



UNIVERSITY OF  
PORTSMOUTH

## **COURSE SPECIFICATION**

# ***MSc Cyber Security and Forensic Information Technology***

**Quality Assurance, Academic Standards and Partnerships  
Department of Student and Academic Administration**

### **Copyright**

The contents of this document are the copyright of the University of Portsmouth and all rights are reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, such as electronic, mechanical, photocopied, recorded or otherwise, without the prior consent of the University of Portsmouth.

## COURSE SPECIFICATION

<b>Course Title</b>	<b><i>Cyber Security and Forensic Information Technology</i></b>
Final Award	<i>MSc</i>
Exit Awards	<i>CertHE, DipHE.</i>
Course Code / UCAS code (if applicable)	<i>P3095FTC/ P3095PTC</i>
Mode of study	<i>Full time and part time</i>
Mode of delivery	<i>Campus</i>
Normal length of course	<i>1 Year for Full time, 3 years for Part time.</i>
Cohort(s) to which this course specification applies	<i>September 2021 and January 2022 intake onwards</i>
Awarding Body	<i>University of Portsmouth</i>
Teaching Institution	<i>University of Portsmouth</i>
Faculty	<i>Faculty of Technology</i>
School/Department/Subject Group	<i>School of Computing</i>
School/Department/Subject Group webpage	<i><a href="http://www.port.ac.uk/computing">http://www.port.ac.uk/computing</a></i>
Course webpage including entry criteria	<i><a href="https://www.port.ac.uk/study/courses/msc-forensic-information-technology">https://www.port.ac.uk/study/courses/msc-forensic-information-technology</a></i>
Professional and/or Statutory Regulatory Body accreditations	
<a href="#">Quality Assurance Agency Framework for Higher Education Qualifications (FHEQ) Level</a>	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 MSc Cyber Security and Forensic Information Technology (CSFIT) Programme aims to equip students to work as professionals in the field of Forensic IT, and in Cyber Security.

More generally, the course aims to:

- Provide a challenging, stimulating and self-rewarding study environment.
- Develop a range of key skills by means of opportunities provided in the study modules.
- Accommodate student needs in relation to maximising their career potential and professional responsibility by enabling them to develop knowledge, understanding and skills in their chosen subject area.
- Develop research skills and techniques to enable students to undertake PhD or other research work

## 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	<i>The design and conduct of Forensic IT investigations including computer crime scene management, IT Forensic tools and their application.</i>	<i>Lectures, Practical, Seminars, Group work, and Simulations.</i>	<i>Essays, supervised work sessions, including the court, reflective reports, and presentations.</i>
A2	<i>The theoretical planning, implementation and auditing of IT security systems related to the protection of digital evidence.</i>	<i>Lectures, Practical, Seminars, Group work, and Simulations.</i>	<i>Essays, supervised work sessions, reflective reports, and presentations.</i>
A3	<i>The enhancement of security techniques for the detection of intruders in networks, and the extent, nature and modus operandi of cyber-criminals. Securing large scale systems.</i>	<i>Lectures, Practical, Seminars, Group work, and Simulations.</i>	<i>Essays, supervised work sessions, reflective reports, and presentations.</i>
A4	The theoretical understanding of the principles of emulating, collecting and searching for digital evidence from data storage devices - computers, networks - and large dataset from phone service providers - air forensics, and cloud computer forensics.	<i>Lectures, Practical, Seminars, Group work, and Simulations.</i>	<i>Essays, supervised work sessions, including the court, reflective reports, and presentations.</i>
A5	<i>The legal, social and ethical issues relating to the presentation of digital evidence.</i>	<i>Lectures, Practical,</i>	<i>Essays, supervised work</i>

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
		<i>Seminars, Group work, and Simulations.</i>	<i>sessions, including the court, reflective reports, and presentations.</i>

**B. Cognitive (Intellectual or Thinking) skills, able to:**

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
B1	<i>Discuss professional codes of conduct and evaluate the ethical considerations that underpin them.</i>	<i>Lectures, seminars, laboratory work, group work, and simulations.</i>	<i>Essays, supervise work sessions, including the court, reflective reports, and presentations.</i>
B2	<i>Develop abilities of an intellectual, analytical problem-solving nature related to Forensic IT and security.</i>	<i>Lectures, seminars, laboratory work, group work, simulations, and projects.</i>	<i>Essays, supervise work sessions, including the court, reflective reports, and presentations.</i>
B3	<i>Develop critical skills with regard to literature searching, appraising and evaluating from a variety of sources and synthesising the results.</i>	<i>Lectures, seminars, laboratory work, group work, simulations and projects.</i>	<i>Essays, supervised work sessions, including the court, reflective reports, and presentations.</i>
B4	<i>Critically review complex documents, evidence reports and lucidly explain them to interested parties, and be able to defend them in a court of law.</i>	<i>Lectures, seminars, laboratory work, group work, and simulations.</i>	<i>Essays, supervised work sessions, including the court, reflective reports, and presentations.</i>
B5	<i>Demonstrate critical and analytical skills through a report on a significant Forensic IT or IT security related projects.</i>	<i>Lectures, seminars, laboratory work, group work, simulations and project.</i>	<i>Essays, supervise work sessions, including the court, reflective reports, and presentations.</i>

