| THE GLASGOW SCHOOL OF ART | **Course Specification** |
|---|---|

| **Course Code:** | **Session:** |
|---|---|
| UBAR202 | 2016/17 |

| **1. Course Title:** |
|---|
| Architectural Technology 2 |

| **Version** | **2. Date of Production/ Revision:** | **Date of Approval** |
|---|---|---|
| 1.0 | April 2014 | 2011/12 |

| **3. Level:** |
|---|
| SCQF 8 |

| **4. Credits:** |
|---|
| 30 |

| **5. Lead School/Board of Studies:** |
|---|
| Mackintosh School of Architecture |

| **6. Course Contact:** |
|---|
| Tim Sharpe |

**7. Course Aims:**

The aims of the course Architectural Technology 2 are for students to achieve:

- An integrated knowledge of building construction, structural systems, material choices and energy transfer mechanisms and the ability to synthesize them into a coherent project that expresses architectural intentions.
- A basic understanding of the techniques of functional analysis of building performance including computer applications.

**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**

- An understanding and interpretation of the briefing and performance of buildings

**Category 2 Practice: Applied Knowledge and Understanding**

- Execute defined projects supported by selected areas of research, development or investigation and identify and implement relevant outcomes.
- An integrated knowledge of building construction and materials, structural design, and energy transfer mechanisms synthesized in coherent design projects that express architectural intentions
- An integrated knowledge of building construction and materials, structural design, and energy transfer mechanisms, synthesized in coherent design projects that express architectural intentions.

**Category 3 Generic Cognitive Skills**

- Undertake critical analysis, evaluation and synthesis of ideas, concepts, information and issues which are within the common understanding of the discipline.
- Critically evaluate evidence-based responses to defined problems.

**Category 4 Communication, ICT and Numeracy skills**

- Communicate and articulate ideas, information and work in a clear and concise way in visual, oral and written forms
- Convey complex information to a range of audiences and for a range of purposes

**9. Indicative Content:**

Architectural Technology 2 entails the following areas of study:

**Environmental Design** – investigates the principles underlying models and methods, and the working techniques for assessing performance, relating to the acoustic and sonant, lighting and optical, and thermal aspects of architecture; including energy transfer mechanisms, building components and services systems, applicable in Studio Work 2 and acknowledging environmental impact.

**The Principles of Building** – studies the principles underlying the design, construction and assembly of building elements with particular regard to performance requirements, all based on principles conveyed in stage 1 and applicable in Studio Work 2.

**Structural Design** - the course describes selected principles and methods of structural design with emphasis on the performance of structural components and acknowledging issues of sustainability, building on theory and principles learned in Stage1, applicable in Studio Work 2.

**10. Description of Summative Assessment:**

| No. | Assessment Method | Description of Assessment Method | Weight % | Submission week (assignments) or length (exam) |
|---|---|---|---|---|
| 1 | Course Work | Environmental Design 2<br>Workshop assessment | 33.3 | Week 37 |
| 2 | Course Work | Principles of Building 2<br>Seminar and Technical Study | 33.3 | Week 37 |
| 3 | Course Work | Structural Design 2<br>Seminar and Technical Study | 33.3 | Week 30 |

*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:**

None

**14. Co-requisites:**

Studio Work 2; History of Architecture and Urban Studies 2; Studio Practices 2

**15. Associated Programmes:**

Bachelor of Architecture

**16. When Taught:**

Terms 1 and 2

**17. Timetable:**

Lectures 3 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 | 40 | 40 |
| Studio | 20 | 134 |
| Seminar/Presentation | | |
| Tutorial | | |
| Workshop | | |
| Laboratory work | | |
| Project work | | |
| Professional Practice | | |
| E-Learning / Distance Learning | | |
| Placement | | |
| Examination | | 6 |
| Essay | | |
| Private Study | Not Applicable | 120 |
| Other (please specify below) | | |
| **TOTAL** | **60** | **300** |

| **22. Description of "Other" Teaching and Learning Methods:** |
|---|
| N/A |

| **23. Additional Relevant Information:** |
|---|
| N/A |

| **24. Indicative Bibliography:** |
|---|
| Recommended reading list:<br>Carried over from Architectural Technology 1<br>R. McMullan, (London, 1983, 1989, 1992 etc.), *Environmental Science in Building*, The McMillanPress Ltd.,<br>R. Banham, (London, 1969, 1984),*The Architecture of the well-tempered environment*, TheArchitectural Press<br>ed. J. Goulding, J. Owen Lewis and T. C. Steemers (1992), *Energy Conscious design, a Primerfor Architects*, Batsford for the CEC. The New eco-Architecture, alternatives from the modernmovement, C. Porteous, Spon Press, London, 2002, 2003.<br>P. Borer and C. Harris (1998), *The Whole House Book, Ecological building design &materials*,The |

Centre for Alternative Technology, Machynlleth, Wales.
Leo Beranek, (2003), *Concert Halls and Opera Houses: Music, Acoustics and Architecture*, Springer-Verlag.
Emily Thomson, (2004), *The Soundscape of Modernity: Architectural Acoustics and the Culture ofListening in America.*
Gesil Kay, (1999), *Fibre Optics in Architectural Lighting: Systems, Design and Application.*