1. **Title of the module**

ARCH6470 (AR647) – Technology 5

1. **School or partner institution which will be responsible for management of the module**

Kent School of Architecture

1. **The level of the module (Level 4, Level 5, Level 6 or Level 7)**

Level 6

1. **The number of credits and the ECTS value which the module represents**

30 credits (15 ECTS)

1. **Which term(s) the module is to be taught in (or other teaching pattern)**

Spring

1. **Prerequisite and co-requisite modules**

Pre-requisite: ARCH5460 Technology 4

1. **The programmes of study to which the module contributes**

MArch (Master in Architecture)

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to:**
   1. Developed understanding of strategies for building construction, and ability to integrate knowledge of structural principles and construction techniques.
   2. Developed understanding of the physical properties and characteristics of building materials, components and systems, and the environmental impact of specification choices.
   3. Developed knowledge of strategies for building services, and ability to integrate these in a design project.
   4. The necessary skills to prepare designs that will meet building user’s requirements and comply with UK legislation, appropriate performance standards and health and safety requirements.
   5. Developed knowledge of iterative and evidence-based approaches to design.
   6. The necessary skills to prepare analytical and detailed technical drawings illustrating accurately the structural and environmental solutions adopted in the student’s own design project.
   7. Ability to evaluate materials, processes and techniques that apply to complex architectural designs and building construction, and to integrate these into practicable design proposals.
2. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to:**
   1. Developed problem solving skills, professional judgment, and ability to take the initiative and make appropriate decisions in complex and unpredictable circumstances.
   2. An ability to produce reports which are clear, analytical and logical covering a range of technical issues and include appropriate illustrations.
   3. The ability to use visual, verbal and written communication methods and appropriate media to represent testing, analysis, and critical appraisal of complex proposals to professional and lay audiences
   4. An ability to reflect on project progress and develop enhancement strategies
3. **A synopsis of the curriculum**

This technology portfolio further develops how the concurrent and parallel design module (or exceptionally a design project already completed in a previous MArch design module) would be realised in terms of the technology and environmental considerations of the building programme. It further develops, demonstrates and integrates the building technologies and environmental control strategies underlying the design project. Each student is to produce a series of technical detail drawings from Scales 1:20 – 1: 5, together with a physical model of a key part of their building, for instance a section through the envelope at a corner, at a scale of 1:20 or as directed by the module convener. Students have to demonstrate a developed ability to critically evaluate and refine technical propositions through an iterative process. Additionally design drawings and models will be expected to demonstrate an advanced consideration for and provision of technology addressing the environmental exposure, temperature control, waterproofing, ventilation, circulation, structural support and integration, and sensibilities and sensitivities to appropriate building construction technologies. This will include an articulated attitude to the use of Material Tectonics. Students will need to summarise the iterative process and the final solution through clearly annotated drawings, sketches and models (both presentation and working models) appropriately.

1. **Reading list (Indicative list, current at time of publication. Reading lists will be published annually)**

Allen, E., Iano, J. (2007). *The Architect’s Studio companion: Rules of Thumb for Preliminary Design.* Hoboken NJ: Wiley.

Bachman, L. R. (2004). *Integrated Buildings: The Systems Basis of Architecture*. Hoboken NJ: Wiley.

Clegg, P. et al. (2007). *Feilden Clegg Bradley: The Environmental Handbook*. London: Right Angle Publishing.

Daniels, K. (2003). *Advanced building systems: A Technical Guide for Architects and Engineers*. Basel: Birkhauser.

Kwok, A, W. Grondzik. (2007). *The Green Studio Handbook: Environmental Strategies for Design*. Oxford: Architectural Press.

McLeod, V. (2007). *Detail in Contemporary Residential Architecture*. London: Laurence King Publishing.

McLeod, V. (2009). *Detail in Contemporary Timber Architecture*. London: Laurence King Publishing.

McLeod, V. (2010). *Encyclopaedia of Detail in Contemporary Residential Architecture*. Laurence King Publishing.

1. **Learning and teaching methods**

Total contact hours: 38 hours

Private study hours: 262 hours

Total study hours: 300 hours

1. **Assessment methods**
   1. Main assessment methods

Technical Portfolio (100%)

13.2 Reassessment methods

Like for like.

1. ***Map of module learning outcomes (sections 8 & 9) to learning and teaching methods (section12) and methods of assessment (section 13)***

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Module learning outcome** | 8.1 | 8.2 | 8.3 | 8.4 | 8.5 | 8.6 | 8.7 | 9.1 | 9.2 | 9.3 | 9.4 |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |
| **Private Study** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Lectures, seminars, and tutorials | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  |  | **X** |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |
| Technical Portfolio | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |

1. **Inclusive module design**

The School recognises and has embedded the expectations of current equality legislation, by ensuring that the module is as accessible as possible by design. Additional alternative arrangements for students with Inclusive Learning Plans (ILPs)/declared disabilities will be made on an individual basis, in consultation with the relevant policies and support services.

The inclusive practices in the guidance (see Annex B Appendix A) have been considered in order to support all students in the following areas:

a) Accessible resources and curriculum

b) Learning, teaching and assessment methods

1. **Campus(es) or centre(s) where module will be delivered**

Canterbury

1. **Internationalisation**

Lectures, seminar teaching and tutorials will continue to draw on international source materials for historical and contemporary examples and theories of architecture and design.

**FACULTIES SUPPORT OFFICE USE ONLY**

**Revision record – all revisions must be recorded in the grid and full details of the change retained in the appropriate committee records.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date approved | Major/minor revision | Start date of the delivery of revised version | Section revised | Impacts PLOs (Q6&7 cover sheet) |
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Revised FSO Jan 2018