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| <b>Module Title</b><br><b>Design Technology 2 - Architectural Technology</b>   | Reference SU3040<br>SCQF SCQF<br>Level 9<br>SCQF Points 30<br>ECTS Points 15<br>Created May 2002<br>Approved August 2009<br>Amended July 2011<br>Version No. 2 |
| <b>Keywords</b><br>Design, Environmental Strategy, Conservation,<br>Building Pathology, Integrated Information Systems |  |

## This Version is No Longer Current

The latest version of this module is available [here](#)

### Prerequisites for Module

SU2030 Design Technology 1 - Architectural Technology

### Corequisite Modules

None.

### Precluded Modules

None.

### Aims of Module

To provide the student with the ability to evaluate building performance and develop environmental strategies within project based context, and develop an understanding of the

### Mode of Delivery

This is a module predominantly involving practical work in relation to a project, which includes field and studio work and, where appropriate, site visits. In addition, student centred CAD modelling is provided in a tutorial/workshop environment with tutor support. The workshops will be supplemented by keynote lectures. Directed study to core texts and resource material.

### Assessment Plan

|             | Learning Outcomes Assessed |
|-------------|----------------------------|
| Component 1 | 1,2,3,4                    |

interaction between people and their environment, which can impact on building design. To provide the student with the knowledge to develop and adopt integrated information systems/ data modelling techniques using appropriate decision making tools.

## **Learning Outcomes for Module**

On completion of this module, students are expected to be able to:

1. Evaluate aspects of building performance in historical and/or contemporary contexts.
2. Design systems, which integrate building structure and envelope while considering issues of whole life cycle and building pathology.
3. Formulate environmental strategies for optimising levels of human comfort, building performance and materiality.
4. Explain the supporting methodologies and facilities of an object orientated CAD system to the development of integrated project information systems.

## **Indicative Module Content**

The module will investigate performance based studies of

Learning Outcomes 1, 2, 3, and 4 are continually assessed by coursework in the form of an investigative report based on a directed precedent study will assess learning outcome 1. Learning Outcomes 2-4 are assessed by a built environment design project involving individual and group work.

## **Indicative Bibliography**

1. Roaf, S. (2007) Ecohouse
2. Sassi, P. (2006) Strategies for Sustainable Architecture
3. Schittich, C. (2003) In Detail: Building in Existing Fabric: Refurbishment, Extensions, New Designs
4. Sulbaran, T. & Shiratuddin, M. (2009) Building Information Modelling for Construction using Archicad
5. Mcleod, V. (2005) Detail in Contemporary Timber Architecture
6. Schittich, C (2003) Solar Architecture
7. Herzog, et al (2008) Timber Construction Manual
8. Schittich, et al (2007) Glass Construction Manual

## **Additional Notes**

Where appropriate, mixed discipline team working will be encouraged. Where appropriate,

innovative technologies in 20th century building design; consideration of the interaction between environmental and human factors, which can impact on component, assembly and whole building performance; ergonomics, anthropometrics, comfort, health, safety & security related issues. The need for the realisation of design products, processes and procurement and also the need to develop awareness of the management issues inherent within projects, including individual and team roles; ecology; ethics in design and project information systems.

and within the context of the studio project, students will be encouraged to be innovative, experiment and push the boundaries of their competence with these techniques and tools.

### **Indicative Student Workload**

| <i>Contact Hours</i>      | Full Time |
|---------------------------|-----------|
| Assessment                | 5         |
| Lectures                  | 5         |
| Practical Work            | 65        |
| Workshop                  | 15        |
| <br><i>Directed Study</i> |           |
| Directed Study            | 100       |
| <br><i>Private Study</i>  |           |
| Private Study             | 110       |