

Liverpool John Moores University

Title: TECHNOLOGY B
Status: Definitive
Code: **5002BEHN** (102302)
Version Start Date: 01-08-2011

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

Team	Leader
Martin Turley	Y

Academic Level: FHEQ5
Credit Value: 12.00
Total Delivered Hours: 38.00
Total Learning Hours: 120
Private Study: 82

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	24.000
Tutorial	12.000

Grading Basis: BTEC

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	closed book	50.0	2.00
Report	AS2	assignment	50.0	

Aims

To develop further the principles and practice of construction technology related to medium and high rise complex structures.

To develop further the reasoning ability of the technologist in the selection and appraisal of materials and techniques used in the construction of complex buildings, taking account of geographical location, function, appearance, performance, efficiency, initial and in-use cost effectiveness.

To enhance the understanding of the concepts of sustainability and buildability within the context of modern construction systems.

Learning Outcomes

After completing the module the student should be able to:

- 1 Describe and evaluate the range of materials and constructional forms available in relation to multi-storey construction.
- 2 Examine the range of systems used to provide flexibility of internal layout of commercial buildings.
- 3 Identify and analyse the concept of buildability in terms of safety, efficiency, economy and quality and its application in multi-storey construction.
- 4 Evaluate the effectiveness of remedial works to existing buildings.
- 5 Identify safe working procedures for the construction of multi-storey buildings.

Learning Outcomes of Assessments

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

EXAM	1	3	4	5
Coursework report	1	2	3	5

Outline Syllabus

Explains and illustrates the need for an adequate site investigation prior to commencing work on site, together with the range of techniques available for such investigations.

Examines the range of foundations suitable for various building types and forms together with the means available for improving low load bearing capacity ground.

Examines the range of ground floors for commercial and industrial buildings.

Examines the range of constructional forms in current use for complex structures, together with the various materials used to provide the external envelope and internal finishings.

Considers the feasibility of various combinations of constructional forms and materials used to provide the external envelope and the internal finishes for stated situations.

Consider and apply buildability to multi-storey construction. Application of Health and Safety in multi-storey construction.

Learning Activities

Lecture, tutorials and studio sessions will be supported where possible with site visits, slides and videos. Part-time students are encouraged to input their own experiences into their work and into discussions.

Wherever possible, case study information, i.e. drawings and site documentation will be used to supplement the learning material.

Students should supplement their lecture notes with background reading (text books,

journals, digests, and in particular Trade Literature.

References

Course Material	Book
Author	Barry, R.
Publishing Year	1996
Title	The Construction of Buildings
Subtitle	
Edition	4th Edition
Publisher	Blackwell Scientific
ISBN	063205543X

Course Material	Book
Author	Illingworth, J.R.
Publishing Year	2000
Title	Construction Methods and Planning
Subtitle	
Edition	2nd Edition
Publisher	E&FN Spon
ISBN	041924980X

Course Material	Book
Author	Riley, M. and Cotgrave,A.
Publishing Year	2003
Title	Construction Technology 2
Subtitle	
Edition	
Publisher	Palgrave
ISBN	0333804821

Course Material	Book
Author	Adams, S.
Publishing Year	1989
Title	Practical Buildability
Subtitle	
Edition	
Publisher	Butterworths
ISBN	0408035250

Course Material	Book
Author	Holyroyd, M.
Publishing Year	2003
Title	Buildability

Subtitle	
Edition	
Publisher	Thomas Telford
ISBN	0727732072

Course Material	Book
Author	Health and Safety Executive
Publishing Year	1996
Title	Health and Safety in Construction
Subtitle	
Edition	
Publisher	HSE
ISBN	0717611434

Notes

The module equips the student with the necessary level of skills and competencies in the following areas: site evaluation, foundations, ground floors and superstructure in relation to medium and high rise complex structures.

The relationship between learning outcomes and components of assessment are flexible to allow multiplicity of assessment.