

Module Title	Internet Engineering	School	Mathematical & Computer Sciences				On or Off-Campus	On-campus	
Module Co-ordinator	Peter King	SCQF Level	11	Module Code	F21IE	Semester	2	Credits	15

1. Pre-requisites	F28IM Internet, Communications & Mobility; F29OS Operating Systems & Concurrency		
2. Linked Modules (specify if synoptic)			
3. Excluded Modules			
4. Replacement Module	Code:	5. Availability as an Elective	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
	Date Of Replacement:		
6. Degrees for which this is a core module	Optional module for BSc Computer Science & MEng Software Engineering		
7. Aims			
Investigation of advanced topics in communications networks			
8. Syllabus	<ul style="list-style-type: none"> ◆ Internet organisation ◆ Routing protocols ◆ Distance Vector (RIP) ◆ Link state (OSPF) ◆ Congestion control (RED), fair queueing ◆ Transport protocols ◆ TCP – slow start, Renoe, Tahoe, etc ◆ Real time Protocols ◆ Security & Management ◆ VPN & SNMP ◆ Firewalls ◆ LANs & Bridges 		

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9. Learning Outcomes (HWU Core Skills: Employability and Professional Career Readiness)

Subject Mastery	<i>Understanding, Knowledge and Cognitive Skills</i> <i>Scholarship, Enquiry and Research (Research-Informed Learning)</i>	
	<ul style="list-style-type: none"> ◆ Detailed knowledge of Internet routing and transport protocols ◆ Understanding of security and network management problems and solutions 	
Personal Abilities	<i>Industrial, Commercial & Professional Practice</i> <i>Autonomy, Accountability & Working with Others</i> <i>Communication, Numeracy & ICT</i>	
	<ul style="list-style-type: none"> ◆ Appreciation of modern networking practices ◆ Critically review proposed solutions to network routing and congestion problems ◆ Evaluate network security proposals 	

10. Assessment Methods

11. Re-assessment Methods

Method	Duration of Exam (if applicable)	Weighting (%)	Synoptic modules?	Method	Duration of Exam (if applicable)
Exam	2 hours	75%		Exam	2 hours
Coursework		25%			

12. Date and Version

Date of Proposal	November 2007	Date of Approval by School Committee	December 2007	Date of Implementation	September 2008	Version Number	1
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