1. **Title of the module**

ARCH8410 (AR841) – Structural Appraisal of Historic Buildings

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 7

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**

None

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

MSc Architectural Conservation

1. **The intended subject specific learning outcomes.
On successfully completing the module students will be able to demonstrate:**
	1. A systematic understanding of construction components in historical buildings and their structural behaviour.
	2. An understanding of the causes of decay, and repair of historic buildings.
	3. An enhancing of the ability to assess and monitor the condition of buildings, and make proposals for their repair, maintenance, and enhancement.
	4. Provision of graphic presentation skills employed in structural appraisal and the development of conservation strategies.
2. **The intended generic learning outcomes.
On successfully completing the module students will be able to:**
	1. Ability to critically apply theories, research and analysis in order to understand the structural behaviour of a building.
	2. Ability to investigate and identify the extent and the cause of construction materials’ decay, by analysing a wide range of historical documentation and interpreting data from laboratories.
	3. Ability to develop a structural intervention strategy using appropriate presentation and communication skills.
3. **A synopsis of the curriculum**

This module explores the structural behaviour of buildings, and examines their response to environmental phenomena. It helps the students to analyse the causes and patterns of damage in a wide range of structures and cultivates a critical understanding of the techniques employed in the repair and strengthening of historic buildings. A combination of lectures and laboratory analysis will help the students to develop an advanced understanding of the properties of building materials and their decay. The module will include lectures on materials such as stone, brick, mortar, timber, iron and concrete. Three of these lectures will be delivered by the conservators of Canterbury cathedral at the Cathedral’s conservation workshop. This will constitute an opportunity to observe the methods employed in the conservation of Canterbury cathedral, examining the practical application of a wide range of preservation techniques. The course’s assignment, a structural report on a historic structure in Kent will provide students with an opportunity to test the skills and knowledge gained in the lectures, articulating their findings using the relevant presentation skills.

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

Ashurst, J. & N. (1988). *Practical Building Conservation* (Vols. 1-5). English Heritage Technical Handbooks.
Ayres, James. (1998). *Building the Georgian City*. Yale
Beckmann, Paul. (1995). *Structural Aspects of Building Conservation*. McGraw Hill.
Carbonara, Giovanni. (2005). *Atlante del restauro.* UTET, ISBN: 9788802061207
Croci, G. (1998). *The Conservation and Structural Restoration of Architectural Heritage*. Southampton: Computational Mechanics.
Forsyth*,* Michael. (2007). *Structures and Construction in Historic Building Conservation: Structures and Construction*. Wiley-Blackwell: ISBN-13: 978-1405111713
Gorgon, J. E. (1991). *Structures: or why things don’t fall down*. Penguin.
Heyman, Jacques. (1997). *The Stone Skeleton: Structural Engineering of Masonry Architecture*. Cambridge University Press: ISBN13: 9780521629638
Mainstone, R. (1975). *Developments in Structural Form*. Allen Lane.
Robson, R. (1991). *Structural Appraisal of Historic Buildings*. Gower.
Theodossopoulos*,* Dimitris. (2012). *Structural Design in Building Conservation*, Taylor & Francis Ltd Routledge ISBN-13: 978-0415479462

1. **Learning and teaching methods**

Total contact hours: 36 hours

Private study hours: 264 hours

Total study hours: 300 hours

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

Structural Report (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* | *9.1* | *9.2* | *9.3* |
| **Learning/ teaching method** |  |  |  |  |  |  |  |
| **Private Study** | **X** | **X** | **X** | **X** | **X** | **X** | **X** |
| Lectures | **X** | **X** |  |  |  |  |  |
| Seminar presentation / discussion |  |  | **X** |  | **X** | **X** |  |
| Laboratory use |  |  |  |  | **X** | **X** | **X** |
| Statement seminar presentations |  |  |  | **X** | **X** | **X** | **X** |
| **Assessment method** |  |  |  |  |  |  |  |
| Structural Report | **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 architectural conservation.

**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