Design
Architecture, Design and Planning
Credit points: 6 Teacher/Coordinator: Paul Jones Session: S1 Late Int Classes: Intensive module, run over a three-day period; lectures, seminars, group work. Assessment: Three assignments: (1) development project reading report (20%); (2) critical essay (30%); (3) draft project design (55%). Mode of delivery: Block Mode Note: This unit is offered in odd numbered years only.
This unit is designed to fill a significant gap in the evolution of the urban and regional planning syllabus. Development project assistance is a multi billion dollar industry with Australia alone contributing significantly through projects and technical assistance in Africa, Asia (east, south and north) and the Pacific. Additionally are the programs of the multilateral agencies like the World and Asian Development Banks and those of the largest donor countries of Japan, United States and European nations. There are many parallels between urban and regional plan making and the design of development projects. Indeed, some planning consultancies are primarily engaged in international development assistance work. Differences in context, approach, content and implementation place particular demands on development project designers that are not addressed in standard land use planning texts. Additionally, expenditure of large sums of public money has brought with it demands for quality assurance (QA) assessment at each stage of the development project activity cycle. An introduction to QA methodology and practice is a necessary component of development project design. International development assistance is a huge business employing large numbers of Australian consultants, contractors and supplying companies together with those of partner governments. Planners contribute to the design, implementation and evaluation of development projects in most of the neighbouring countries of Asia and the Pacific. Development project design is conditioned by several key elements including: components of the project activity cycle, thematic policy goals and essential quality assurance requirements. This unit is designed for planners who may work in the field of international development.
By the end of this unit of study you should have an understanding of the role and scope of development assistance project planning; an ability to undertake the studies required at each stage of the development project activity cycle; familiarity with the fundamentals of development project design; ability to comply with design conditions imposed by the key policy themes of: poverty, gender equity, environmental and sustainability focused development objectives; familiarly with the scope and character of urban and regional planning project design and implementation in the Asia-Pacific region; and an understanding of quality assurance methodology in development project assessment. The unit reflects the increasing internationalisation of Australian planning practice. It caters to the needs of local and international students intending to work on urban and regional planning projects within a development assistance context.

PLAN9050 Housing for Health (Advanced)
Architecture, Design and Planning
This unit of study is not available in 2009
Credit points: 6 Teacher/Coordinator: Mr Col James Session: S2 Intensive Classes: Intensive mode seminars and field trips Assessment: 2 assignments and report (assignment 1: 10%, Assignment 2: 60%) Mode of delivery: Normal (lecture/lab/tutorial) Day
Note: Department permission required for enrolment.
By the end of this unit a student should: have an understanding of recommended texts and reporting on health-housing theory; be able to complete specific tasks in the measurement of performance of household plumbing and electrical services and fittings against stated standards; be familiar with Healthhabitat data sheets and logging into Healthhabitat analysis programs to deliver work sheets for licensed plumbers and electricians; and be able to write a report specifically analysing data, house fixing procedures and independent observations of other health risks, to give householders information on best household user practices and regular maintenance requirements. This unit is an investigation of the housing characteristics fundamental to the healthy survival of babies (0-5 years) as a prerequisite for healthy family life. The focus is on nine healthy living practices: washing people; washing clothes; removing waste; improving nutrition; reducing crowding; separating people from animals, vermin or insects; reducing dust; controlling temperature; and reducing trauma. Upon completion of the basic Housing for Health unit, advanced and postgraduate students will select one of the nine healthy living practices for deeper research and investigation and presentation of a report.
The unit aims to demonstrate the health implications of housing design. Students will develop skills in the measurement analysis of design features which have health outcomes. The unit will also develop skills in reporting and communicating results and recommendations to householders.

PLAN9061 Planning Procedures

2009 Postgraduate Tables and Unit Descriptions - Architecture, Design and Planning
## Architecture, Design and Planning

### PLAN9021

**Credit points:** 6  
**Teacher/Coordinator:** A/Prof. Nicole Quaran  
**Session:** Semester 1  
**Intensive, S2 Intensive Classes:** Four day intensive  
**Prohibitions:** PLAN9020, PLAN9044  
**Assessment:** There are three written assessment items. These are based on current case studies in the Sydney metropolitan area, and may be used for a portfolio of professional work.  
**Mode of delivery:** Block Mode  
**Note:** Enrolment numbers limited by teaching resources. If your attempt to enrol online is unsuccessful please contact the Faculty of Architecture Student Administration Centre. Permission required in Semester One unless enrolled in Urban and Regional Planning.

