



Module Descriptor

Code: CE01000-3

Version: 2

Approval Status: Qa in progress

Title: OPERATING SYSTEMS

Section: Computing, Engineering & Technology

Field: CS

Level: 3

Contact	E-mail Address	VLE
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Pattern Of Delivery

Credits	Contact Hours	Independent Study Hours	Total Learning Hours	Description of Pattern of Delivery
15	48	102	150	Pattern 1, study 100% in period 1
				Pattern 2, study 100% in period 2

Site
STAFFORD

Registration Conditions	Module Version Condition Text
None	

Module Details	
Assessment Details	A PORTFOLIO weighted at 70%. A CLASS TEST length .83 HOURS weighted at 30%. Class Test, 50 minutes, 50% - learning outcomes 1 and 2. Portfolio 70% - portfolio of exercises drawn from the weekly tutorial and practical work, weighted at 70%, learning outcome 3.
Indicative Content	History of operating systems development. Operating system as a resource manager. Processes, threads and concurrency. Scheduling. Synchronisation and communication. Deadlocks. Memory hierarchy. Memory management including virtual memory. File systems and secondary storage organisation. Device independence. Peripherals, I/O and device drivers. User interface. Introduction to distributed and network operating systems. Special features of embedded operating systems.
Learning Strategies	Lectures 2 hours per week, tutorial/practical 1 hour per week, directed reading and research. The practical will go through exercises that will help students to understand and give practical application to the lecture material. (1:n)2 (1:20)2
Prospectus Information	The module provides an overview of how modern multi-user and multi-tasking operating systems work. In particular it examines the internal operations that allow the operating system to provide the functionality and services that it does. Examples will be drawn from the more popular modern operating systems. Practical work will reinforce theoretical and conceptual understanding.
Resources	PC laboratories with Linux & Windows OS
Special Admissions Requirements	Students must be registered on the special programme run for EFREI.

08/09/2009

CE01000-3 - OPERATING SYSTEMS

Texts	Operating System Concepts. Abraham Silberschatz & Peter B Galvin. Seventh edition, 2007, John Wiley. ISBN 978-0-471-69466-3 Modern Operating Systems. Andrew Tanenbaum. Pearson 2008. ISBN 978-0-138-13459-4 Operating Systems, Internals & Design Principles. William Stallings. Pearson 2008. ISBN 978-0-136-03337-0
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Learning Outcome	
1. EXPLAIN AND EVALUATE THE OPERATION OF THE INTERNAL ALGORITHMS AND STRUCTURES OF A MODERN MULTI-USER/MULTI-TASKING OPERATING SYSTEM.	Knowledge & Understanding
2. CRITICALLY COMPARE AND EVALUATE THE OPERATION OF A NUMBER OF DIFFERENT EXAMPLE OPERATING SYSTEMS.	Analysis
	Enquiry
3. APPLY TO THE SOLUTION OF A RANGE OF PROBLEMS, THE FUNDAMENTAL CONCEPTS, PRINCIPLES AND ALGORITHMS EMPLOYED IN THE OPERATION OF A MULTI-USER/MULTI-TASKING OPERATING SYSTEM.	Problem Solving