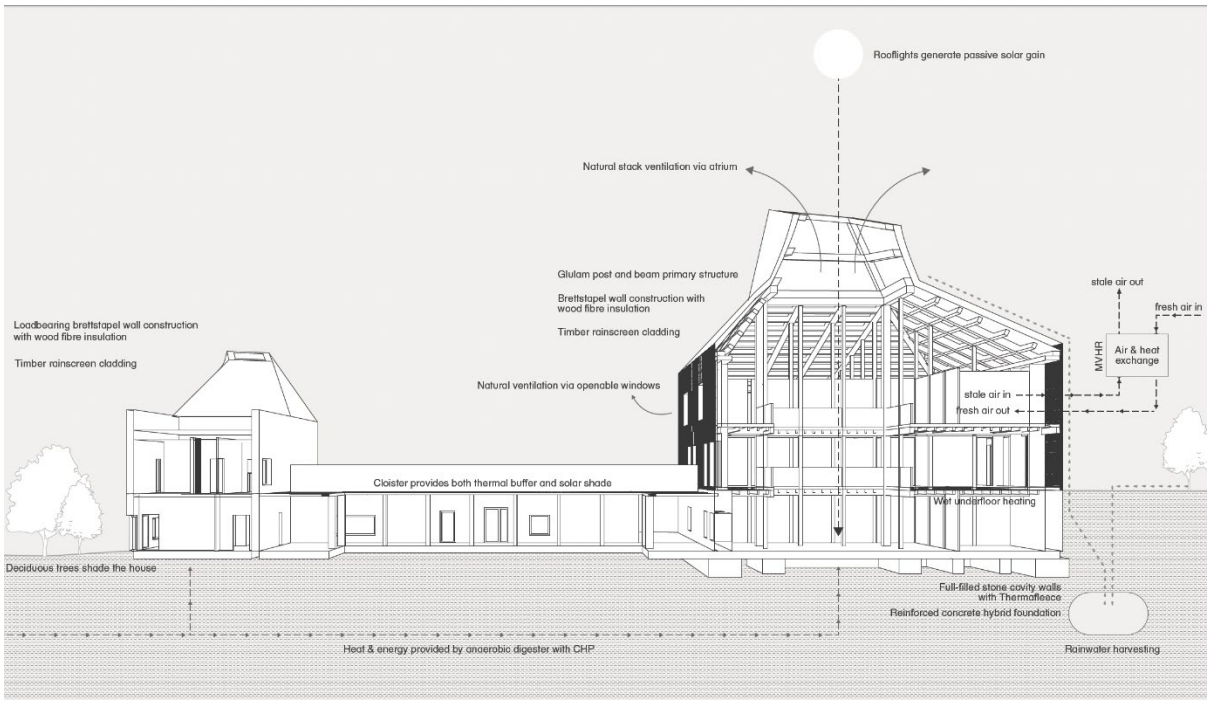
Glasgow School of Art Course Specification
Course Title: Architectural Technology 2



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 2025-26 Academic Year.

Course Code	HECOS Code	Academic Session
AT2102		2025-26

Course Title	Architectural Technology 2
Course Contact	Virginia Rammou

Credits	30
SCQF Level	Level 8
When Taught	Semester 1

Associated Programmes	Bachelor of Architecture with Honours
Lead School	Mackintosh School of Architecture
Other Schools	N/A
Date of Approval	Programme Approval March 2024

Course Introduction

The Architectural Technology 2 course is designed to develop students' knowledge of architectural technology as a means of decision making utilised in contemporary architectural practice.

Knowledge gained from the previous year enables students to further understand and apply architectural science and technology to architectural design projects. Through the course students will be able to identify challenges, limitations and opportunities pertinent to design technology and conceptual design.

The course is delivered and assessed in **three** components as follows:

- The Principles of Building component develops students' knowledge and understanding of the fundamental constructional principles used in the design, construction, and performance of buildings, with a focus on thermal insulation, waterproofing, vapour control, and constructional layering in relation to range of wall constructions and openings.
- The Structural Design component develops students' knowledge and understanding of the fundamental structural design principles used in the design, construction, and performance of buildings, with a focus on brick and masonry design and includes a visit to an exemplary building.
- The Environmental Design component develops students' knowledge and understanding of the fundamental environmental design principles used in the design, construction, and performance of buildings, with a focus on daylighting.

Whilst the course components are delivered individually and address specific aspects of architectural technology, the compound technical knowledge gained by students is applied holistically through the studio courses.

