

MSc Forensic Information Technology

Programme Specification

Primary Purpose

Course management and quality assurance.

Secondary Purpose

Detailed information for students, staff and employers. Current students should refer to the related Course Handbook for further detail.

Disclaimer

The University of Portsmouth has checked the information given in this Programme Specification. We will endeavour to deliver the course in keeping with this Programme Specification; however, changes may sometimes be required arising from annual monitoring, student feedback, review and update of units and courses. Where this activity leads to significant changes to units and courses, there will be prior consultation of students and others, wherever possible, and the University will take all reasonable steps to minimize disruption to students. It is also possible that the University may not be able to offer a unit or course for reasons outside of its control, for example; the absence of a member of staff or low student registration numbers. Where this is the case, the University will endeavour to inform applicants and students as soon as possible. Where appropriate, the University will facilitate the transfer of affected students to another suitable course.

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Course Details

1. Named Awards

MSc Forensic Information Technology

2. Course Code (and UCAS Code if applicable)

C1841F and P

3. Awarding Body

University of Portsmouth

4. Teaching Institution

University of Portsmouth

5. Accrediting Body

British Computer Society (BCS)

6. QAA Benchmark Groups

Computing Benchmark

Taught Masters Degree in Computing Benchmark

7. Document Control Information

Version 2.5 July 2018

8. Effective Session

2018/19

9. Author

Mo Adda

10. Faculty

Technology

11. Department

School of Computing

Curriculum

12. Educational Aims

The MSc Forensic IT Programme aims to equip students to work as professionals in the field of Forensic IT.

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 units.

- 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

13. Reference Points

- University of Portsmouth Curriculum Framework
- The scholarship and research expertise of academic members of staff
- QAA UK Quality Code for Higher Education
- Occupational Standards
- ISACA (Information Systems Audit and Control Association) Model Curriculum for IS Audit and Control

14. General Learning Outcomes

Level 7

Master's degrees are awarded to students who have demonstrated:

- a systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice
- a comprehensive understanding of techniques applicable to their own research or advanced scholarship
- originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline
- conceptual understanding that enables the student:
 - to evaluate critically current research and advanced scholarship in the discipline
 - to evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses

Typically, holders of the qualification will be able to:

- deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level
- continue to advance their knowledge and understanding, and to develop new skills to a high level

And holders will have:

- the qualities and transferable skills necessary for employment requiring:
 - the exercise of initiative and personal responsibility
 - decision-making in complex and unpredictable situations
- the independent learning ability required for continuing professional development

15. Learning Outcomes

A. Knowledge and Understanding of:

- A.1 IT Forensic tools and their application, and extend to mobile and air forensics.
- A.2 The planning, implementation and auditing of IT security systems.

- A.3 The enhancement of security techniques for the detection of intruders in networks.
- A.4 The extent, nature and modus operandi of cyber-criminals.
- A.5 Cryptography and cryptanalysis.
- A.6 The design and conduct of a Forensic IT investigation including computer crime scene management.
- A.7 The legal issues relating to the presentation of digital evidence.

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

- B.1 Discuss professional codes of conduct and evaluate the ethical considerations that underpin them.
- B.2 Develop abilities of an intellectual, analytical problem-solving nature related to Forensic IT and security.
- B.3 Develop critical skills with regard to literature searching, appraising and evaluating from a variety of sources and synthesising the results.
- B.4 Critically review complex documents and lucidly explain them to interested parties.
- B.5 Demonstrate critical and analytical skills through a report on a significant Forensic IT or IT security related project.

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

- C.1 Plan and undertake a forensic investigation such that it will produce legally acceptable digital evidence.
- C.2 Plan, implement and undertake risk assessments.
- C.3 Implement security features of networks and operating systems appropriately.
- C.4 Critically evaluate the nature of illegal acts on, and uses of, IT systems.