**C. Practical (Professional or Subject) skills, able to:**

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
C1	<i>Plan and undertake a forensic investigation such that it will produce legally acceptable digital evidence.</i>	<i>Laboratory work, group work, and simulations.</i>	<i>Supervised work sessions, presentations</i>
C2	<i>Plan, implement and undertake risk assessments.</i>	<i>Laboratory work, group work, and simulations, and project</i>	<i>Supervised work sessions, presentations</i>
C3	<i>Implement security features of networks and operating systems appropriately.</i>	<i>Laboratory work, group work, and simulations, and project</i>	<i>Supervised work sessions, presentations</i>
C4	<i>Critically evaluate the nature of illegal acts on, and uses of, IT systems.</i>	<i>Laboratory work, group work, and simulations, and project</i>	<i>Supervised work sessions, presentations</i>
C5	<i>Navigate through filing systems, and configure current data storage devices and operating systems to search for evidence (Mac, Windows, LUNIX), and ability to use some populate forensic tools.</i>	<i>Lectures, seminars, laboratory work, group work, simulations and project.</i>	<i>Supervised work sessions, presentations</i>

**D. Transferrable (Graduate and Employability) skills, able to:**

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
D1	<i>Apply analytical skills to assess and evaluate problem domains to synthesise appropriate problem solving strategies, and piece together information for solving cases.</i>	<i>Lectures, seminars, laboratory work, group work, simulations.</i>	<i>Essays, supervise work sessions, including the court, reflective reports, and presentations.</i>
D2	<i>Apply self-reflective and self-critique skills for appraising one's own performance, and constantly seek improvement in the dynamically changing world of digital forensic and cybersecurity.</i>	<i>Lectures, seminars, laboratory work, group work, simulations.</i>	<i>Essays, supervise work sessions, including the court, reflective reports, and presentations.</i>
D3	<i>Communicate effectively in writing, speaking and in other appropriate forms of presentation to different</i>	<i>Lectures, seminars, laboratory work,</i>	<i>Essays, supervise work sessions, including the</i>

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
	<i>audiences, and work effectively in teams to achieve goals.</i>	<i>group work, simulations.</i>	<i>court, reflective reports, and presentations.</i>
D4	<i>Read and understand complex documents related to Forensic IT, and apply organisational skills to record forensic procedures and file documents, and the mechanism to work through large number of documents with ease.</i>	<i>Lectures, seminars, laboratory work, group work, simulations.</i>	<i>Essays, supervise work sessions, including the court, reflective reports, and presentations.</i>
D5	<i>Apply technical skills and deep understanding of how the technology works, and understanding of cybersecurity to guard against data breaches and prevent crimes.</i>	<i>Lectures, seminars, laboratory work, group work, simulations.</i>	<i>Essays, supervise work sessions, including the court, reflective reports, and presentations.</i>

## Academic Regulations

The current University of Portsmouth [Academic Regulations](#) will apply to this course.

## 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.

- Computing MSc Programmes are managed by a Director of Computing Postgraduate Programmes
- At the start of each academic year all students will participate in an induction programme, which includes elements in the School of Computing and Institute of Criminal Justice Studies. The programme will include course related issues, student support, library induction, and career development.
- Each student has access to a personal tutor who is responsible for academic and pastoral support and guidance as well as the ICJS Tutor Centre.
- ICJS Tutor Centre provides academic and technical support for the on-line units.
- University support services include - careers, financial advice, housing, counselling etc.
- Additionally, the department has dedicated academic and overseas support officers
- A dedicated Student Services Centre.
- Excellent library facilities.
- Student course and unit handbooks provide information about the course structure and University regulations etc.
- Written feedback is provided for all units.
- A dedicated Forensic IT laboratory, with access to specialist software and hardware.
- The Academic Skills Unit (ASK).
- The Additional Support and Disability Advice Centre (ASDAC).
- The University of Portsmouth has consistently been awarded an excellent rating for student support and guidance in a number of Quality Assurance Agency inspections.
- Student course and unit handbooks provide information about the course structure and University regulations etc.
- Personal Development Planning (PDP) for all awards.

## 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 2030 and Strategy 2025](#)
- [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
- Vocational and professional experience, scholarship and research expertise of the University of Portsmouth's academic members of staff
- National Occupational Standards

## Disclaimer

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.

## Copyright

The contents of this Course Specification are the copyright of the University of Portsmouth and all rights are reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, such as electronic, mechanical, photocopied, recorded or otherwise, without the prior consent of the University of Portsmouth.

## Document details

Author	<i>Mo Adda</i>
Date of production and version number	<i>[20 July 2018] [Release 1.0]</i>
Minimum student registration numbers	<i>10FT and 5PT</i>
Date of update and version number	<i>May 2022</i>
Minimum student registration numbers	<i>10FT and 5PT</i>