Course Aims

The Architectural Technology 2 Course consists of three components: Principles of Building, Structural Design and Environmental Design focusing on:

- construction and materials
- the building envelope
- structural design
- building performance
- fire and life safety design
- sustainable design principles

The aims of the course are to:

professional: broaden students' awareness of the principles and practices of building construction and materiality, structural design and environmental design of architectural projects

design/create: broaden students' ability to use the technical knowledge required to address the environmental, socio-economic, ethical, cultural and aesthetic demands of architecture through design

research: broaden students' research skills, and tools that focus on the principles and practices of building construction and materiality, structural design and environmental design of architectural projects

communication: broaden students' ability to utilise the visual and verbal conventions of the principles and practices of building construction and materiality, structural design and environmental design of architectural projects

skills: broaden students' ability to utilise analogue and digital tools to undertake basic structural and environmental evaluation and analysis of building performance data

knowledge: broaden students' knowledge of the role of technology that address the principles and practices of building construction and materiality, structural design and environmental design of architectural outputs

Course Intended Learning Outcomes

On successful completion of the three components of the Course, students will be able to **interpret and demonstrate:**

professionalism: knowledge of the principles and practices of the architectonic impact, technical and ethical aspects of researched architectural projects in the context of the Studio 2 course

design/ create: the technical knowledge required to address the environmental, socio-economic, ethical, cultural and aesthetic demands of architecture through design in the context of the Studio 2 course

research: the research skills, and tools that focus on the architectonic impact, technical and ethical aspects required to analyse, design, and the construction of researched architectural projects in the context of the Studio 2 course

communication: the visual and verbal conventions of the architectonic impact, technical and ethical aspects of researched architectural projects in the context of the Studio 2 course

skills: the ability to use analogue and digital tools to undertake basic structural and environmental evaluation and analysis of building performance data in the context of researched architectural projects in the context of the Studio 2 course

knowledge: the technologies that address the architectonic impact, technical and ethical aspects in the design of researched architectural projects in the context of the Studio 2 course

Indicative Content

At Stage 2, students will interpret and demonstrate their understanding of architectural science into the development of design processes and concepts. Students will explore the areas of materiality, structure and construction, building performance and sustainable design principles and how these can be used as tools to explore and further understand architectural design and ideas.

During the Architectural Technology course students will:

- undertake research to understand and explore existing technical design concepts and solutions
- evaluate technical design projects and concepts based on their environmental, material, structural, and constructional analysis, related to their own design and technical proposals
- explore how structure, materials, construction, environmental performance, sustainable design solutions and emerging technologies will impact on their own design projects
- evaluate and demonstrate the implications of current design solutions with regards to the current climate emergency
- collaborate with peers and staff to explore existing and emerging technical solutions

Description of Learning and Teaching Methods

Pedagogy:

The Architectural Technology Course 2 consists of three components, Principles of Building, Structural Design and Environmental Design which broaden students' specialist technical knowledge and its application to technologically informed architectural solutions. Student learning is developed through specialist lectures, group work and discussion, site visits to specific buildings and construction sites.

Delivery:

The course is delivered through weekly lectures, using a range of learning and teaching activities, including lectures, small-group work and plenary discussions.

Private study consists of both staff-directed study and independent student-directed study.

Timetable:

Lectures are delivered on a weekly basis, with additional workshop activities, and site visits.

Canvas:

The virtual learning environment tool Canvas is used for the dissemination, discussion, and access to relevant course information, and to signpost students to other relevant teaching and learning platforms used by GSA.

Indicative Contact Hours	Notional Learning Hours
30	300

Description of Formative Assessment and Feedback Methods
Formative feedback is delivered during the course, offering students the opportunity to obtain ongoing staff and peer feedback through presentation, discussion and review of technical studies. As such Formative feedback provided throughout the course fosters reflective learning while supporting the Summative graded assessment and feedback process, which generally happens at the end of the course.

Description of Summative Assessment arrangements
Summative assessment, generally undertaken at the end of the course, is designed and delivered to support student learning through evaluation of the Intended Learning Outcomes (ILOs) for each course, aligned with the professional competencies required for architectural practice. Summative assessment is undertaken through coursework assignments in the form of three Technical Studies. Coursework assignment submissions involve visual and text-based submissions utilising both digital and physical tools and formats. Students are supported in preparing their submissions with feedback and provided with example submissions. Written feedback is provided on all summative assessments. All submissions will be assessed and moderated in line with the GSA Code of Assessment. Reassessment opportunities where a student has not passed the course are outlined in the GSA Code of Assessment. During the academic session, staff deliver assessment workshops with students, clarifying the assessment process delivered within the Programme.

Description of Summative Assessment Method	Weight %	Submission week
Assignment AT 2.1 Students are required to submit a Technical Study for Course Component: Structural Design. The Technical Study requires students to research existing case studies, then evaluate and analyse their understanding of architectural intention and structural form executed in detailed construction drawings. A pass mark (D3) is required in Structural Design to pass the course.	33.3%	Week 11

Assignment AT 2.2 Students are required to submit a Technical Study for Course Component: Principles of Building. The Technical Study requires students to examine the building fabric of existing case studies and consider their building envelope, materials and methods of construction, as well as appropriateness and sustainable credentials. A pass mark (D3) is required in Principles of Building to pass the course.	33.3%	Week 11
Assignment AT 2.3 Students are required to submit a Technical Study for Course Component: Environmental Design. The Technical Study requires students to examine passive solar design and thermal comfort using performance prediction tools and techniques. A pass mark (D3) is required in Environmental Design to pass the course.	33.3%	Week 11

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

Reading and On-line Resources
Supporting the course, an indicative reading and on-line resource list is accessible via Resource Lists. This list will be reviewed and updated annually. Supervisors, tutors and peers will provide further recommendations appropriate to student's chosen research subject.