

SUSTAINABLE ARCHITECTURE

SUSTAINABLE ARCHITECTURAL DEVELOPMENTS

INTRODUCTION TO THIS MODULE

2018-2019

Juan A Ferriz-Papi



SUSTAINABLE ARCHITECTURE / SUSTAINABLE ARCHITECTURAL DEVELOPMENTS

Lecturer introduction

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Students introduction

What do you expect for this module?

Answer the questions in the sheet given

Answer as many questions as you can.

Be as brief as possible.

It is not compulsory, but can help the module organisation.



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Aims of this module

To explore different approaches to delivering sustainable buildings.

- Green building certification assessments
- Design and delivery of sustainable architecture and communities



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Learning Outcomes

1. Critically examine the range of different approaches to the certification of sustainable buildings.
2. Compare and contrast different approaches to the design of sustainable buildings.
3. Evaluate the environmental impact of different building techniques and systems.



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Contents

1. Introduction
2. Green building certification
3. Building life cycle impacts
4. Surveying. Data collection
5. Energy Efficiency in buildings
6. Passive design
7. Renewable energies
8. Ventilation
9. Lighting. Natural light
10. Water
11. Sustainable materials
12. Green walling and roofs
13. Prefabrication
14. Noise
15. Transport
16. Accessibility
17. Sustainable cities



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Programming

Lectures

5th October 2018 to 3rd May 2019

1st Assignment

21st November 2018

2nd Assignment

13th March 2019

Presentation

2nd May 2019



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Lesson explanation

Lectures

Short Theoretical introduction

Case studies

Practical exercises

Work individually or by groups

Assessment and discussion

Site visits, surveys, talks



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Assessment

1st Assignment 30%

2nd Assignment 50%

Oral presentation 20%

Total marks 100%



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Assessment

1st Assignment

Report

BREEAM and Passive House

Report of about 1800 words

Deadline. 21st November 2018



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Assessment

2nd Assignment

Case study

Implementation of sustainable architectural solutions

Report of about 2500 words
CAD models and diagrams

Deadline. 13th March 2019



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Assessment

Oral presentation

Prepare 8 min presentation about solutions applied in assignment 2

Presentation date: 2nd May 2019