D. Transferable (Graduate and Employability) Skills, able to:

- D.1 Work effectively in teams to achieve goals.
- D.2 Apply self-reflective techniques in appraising one's own performance.
- D.3 Communicate effectively in writing, speaking and in other appropriate forms of presentation to different audiences.
- D.4 Read and understand complex documents related to Forensic IT.
- D.5 Apply analytical techniques to complex Forensic IT problems.
- D.6 Assess and evaluate problem domains to synthesise appropriate problem solving strategies.

16. Learning and Teaching Strategies and Methods

Core knowledge is acquired mainly through lectures, blended and online learning, discussion groups, simulations and computer laboratory work. Individual learning will be supported by directed reading, study guides, case studies, laboratory sessions and preparation of journal article reviews. Encouragement is given to research and the discussion of areas of interest beyond the taught curriculum.

Cognitive skills are developed through the class sessions, simulations, on-line learning and through the computer laboratory including virtual environments. Engagement with case studies, worked examples and journal papers helps prepare students to think critically and be aware of technological developments and their impact on Forensic IT. The ability to plan and manage a forensic investigation against a given brief and reflect on the results will be addressed during case studies and coursework. Abilities related to dealing with complex Forensic IT projects are acquired through a range of simulations together with implementation elements of the Project unit.

Practical, analytical and organisational skills are developed through the use of case studies, simulations, virtual environments and analysis of case histories.

Communication skills and problem solving skills are developed, extended and refined in both the group work and on-line elements that form part of the unit assessments for many of the units. Skills directed towards improving one's own learning and performance are identified, discussed and developed by extensive and detailed feedback to students following assessments. Group assignments provide opportunities for the development of skills in working with others; such skills are further refined during the Project Unit which may be linked with external organisations

17. Assessment Strategy

Testing of theoretical knowledge is largely through coursework and examinations offered in several styles. Coursework will be assessed through e.g. presentations, reflective reports, essays and reviews of journal papers. Major Forensic IT related activities are assessed by observation or reports based on completion of extended programmes of work set either individually or to small groups. Supervised work sessions and court simulation.

Use is made of examinations, offered in several styles as well as reports for assessing intellectual and analytical skills. In addition extended review articles and practical work will be used to assess critical skills.

Laboratory based assignments will be used to develop and assess technological skills. Essays and examinations will be used to assess understanding and analytical skills.

Transferable and key skills are assessed through group and individual assignments together with written exams.

18. Course Structure, Progression and Award Requirements

See [Unit Web Search](#)¹ for full details on the course structure and units

- Two routes are offered for the MSc Forensic IT degree: a full time, version lasting 12 months and a part-time version lasting 3 years depending on the timing of the student's project unit
- Except for the Project unit, which is 60 credits (core alternative study or engineering), all other units are 30 credits and each requires a notional 300 hours of work. The second teaching block of the course includes 30 credits of options chosen from units offered by the School of Computing, and the Institute of Criminal Justice Studies.
- Careers information and guidance is covered in a range of places including the weekly external speaker programme and via the Careers Department.
- Links with employers are encouraged by (i) a weekly series of presentations to all Masters students in the Computing and Multimedia Programme Area from professionals in a variety of fields including the Forensic IT and legal fields (ii) the provision by local employers of industrial and public sector based projects for the Project unit.

19. Employability Statement

Course content is kept current through academic staff research and other activities such as guest lectures that provide information on different aspects relevant to the profession. The project is used to provide opportunities for working with a client, either external to the University or an academic sponsor, which provides valuable opportunities for experiencing the consultant/ client role. The course team have good contacts with local and national employers, through professional contacts, and via alumni employed (for example) in High Tech Crime Units in the UK and abroad. Personal Development Planning during personal tutoring is used to help the student develop their employment qualities, and to clearly understand their personal strengths and weaknesses in employment (as well as study) terms.

¹ www.port.ac.uk/unitwebsearch

Course Management

20. Support for Student Learning

- 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.

21. Admissions Criteria

A. Academic Admissions Criteria

Standard University rules apply and this will normally mean that candidates are in possession of an honours degree with at least a classification of 2:2 in computing, criminology, law, social sciences, or other cognate disciplines. Some previous knowledge of IT is essential, as is a keen interest in the legal aspects of IT. All other qualifications or experience presented must be forwarded to the Head of School or nominee for a University of Portsmouth decision.

