

## Liverpool John Moores University

Title: BUSINESS SYSTEMS: ANALYSIS & EVOLUTION  
Status: Definitive  
Code: **6001ONLINE** (103098)  
Version Start Date: 01-08-2011

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

Team	Leader
Andrew Laws	Y

**Academic Level:** FHEQ6  
**Credit Value:** 24.00  
**Total Delivered Hours:** 72.00  
**Total Learning Hours:** 240  
**Private Study:** 168

### Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	24.000
Online	24.000
Tutorial	24.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Report detailing a cybernetic analysis of a student selected system.	50.0	
Report	AS2	3000 word academic paper exploring a student selected topic from a list of module specific areas.	50.0	

### Aims

*To integrate and extend previous learning and experience in systems investigation and development.*

*To develop competence in the investigation and design of complex or large-scale*

*business and IT systems.*

*Develop a broad repertoire of investigation techniques.*

*To appreciate the effects of on-going evolution on business processes and their supporting software systems.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Apply a wide range of methodologies and specialist techniques to practical systems problems.
- 2 Critically evaluate the appropriateness of alternative methodologies and techniques according to the situation.
- 3 Derive appropriate strategies to address legacy system syndrome development in business systems and software.

## **Learning Outcomes of Assessments**

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

Cybernetic analysis	1	2
Academic paper	3	

## **Outline Syllabus**

*Development and fundamentals of General Systems Theory*

*Systems Dynamics*

*Managerial Cybernetics and the Viable System Model*

*Hard Systems Thinking*

*Checkland's Soft Systems Thinking and Soft Systems Methodology*

*Total Quality Management vs Business Process Re-engineering*

*Business Process Management*

*Software Systems Development Methodologies*

*Software Systems Maintenance & Evolution*

*Autonomic Software Systems*

## **Learning Activities**

Formal recorded lectures introduce key concepts, while tutorial sessions provide the opportunity to explore and assimilate those concepts.

## **References**

<b>Course Material</b>	Book
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<b>Author</b>	Beer, S.
<b>Publishing Year</b>	1995
<b>Title</b>	Diagnosing the system for Organizations
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	John Wiley & Sons
<b>ISBN</b>	0-471-95136-6

<b>Course Material</b>	Book
<b>Author</b>	Checkland, P.B.
<b>Publishing Year</b>	1999
<b>Title</b>	Systems Thinking, Systems Practice
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	John Wiley & Sons
<b>ISBN</b>	0-471-98606-2

<b>Course Material</b>	Book
<b>Author</b>	Checkland, P.B. and Poulter, J.
<b>Publishing Year</b>	2006
<b>Title</b>	Learning for Action
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	John Wiley & Sons
<b>ISBN</b>	978-0-470-02554-3

<b>Course Material</b>	Book
<b>Author</b>	Hoverstadt, P.
<b>Publishing Year</b>	2008
<b>Title</b>	The Fractal Organization
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	John Wiley & Sons
<b>ISBN</b>	978-0-470-06056-8

<b>Course Material</b>	Book
<b>Author</b>	Hammer, M. and Champy, J.
<b>Publishing Year</b>	2001
<b>Title</b>	Reengineering the Corporation
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	HarperBusiness
<b>ISBN</b>	978-0-060-55953-3

<b>Course Material</b>	Book
<b>Author</b>	Jeston, J. and Nelis, J.
<b>Publishing Year</b>	2006

<b>Title</b>	Business Process Management
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	Elsevier
<b>ISBN</b>	978-0-75-068656-3

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## Notes

This module seeks to provide students with a toolkit of practical systems analysis and design techniques and approaches that can be selectively drawn upon depending on circumstances. The presentation of these various methods is couched in philosophical approaches that underpin the approach. This allows students not only to use such techniques but also to understand why the technique is appropriate in a given situation. All online activities are scheduled.