

**Course Code:**

UBAR502

**Session:**

2017/2018

**1. Course Title:**

Architectural Technology 4

Version	2. Date of Production/ Revision:	Date of Approval
1.0	February 2018	February 2018

**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:**

Submission through course work and examination through exhibition and portfolio submission.

No.	Assessment Method	Description of Assessment Method	Weight %	Submission week (assignments) or length (exam)
1	Course Work	Part 1 research and Strategy A3 Technical Study report	60	Semester 2 Week 5
2	Portfolio Exhibition	Part 2 Detail and Integration 1:20 scale detailed study	40	Semester 2 Week 13

*Pass in ALL components required*

**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:**

A pass in Bachelor of Architecture with Honours Stage 3.

**14. Co-requisites:**

Studio Work 4; Research Project 4; Professional Studies 4

**15. Associated Programmes:**

Bachelor of Architecture with Honours; Diploma in Architecture

**16. When Taught:**

Semesters 1 and 2

**17. Timetable:**

Typically weekly input through 2 hour lecture, workshop or seminar in semester 1, with tutorial input weekly in Semester 2

**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	15	15
Studio		80
Seminar/Presentation	3	3
Tutorial	2	2
Workshop		
Laboratory work		
Project work		
Professional Practice		
E-Learning / Distance Learning		
Placement		
Examination		
Essay		
Private Study	Not Applicable	100
Other (please specify below)		
<b>TOTAL</b>	<b>20</b>	<b>200</b>

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

N/A

**23. Additional Relevant Information:**

N/A

**24. Indicative Bibliography:**

- Thomas, R. (Ed.). (2006). *Environmental design: an introduction for architects and engineers*. Taylor & Francis.
- Thomas, R., & Garnham, T. (2007). *The environments of architecture: Environmental design in context*. Taylor & Francis.
- Hawkes, D. (Ed.). (2008). *The environmental imagination: technics and poetics of the architectural environment*. Taylor & Francis.
- Silver, P., & McLean, W. (2013). *Introduction to architectural technology*. Laurence King.
- Smith, P. F. (2007). *Sustainability at the cutting edge: emerging technologies for low energy buildings*. Routledge.
- Fitzgerald, E. (1999). *A green vitruvius: principles and practice of sustainable architectural design*. London: James & James(Science Publishers) Ltd.
- Simmons, C., & Gilbert, B. (2008). *The ZEDbook: solutions for a shrinking world*. Taylor & Francis.
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- Goulding, J. R., Lewis, J. O., & Steemers, T. C. (Eds.). (1992). *Energy conscious design: a primer for architects*. Batsford for the Commission of the European Communities.
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- Cowan, H. J., Smith, P. R., & Chow, W. K. (Eds.). (2004). *Dictionary of architectural and building technology*. Taylor & Francis.
- Nicholls, R. (2006). *Green Building Bible: Volume 2: Low energy design technical reference (Vol. 2)*.

Green Building Press.

Macdonald, A. J. (2013). *Structure and architecture*. Routledge.

Banham, R. (1984). *Architecture of the Well-tempered Environment*. University of Chicago Press.