ARCH 7008 INTEGRATED BUILDING TECHNOLOGY

Credit Points 10

Legacy Code 301240

Coordinator Mohammad Reza Razavi (https://directory.westernsydney.edu.au/search/name/Mohammad Reza Razavi/)

Description Integrated Building Technology is a core subject in the Master of Architecture (Urban Transformation) course that will introduce students to the range of specialist consultants in structural and civil engineering, mechanical, electrical, communications, and transport systems, fire safety and egress, and environmental systems (acoustics, lighting, thermal) that are required to complete real projects in practice. Students gain an insight into the principles and concepts of each discipline which provides sufficient depth of knowledge and understanding of the role of the architect to meaningfully engage and collaborate with the allied specialists. Understanding how to communicate and document the integration and coordination of systems in a building is developed through exposure to case studies, specialist presentations, and field trips. Students apply concepts introduced in the subject to the design studio project they are concurrently developing in subject Practice Research Studio Housing and demonstrate their understanding of system integration through graphic representation techniques and a design report.

School Eng, Design & Built Env

Discipline Architecture

Student Contribution Band HECS Band 2 10cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Postgraduate Coursework Level 7 subject

Restrictions

Students must be enrolled in 3761 Master of Architecture (Urban Transformation)

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Evaluate the integration of relevant building systems appropriate to the design intent and goals of a building project.
2. Use digital and manual techniques to design, communicate and collaborate in the integration of specialist building systems.
3. Integrate construction, structural and civil engineering principles in the design and documentation of a building.
4. Integrate mechanical, electrical, communication, and transport system principles in the design and documentation of a building.
5. Integrate fire safety, suppression, and egress principles in the design and documentation of a building.
6. Propose designs incorporating environmental systems, principles of acoustics, daylighting and thermal conditions relevant to project.
7. Recommend appropriate materials for the project design with regards to selected finishes, fittings components and systems.

Subject Content

1. Building systems and specialist consultant teams required to delivery building projects
2. Communication, collaboration, documentation, and detailing tools and techniques to enable the work of a project team and integration into a building design
3. Structural and civil engineering principles for buildings
4. Mechanical, electrical, communication, transport principles buildings

5. Design principles for fire safety, suppression, and egress
6. Environmental systems and principles of acoustic, daylighting, and thermal design
7. Graphic representation and written communication of systems integration

Special Requirements

Legislative pre-requisites

Construction site safety induction "White Card" – to be obtained in Semester 1 of the program or prior.

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/ Group Task	Mandatory
Case Study	Drawings and/or models and 300 words	25	N	Group	N
Applied Project	Drawings and/or models	50	N	Individual	N
Report	1000 words and graphic compilation and 3 minutes presentation	25	N	Individual	N

Teaching Periods

Spring (2025)

Parramatta City - Macquarie St

Hybrid

Subject Contact Mohammad Reza Razavi (https://directory.westernsydney.edu.au/search/name/Mohammad Reza Razavi/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ARCH7008_25-SPR_PC_3#subjects)