COURSE SPECIFICATION

MRes Science

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

July 2018

COURSE SPECIFICATION

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

Course Title	**MRes Science**
Final Award	**MRes (Science)**
Exit Awards	**PGCert**
Course Code / UCAS code (if applicable)	**C2429F and C2429P**
Mode of study	**Full time (FT) or Part time (PT)**
Mode of delivery	**Campus**
Normal length of course	**1 year FT, 2 yrs PT**
Cohort(s) to which this course specification applies	**September 2019 and Jan 2020 intakes onwards**
Awarding Body	**University of Portsmouth**
Teaching Institution	**University of Portsmouth**
Faculty	**Faculty of Science & Health**
School/Department/Subject Group	**School of Biological Sciences**
School/Department/Subject Group webpage	**http://www.port.ac.uk/school-of-biological-sciences/courses/**
Course webpage including entry criteria	**http://www.port.ac.uk/courses/mres-science/**
Professional and/or Statutory Regulatory Body accreditations	**none**
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 Module Web Search for further information on the course structure and modules.

Educational aims of the course

The Masters in Research Science (MRes Science) is an exciting and innovative postgraduate taught course that has an overarching emphasis on preparing postgraduate science students for careers in research, development or business. There are five main educational aims of the course. These are to:

- Enable students to acquire, develop and demonstrate advanced scientific knowledge, skills and research experience.
- Provide an extended, hands-on, original and in-depth experience of laboratory-, clinic-, field- or computer-based research and data collection.
- Enhance critical analysis of research methods, including how to test hypotheses, design high-quality experiments, use research facilities and equipment, analyse data appropriately and construct a scientific paper.
- Provide students with an extensive set of transferable researcher-development skills through workshops, meetings and subject-specific sessions.
- Prepare students to apply for doctoral research study or higher-grade STEM positions, including careers in technology, industry, business or management.

The course provides two key ingredients for early-career researchers: a width of transferable research skills combined with a depth of expertise in a chosen subject. Students will have the opportunity to focus their research interests on one area of science, allowing them to become an expert in subject knowledge. It also provides the environment to translate findings into research-related outputs such as a literature review, grant application, conference presentation and research manuscript.

Students will join one of the numerous research groups in the Faculty of Science and be taught by an expert supervisory team; the 1st and 2nd supervisors will support the student to develop sound research skills. Students will undertake an original research project with this group, including training in techniques, methods and equipment, as well as sessions focussed on wider knowledge and skills needed to be an effective researcher.

The course also contains taught elements of the nationally recognised Researcher Development Framework (RDF, vitae.ac.uk) and is delivered by the Graduate School Development Programme (GSDP). Overall, researcher students will experience a satisfying intellectual challenge within a productive research community, aided by supportive supervision. Students can study either full-time (one year) or part-time (two years), with start-points in mid-September and mid-January each year.

The course consists of two credit-bearing units and assessment of each unit is by regularly-spaced coursework items. Alongside the research programme, course workshops, GSDP sessions and subject-specific sessions, the unit assignments build a full and well-rounded research-development skill set for successful career development. The two units are:

- Research Preparation Unit (60 credits). This includes a wide range of RDF skills, including personal effectiveness, research management, professional skills, networking, research organisation, science communication and impact. Students will complete a literature review and research funding application for this unit.

- Research Project unit (120 credits). This is a large part of the course, with a year-long extended research project undertaken in one of the eight Schools and Departments in the Faculty of Science or with a recognised external partner organisation (such as Sparsholt College). Students will complete a research poster, career-planning interview, research manuscript and conference talk for this unit.

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	The types of research methods employed by researchers	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Research manuscript. Research talk.
A2	Project planning and ethical procedures required for research	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Dept-seminars. Supervisor meetings. Self-directed learning.	Grant application. Research poster. Career-interview. Research manuscript. Research talk.
A3	How to conduct and report empirical research projects	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Grant application. Research poster. Research manuscript. Research talk.
A4	Comprehensive techniques/methodologies applicable for the completion of research projects	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Career-interview. Research manuscript. Research talk.
A5	Issues involved with professional practice in science related subject areas	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Research manuscript. Research talk.

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

LO number	Learning outcome	Learning and Teaching methods	Assessment methods

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
B1	Critique varying philosophical paradigms, research approaches, and methods and how they contribute to the development of research questions	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Research manuscript. Research talk.
B2	Formulate appropriate research questions within the realm of scientific research	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster.
B3	Critically appraise the value of theoretical perspectives and research evidence collected in the specified area of study	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Research manuscript. Research talk.
B4	Select research protocols to collect data that can subsequently be evaluated, interpreted and disseminated into relevant formats	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Research manuscript. Research talk.
B5	Synthesise and contribute to the creation of new knowledge within the research project	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Career-interview. Research manuscript. Research talk.

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

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
C1	Identify ethical considerations related to experimentation and the specified scientific discipline	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Supervisor meetings. Self-directed learning.	Grant application. Research poster. Career-interview. Research manuscript. Research talk.
C2	Be competent in experimental	Research work (lab-, clinic-, field-	Grant application.

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
	design, controls, variables and relevant data collection techniques	or computer-based). Course w/shops. GSDP w/shops. Dept-seminars. Supervisor meetings. Self-directed learning.	Research poster. Research manuscript. Research talk.
C3	Proficiently use scientific equipment, methods and procedures in a safe, confident and reliable manner	Research work (lab-, clinic-, field- or computer-based). Supervisor meetings. Self-directed learning.	Research poster. Research manuscript. Research talk.
C4	Develop well-reasoned arguments and produce critical reports in an appropriate format for application within a relevant scientific environment	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Research manuscript. Research talk.
C5	Identify and develop a suite of relevant skills and approaches for a research career	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Grant application. Research poster. Career-interview. Research manuscript. Research talk.

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

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
D1	Communicate effectively and confidently, using a range of media	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Career-interview. Research manuscript. Research talk.
D2	Develop awareness of research funding, knowledge transfer opportunities and relevant skills for a career in research	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Career-interview. Research manuscript. Research talk.
D3	Be an independent learner, practice collaborative skills, solve problems and demonstrate sound	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars.	Literature Review. Grant application. Research poster. Career-interview. Research manuscript.

LO number	Learning outcome	Learning and Teaching methods	Assessment methods
	judgement in decision making	Dept-seminars. Supervisor meetings. Self-directed learning.	Research talk.
D4	Identify and use appropriate resources to enable the successful completion of a task	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Grant application. Research poster. Career-interview. Research manuscript. Research talk.
D5	Develop a self-reflective element to all professional activities, including learning from feedback and evaluation	Research work (lab-, clinic-, field- or computer-based). Course w/shops. GSDP w/shops. Faculty seminars. Dept-seminars. Supervisor meetings. Self-directed learning.	Literature Review. Grant application. Research poster. Career-interview. Research manuscript. Research talk.

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.

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:

Insert additional reference points or delete as required

- University of Portsmouth Curriculum Framework Specification
- University of Portsmouth Education Strategy 2016 - 2020
- 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
- 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.

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Document details

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