

Liverpool John Moores University

Title: BUILDING PERFORMANCE EVALUATION
Status: Definitive
Code: **7087BEPG** (119562)
Version Start Date: 01-08-2013

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

Team	Leader
Andy Shaw	Y
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Academic Level: FHEQ7 **Credit Value:** 20.00 **Total Delivered Hours:** 40.00
Total Learning Hours: 200 **Private Study:** 160

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	28.000
Workshop	12.000

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	PERFORMANCE EVALUATION PORTFOLIO	100.0	

Aims

To provide a detailed knowledge of current techniques for building performance evaluation and encourage critical appraisal of these techniques in order to suggest improvements, particularly in terms of technology aspects.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically evaluate current techniques for building performance evaluation, and understand the value of such evaluation techniques in the current built environment policy context.
- 2 Plan a building performance evaluation of a building and execute this plan in order to critically assess actual versus expected performance
- 3 Critically compare and apply existing building performance evaluation metrics and suggest improvements.
- 4 Examine the importance of occupant opinion and critically evaluate the difficulties in using the human element as a performance metric.

Learning Outcomes of Assessments

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

PORTFOLIO	1	2	3	4
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Outline Syllabus

Discussion and introduction to the Standard Assessment Procedure (SAP), with inclusion of practical examples and methods of calculation.

Detailed investigation of building performance metrics such as: temperature; humidity; noise; lighting; safety; ergonomics; disability provision; air quality; energy consumption; water usage; occupational density; space utilisation; efficiency ratio.

Review of current technologies and standards for building performance evaluation, and debate regarding the adequacy of these strategies (SAP included). Future technologies likely to be adopted, or which show promise, will be discussed in depth.

Discussion of the general field of post-occupancy evaluation and the importance of other types of evaluation method (i.e. throughout the building life cycle).

In-depth analysis of the human dimension to post occupancy evaluation and the importance of occupant opinion as a metric for determining the success or failure of a project.

Legislation in the field, namely what types of assessment are legally required for different property types

Learning Activities

Lecture and tutorials.

References

Course Material	Book
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Author	Mallory-Hill, S., Watson, C. and Preiser, W.
Publishing Year	2012
Title	Enhancing Building Performance
Subtitle	
Edition	2nd
Publisher	Wiley-Blackwell
ISBN	0470657596

Course Material	Book
Author	Langston, C.
Publishing Year	2001
Title	Sustainable Practices in the Built Environment
Subtitle	
Edition	2nd
Publisher	Butterworth-Heinemann
ISBN	0750651539

Course Material	Journal / Article
Author	Preiser, W.
Publishing Year	2002
Title	Intelligent office building performance evaluation
Subtitle	
Edition	
Publisher	Facilities: Vol. 20, Iss: 7/8, PP279-287
ISBN	02632772 (ISSN)

Course Material	Journal / Article
Author	Wong, N. and Jan, W.
Publishing Year	2003
Title	Total building performance evaluation of academic institution
Subtitle	
Edition	
Publisher	Building and Environment: Iss: 38, PP161-176
ISBN	03601323 (ISSN)

Course Material	Journal / Article
Author	Jaunzens, D., Grigg, P., Cohen, R., Watson, M. and Picton, E.
Publishing Year	2003
Title	Digest 478 – Building performance feedback: getting started
Subtitle	
Edition	
Publisher	BRE
ISBN	1860816274

Notes

Provides detailed knowledge of current techniques for building performance evaluation and gives the opportunity for critical appraisal of these techniques. In this regard, students will be encouraged to suggest alternatives which make use of modern technology in order to develop new more effective strategies for building performance evaluation.