2024 / 25

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Module Descriptor

Business Process Analysis and Design (Computing and Mathematics)

Business Process Analysis and Design (A14221)

Short Title: Bus. Proc. Analysis & Design
Department: Computing and Mathematics
Credits: 10 **Level:** Postgraduate

Description of Module / Aims

This module addresses the analysis and design of business processes. The module places emphasis on the role of information and information systems in business processes. The module introduces the student to modelling techniques for representing business process. It addresses methods to support the analysis and design of business processes and techniques for measuring the performance level of processes. The module includes techniques associated with lean and six-sigma approaches to process improvement.

Programmes

		stage/semester/status
BUSI-0004	MSc in Computer Science (Enterprise Software Systems) (WD_KCESS_R)	1 / 0 / E
BUSI-0004	MSc in Computing (Information Systems Processes) (WD_KISYP_R)	1 / 0 / E

Indicative Content

- Overview of business process change
- Business process management
- Modelling organisations and processes
- Business process analysis
- Business process design
- Process performance management
- Business process management technologies

Learning Outcomes

On successful completion of this module, a student will be able to:

1. Justify the role of business process management within organisations.
2. Construct models using appropriate techniques to capture the nature of business process.
3. Select and apply appropriate analytic techniques to characterise business process performance.
4. Design business process using appropriate techniques.
5. Evaluate the role of information technologies in support of business processes.

Learning and Teaching Methods

- This module will be presented by a combination of lectures and computer based practicals.
- The lectures will be used to introduce new topics and their related concepts. Lectures will be supplemented by participative case studies and independent reading on the issues covered in the lecture material.
- The practical element is intended to provide the student with the skills needed to use and understand technologies available to assist in business process analysis and design.

Learning Modes

Learning Type	F/T Hours	P/T Hours
Lecture	36	36
Practical	12	12
Independent Learning	222	222

Assessment Methods

	Weighting	Outcomes Assessed
Final Written Examination	50%	1,3,4
Continuous Assessment	50%	
Assignment	50%	2,5

Assessment Criteria

<40%: Unable to interpret and describe key concepts of business process analysis and design.

40%–59%: Be able to describe and discuss key concepts of business process analysis and design and ability to discover and integrate related knowledge in other knowledge domains.

60%–69%: Be able to solve problems within business process analysis and design by experimenting with the appropriate skills and tools.

70%–100%: All the above to an excellent level. Be able to analyse and design solutions to a high standard for a range of both complex and unforeseen problems through the use and modification of appropriate skills and tools.

Essential Material(s)

- Annupindi, R., S. Chopra, S. D. Deshmukh, J. Van Mieghem and E. Zemel. *Managing Business Process Flows: Principles of Operations Management*. 3rd ed.. Harlow, Essex, UK: Pearson, 2013.
- Freund, J. and B. Rucker. *Real-Life BPNM: Using BPMN 2.0 to Analyze, Improve, and Automate Processes in Your Company*. 2nd ed. Berlin, Germany: Camunda.com, 2014.
- George, M. L. *Lean Six Sigma for Service*. London, UK: McGraw-Hill, 2003.
- Harmon, P. *Business Process Change*. 3rd ed. London, UK: Morgan Kaufmann, 2014.

Supplementary Material(s)

- Hammer, M. and J. Champy. *Reengineering the Corporation: A Manifesto for Business Revolution*. Revised ed.. New York, NY, USA: Harper Business, 2001.
- Rummler, G.A. and A.P. Brache. *Improving Performance: How to Manage the White Space on the Organisation Chart*. 3rd ed.. San Francisco, CA, USA: Jossey Bass, 2013.

Requested Resources

- Room Type: Computer Lab