This unit aims to prepare you for professional practice as a strategic or development assessment planner. It focuses on social, economic and environmental principles for contemporary planning practice; and the legal frameworks for land use planning and environmental management in NSW.

By the end of this unit of study you will: understand the social, economic, and environmental principles underpinning contemporary planning practice; appreciate key legal and institutional processes for environmental planning in Australia and internationally; be familiar with the various planning state, regional, and local planning instruments in NSW, and understand when and how they apply to planning proposals; be able to assess the social, economic, and environmental impacts of basic planning proposals, and identify appropriate processes to address these; justify these recommendations in professional planning reports; understand the principles, techniques and requirements for public participation in environmental planning and assessment; understand the ethical responsibilities of land use planners, including respect for diversity and the importance of social equity, in guiding decision making processes and assessing planning proposals.

This unit is a core subject in the urban and regional planning program, and a required subject for several other degree programs in the Faculty. The unit relates directly to PLAN9062 Planning Law, and unless students have extensive experience or knowledge of planning practice in Australia, Planning Procedures must be undertaken prior to enrolling in Planning Law or during the same semester.

Student workload: the unit is delivered intensively over 4 days. Class preparation: 3 hours prior to each class; Assessment preparation: 60 hours per semester.

### PLAN9062

**Planning Law**

**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Adj Prof Mary-Lynne Taylor  
**Session:** Semester 2  
**Classes:** 2hr lecwk  
**Corequisites:** PLAN9061  
**Prohibitions:** PLAN9021  
**Assessment:** three written reports  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

This unit aims to develop an understanding of planning law that enables competent professional practice in addressing a range of complex planning issues.

Students will be able to prepare reports on practical planning issues that demonstrate: knowledge of how planning intentions are implemented through policies, instruments and controls; knowledge of how planning law shapes practice; knowledge of instrumental arrangements and environmental planning procedures; knowledge of the main characteristics of well-reasoned and well-structured documents; awareness of the importance of evidence and argument in preparing planning proposals, for example, about planning instruments and development applications; and a general understanding of techniques for community consultation.

Student workload: three reports and graphics, based on group work on a project, with individual submissions. Each equivalent to 2,000 to 2,500 words in length.  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

The unit is primarily concerned with concepts relating to planning for natural and built environments. It emphasises conceptual knowledge, with examples and case studies to demonstrate the application of concepts in practice. Students are encouraged to think independently, creatively and critically in developing understanding and practical knowledge about environmental planning.

The unit is in three modules.

**Module one:** Concepts of the environment and environmental planning, deals with different environmental concerns and adapting issues (defence, sanitation, security, material wellbeing, hazards, civic functions, urban places, natural environments etc); the emergence of government with environmental reforms; types of environmental studies, plans and planning instruments; and urban form, access, densities and the distribution of activities.

**Module two:** Environmental Assessment, deals with environmental impacts - social, economic, natural etc; theory and practice of environmental impact assessment; recognition of the limitations with impact assessment, and possible remedies; environmental studies and assessment statements; the structure of environmental arguments and impact statements; procedures for preparing and assessing impact statements; political and economic factors influencing environmental assessment; case study- review of a major EIS.

**Module three:** Urban Development, deals with environmental studies, metropolitan planning and the roles of governments; infrastructure planning and urban form; differing perspectives on planned and natural environments; various roles of planning in managing urban growth and protecting the environment; and a case study - planned metropolitan growth.

On completion, each student will understand the flexible and evolving forms of environmental planning; be able to review an environmental impact statement; and be able to prepare basic urban development plans.

### PLAN9064

**Land Use and Infrastructure Planning**

**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Mr Martin Payne  
**Session:** Semester 2  
**Classes:** Two hours lecture per week.  
**Prohibitions:** PLAN9028  
**Assessment:** Three reports and graphics, based on group work on a project, with individual submissions. Each equivalent to 2,000 to 2,500 words in length.  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

The unit is primarily concerned with concepts relating to planning for natural and built environments. It emphasises conceptual knowledge, with examples and case studies to demonstrate the application of concepts in practice. Students are encouraged to think independently, creatively and critically in developing understanding and practical knowledge about environmental planning.

The unit is in three modules.  
1. **Concepts of the environment and environmental planning:** different environmental concerns and adapting issues (defence, sanitation, security, material wellbeing, hazards, civic functions, urban places, natural environments etc); the emergence of government with environmental reforms; types of environmental studies, plans and planning instruments; and urban form, access, densities and the distribution of activities.  
2. **Environmental Assessment:** environmental impacts, social, economic, natural etc; theory and practice of environmental impact assessment; recognition of the limitations with impact assessment, and possible remedies; environmental studies and assessment statements; the structure of environmental arguments and impact statements; procedures for preparing and assessing impact statements; political and economic factors influencing environmental assessment; case study- review of a major EIS.  
3. **Urban Development:** environmental studies, metropolitan planning and the roles of governments; infrastructure planning and urban form; differing perspectives on planned and natural environments; various roles of planning in managing urban growth and protecting the environment; and a case study - planned metropolitan growth.