In addition students are required to have a minimum of GCSE English Grade C or IELTS Grade 6 or an equivalent English language qualification.

B. Disability

The University makes no distinction in its admissions policy with regard to disability and will endeavour to make all reasonable adjustments in order to make it possible for students to study at Portsmouth on a course of their choice.

22. Evaluation and Enhancement of Standards and Quality in Learning and Teaching

A. Mechanisms for Review and Evaluation

- Course Leader's Annual Standards and Quality Evaluative Review.
- Head of School's Annual Standards and Quality Evaluative Review.

- Unit and Course Level student feedback considered at Board of Studies.
- Unit Assessment Board consideration of student performance for each programme.
- Annual Standards and Quality Reports to Board of Studies, including consideration of Subject and Award External Examiner Reports.
- Periodic Programme Review.
- Student Representatives and Student/Staff Consultative Committees.
- National Student Survey.
- Staff Performance and Development Review.
- Peer Review and Development Framework.
- Faculty Learning and Teaching Committee.

B. Responsibilities for Monitoring and Evaluation

- Unit Co-ordinators for unit content and delivery.
- Course Leader for day-to-day running of course.
- Board of Studies with overall responsibilities for operation and content of course.
- Head of School.
- Associate Dean (Academic).
- Associate Dean (Students).
- Quality Assurance Committee.
- Unit, Award and Progression Board of Examiners.

C. Mechanisms for Gaining Student Feedback

- Student Representation on Board of Studies.
- Student Staff Consultative Committees.
- Unit and Course level student feedback questionnaires.
- University participates in external student surveys, e.g. National Student Survey (NSS), Postgraduate Research Experience Survey (PRES) and International Student Barometer (ISB).

D. Staff Development Priorities

- Academic staff undertake activities related to research, scholarship, teaching and learning and student support and guidance.
- Annual staff performance and development reviews match development to needs.
- Managers undertake a variety of management development programmes.
- All academic staff encouraged to seek Higher Education Academy membership.
- Academic staff new to teaching required to undertake Initial Professional Development Programme (iPROF).
- Support Staff are encouraged to attend short courses in areas such as minute taking, and specific IT packages.

23. Assessment Regulations

The current University of Portsmouth academic regulations will apply to this programme (see [Assessment and Regulations²](#)).

24. Role of Externals

Subject External Examiners who will:

² www.port.ac.uk/departments/services/academicregistry/qualitymanagementdivision/assessmentandregulations/

- Oversee unit assessment and usually attend Unit Assessment Boards
- Review unit assessment strategy
- Sample assessment artefacts
- Present report to Unit Assessment Boards

Award External Examiners (usually also a Subject External Examiner) who will:

- Oversee and attend Award/Progression Boards
- Scrutinise and endorse the outcomes of assessment
- Ensure that the standard of the award is maintained at a level comparable with that of similar awards elsewhere in the United Kingdom

25. Indicators of Standards and Quality

A. Professional Accreditation/Recognition

BCS

B. Periodic Programme Review (or equivalent)

Successful Periodic Programme Review of the PG programs: 4th April 2008

Successful Periodic Programme Review of the PG programs: 23rd March 2015

C. Quality Assurance Agency

QAA Higher Education Review, March 2015, judgements about standards and quality meet UK expectations (*for full report see [Higher Education Review of the University of Portsmouth, March 2015](#)*³).

D. Others

None.

26. Further Information

Further information may be found in:

- Student Handbook
- University of Portsmouth Curriculum Framework Document
- University of Portsmouth Prospectus
- [University of Portsmouth](#)⁴ and [School/Department](#)⁵ websites

³ http://www.qaa.ac.uk/docs/qaa/reports/university-of-portsmouth-her-15.pdf?sfvrsn=5071f581_4

⁴ www.port.ac.uk/

⁵ <http://www.port.ac.uk/school-of-computing/>