SEISMIC RESEARCH CENTRE

Postgraduate Programmes • MPhil/PhD Degree

The Centre offers MPhil, PhD programmes in Volcanology and Seismology

Candidates applying for admission are required to satisfy the relevant general regulations of the Faculty and the University's Board for Graduate Studies and Research. The minimum qualification for admission to the MPhil programme is a BSc General Honours degree (minimum GPA 3.0) or its equivalent from an approved University.

Applicants to the MPhil or PhD research programme, should liaise with their potential supervisor for guidance in developing a clear research project and research proposal, which must be submitted to the Head of Department. Supervisors listed in the application form should have agreed to do so.

I. Introduction and Objectives

Introduction

The UWI Seismic Research Centre (UWI-SRC) is the regional institution responsible for surveillance of, and fundamental research into, volcanoes and earthquakes for the English-speaking territories of the Eastern Caribbean. The UWI-SRC provides its 9 contributing governments with accurate and up-to-date information about earthquake, volcanic and other geologic activity; 19 live volcanoes are included in this portfolio. Our research is focused on developing a better understanding of the geologic processes at work in the region so as to reduce risk and promote sustainable development. To this end, we are actively working to develop geologic hazard awareness and collaborate with local, regional and international agencies on research and outreach projects. Our main research focus include (but are not limited to):

Volcanology:
- Physical Volcanology (analytical and numerical modelling of diverse volcanic and hydrothermal processes)
- Volcanic hazard and risk assessment
- Geochemical studies of hydrothermal areas in the Lesser Antilles & development of effective geothermal monitoring strategies

Seismology:
- Seismic hazard assessment
- Application of the piece-wise b-value technique to earthquake prediction

- Application of Distributed Computing Techniques in earthquake and volcano monitoring
- Development of strong motion seismograph networks and use in defining earthquake risk

Education and Outreach:
- Hazard communications
- Awareness and perception of geologic hazards
- Use of the ICT in delivery of scientific information

Objectives of the Programmes

The MPhil and PhD degree programmes are research oriented and normally requires the candidate:

- To show satisfactory knowledge of the background of the subject;
- To write clearly and in a logical and ordered fashion;
- To use appropriate research methods and techniques competently;
- To display an ability to analyse critically and evaluate independently the relevant literature and related material;
- To make an advance in knowledge of the subject.

The PhD degree programme requires the candidate:

- To achieve the same objectives as specified in the M.Phil. degree programme;
- To make a significant original contribution to knowledge;
- To produce a thesis which is worthy of publication.

Programme Benefits

Laboratory experience

Collaborative linkages and MOUs are currently being developed with several Universities and other overseas institutions (e.g. The Department of Earth Sciences at the University of Bristol, UK) to allow postgraduate students access to laboratories and modern experimental equipment used for research in earth sciences. Depending on the specific research project and the extent of the collaboration with external institutions students will have access to these research tools and learn the latest techniques and technologies.

Field experience

Given its operations in the region and connections the Unit is well positioned to provide a richly rewarding field experience. In addition to fieldwork associated with their specific research project, there are opportunities for postgraduate students to participate in organized field programmes.

Opportunities will be provided for students to hone their presentation skills in a range of activities, including practical activities such as writing for the web, print and televisual media, image manipulation, and oral presentation skills. Key skills in use of field and monitoring equipment are covered, and training in computer programming, and so on will be taught as required for the students' research.

Requirements and Study

Entry Requirements

MPhil Degree

Admission to the MPhil degree programme normally requires a bachelor's degree or equivalent with at least an Upper Second Class Honours degree and relevant work experience.

A Candidate who does not satisfy this requirement may be admitted in the first instance as a qualifying student and must satisfy specified course requirements as determined by the Institute's Entrance Committee and approved by the Board of Graduate Studies and Research (BGSR) before being finally admitted to the M.Phil degree.

PhD Degree

Admission to the Ph.D. degree programme normally requires the candidate

- To have completed an appropriate post graduate qualification, or
- To be transferred from the M. Phil. And Ph.D. degree programmes, and
- To have the relevant work experience.

Applicants to the M.Phil and Ph.D. degree programmes are also required to submit a short research proposal which will be considered by the Institute's Entrance Committee.

Course of Study

Students in the MPhil and PhD degree programmes are required to complete the following:

1. Three (3) courses; (3 credits each). The most appropriate options will have to be decided on a case by case basis, and;
2. A dissertation (MPhil)/thesis (PhD).

The length of the dissertation for the M.Phil degree candidates should not normally exceed 50,000 words excluding footnotes and appendices.

II. Exams

Examinations

Candidates for the MPhil and PhD degree must pass the three required courses. Students will have only two attempts at the required courses.

MPhil degree

A candidate will normally be required to take an oral examination on the general field of study and on the dissertation.

If the External Examiner is unable to attend the oral examination, his/her written report should be made available to the other examiners at the oral examination.

Exemption from the oral examination will be at the discretion of the Board of Graduate Studies and Research (BGSR) on the recommendation of the examiners.

Candidate, after consideration of his/her dissertation by the Board of Examiners and where relevant, the oral examination, may be:

1. recommended to Senate for the award of the degree;
2. required to re-submit the dissertation and/or repeat the oral examination on one subsequent occasion within 18 months from the decision of the BGSR;
3. required to make corrections to the dissertation within six months from the decision of the BGSR, or
4. failed outright.

PhD degree

A candidate will be required to take an oral examination on the general field of study and on the thesis submitted. Where the External Examiner is unable to attend the oral examination, his/her written report should be made available to the other examiners who are present.

A candidate, after consideration of his/her thesis by the examiners and after the oral examinations may be.

1. recommended to Senate for the award of the degree
2. required to re-submit the thesis within 18 months
3. required to re-submit the thesis and repeat the oral examination on one subsequent occasion within 18 months from the decision of the Board of Graduate Studies and Research (BGSR).
4. required to make corrections to the thesis within six months from the decision of the BGSR, or
5. failed outright.

III. Study Length

Length of Study

MPhil degree

A candidate for the MPhil degree on a full-time basis will be required to submit a dissertation on an approved subject for examination not less than two (2) calendar years and not more than five (5) calendar years after registration.

Part-time candidates will be required to submit their dissertation for examinations not less than (3) calendar years and not more than seven (7) calendar years after registration.

PhD degree

A Candidate registered for full-time studies in the Ph.D. degree programme will be required to present his/her thesis for examination not less than three (3) calendar years and not more than six calendar years after full registration.

Part-time candidates will be required to present their thesis not less than four (4) and not more than eight (8) calendar years after full registration.

Degree transfers

Candidates who are seeking to transfer from the MPhil programme to the PhD programme must:

1. make two seminar presentations on their research, and
2. obtain the written approval of their supervisor's.

Time spent during the MPhil degree programme will be credited to the time required for the PhD degree.

The general regulations specified by the BGSR will apply to the MPhil.D degree programmes.