

Liverpool John Moores University

Title: BUSINESS SYSTEMS: ANALYSIS & DESIGN
Status: Definitive
Code: **7010ONLINE** (103117)
Version Start Date: 01-08-2012

Owning School/Faculty: Computing and Mathematical Sciences
Teaching School/Faculty: Computing and Mathematical Sciences

Team	Leader
Andrew Laws	Y

Academic Level: FHEQ7
Credit Value: 15.00
Total Delivered Hours: 38.00
Total Learning Hours: 150
Private Study: 112

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	12.000
Seminar	12.000
Tutorial	12.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	A report detailing a cybernetic analysis of a student selected system	25.0	
Exam	AS2	Examination	75.0	2.00

Aims

The integration and extension of previous learning and experience in systems investigation and development.

To develop competence in the investigation, design and evolution of complex or large-scale business and information systems.

To develop skills in a wide repertoire of analysis techniques.

To appreciate contemporary research issues in the analysis and design of

business/Information systems.

Learning Outcomes

After completing the module the student should be able to:

- 1 Evaluate the appropriateness of alternative methodologies and techniques according to the situation
- 2 Interpret and apply the range of systems methodologies and specialist techniques to practical systems problems.
- 3 Synthesise tools and techniques for systems modelling, design, and revision of existing designs.

Learning Outcomes of Assessments

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

Cybernetic analysis	3	
Examination	1	2

Outline Syllabus

1. *General Systems Theory and fundamental systems concepts.*
2. *The Development of Systems Thinking (Hard/Soft Approaches)*
3. *Functionalist Systems Approaches*
 - a. *Systems Dynamics*
 - Feedback principles*
 - Causal Loop Diagrams*
 - System Archetypes*
 - b. *Cybernetics and Managerial Cybernetics (VSM)*
 - c. *Critical Success Factors, Monitoring and CuSum*
 - d. *Hard Systems Approaches*
 - Operational Research*
 - Systems Analysis/Systems Engineering*
 - e. *Socio-technical Systems Theory (ETHICS Methodology)*
 - f. *Business Process Reengineering*
4. *Interpretive Systems Approaches*
 - a. *Checkland's Soft Systems Thinking*
 - Soft Systems Philosophy and Theory*
 - Soft Systems Methodology*
 - Wilson's SSM & IS Development*
 - Multiview Methodology*
 - b. *Soft Operations research, Systems Dynamics & Cybernetics*

5. Learning Organizations

Learning Activities

The module is mainly based on online lectures and online Tutorials. Tutorial work is completed in the student's own time

References

Course Material	Book
Author	Senge, P. M.
Publishing Year	2006
Title	The Fifth Discipline
Subtitle	
Edition	2nd Edition
Publisher	Random House Business
ISBN	1905211201

Course Material	Book
Author	Beer, S.
Publishing Year	1995
Title	Diagnosing the System for Organizations
Subtitle	
Edition	
Publisher	John Wiley & Sons
ISBN	0471951366

Course Material	Book
Author	Yolles, M.
Publishing Year	1999
Title	Management Systems: A Viable Systems Approach
Subtitle	
Edition	
Publisher	Prentice Hall
ISBN	0-273-62018-5

Course Material	Book
Author	Espeio, R.
Publishing Year	1996
Title	Organizational Transformation and Learning: A Cybernetic Approach to Management
Subtitle	
Edition	
Publisher	John Wiley & Sons

ISBN	0-471-96182-5
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Course Material	Book
Author	Checkland, P. B.
Publishing Year	1999
Title	Systems Thinking, Systems Practice
Subtitle	
Edition	
Publisher	John Wiley & Sons
ISBN	0-471-951986062

Course Material	Book
Author	Wilson, B.
Publishing Year	1996
Title	Systems Concepts: Methodologies and Applications
Subtitle	
Edition	
Publisher	John Wiley & Sons
ISBN	0-471-927163

Course Material	Book
Author	Jackson, M. C.
Publishing Year	2000
Title	Systems Approaches to Management
Subtitle	
Edition	
Publisher	Kluwer Academic/Plenum Publishers
ISBN	0-306-465000

Course Material	Book
Author	Hammer, M. and Champy, J.
Publishing Year	2003
Title	Reengineering the Corporation: a manifesto for business revolution
Subtitle	
Edition	
Publisher	Harper Business Essentials
ISBN	0-06-6621127

Notes

This module provides students with a repertoire of modern, practical analysis and design tools allowing systems to be appropriately designed, diagnosed and reengineered as necessary. All online activities are scheduled.