ROBERT GORDON UNIVERSITY ABERDEEN

MODULE DESCRIPTOR

Module Title

IT Infrastructure and Administration

Reference	CMM028	Version	2
Created	June 2022	SCQF Level	SCQF 11
Approved	July 2021	SCQF Points	15
Amended	July 2022	ECTS Points	7.5

Aims of Module

To enable students to understand the key concepts of computer systems and infrastructures, and to provide fundamental programming skills to effectively manage and support networked systems.

Learning Outcomes for Module

On completion of this module, students are expected to be able to:

1	Identify key concepts and components of a computer and how it connects to the Internet.
2	Describe and discuss recent and evolving developments, system architectures and technologies.
3	Critically evaluate operating systems architecture, functionality and facilities.
4	Implement effective interconnections between system programs.
5	Design and implement scripts for network connectivity and information management.

Indicative Module Content

Overview of computer systems and network components. Common system architectures and patterns: client-server, publisher-subscriber. Internet of Things. Cloud computing. Software/library installation and configuration. Programming concepts. Network programming and interfacing with APIs. Operating systems programming and interacting with the OS.

Module Delivery

Key concepts are introduced and illustrated through lectures and directed reading. Laboratory sessions provide a series of exercises designed to develop proficiency in techniques essential to the development of software program.

Indicative Student Workload

	Full Time	Part Time
Contact Hours	30	30
Non-Contact Hours	120	120
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	150
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

If a major/minor model is used and box is ticked, % weightings below are indicative only.

Component 1

Type:	Coursework	Weighting:	50%	Outcomes Assessed:	4, 5

Description: Programming coursework assignment.

Component 2

Type:	Examination	Weighting	50%	Outcomes Assessed:	1, 2, 3

Description: Closed book examination.

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The calculation of the overall grade for this module is based on 50% weighting of Component 1 (Coursework) and 50% weighting of Component 2 (Examination). An overall minimum grade D is required to pass the module.

		Examination:						
		A	**B**	**C**	**D**	**E**	**F**	**NS**
	A	A	A	B	B	C	E	
	B	A	B	B	C	C	E	
Coursework:	**C**	B	B	C	C	D	E	
	D	B	C	C	D	D	E	
	E	C	C	D	D	E	E	
	F	E	E	E	E	E	F	
	NS	Non-submission of work by published deadline or non-attendance for examination						

Module Requirements

Prerequisites for Module	None.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

1	SARKER, 2016. Learning Python Network Programming. Packt Publishing.
2	RHODES & GOERZEN, 2014. Foundations of Python Network Programming. Apress.
3	Buyya, Rajkumar; Dastjerdi, Amir Vahid. Internet of Things: Principles and Paradigms. Cambridge, MA 2016.
4	ERL, T., MAHMOOD, Z., PUTTINI, R., 2013. Cloud Computing: Concepts, Technology & Architecture. Prentice Hall.