



Course Syllabus

Course Code	Course Title	ECTS Credits
ARCH-302	Architectural Design V - Building Technology	12
Prerequisites	Department	Semester
ARCH -301	Architecture	Spring
Type of Course	Field	Language of Instruction
Required	Architecture	English
Level of Course	Lecturer(s)	Year of Study
1 st Cycle	Markella Menikou Adonis Cleanthous Panagiotis Pierides	3 rd
Mode of Delivery	Work Placement	Corequisites
Face to Face	N/A	ARCH-312

Course Objectives:

The main objectives of the course are:

- To continue the study of more complex functional and spatial systems.
- To emphasize the planning of public, recreational, workspace and living environments through given programme briefs.
- The exploration of complete solutions to environment problems and architectural technology.
- To stimulate the students' ability to generate creatively new ideas and forms with technology and construction as integral parts of their design process.
- To prioritise advanced detailing and technical requirements including selection of systems and materials, environmental control, energy savings and building envelope.
- To advance competence in selecting, implementing and integrating appropriate technologies in relation to design projects.
- To develop ability to apply digital and manual fabrication skills.

Learning Outcomes:

After completion of the course students are expected to be able to:

1. Synthesize their new found design principles, creating architectural designs that satisfy both aesthetic and technical requirements.

2. Appraise programme briefs in order to formulate complex functional and spatial strategies.
3. Select, apply and integrate appropriate technologies in relation to design projects.
4. Apply digital and manual fabrication skills.
5. Develop detail drawings as a tool for studying and devising construction applications.
6. Interpret the principles of building technologies, environmental design and construction methods as integral parts of architectural propositions.
7. Apply critical thinking.

Course Content:

- Theory of technology + architecture
- Technology as an integral part of an architectural concept
- Construction systems
- Prefabrication/assembly sequence/ logistics
- Component fabrication
- Materials and processes
- Modularisation and standardisation
- Technology transfer
- Complex generation of form
- Sensual qualities of construction
- Sustainability / energy efficiency
- Climate adaptability
- Detailed resolution
- Integrative design process
- Complex programme narratives

Learning Activities and Teaching Methods:

Lectures, workshops, case studies, desk-crits, pin-ups, student participation, midterm/final presentations with quest critics.

Assessment methods:

Continuous Studio Project Assessment (including weekly workshops, sketchbook, portfolio, attendance + participation, Midterm presentation, Final Exam)

Required Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
CONSTRUCTING ARCHITECTURE, Materials Processes Structures (2 nd Edition)	Andrea Deplazes	Birkhauser	2008	3764386304

Recommended Textbooks / Readings:

Title	Author(s)	Publisher	Year	ISBN
Detail (architectural journal)		Birkhauser		
Components and Systems: Modular Construction - Design, Structure, New Technologies	Staib Gerald	Birkhauser	2008	3764386568
Modern Construction Envelopes	Watts Andrew	Ambra	2014	9783990436042
Modern Construction Handbook	Watts Andrew	Ambra	2013	9783990434550