COURSE SPECIFICATION

MSc Computer Network Administration and Management

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Please refer to the Course Specification Guidance Notes for guidance on completing this document.

Course Title	***MSc Computer Network Administration and Management***
Final Award	*MSc*
Exit Awards	*PGCert, PGDip*
Course Code / UCAS code (if applicable)	*P1704FTC / P1704PTC*
Mode of study	*Full time / Part time*
Mode of delivery	*Campus*
Normal length of course	*1 year*
Cohort(s) to which this course specification applies	*September 2023* onwards
Awarding Body	*University of Portsmouth*
Teaching Institution	*University of Portsmouth*
Faculty	*Faculty of Technology*
School/Department/Subject Group	*School of Computing*
School/Department/Subject Group webpage	*www.port.ac.uk/computing*
Course webpage including entry criteria	https://www.port.ac.uk/study/courses/msc-computer-network-administration-and-management
Professional and/or Statutory Regulatory Body accreditations	CISCO Networking Academy VMware IT Academy British Computer Society (BCS)
Quality Assurance Agency Framework for Higher Education Qualifications (FHEQ) Level	*Level 7*

This course specification provides a summary of the main features of the course, identifies the aims and learning outcomes of the course, the teaching, learning and assessment methods used by teaching staff, and the reference points used to inform the curriculum.
This information is therefore useful to potential students to help them choose the right course of study, to current students on the course and to staff teaching and administering the course.

Further detailed information on the individual modules within the course may be found in the relevant module descriptors and the Course Handbook provided to students on enrolment.

Please refer to the Course and Module Catalogue for further information on the course structure and modules.

Educational aims of the course

The course aims to equip students to work as technologists/scientists/engineers/managers, at an advanced level, in the fields of network administration and management. In addition, and more generally, the course aims to:

- *Provide a challenging and stimulating study environment.*
- *Develop a range of key skills by means of opportunities provided in the study units.*
- *Accommodate student needs in relation to maximising their career potential by enabling them to develop knowledge, understanding and skills in their chosen subject area.*

Being an MSc course, students are encouraged and expected to be able to reach a level of competence and professionalism where they can effectively integrate their technical and nontechnical knowledge to solve a range of problems of a complex nature.

The course enables students to develop both analytical and design skills across the range of subjects. This is achieved through theoretical studies alongside practical design projects and laboratory experiments. Students also become conversant with industrial practice and familiar with industrial strength analysis and simulation tools.

Course Learning Outcomes and Learning, Teaching and Assessment Strategies

The Quality Assurance Agency for Higher Education (QAA) sets out a national framework of qualification levels, and the associated standards of achievement are found in their Framework for Higher Education Qualifications document.

The Course Learning Outcomes for this course are outlined in the tables below.

A. Knowledge and understanding of:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
A1	*principles, architectures, and operation of data networks and client server based applications*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
A2	*methods, techniques, and best practice for deployment, configuration, and maintenance of Information and Communication Technologies solutions*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
A3	*emerging network-based business solutions*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
A4	*computer security concepts, and their practical application, in interconnected systems*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*

B. Cognitive (Intellectual or Thinking) skills, able to:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
B1	*systematically use knowledge of computer system and network principles and practice as tools to analyse complex requirements in order to solve system and network problems*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
B2	*apply critically, knowledge and understanding of communication engineering, data communication and networking creatively to generate practical products, systems and services*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
B3	*advise and make judgments on the management of and strategic use of network systems*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
B4	*evaluate and justify the various methodological approaches to communication network design and select appropriate strategies to meet defined needs*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
B5	*plan, manage, undertake, evaluate, interpret and report on a significant project*	*lectures, seminars, laboratory work*	*coursework, dissertation, presentations*

