

PROGRAMME SPECIFICATION (Taught Postgraduate)



1 Awarding Institution	Newcastle University
2 Teaching Institution	Newcastle University
3 Final Award	MSc
4 Programme Title	MSc Exercise Physiology
5 Programme Code	5430F
6 Programme Accreditation	n/a
7 QAA Subject Benchmark(s)	Biosciences and Events Hospitality, Leisure, Sport and Tourism
8 FHEQ Level	Level 7
9 Last updated	May 2023

10 Programme Aims

- 1: Provide a thorough and comprehensive training in the knowledge base of exercise physiology.
- 2: Provide a structured framework to study theory and conduct research relating to applied exercise physiology.
- 3: Enable students to develop a postgraduate level of ability to critically evaluate the processes, methods and techniques used in research in exercise physiology.
- 4: Enable students to demonstrate the ability to use an evidence-based approach to the practice of exercise physiology.
- 5: To facilitate appreciation of the limitations and strengths of applied exercise research techniques to enable students to work ethically within exercise physiology.
- 6: Provide students with the necessary skills to be able them to be reflective, responsible and independent exercise physiologists.

11 Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas. The programme outcomes have references to the benchmark statements for Exercise Physiology.

Knowledge and Understanding

On completing the programme students should:

- A1: Demonstrate advanced knowledge and critical understanding of theory, research methods and ethical issues in Exercise Physiology.
- A2: Demonstrate a systematic and critical understanding of knowledge in exercise physiology with a critical awareness of problems and new insights related to the exercise physiology field.
- A3: Demonstrate an advanced knowledge and critical understanding of exercise physiological assessment techniques.

A4: Demonstrate a knowledge of the application of exercise physiology within athlete and patient populations.

Teaching and Learning Methods

Students' learning will primarily be facilitated by lectures and small group work (A1-2), problem-based learning exercises (A2-4), presentations (A3) and practical skills sessions (A3).

Students will be required to read material (pre-lectures) and also supplement taught material with independent and guided reading (post-lectures). Knowledge and understanding will be further supported by individual supervision of the dissertation in Semesters 2 and 3.

Assessment Strategy

There will be a range of different assessments reflecting the range of expertise, knowledge and skills required of students, including practical skills assessment, unseen written examinations, laboratory reports, presentation (scientific and layman), scientific critiques and a research project. Feedback will be provided to encourage reflection and improvement in students' communication skills and self-monitoring.

Intellectual Skills

On completing the programme students should be able to:

- B1: Critically evaluate arguments, evidence and data from a variety of sources and discern and establish connections.
- B2: Formulate and test hypothesis relating to exercise physiology research.
- B3: Use an evidence based approach to formulate physiological assessment and interventions in exercise physiology.
- B4: Identify ethical and contextual in the evaluation of research and practice in exercise physiology.

Teaching and Learning Methods

Intellectual skills are promoted initially through lectures where theories, concepts and evidence are introduced. Following this, intellectual skills are developed and promoted further through group learning activities such as seminars, tutorials and practical classes. Practical and project work is designed to permit students to demonstrate achievement of all the learning outcomes in this section

Assessment Strategy

Intellectual skills (B1-4) are assessed by practical skills assessment, unseen written examinations, laboratory reports, presentation (scientific and layman), scientific critiques and a research project.

Practical Skills

On completing the programme students should be able to:

- C1: Plan, design and execute practical skills using appropriate exercise physiology techniques and procedures.
- C2: Collect, analyse and interpret and communicate data using appropriate techniques.
- C3: Identify, locate and retrieve exercise physiology source material.
- C4: Plan and carry out a substantial piece of research and use of statistical analytical methods.
- C5: Apply knowledge gained to solve problems related to exercise physiology.
- C6: Confidently present to different audiences.

Teaching and Learning Methods

These skills are taught and developed throughout the programme. Laboratory skills will be demonstrated by teaching and teaching support staff (C2-3), individual supervision (C1-2), working with peers (C3-6), writing and presentation of research project (C6) and a practical skills examination (C5-6).

Assessment Strategy

Practical skills are assessed through a range of methods including demonstration of practical skills, laboratory reports, reflection and project reports.

Transferable/Key Skills

On completing the programme students should be able to:

- D1: Display advanced competency in the numeric, statistical and analytical skills required for exercise physiology.
- D2: Act autonomously in planning and implementing independent research
- D3: Formulate hypotheses and apply research skills in order to create new knowledge.
- D4: Communicate effectively in writing and orally to specialist and non-specialist audiences.
- D5: Work autonomously and also collaborate effectively with others.
- D6: Use computing and IT resources

Teaching and Learning Methods

The use of advanced competency in analytical skills will be developed in research critique, problem based learning and dissertation work (D1, D2, D6). Communication skills will be developed in seminar, small group work and presentations (D4, D5). Autonomous working (D2), time management and teamwork (D5) will be developed by engagement in the research project (D3) and also in group work for presentations.

Assessment Strategy

Transferable skills (D1-6) are assessed throughout the programme using various assessment strategies including essays, oral presentations, laboratory practicals, practical skills evaluations and projects.

12 Programme Curriculum, Structure and Features

Basic structure of the programme

This is a one-year full time programme only. It consists of a body of 5 taught modules and a supervised research project. To be awarded an MSc, students must successfully complete 180 credits: taught modules account for 90 credits, and the project accounts for 90 credits. The taught modules are studied in semesters one and two, and the research project in semester one, two and three. The taught material in semesters one and two builds on existing knowledge and feed forward into the research project. Students begin planning and preparing for their research project in semester one.

Key features of the programme (including what makes the programme distinctive)

The programme is located in the School of Biomedical, Nutritional and Sports Sciences, of the Faculty of Medical Sciences, with input from the Population Health Sciences institute, both having a strong background in clinical and applied exercise physiology, public health and lifestyle medicine.

The academic content of the programme is coherent, research led, and with the central themes relating to exercise physiology and is provided by members of staff, honorary and guest lecturers with teaching and research specialisms interests in these areas.

The research component of the programme will provide opportunity to promote teaching and research collaboration between Newcastle University and other stakeholders with whom there are already strong links, such as Newcastle United FC, Newcastle United Foundation, Newcastle Falcons & local NHS Units. Such exposure to a wide variety of exercise physiology related professionals, will enable students to forge links, thereby increasing the prospects of a career in Exercise Physiology.

Graduates will be able to use this programme to establish a successful career in whichever area of Exercise Physiology suits their individual needs and professional interests. We operate a research driven, scientist-practitioner approach, with the study of ethics, evidence-based practice and professional skills is embedded throughout the programme.

Programme regulations (link to on-line version)

[R5430F_vFinal.pdf](#)

13 Support for Student Learning

Generic information regarding University provision is available at the following link.

[gsh_progspec_generic_info.docx](#)

14 Methods for evaluating and improving the quality and standards of teaching and learning

Generic information regarding University provision is available at the following link.

[gsh_progspec_generic_info.docx](#)

15 Regulation of assessment

Generic information regarding University provision is available at the following link.

[gsh_progspec_generic_info.docx](#)

In addition, information relating to the programme is provided in:

The University Prospectus: <http://www.ncl.ac.uk/postgraduate/courses/>

Degree Programme and University Regulations: <http://www.ncl.ac.uk/regulations/docs/>

Please note. This specification provides a concise summary of the main features of the programme and of the learning outcomes that a typical student might reasonably be expected to achieve if she/he takes full advantage of the learning opportunities provided.