

Course Code:

ARCHTECH 4

1. Course Title:

Architectural Technology4

2. Academic Session:

2011/12

3. Level:

SCQF 10

4. Credits:

20

5. Lead School/Board of Studies:

Mackintosh School of Architecture

6. Course Contact:

Tim Sharpe

7. Course Aims:

The aim of the course is to extend design skills within a rigorous creative studio environment and provide the opportunity to develop explicit strategies for structural design, environmental design and for the choice of materials and to explore the architectural implications of the adoption of these strategies and choices.

8. Intended Learning Outcomes of Course:

At the end of the course each student should have the ability to demonstrate and/or work with:

Category 1 : Knowledge and Understanding

- Researched and critical evaluation of the briefing and performance of buildings.

Category 2: Practice – Applied Knowledge and Understanding

- The ability to define what type of research is relevant, what questions to ask, and which formats to record the findings to best serve as a springboard to design decisions.
- A sense of direction and the ability to develop and sustain a line of enquiry – being able to

identify and develop design ideas thematically as well as undertaking sequential problem solving.

- Undertake strategic thinking – exploring options, setting parameters and objectives and testing design ideas against them and comparing likely outcomes in order to make critical judgments about the likely effect of design decisions.
- Research and critical evaluation of how a strategic choice of construction, materials and environmental approaches can determine the character of an architectural design project.

Category 3: Generic Cognitive Skills

- Critically identify, define, conceptualise and analyse complex problems and issues relevant to contemporary discipline of architecture.

Category 4: Communication, ICT and Numeracy Skills

- Communicate and articulate ideas and information fluently and work comprehensively in visual, oral and written forms to a professional level.
- Make formal presentations about specialist topics to informed audiences.

Category 5: Autonomy, Accountability and Working with others

- Exercise autonomy and initiative in carrying out set project briefs and self-directed programme of study.
- A developing critical position as an individual designer and contribute this to the on-going studio debate.
- Deal with complex ethical and professional issues.

9. Indicative Content:

A series of workshops and/or presentations investigating current issues of architectural technology and how the positive and creative aspects of such investigations infuse and inspire the design process.

10. Description of Summative Assessment:

Portfolio submission

10.1 Please describe the Summative Assessment arrangements:

Learning level outcomes stated for the course must be achieved, and ability to fulfil these is graded against the marking scheme (see Academic Regulations).

11. Formative Assessment:

Formative guidance given during studio based tutorials

11.1 Please describe the Formative Assessment arrangements:

N/A

12. Collaborative:

Yes

No

12.1 Teaching Institutions:

N/A

13. Requirements of Entry:

None

14. Co-requisites:

Studio Work 4; Research Project 4; Professional Studies 4

15. Associated Programmes:

Bachelor of Architecture (Hons); Diploma in Architecture

16. When Taught:

Term 1

17. Timetable:

Lectures 2 hours, weekly

18. Available to Visiting Students:Yes No **19. Distance Learning:**Yes No **20. Placement:**Yes No **21. Learning and Teaching Methods:**

Method	Formal Contact Hours	Notional Learning Hours (Including formal contact hours)
Lecture	20	20
Studio	20	100
Seminar/Presentation		
Tutorial		
Workshop		
Laboratory work		
Project work		
Professional Practice		
E-Learning / Distance Learning		
Placement		
Examination		
Essay		
Private Study	Not Applicable	80
Other (please specify below)		
TOTAL	40	200

22. Description of "Other" Teaching and Learning Methods:

N/A

23. Additional Relevant Information:

N/A

24. Indicative Bibliography:

Randall Thomas, Max Fordham, *Environmental Design*.
Randall Thomas, Trevor Garnham, *the Environments of Architecture*.
Dean Hawkes, *The Environmental Imagination*.
Silver/McLean, *Introduction to Architectural Technology*
Peter Smith, *Sustainability at the cutting Edge*.
E Fitzgerald, *A Green Vitruvius*
Dunster E, *The ZEDbook*.
Colin Porteous, Kerr MacGregor, *Solar Architecture in Cool Climates*
Ed. J Goulding, J Owen Lewis and TC Steemers, *Energy Conscious Design, a Primer for Architects*.
Adler, Littlefield, *Metric Handbook: Planning and Design Data*
Cowan and Smith, *Dictionary of Architectural and Building Technology*
Richard Nicolls, *The Green Building Bible Vol.2*
A MacDonald, *Structure and Architecture*,
Tony Hunt, *Tony Hunts Sketchbook, 1 & 2*,
Sandaker and Eggen, *The Structural Basis of Architecture* (Chapters 1-3 and 9)
Bill Addis, *Creativity and Innovation*