

Liverpool John Moores University

Title: Sustainable Materials in the Built Environment
Status: Definitive but changes made
Code: **7507CATSCI** (125270)
Version Start Date: 01-08-2020

Owning School/Faculty: Natural Sciences & Psychology
Teaching School/Faculty: Centre for Alternative Technology

Team	Leader
Colm Bowe	Y

Academic Level: FHEQ7 **Credit Value:** 15 **Total Delivered Hours:** 30
Total Learning Hours: 150 **Private Study:** 120

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	10
Practical	15
Seminar	4
Tutorial	1

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	Essay	Essay (2,400 words max.)	80	
Presentation	Presentati	Individual presentation (600 words eq.)	20	

Aims

a) Following an interdisciplinary approach, critically evaluate the environmental impacts, wider social and health implications, in-use performance and usability of materials, in order that students can then apply well informed and sound judgement to the choice and use of materials in practice when applying adaptation and

sustainability principles within the built environment.

b) Obtain a comprehensive understanding of how environmentally sustainable materials can offer creative opportunities for the use and development of high quality, healthy, low environmental impact, effective, and long lasting products.

c) Critically discern how to use the advantages and overcome or minimise the disadvantages associated with the use of environmentally sustainable materials under an adaptation and sustainability ethos.

d) Evaluate the implications of availability, cost, physical properties and construction methods of environmentally responsive materials for ease of use, mainstream acceptance, design limitations, logistical considerations, and economic viability in relation to the built environment.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate a deep and critical awareness of environmental assessment and potential use of materials as regards to their environmental impact, social and health implications and sustainability under an adaptation transformation ethos;
- 2 Develop comprehensive understanding of the interdependency of all the aspects of sustainable building materials related to sustainability and adaptation planning as applicable to the use of materials and resources;
- 3 Critically evaluate and assess theories and designs related to environmentally responsive materials under a transformational adaptation ethos, and use information sourced from multiple resources to review the properties and attitudes towards environmentally sustainable materials;
- 4 Effectively communicate complex information about methods to assess sustainable materials to a broader, non-specialist, audience.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Essay (2,400 words max.)	1	2	3
Individual visual presentation	2	4	

Outline Syllabus

Details of syllabus required

Learning Activities

This module will comprise lectures, seminars, a tutorial and be supported by a range of practical activities.

Distance learning students will have access to all the lectures via the VLE, and videos and written descriptions of the practical activities

Notes

This module is available onsite or via distance learning.