

Liverpool John Moores University

Title: ENVIRONMENTAL STUDIES
Status: Definitive
Code: **4111BEHN** (118180)
Version Start Date: 01-08-2011

Owning School/Faculty: Built Environment
Teaching School/Faculty: Built Environment

Team	Leader
Alex Mason	Y
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Academic Level: FHEQ4 **Credit Value:** 24.00 **Total Delivered Hours:** 50.00
Total Learning Hours: 240 **Private Study:** 190

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24.000
Tutorial	24.000

Grading Basis: BTEC

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	OPEN BOOK EXAM	50.0	2.00
Essay	AS2		25.0	
Portfolio	AS3		25.0	

Aims

*To discuss and analyse the impact of human activity on the environment.
To identify how the built environment contributes to environmental change, and to understand the implications of these changes.
To examine how the detrimental changes may be quantified and addressed.
To analyse environmental challenges posed by the management and development of the built environment, and to evaluate potential solutions to these challenges.*

Learning Outcomes

After completing the module the student should be able to:

- 1 Show an awareness of the many ways in which human activity impacts the environment, and show an understanding of the role played by the built environment.
- 2 Identify and describe environmental issues which concern the construction industry, showing how these issues can be addressed.
- 3 Have a sound knowledge of indoor environmental effects and be able to give reasoned advice on how these effects can be minimised.
- 4 Describe the key principles of sustainable development, and discuss how it can be achieved in practise.
- 5 Investigate specific cases of policies and practices concerned with energy use and energy assessment of existing buildings, materials and locations.
- 6 Be familiar with common environmental impact assessment tools, and be able to prepare an outline scoping study such an assessment.

Learning Outcomes of Assessments

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

EXAMINATION	1	2	3	4
ESSAY	5			
PORTFOLIO	6			

Outline Syllabus

1. Ways in which the construction process impacts upon the environment.

- *Location, extraction, transportation and refinement of raw materials.*
- *Manufacture of construction materials and components.*
- *The many detrimental effects of construction sites such as dust, dirt, disturbances and health risks.*
- *Effects on existing services, infrastructure and energy resources.*

2. Global and local environmental issues.

- *Legislation and control.*
- *Pollution (in air, water, and land, in addition to noise).*
- *Waste management and recycling.*
- *Sustainable development and construction.*
- *Alternative energy sources.*

3. Indoor environmental effects.

- *Modern artificial lighting.*
- *Pollution from noise, electromagnetic fields, tobacco smoke.*
- *Potential health risks (e.g. radio, legionellosis, carbon monoxide).*
- *Sick building syndrome.*

4. Environmental impact assessment systems.

- *Siting, structural design and materials.*
- *Energy efficiency and use of alternative energy.*
- *Building maintenance.*
- *Building Research Establishment Environmental Assessment Method (BREEAM).*
- *International assessment methods (e.g. LEED for North America).*

Learning Activities

A combination of lectures, case studies, oral presentations and group work.

References

Course Material	Book
Author	Baker, S.
Publishing Year	2006
Title	'Sustainable Development'
Subtitle	
Edition	
Publisher	Routledge
ISBN	0415282101

Course Material	Book
Author	Edwards, B. and Turrent, D.
Publishing Year	2000
Title	'Sustainable Housing: principles and practice'
Subtitle	
Edition	
Publisher	Spon Press
ISBN	0419246207

Course Material	Book
Author	Bell, S. and Morse, S.
Publishing Year	1999
Title	'Sustainability Indicators: measuring the immeasurable'
Subtitle	
Edition	
Publisher	Earthscan

ISBN	085383498X
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Course Material	Book
Author	Glasson, J., Therivel, R., and Chadwick, A.
Publishing Year	2005
Title	'Introduction to Environmental Impact Assessment'
Subtitle	
Edition	
Publisher	Taylor & Francis
ISBN	978-0415338370

Course Material	Book
Author	Morris, P. and Therivel, R.
Publishing Year	2003
Title	'Methods of Environmental Impact Assessment'
Subtitle	
Edition	2nd
Publisher	Routledge
ISBN	978-0415239592

Course Material	Book
Author	Graham, P.
Publishing Year	2003
Title	'Building Ecology: First Principles for a Sustainable Built'
Subtitle	
Edition	
Publisher	Blackwell Publishing
ISBN	0632064137

Course Material	Book
Author	Nathanail, C.P.
Publishing Year	2004
Title	'Reclamation of Contaminated Land'
Subtitle	
Edition	
Publisher	John Wiley and Sons Ltd
ISBN	0471985617

Course Material	Book
Author	Health and Safety Executive
Publishing Year	1998
Title	'Sick Building Syndrome'
Subtitle	
Edition	
Publisher	Health and Safety Executive
ISBN	

Notes

This module is designed to develop the notion of sustainable development through identification of the current environmental challenges presented by management and development of the built environment. The module content is tailored in order give a good understanding of related legislation and best practise, and will contain a significant number of relevant real world examples in order to reinforce key points.