

Liverpool John Moores University

Title: Technical and Environmental Design Studies (1)
Status: Definitive
Code: **7001MARCH** (117655)
Version Start Date: 01-08-2013

Owning School/Faculty: Liverpool School of Art & Design
Teaching School/Faculty: Liverpool School of Art & Design

| Team | Leader |
|---------------|--------|
| Jamie Scott | Y |
| Charles Smith | |
| Ian Wroot | |

Academic Level: FHEQ7 **Credit Value:** 24.00 **Total Delivered Hours:** 48.00
Total Learning Hours: 240 **Private Study:** 192

Delivery Options

Course typically offered: Standard Year Long

| Component | Contact Hours |
|-----------|---------------|
| Lecture | 8.000 |
| Practical | 36.000 |
| Tutorial | 4.000 |

Grading Basis: 40 %

Assessment Details

| Category | Short Description | Description | Weighting (%) | Exam Duration |
|-----------|-------------------|--------------------------------|---------------|---------------|
| Artefacts | Artefact 1 | The Sketch Book/Sense of Place | 12.5 | |
| Artefacts | Artefact 2 | Urban Design Site Analysis | 12.5 | |
| Artefacts | Artefact 3 | Urban Design Communication | 12.5 | |
| Artefacts | Artefact 4 | Site Analysis | 12.5 | |
| Artefacts | Artefact 5 | Interior Study | 12.5 | |
| Artefacts | Artefact 6 | Carbon Footprint | 12.5 | |
| Artefacts | Artefact 7 | Facade Study | 12.5 | |
| Artefacts | Artefact 8 | Model and Publication | 12.5 | |

Aims

The purpose of the module is to develop effective and efficient analysis, technical design and presentation skills, along with time management skills. This module requires students to complete a series of specific design tasks, each one individually briefed and with a duration of one week. Each task requires a formal submission of information which will be assessed without verbal presentations. Submissions should be clear and self-explanatory, with an appropriate focus on quality of visual presentation. The module includes individual work and group work and skills in teamwork will also be developed.

Learning Outcomes

After completing the module the student should be able to:

- 1 1 Demonstrate the ability to creatively use a limited period of time to undertake a design / intellectual exercise.
- 2 2 Demonstrate the ability to explore in depth one aspect of the given topic.
- 3 3 Demonstrate the ability to use different media to express ideas.
- 4 4 Where appropriate, demonstrate the acquisition of analytical design skills relating to; precedent research and analysis, client and user consultation, market research and testing as appropriate.
- 5 5 Where appropriate, demonstrate technical literacy in the detailed design of small, innovative architectural assemblies including; material choice and science, prototyping, value engineering, workshop fabrication and site assembly issues.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

| | | | | | |
|------------|---|---|---|---|---|
| Artefact 1 | 1 | 2 | 3 | | |
| Artefact 2 | 1 | 2 | 3 | | |
| Artefact 3 | 1 | 2 | 3 | 5 | |
| Artefact 4 | 1 | 2 | 4 | 5 | |
| Artefact 5 | 1 | 2 | 3 | 4 | 5 |
| Artefact 6 | 1 | 2 | 3 | 4 | |
| Artefact 7 | 1 | 2 | 3 | 4 | 5 |
| Artefact 8 | 1 | 2 | 3 | | |

Outline Syllabus

Eight 1 week long 'Design Bites' will be interspersed throughout the year. Students

can, if they wish, focus on one particular aspect of each topic in order to best utilise the time available. Such an emphasis should be entirely worked out prior to work commencing on day one of each assignment. Topics have been chosen to enhance each student's skills in perspective drawing, other graphical skills, physical model-making, critical skills and technical literacy. Each assignment relates specifically to design work undertaken in the related Architectural Design Studies module.

Assignments

7001MARCH.1 The Sketch Book / Sense of Place

The value of freehand drawing as a method of observing and recording as part of site appraisal and analysis.

