

Code : CE00321-2 Version : 2 Approval Status : Valid Current

Title : SYSTEM DEVELOPMENT METHODS

Section : Computing, Engineering & Technology

Field : IABS

Level : 2

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Pattern Of Delivery

Credits	Contact Hours	Independent Study Hours	Total Learning Hours	Pattern	Year Span	Period	Study %	Initial Grid
15	36	114	150	1	1	1	100	Y

Contributing Faculty

Computing, Engineering & Technology	100%
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Site	Cost Centre	Cost Centre Description	Subj	Subject Description	Subj %	Hesa Subi %
STAFFORD	25	Information Technology and Systems Sciences	G900	Others in Mathematical and Compu	100	100

Registration Conditions

	CE00308-1
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Date Approved	Date Implemented
20/9/2005	1/8/2005

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Learning Outcome

1. EXPLAIN THE PURPOSE, STRUCTURE AND SCOPE OF A TRADITIONAL METHODOLOGY AND SELECT AND JUSTIFY APPROPRIATE METHODS OF ANALYSIS, DESIGN AND IMPLEMENTATION FOR A PARTICULAR COMPONENT OR APPLICATION, BE IT SDLC, MULTIMEDIA OR WEB BASED.	Knowledge & Understanding
	Problem Solving
2. ANALYSE AND DEVELOP DIFFERENT VIEWS OF A SYSTEM	Analysis
	Problem Solving
3. APPLY STRUCTURED ANALYSIS, DESIGN AND IMPLEMENTATION TECHNIQUES TO DEVELOP A SIMPLE PROTOTYPE, WITH A SUITABLE INTERFACE, FROM CONCEPTION THROUGH TO IMPLEMENTATION	Analysis
	Application
	Problem Solving
4. DEMONSTRATE A KNOWLEDGE OF THE FUNDAMENTAL ISSUES OF HCI BY APPLYING INTERFACE DESIGN PRINCIPLES TO A PROTOTYPE	Application
	Knowledge & Understanding

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Module Details

Indicative Content	<ul style="list-style-type: none"> * Structured Techniques for analysis and design using a method such as SSADM * Typical techniques to be included are user requirements capture, process models, data models, event models and enquiry access paths * Correlation of different views of a system, for example, process- data, process - event, data - event models * Use of CASE tool to check for consistency * Introduction to the concept and use of a Database Management System * Implementation of a Database to include queries, forms and reports to meet user requirement specification * HCI overview, user skills and characteristics * Perceptual ability including perception, cognition and memory * Interface design considerations, including icons, screen layouts and interaction styles * Task analysis and interface evaluation * A comparison of multimedia and web-based approaches with the structured approach adopted for the development of a prototype.
Assessment Details	<p>A GP ASSIGNMENT weighted at 50%. An EXAM length 2 HOURS weighted at 50%.</p> <p>A group assignment weighted at 50% - to construct a prototype that satisfies user requirements following the techniques outlined above assessing learning outcomes 1, 2, 3 and 4. Assignment length to be no more than 30 sides of A4.</p> <p>An examination length 2 hours weighted at 50% assessing learning outcomes 1 and 2.</p>
Learning Strategies	<p>Module delivery is 2 lectures and 1 tutorial per week.</p> <p>This module provides in-depth study of a traditional approach to systems analysis, design and implementation through a case study.</p> <p>Practical work will be based on a case study, working in small teams, to analyse, design and implement a simple prototype.</p> <p>Integration of principles of HCI is achieved within the prototype produced.</p> <p>A discussion of alternative approaches for multimedia and web-based approaches is considered towards the end of the module.</p> <p>Pointers to useful resources and appropriate documentation for student centred learning will be supplied</p>
Prospectus Information	<p>This module will build upon the Systems Analysis and Design module studied at level 1. The module discusses how to use structured techniques and a method such as SSADM to analyse, design and implement a system that utilises a database. Aspects of HCI relevant to this type of system will be considered. Multimedia and web-based approaches will be discussed. For the assignment you will work in a small group to design and implement a system for a given case study using a structured approach.</p>
Referring to Texts	<p>Essentials of Systems Analysis and Design, 2nd Edition, Valacich, George and Hoffer, Pearson Prentice Hall, ISBN: 0131211927</p> <p>Interaction Design Beyond Human Computer Interaction, Preece, Rogers & Sharp 2002, Wyllie (Essential Reading), ISBN: 0471492787</p> <p>Information Systems Development, D Avison & G Fitzgerald, McGraw Hill, 2002, ISBN: 0077096266</p>
Accessing Resources	<p>A proprietary CASE tool such as SELECT SSADM</p> <p>A proprietary database tool such as MS Access</p>

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Special Admissions Requirements	Prior study of level 1 Systems Analysis and Design or equivalent.
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