C. Practical (Professional or Subject) skills, able to:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
C1	*use systematically standard and specialist measuring instruments in appropriate situations to acquire data for identified purposes*	*lectures, laboratory work*	*dissertation, presentations*
C2	*use systematically computer systems for simulation, modelling, analysis and presentation within defined problem domains*	*lectures, seminars, laboratory work, group work, simulations*	*coursework, examinations, dissertation*
C3	*design, construct, test and evaluate systems applicable to computer network*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
C4	*prepare schedules for the systematic building of complex computer network systems*	*lectures, seminars, laboratory work*	*coursework, dissertation*
C5	*use appropriate codes of practice, informed by legislation and best practice as they apply to Information Technology*	*lectures, seminars, laboratory work*	*coursework, examinations, dissertation*

D. Transferrable (Graduate and Employability) skills, able to:			
LO number	**Learning outcome**	**Learning and Teaching methods**	**Assessment methods**
D1	*work effectively individually and in group settings to achieve set goals*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
D2	*communicate effectively in writing and through graphical representations in professional and academic settings*	*lectures, seminars, laboratory work, group work*	*reports, presentations, prototype demonstrations*
D3	*assess problem domains and formulate appropriate problem solving strategies, using relevant mathematical techniques where applicable*	*lectures, seminars, laboratory work, group work*	*coursework, examinations, dissertation*
D4	*build on previous experience in order to generalise*	*lectures, seminars, laboratory work*	*dissertation*
D5	*use appropriate information technology to handle text, data, simulation, design and testing*	*lectures, seminars, laboratory work, group work, simulations*	*coursework, dissertation, presentations*

Academic Regulations

The current University of Portsmouth Academic Regulations: Examination & Assessment Regulations will apply to this course. Approved course exemptions can be found here.

Support for Student Learning

The University of Portsmouth provides a comprehensive range of support services for students throughout their course, details of which are available at the MyPort student portal.

In addition to these University support services this course also benefits from excellent laboratory facilities, including a bespoke networking laboratory. The laboratory provides multi-platform network suites with a variety of vendor equipment (Cisco and HP), and a Cloud Computing facility. Students gain experience of different operating systems (Windows, Linux and Unix) as well as virtualisation environments.

Students also have access to the following:

- A library of devices loanable to students for project work (including smart watches, tablets, sensors, smart-home devices, eye trackers) and lockers of laptops for student loan.
- A Personal Tutor, responsible for student pastoral support and guidance.
- A Faculty Learning Support Tutor (Computing) who provides additional subject-specific one-to-one support.

Evaluation and Enhancement of Standards and Quality in Learning and Teaching

The University of Portsmouth undertakes comprehensive monitoring, review and evaluation of courses within clearly assigned staff responsibilities. Student feedback is a key feature in these evaluations, as

represented in our Policy for Listening to and Responding to the Student Voice where you can also find further information.

Reference Points

The course and outcomes have been developed taking account of:

- University of Portsmouth Curriculum Framework Specification
- University of Portsmouth Vision
- Office for Students Conditions of Registration
- University of Portsmouth Code of Practice for Work-based and Placement Learning
- Quality Assurance Agency UK Quality Code for Higher Education
- Quality Assurance Agency Qualification Characteristic Statements
- Quality Assurance Agency Subject Benchmark Statement for **Computing**
- Quality Assurance Agency Framework for Higher Education Qualifications
- Requirements of Professional and/or Statutory Regulatory Bodies: **British Computer Society**
- Vocational and professional experience, scholarship and research expertise of the University of Portsmouth's academic members of staff
- National Occupational Standards

Changes to your course/modules

The University of Portsmouth has checked the information provided in this Course Specification and will endeavour to deliver this course in keeping with this Course Specification. However, changes to the course may sometimes be required arising from annual monitoring, student feedback, and the review and update of modules and courses.

Where this activity leads to significant changes to modules and courses there will be prior consultation with students and others, wherever possible, and the University of Portsmouth will take all reasonable steps to minimise disruption to students.

It is also possible that the University of Portsmouth may not be able to offer a module or course for reasons outside of its control, for example, due to the absence of a member of staff or low student registration numbers. Where this is the case, the University of Portsmouth will endeavour to inform applicants and students as soon as possible, and where appropriate, will facilitate the transfer of affected students to another suitable course.

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