FACULTY OF SCIENCE

DEPARTMENT OF PHYSICS

APPLICATIONS OF NEXT GENERATION ACCELERATORS

PhD in Applications of Next Generation Accelerators

For regulations relating to admissions, duration of study, examinations, progress, final assessment, award and research elements of this degree, please refer to the General Academic Regulations - Postgraduate Research Degree Regulations.

For regulations relating to taught (compulsory/optional) modules, please refer to the General Academic Regulations - Postgraduate Taught Degree Programme Level.

This degree is part of a collaborative EPSRC initiative comprising the University of Strathclyde, the University of Huddersfield, the Queen's University Belfast and the University of Surrey with additional teaching provided by the Scottish Universities Physics Alliance and The Cockcroft Institute at Daresbury. Students registering at the University of Strathclyde will graduate with a degree of the University of Strathclyde and will be subject to the General Regulations of this University. It is assumed that all modules offered by the external partners have been through the appropriate QAA processes

Admission

1. The General Academic Regulations - Postgraduate Research Degree Regulations shall apply.

Duration of Study

2. The General Academic Regulations - Postgraduate Research Degree Regulations shall apply.

Mode of Study

3. The programme is available by full-time study only.

Place of Study

4. Students will spend approximately 90% of their time undertaking a well-defined research project and 10 % of their time undertaking a placement in either an industrial or clinical environment.

Curriculum

5. All students shall undertake research projects together with the following

First Year

All students shall undertake an approved curriculum of at least 180 comprising classes offered by Strathclyde and the partner institutions as follows

Compulsory Modules

Module Code	Module Title	Level	Credits
PH980	Group Project	5	30
PH981	Individual Project	5	30

PH983	Accelerators	5	5

Offered by Huddersfield, Queen's University Belfast and Surrey

Module Title	Credits
Biomedical Accelerator Applications	15
Energy & Security Applications	15
Research Skills 1	15
Research Skills 2	15
Radiation Physics	15
Radiation Biology	15
Cockcroft Lectures	10

Optional Modules
No fewer than 15 credits chosen from the modules listed under the Centre for Doctoral Training.

Second Year
All students shall commence their doctoral research project and undertake an approved curriculum as follows

Compulsory Modules

Module Code	Module Title	Level	Credits
PH986	Project 3	5	15

Third and Fourth Years
All students shall continue a doctoral research project.

Modules offered by members of the Centre for Doctoral Training

Strathclyde

Module Code	Module Title	Level	Credits
PH984	Plasma Physics A	5	5
PH985	Laser Driven Plasma Accelerators	5	5

Scottish Universities Physics Alliance

Module Title	Credits
Mathematical Modelling	5
Nuclear Instrumentation	5

Discussion Classes	5

Surrey

Module Title	Credits
Computers in Medicine and Safety Issues	15
Applications of Ionising Radiation	15

Queen's University Belfast

Module Title	Credits
Plasma Physics B	20
Physics and Medicine	20
Medical Physics and Applications	20

Progress

6. In order to proceed to the second year of the programme, a student must have performed at the appropriate standard and achieved at least 180 credits from the programme curriculum.

7. In order to proceed to the third year of the programme, a student must normally have accumulated at least 195 credits from the programme curriculum. A student must also satisfy the Centre for Doctoral Training Management Executive Committee that satisfactory progress is being made on the research project.

8. In order to proceed to the fourth year of the programme, a student must satisfy the Centre for Doctoral Training Management Executive Committee that satisfactory progress is being made on the research project.

Award

9. **Degree of PhD**: In order to qualify for the award of the degree of **PhD in Applications of Next Generation Accelerators**, a candidate must have performed to the satisfaction of the Board of Examiners and must have:

    (i) accumulated at least 195 credits from the programme curriculum
    (ii) submitted a suitable thesis, and
    (iii) performed satisfactorily in an oral examination.

10. **Degree of MPhil**: In order to qualify for the award of the degree of **MPhil in Applications of Next Generation Accelerators**, a candidate must have performed to the satisfaction of the Board of Examiners and must have:

    (i) accumulated at least 195 credits from the programme curriculum, and
    (ii) submitted a suitable thesis and if necessary, performed satisfactorily in an oral examination.

Transfer

11. A student who does not perform at the appropriate standard defined by the Centre for Doctoral Training Management Executive Committee will be transferred to either the MSc, Postgraduate Diploma or Postgraduate Certificate in Applications of Next Generation Accelerators.