Glasgow School of Art Course Specification
Course Title: Architectural Technology 3

Please note that this course specification is correct on the date of publication but may be subject to amendment prior to the start of the 2023-24 Academic Year.

Course Code:	HECOS Code:	Academic Session:
UBAR302		2023-24

1. Course Title:
Architectural Technology 3

2. Date of Approval:	3. Lead School:	4. Other Schools:
Academic Council December 2023	Mackintosh School of Architecture	N/A

5. Credits:	6. SCQF Level:	7. Course Leader:
30	9	Virginia Rammou

8. Associated Programmes:
Bachelor of Architecture with Honours

9. When Taught:
Semester 1 and 2

10. Course Aims:

The aims of course Architectural Technology 3 are to achieve:

- The ability to evaluate and comment on buildings and their performance in relation to arrange of social, economic and physical criteria, as well as identifying and explaining their architectural significance.
- A researched understanding of sustainability in order to take a position as a designer reflected in the ability to devise and implement strategies for sitting; energy use; choice of construction, materials and processes; and for the quality of the internal environment and micro-climate.
- Knowledge of building construction, structure, environmental and service integration for more complex and multi-storey buildings and the ability to integrate these with architectural intentions.
- An understanding of and methods of structural design with emphasis on the development of structural systems in conjunction with architectural design development

11. 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

- A critical understanding and interpretation of the briefing and performance of buildings.

Category 2 Practice: Applied Knowledge and Understanding

- Fluency in the selection of media to predict the outcome of design decisions and be able to test design proposals against the stated aims of a given design brief.
- Execute defined projects supported by areas of research, development or investigation and identify and implement relevant outcomes.
- A researched and integrated knowledge of building construction and materials, structural design, and energy transfer mechanisms synthesized in coherent design projects that express architectural intentions and considerations of a sustainable environment.
- The ability to explore, compare and record options as part of the design process, and critically and reflectively evaluate key design decisions.

Category 3 Generic Cognitive Skills

- Undertake critical analysis, evaluation and synthesis of ideas, concepts, information and issues relevant to contemporary discipline of architecture.
- Draw on a range of source in making judgements.

Category 4 Communication, ICT and Numeracy Skills

- With sufficient skill and knowledge of current practice and procedures in CAAD to enter a professional office for a year of supervised practical training.

12. Indicative Content:

The course Architectural Technology 3 entails the following areas of study:

Environmental Design - Analysis of the principles underlying the selection and design of servicing systems appropriate to Studio Work 3 projects, with regard to energy-efficient, integrated design.

Principles of Building - Examines the performance requirements of building elements, based on the principles taught in Stages 1 and 2, in the context of total building design.

Structural Design – Entails instruction in selected principles of structural elements and systems, structural materials, and structural typologies to a scale commensurate with Studio Work 3, building on knowledge and principles learned in Stage 2.

13. Description of Summative Assessment Methods:

Pass in ALL components required

Assessment Method	Description of Assessment Method	Weight %	Submission week (assignments)
Course Work and Exam	Environmental Design 3: Examined through Course Work and Technical study Written Paper Examination	33.3	 Semester 2 Week10 Semester 2 Week 10 (exam)
Course Work	Principles of Building 3: Technical Study	33.3	Semester 1 Week 13

Course Work and Exam	Structural Design 3: Examined through Course Work and Technical study Written Paper Examination	33.3	 Semester 1 Week 13 Semester 2 Week 10 (exam)

13.1 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).

14. Description of Formative Assessment Methods:
Engagement with formative assessment is a mandatory requirement. Formative guidance given during studio based tutorials
14.1 Please describe the Formative Assessment arrangements:
N/A

15. Learning and Teaching Methods:	
Formal Contact Hours	**Notional Learning Hours**
60	300
15.1 Description of Teaching and Learning Methods:	
Timetable: Lectures weekly	

16. Pre-requisites:
A pass in stage 2 BArch courses

17. Can this course be taken by Exchange/Study Abroad students?	Yes
18. Are all the students on the course taught wholly by distance learning?	No
19. Does this course represent a work placement or a year of study abroad?	No
20. Is this course collaborative with any other institutions?	No
20.1 If yes, then please enter the names of the other teaching institutions:	
N/A	

21. Additional Relevant Information:
N/A

22. Indicative Bibliography:
Recommended reading list: Journals such as Architects' Journal, EMAP Communications, and Detail, Vertrieb and Abonnemenin preference to construction books, which tend to be out of date and not aimed at students of architecture.

The following books are useful for specific applications such as the opaque and glazed envelope:
J. M. Anderson and J. R. Gill, (1988), *Rainscreen Cladding, a guide to design principles and practice*, CIRIA, Butterworths.
A. J. Brookes and C. Grech, (London 1990) *The Building Envelope, Applications of new technology cladding*, Butterworth Architecture.
P. Rice and H. Dutton, (London 1995), *Structural Glass*, E and FN Spon.
M Vandenberg (Chichester 1997), *Glass Canopies, Detail in Building*, AD, Academy Editions.
C. Affentranger (1997), *New Wood Architecture in Scandinavia*, Birkhauser,
ed. A. J. Brookes and D. Poole, (London, 2004), *Innovation in Architecture*, Spon Press
Bill Addis, *Creativity and Innovation*.
Angus MacDonald, *Structure and Architecture*,
Tony Hunt, *Tony Hunts Sketchbook*.
Carl Bovill, *Architectural Design* (Chapter 3),
Blanc McAvoy and Plank, *Architecture and Construction in Steel*,
Sandaker and Eggen, *The Structural basis of Architecture*, Chapters 1-3 and 9), Emily Thomson, (2004), *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America*.
Gesil Kay, (1999), *Fibre Optics in Architectural Lighting: Systems, Design and Application*.