Programme of study for the integrated degree of PhD and MSc (Structural Geology with Geophysics)\(^1\)

**Year One** (a total of 120 credits in taught modular courses will be taken as well as the research project)

- The candidate will commence research under the direction of their supervisor(s) from term 3.
- Compulsory training and skills module:
  - SOEE5763M 3D Structure: Techniques and Visualisation (15 credits)
  - SOEE5752M Applied Geodynamics and Basin Evolution (15 credits)

Non-credit bearing activity based on individual will be identified in annual training analysis undertaken between student and supervisors. Training may include Faculty or SDDU-managed courses, including library and ISS, or research specific courses offered elsewhere, as well as conferences.

- Compulsory specialised subject modules:
  - SOEE5157M Applied Geophysical Methods (15 credits)
  - SOEE5174M Integrated Sub Surface Analysis (30 credits)
  - SOEE5722M Applied Structural Models (20 credits)
  - SOEE5733M Geomechanics (10 credits)

**Year Two** (a total of 60 credits in taught modular courses will be taken as well as the research project)

- The candidate will continue research under the direction of their supervisor(s)
- Compulsory specialised subject module:
  - SOEE5111M Structural Geology Independent Project (60 credits)

Non-credit bearing activity based on individual will be identified in annual training analysis undertaken between student and supervisors. Training may include Faculty or SDDU-managed courses, including library and ISS, or research specific courses offered elsewhere, as well as conferences.

Candidates will be permitted to proceed to assessment for transfer to full PhD status if they achieve an average of 50% or more over all 180 credits of which 150 credits must be passed at 50% or more in each and every module undertaken, and of these 135 credits must be at M level. In addition candidates are normally expected to pass the Masters with Merit.

**Years Three and Four**

- The candidate will continue research under the direction of their supervisor(s)
- Optional and compulsory non-credit bearing training and skills modules selected as appropriate from the wide-range of training courses provided at the University of Leeds (e.g. Writing for Research Students in the Sciences, Thesis Presentation).

Changes may be made from time to time to the titles of modular courses and the optional modular courses that are available.

\(^1\) To be read in conjunction with the general Programme of Study for the Integrated degrees of PhD and Master (MA, LLM or MSc)
Learning Outcomes / Transferable Key Skills / Learning Context / Assessment – overall programme Integrated degree of PhD and MSc (Structural Geology with Geophysics)

1. Learning Outcomes

On completion of the Integrated PhD and MSc (Structural Geology with Geophysics) as a whole, students should have shown evidence of being able:

- to discover, interpret and communicate new knowledge through original research in the field of exploration geophysics and produce work of publishable quality which satisfies peer review;
- to present and defend research outcomes which extend the forefront of applied structural geology research and development and professional practice;
- to independently and proactively formulate ideas and hypotheses and to design, develop, implement and execute plans by which to evaluate these;
- to demonstrate systematic and extensive knowledge of a range of topics in the area of exploration geophysics;
- to take a proactive and self-reflective role in working and to develop professional relationships with others where appropriate;
- to evaluate critically and creatively published research in a range of learned society journals and other literature;
- to exhibit generic and subject specific skills and techniques necessary to work effectively in employment in a higher capacity in industry or areas of professional practice, in liaison with academic and industrial partners, ensuring widening participation through engagement in public events, enterprise and knowledge transfer;
- to demonstrate a portfolio of transferable professional skills through the use of Personal Development Plans including, for example, communication and presentation skills, ethics, networking and team development, commercial awareness;
- to undertake an individual research project in the area of exploration geophysics;
- to demonstrate the skills necessary for a career as a researcher and/or for employment in a senior and leading capacity in a relevant area of industry;
- to evaluate their own achievement and that of others;
- to exhibit self-direction and effective decision making in complex and unpredictable situations;
- to demonstrate independent learning and the ability to work in a way which ensures continuing professional development;
- to demonstrate systematic knowledge of and be able to critically assess, analyse and engage with the ethical and legal context of their research and any ethical and legal implications of their research.

2. Transferable (Key) Skills

Students will have had the opportunity to acquire the following abilities through the research training and research specified for the programme.
• the skills necessary for a career as a researcher and/or for employment in a senior and leading capacity in a relevant area of professional practice or industry;

• evaluating their own achievement and that of others;

• self-direction and effective decision making in complex and unpredictable situations;

• independent learning and the ability to work in a way which ensures continuing professional development.

3. Learning Context

For Masters (Taught) students the learning context will include the analysis of, and decision making in, complex and unpredictable situations. The structure of the programme will provide breadth and/or depth of study and opportunities for drawing upon appropriate resources and techniques. Opportunities will be provided for students to develop:

• high level interests and informed opinions;

• develop to a high level their design and management of their learning activities;

• develop to a high level their communication of their conclusions;

• make an original contribution to the field.

Students will be expected to engage in the exercise of autonomous initiative in their study and work in professional environments.

4. Assessment

Achievement for the degree of Master (taught programme) will be assessed by a variety of methods in accordance with the learning outcomes of the modules specified for the year/programme and will involve the achievement of the students in:

• evidencing an ability to conduct independent in-depth enquiry within the discipline;

• demonstrating the ability to apply breadth and/or depth of knowledge to a complex specialist area;

• drawing on a range of perspectives on an area of study;

• evaluating and criticising received opinion;

• make reasoned judgements whilst understanding the limitations on judgements made in the absence of complete data;

• Presenting work in a variety of ways e.g. oral presentation to academic groups, lay public; examination, viva, coursework.