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On completion, each student will: understand the flexible and evolving forms of environmental planning; be able to review an environmental impact statement; and be able to prepare basic urban development plans.

**PLAN9065** Resource and Environmental Management Architecture, Design and Planning

**Credit points:** 6  
**Teacher/Coordinator:** Dr Krishna Shrestha  
**Session:** Semester 1  
**Classes:** Seminars plus discussion 2hrs/wk  
**Assessment:** essay of 3,000 words (35%), case study report of 5,000 words (50%) and in-class presentation of case study report (10 mins) at the end of the semester (15%)  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

The aims of this unit are (1) to understand basic principles of environmental and resource management; (2) to apply principles of resource and environmental management in assessing the impacts of development activities and (3) to formulate strategies to address environmental and resource management issues and enhance environmental equity and sustainability, particularly with respect to conducting, managing and evaluating environmental impact assessments and addressing the issues of stakeholders participation in collaborative planning and management of environmental and natural resources. This unit is especially relevant to government agencies, community groups and other relevant stakeholders involved in environmental and resource planning and management at local, regional, state and national levels; to international conservation and environmental management organisations; and to consulting firms, including those that specialise in environmental assessment and management. Through lectures, case study analyses and discussions, this unit aims to enable students to explore and understand how political and economic processes at various scales can influence environmental and resource management decisions and outcomes at local and regional levels, affecting the nature and extent of social and ecological outcomes in relation to moving towards achieving sustainable environmental and resource management.

**PLAN9067** Metropolitan Planning Architecture, Design and Planning

**This unit of study is not available in 2009**  
**Credit points:** 6  
**Teacher/Coordinator:** Prof Ed Blakely and Mr Martin Payne  
**Session:** S2 
**Classes:** 5 days intensive Prerequisites: PLAN (9027 and 9028) or PLAN (9063 and 9064)  
**Assessment:** Assignment one: 25%; assignment two: 30%; assignment three: 40%; readings: 5%  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day  
**Note:** Department permission required for enrolment.

Students will learn about: the roles of governments in metropolitan planning and implementing urban development policies; planning for a range of infrastructure and for key urban activities; implementation arrangements for public and private sector agencies; and types of metropolitan plans and their relations with other instruments and policies. Each student will be able to: prepare a policy analysis on a planning issue that supports proposals and related actions; prepare a well organised report and make a short oral presentation on their analyses and proposals; conceptualise complex urban development situations; critically review and interpret literature, instruments, policies, plans etc; and conduct 'field' investigations, and construct sound, contextual and practical knowledge (especially using stories and arguments).

**PLAN9068** History and Theory in Urban Planning Architecture, Design and Planning

**Credit points:** 6  
**Teacher/Coordinator:** Dr Krishna Shrestha and Mr Martin Payne  
**Session:** Semester 1  
**Classes:** 2 hrs/wk  
**Prohibitions:** PLAN9031  
**Assessment:** Three essays, each of 2,000-2,500 words in length.  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

The unit enables students to understand how the main concepts and practices of urban planning and development have evolved; appreciate different perspectives about the roles and purposes of planning; undertake basic historical research about urban planning and development issues; and prepare basic stories and arguments about practical planning issues.

Students will be able to: critically review and interpret planning documents; construct and present basic arguments, orally and in documents; access and engage with key literature and other sources of knowledge; and use basic conceptual frameworks about planning arguments and stories.

Contribution of unit of study to its program: this is an introductory, core unit.

Student workload effort expected: contact hours two per week; class preparation two per week; assessment preparation 50 hours per semester.

**PLAN9069** Urban Design and Development Control Architecture, Design and Planning

**Credit points:** 6  
**Teacher/Coordinator:** Mr Martin Payne and Ms Kimberley Everett  
**Session:** Semester 1  
**Classes:** 2 hrs/wk  
**Prohibitions:** PLAN9051  
**Assessment:** Reports, with supporting graphics.  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

Objectives: The unit aims to develop a professional standard of competence in the generation and implementation of urban design and development controls; and to demonstrate a critical and reflective awareness of the philosophies, concepts and practice of urban design and development control.

Content: The unit focuses on the development of design arguments, the translation of preferred design outcomes into development control codes, the legal framework of development controls and the preparation of development control reports.