7001MARCH.2 Urban Design Site Analysis

To explore intelligent, innovative and creative methods of site appraisal and analysis, which will initiate and nourish the urban design process.

7001MARCH.3 Urban Design Communication

To create a high quality publication and other documents that capture the intentions and energy of the whole masterplan design process

7001MARCH.4 Site Analysis and Brief Development

To take a written brief and research contextual information exploring both the site and project requirements.

7001MARCH.5 Interior Study

Exploration of spatial characteristics, light qualities, thermal comfort and utility of a key interior space.

7001MARCH.6 Carbon Footprint

Material choice & energy in use.

7001MARCH.7 Structural & Fabric Study

The detailed design of a key section of exterior building fabric.

7001MARCH.8 Scheme Model and Design Report

Written and visual presentation of proposals.

Learning Activities

One introductory lecture will be presented per assignment. Students will then research, design and present their proposals as one A1 sheet of sketches / references collages / drawings / notes per assignment .

References

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|------------------------|----------------------------------|
| Course Material | Book |
| Author | Armstrong, N |
| Publishing Year | 1992 |
| Title | Building a Future |
| Subtitle | A Guide to Green Building Design |
| Edition | |
| Publisher | |
| ISBN | |

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| Course Material | Book |
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|------------------------|------------------------------------|
| Author | Duffy, F., Laing, A. and Crisp, V. |
| Publishing Year | 1993 |
| Title | The Responsible Workplace |
| Subtitle | (Chs. 7 & 8) |
| Edition | |
| Publisher | Butterworth Architecture, Oxford |
| ISBN | |

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|------------------------|--|
| Course Material | Book |
| Author | Gordon, J.E. |
| Publishing Year | 2006 |
| Title | New Science of Strong Materials |
| Subtitle | |
| Edition | |
| Publisher | Princeton University Press, New Jersey |
| ISBN | |

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|------------------------|-------------------------------------|
| Course Material | Book |
| Author | Gordon, J.E. |
| Publishing Year | 2003 |
| Title | Structures or Why Things Don't Fall |
| Subtitle | |
| Edition | |
| Publisher | Cambridge Press, Massachussets |
| ISBN | |

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|------------------------|---|
| Course Material | Book |
| Author | Herzog, T. (ed) |
| Publishing Year | 1997 |
| Title | Solar Energy in Architecture and Urban Planning |
| Subtitle | |
| Edition | |
| Publisher | Prestel, London |
| ISBN | |

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|------------------------|---------------------------------------|
| Course Material | Book |
| Author | Nelson, G. |
| Publishing Year | 1995 |
| Title | The Architecture of Building Services |
| Subtitle | |
| Edition | |
| Publisher | Batsford, London |
| ISBN | |

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|------------------------|-------------|
| Course Material | Book |
| Author | Pearson, D. |
| Publishing Year | 1994 |

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|------------------|--------------------|
| Title | Earth Spirit |
| Subtitle | |
| Edition | |
| Publisher | Gaia Books, London |
| ISBN | |

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|------------------------|---------------------------|
| Course Material | Book |
| Author | Vale, B. |
| Publishing Year | 1991 |
| Title | Green Architecture |
| Subtitle | |
| Edition | |
| Publisher | Thames and Hudson, London |
| ISBN | |

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|------------------------|---------------------------|
| Course Material | Journal / Article |
| Author | RIBA Journal October 1995 |
| Publishing Year | 1995 |
| Title | Sustainable Designs |
| Subtitle | |
| Edition | |
| Publisher | RIBA, London |
| ISBN | |

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|------------------------|--|
| Course Material | Book |
| Author | Case Studies by various Authors |
| Publishing Year | |
| Title | Architecture in Detail |
| Subtitle | |
| Edition | |
| Publisher | Architectural Design and Technology Press, |
| ISBN | |

Notes

Each assignment relates specifically to design work undertaken in the related Architectural Design Studies module.