1. **Title of the module**

ARCH3200 (AR320) – Building Envelope

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

Kent School of Architecture

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

Level 4

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

15 (7.5 ECTS)

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

Spring

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

None

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

BA (Hons) Architecture

1. **The intended subject specific learning outcomes.  
   On successfully completing the module students will be able to demonstrate:**
   1. A basic knowledge of the need to critically review precedents relevant to the function, organisation and technological strategy of design proposals
   2. A basic knowledge of the investigation, critical appraisal and selection of alternative structural, constructional and material systems relevant to architectural design
   3. A basic knowledge of strategies for building construction, and ability to integrate knowledge of structural principles and construction techniques
   4. A basic knowledge of the physical properties and characteristics of building materials, components and systems, and the environmental impact of specification choices
   5. A basic knowledge of the principles associated with designing optimum visual, thermal and acoustic environments
   6. A basic knowledge of the systems for environmental comfort realised within relevant precepts of sustainable design
   7. A basic knowledge of the strategies for building services, and ability to integrate these in a design project
   8. The necessary skills to prepare analytical and detailed technical drawings illustrating accurately structural, constructional and environmental design solutions
   9. Understanding the challenges of integrating building fabric (materials), services and control regimes into a unified environmental design strategy
   10. Ability to apply the principles of evidence-based design to the evaluation of environmental design strategies
2. **The intended generic learning outcomes.  
   On successfully completing the module students will be able to demonstrate:**
   1. An ability to begin to understand the alternative materials, processes and techniques that apply to architectural design and construction
   2. An ability to begin to understand the knowledge of the context of the architect and the construction industry, and the professional qualities needed for decision making in complex and unpredictable circumstances
   3. Research skills and analytical skills
   4. An ability to produce reports which are clear, analytical and logical covering a range of technical issues and include appropriate illustrations
   5. An ability to critically evaluate your own ideas in the context of learning
   6. An awareness of the role of research in overcoming knowledge gaps
3. **A synopsis of the curriculum**

Aspects of the Technology & Environment curriculum covered in this module include the fundamentals of the external envelope, the thermal environment, human comfort, artificial light, and natural ventilation. An important aspect includes the weathering of materials, and an introduction to building services-plumbing, electrical, etc.

Students will explore these technical and environmental aspects in the context of a design project, providing students with the opportunity to gain first-hand experience with the complexity of technical integration in architecture at a small scale. Moreover, students will experience the relationship between theory and practice and technical/environmental design

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

Ching, Francis and Adams, Cassandra (Ed). (2000). *Building construction illustrated.* London: Wiley  
Chudley,Roy, Greeno,Roger (2010), *Building Construction Handbook.* Oxford: Butterworth  
Losantas, Agata. (2006). *Stair Design.* London: Daab  
Silver, Pete and Mclean,Will (2008), *Introduction to architectural technology* (London: Laurence King)  
Thomas, Randall (ed.). (2006). *Environmental design: an introduction for architects and engineers.* London: Taylor and Francis  
The Building Regulations. *Approved documents K, L, and M.*

1. **Learning and Teaching methods**

Total Contact Hours: 43  
Private Study Hours: 107  
Total Hours: 150

1. **Assessment methods.**

13.1 Main assessment methods

Construction and Structures Design (50%)  
Environment and Sustainability Design (50%)

Both of the above assessed components must be passed.

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* | *8.8* | *8.9* | *8.10* | *9.1* | *9.2* | *9.3* | *9.4* | *9.5* | *9.6* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Private Study** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  | **X** | **X** | **X** | **X** |
| Lectures / classes / studio | **X** | **X** | **X** |  |  |  |  |  |  |  | **X** | **X** |  | **X** | **X** | **X** |
| Group tutorials / seminars | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |  |  |  |  |  |  |
| Crit (presentation / review) |  | **X** |  |  |  |  |  | **X** |  |  |  |  |  |  |  |  |
| **Assessment method** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Construction and Structures design | **X** | **X** | **X** | **X** |  |  | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Environment and Sustainability design | **X** |  |  | **X** | **X** | **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) |
|  |  |  |  |  |
|  |  |  |  |  |

Revised FSO Jan 2018