Outcomes: Students should be able to prepare clear and concise development control plans, assess and report on the physical and social impact of alternative urban design and development control strategies, and prepare and evaluate design proposals. By the completion of this unit students will be expected to: understand the nature, history, and evolution of development controls; have fundamental notions of good urban design; critically examine development controls and make inferences about the type and quality of urban design they are likely (or not) to produce; develop skills to overlay development controls over the built environment; and judge the correspondence between urban design strategies and development controls. It is expected that: each student will demonstrate critical skills for assessing the soundness of policies, regulations, norms, and codes; students will be able to prepare case studies, which demonstrate understanding of various forms of development controls, and the ability to apply these to urban design proposals. Student workload effort expected: Contact hours two hours per week; class preparation two hours per week; assessment preparation 50 hours per semester.

**PLAN9071** Housing & Urban & Regional Development Architecture, Design and Planning

**This unit of study is not available in 2009**  
**Credit points:** 6  
**Session:** S1 Late Int  
**Classes:** Four days intensive mode.  
**Prohibitions:** ARCH9057  
**Assessment:** Two assignments (50% each)  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

This unit introduces the key policy and planning issues associated with the "production" and "consumption" of housing. These range from the physical location and sustainable design of new housing, through to the dynamics of the housing market, and the contribution of housing strategies to urban and regional revitalisation. The unit focuses on emerging themes in housing and urban development, and develops practical skills in designing strategic planning, policy, and project based responses to encourage more affordable, appropriate and environmentally sustainable housing outcomes for urban and regional Australia. By the end of this unit of study you should understand the basic structure and operation of housing markets; be familiar with important policy objectives for housing within the broader context of sustainable urban or regional development, such as sustainability,
affordability and appropriateness of design; and understand the relationships between these policy objectives and the land use planning framework. Case studies and or a housing project development simulation forms the focus for much of the learning in this unit.

**PLAN9072**  
**Housing Policy and Assistance**  
**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** A/Prof. Nicole Gurran  
**Session:** S2  
**Classes:** Four day intensive  
**Prohibitions:** ARCH9056  
**Assessment:** Two assignments (50% each)  
**Mode of delivery:** Block Mode  
**Note:** This unit is offered in odd numbered years only.

This unit focuses on emerging issues associated with the role of governments in housing, particularly the provision of housing assistance. The field of housing policy studies is extensive with a strong interdisciplinary base that provides a variety of theoretical and practical perspectives on housing issues facing professional housing workers, planners and architects working in Australia or abroad. The unit includes a comparative and historical perspective to increase awareness of differences in housing markets and housing needs, and to promote discussion of alternative approaches to housing policy. The unit will provide opportunities for students to discuss the policy making process and policy choices with practitioners working in different agencies and to analyse the drivers, objective and impacts of recent housing policy initiatives. Students will gain a comparative perspective on housing policy approaches using European and regional examples; and learn to analyse housing assistance needs and measures, including approaches for particular groups - for example housing for indigenous people and communities, housing models for people with support needs. The anticipated outcomes of the unit are to provide a conceptual framework for understanding the rationale for, and scope of, government intervention in housing; and to develop skills in developing and implementing policies that assist lower income earners and those with particular needs to access appropriate and affordable housing.

**PLAN9073**  
**GIS Based Planning Policy and Analysis**  
**Architecture, Design and Planning**

**Credit points:** 6  
**Teacher/Coordinator:** Prof Alan Peters  
**Session:** Semester 2  
**Classes:** lectures, studios and workshops 2 hrs/wk  
**Assessment:** Assignments, report, oral presentation  
**Mode of delivery:** Normal (lecture/lab/tutorial) Day

This unit is concerned with using GIS to analyse planning problems and undertake policy analyses. The unit will include a comprehensive introduction to mapping and the use of GIS: data structures, topology, projections, spatial and non-spatial queries. Australian census products will be described and students will be expected to analyse census statistics using GIS maps. The role of GIS in coordinating various forms of information for policy analyses, preparing master plans, in presenting information for development control, impact analyses and wider management purposes will also be covered. The use of GIS to support visualisation will be covered, using examples about designing development projects and planning instruments. Finally, the various forms of distributing maps to the public and policy-makers will be discussed.

The unit integrates the hands-on learning of GIS software with a 'research-based' approach. Teaching will involve short lectures, studios and workshops. Assessment will be on a series of smaller assignments and a larger report prepared by each student that integrates GIS-based (and other) graphics into a coherent policy analysis. In addition, each student will make oral presentations on their work in studio sessions.