

School of Psychology and Neuroscience

Session 2019-2020

Masters of Research in Neuroscience

Masters Thesis Research in Neuroscience

PN5099

**Module Organiser: Dr Stefan Pulver
(sp96@st-andrews.ac.uk)**

PN5099

Module Descriptor

Students in this module will carry out a major piece of original and independent research under the supervision of an academic advisor. The aim of the module is to give students an opportunity to design, conduct and analyze neuroscience research and then learn how to present such work in oral and written form. Assessment will be in the form of an oral presentation at the beginning of semester 2 and a written thesis submitted by the stated date in August.

Pre-requisites and anti-requisites

Students must be enrolled in the MRES in Neuroscience degree programme.

Module Aims and Outcomes

This module aims to give students an opportunity to conduct a major piece of original research in a host laboratory. You will give an oral presentation early in semester 2 in which you defend the proposed research and provide a progress report. You will then write a data-based thesis of no more than 15,000 words.

Transferrable skills

PN5099 is an excellent vehicle for developing skills in creative thinking and scientific approaches. You will be given the opportunity to plan, conduct, analyse, interpret and write up your own research. You will also be given the opportunity to defend your proposed research plan in an oral presentation. These skills are directly transferrable to careers in post-graduate research and relevant for careers requiring in depth knowledge of scientific work.

Faculty

Dr Stefan Pulver

sp96@st-andrews.ac.uk

Module Organiser

Members of staff participating will vary from year to year

Content Delivery

The module consists of independent research carried out in a host laboratory. The exact course of work should be determined jointly by the supervisor of the host laboratory and the Student. However, it is expected that research will begin in semester 1 and continue throughout semester 2 and the following summer.

Module Timetable 2019

There is no formal timetable of meetings for this module. The MO for the module will generally maintain office hours from 10-11:00 on Wednesdays. In mid March (exact time and date TBD) you will be asked to give an oral presentation in which you defend your proposed research and report on your progress. Details of the assessment will be provided during semester 2

Recommended reading and preparation

The best way to prepare for this module is to contact your supervisor ahead of arrival and ask tips on how best to prepare ahead of arrival.

Assessment

During semester 1, it is expected that you will meet regularly with your supervisor to discuss your project. You will also be assigned a 2nd supervisor. The role of the 2nd supervisor is to provide you with advice and feedback on your project progression independently from your primary supervisor. You should plan to meet with your 2nd supervisor at least once each semester and at least once over the summer months. **All assessed work will be marked according to PGT 20-point mark descriptors.** There will be 2 pieces of formal assessment:

1) Project Defense

25% module grade

In March, you will give a 30-minute presentation in which you give an overview of your Masters thesis project and give a report on your progress to date. You will then have a 15 minute Q&A session with a panel of faculty members. The format of the talk is flexible, but should include a visual abstract of your project, relevant background, clear articulation of the question and/or specific aims, and presentation of preliminary data. Presentation of preliminary data is encouraged but not required.

❖ **All project defences will be conducted on or around March 15, 2018 (Exact date TBA)**

2) Written Thesis

75% module grade

You will prepare a data-based dissertation in which you describe the results obtained during your degree. The Master's thesis should follow the general format required by the University (see below) and should conform to standard scientific structure for research reports. Thus, each project should include a title page and the following sections: Abstract, Introduction, Methods, Results, Discussion, References; Acknowledgements and Appendices. Note that it is a requirement that any relevant letters of ethical approval be attached as appendices to your Master's thesis. In addition, all data and supporting documents (e.g. SPSS output, spreadsheets, image data, etc.) should be given directly to the Project Supervisor. You should attach as an appendix a letter from your supervisor that they have received and stored the relevant files. Students are required to conform to the University's policy prohibiting plagiarism and other forms of academic misconduct such as data fabrication. ***Your supervisor is allowed to comment on one draft only of the Abstract, Introduction, Methods and Results sections of the project thesis, but is not allowed to comment on the Discussion section.*** This is to allow you a chance to demonstrate the degree to which you have developed independence as a researcher.

The thesis has a maximum of 15,000 words. Please submit one electronic version via MMS by the deadline. Typically the first marker will be your project supervisor and the second marker will be assigned by the Master's Controller (SRP). The markers will consider any adverse circumstances that might have place constraints on the scope of thesis, such as technical difficulties in performing the research that were beyond your control. However, the markers can only assign a mark appropriate for the submitted thesis. All marks assigned are preliminary until scrutinised by the external examiner, officially submitted by the examinations board and approved by the University.

University regulations regarding the thesis, including the format and required student declaration, can be accessed at: <http://www.st-andrews.ac.uk/media/teaching-and-learning/policies/final-module-pgt.pdf>

Thesis submission deadline will be in mid August, 2020 (Exact date TBA)

Appendix

Criteria for assessment of Thesis

The University uses a universal grade point scale of 1-20, with the possibility to use one decimal point. The criteria for assessing the written thesis are listed below:

Taught Postgraduate Reporting Scale

Grade	Descriptor	Key Characteristics of the Work
16.5 – 20.0	Distinction at 5000 Level	Excellent work at 5000 Level. Work in this category will meet all of the requirements for a Merit and at least one of the following: <ul style="list-style-type: none"> • Exceptional knowledge and understanding beyond core issues. • Demonstrates a very high level of critical awareness. • Excellent structure and sophisticated argument. • Takes an independent or original approach appropriate to the given task.
13.5 – 16.4	Merit at 5000 Level	Strong work at 5000 Level. Work in this category will show all of the following: <ul style="list-style-type: none"> • Very good knowledge and understanding of the core issues. • Demonstrates a high level of critical awareness. • Clear structure and consistent argument. • Fully addresses the given task.
10.5 – 13.4	Pass at 5000 Level	Competent work at 5000 Level. Work in this category will show three or more of the following: <ul style="list-style-type: none"> • Reasonable knowledge and understanding of the core issues. • Demonstrates reasonable critical awareness. • Adequate structure and argument. • Mostly addresses the given task.
7.0 – 10.4	Marginal Pass at 5000 Level	Adequate work at 5000 Level. Work in this category will show one or more of the following: <ul style="list-style-type: none"> • Limited knowledge and understanding of the core issues. • Demonstrates only basic critical awareness. • Weak structure or inconsistent argument. • Does not fully address the given task.
4.0 – 6.9	Fail with right to reassessment	Inadequate work at 5000 Level. Work in this category will show one or more of the following: <ul style="list-style-type: none"> • Very limited knowledge and understanding of the core issues. • Seriously deficient in critical awareness. • Lacks structure and logical argument. • Does not address the given task.
0.0 – 3.9	Fail without right to reassessment	Inadequate work at 5000 Level. Work in this category will show one or more of the following: <ul style="list-style-type: none"> • No serious, demonstrable, attempt to carry out the task assigned. • No attempt at analysis and very little understanding or knowledge demonstrated.

Individual modules taken as part of an approved taught postgraduate programme are assessed using the scale shown.