

PLEASE NOTE THAT THIS DRAFT IS BASED ON THE CONTENTS OF THE ACADEMIC YEAR 2018-19, AND MUST BE TAKEN AS PROVISIONAL AND SUBJECT TO CHANGE IN ACADEMIC YEAR 19-20



University
of
St Andrews

PS5021

Methodologies for Psychology and Neuroscience

General info:

Semester Dates: The Semester Dates for 2018/19 are available at: <https://www.st-andrews.ac.uk/semesterdates/2018-2019/>

Common Reporting Scale (20-point): This course uses a 20-point Common Reporting Scale for grades (i.e. a 20-point basic scale reported to one decimal point for final module grades). Details of the Common Reporting Scale can be found at <https://www.st-andrews.ac.uk/staff/teaching/examinations/scale/>

Aims of course

The aim of this module is to provide the student with practical, hands-on experience of a number of laboratory techniques and research methodologies that are employed by academics within the School of Psychology and Neuroscience. Across the course, the student will experience a wide variety of methods and research practices. By the end of the course, the student will be able to appreciate the possibility of taking an integrative approach to tackle research questions.

Course structure

The course consists of 5 laboratory placements (approximately 5 hours each). Each placement begins with a two hour introductory session where a Principal Investigator (PI) will introduce their research area by focusing on a paper that they have authored. This session will explore the 'Story of the Paper', introducing the rationale for the study, the experimental methods, the publication process and the impact of the work on their field.

The student will also be provided with information about on-going research. Following this the student will spend time (3 hours in total) in the laboratory of the PI. Students will have the opportunity to observe data collection and/or gain basic training in the specific techniques used by the PI. The student might also be involved in data collection that is taking place during the session, although this will vary between laboratories.

Sessions will be provided from PIs within the main research areas in the School: as described on the School's research webpage, <http://www.st-andrews.ac.uk/psychology/research/>. Students can choose which placements they wish to attend from the list provided on Moodle. The 5 sessions may occur at any point across the two semesters, depending on availability of PIs, but at least 1 of the 5 sessions will normally occur in Semester 1.

Example placements available last year (full details of all current placements will be available on Moodle by week 1).

Dr Barbara Dritschel: Dritschel, B., McClintock, S. & Beltsos, S. 2013. An 'alternating instructions' version of the Autobiographical Memory Test for assessing autobiographical memory specificity in non-clinical populations. *Memory*, in press.

Dr Karen Spencer: Spencer K.A., Buchanan, K. L., Goldsmith, A. R. & Catchpole, C. K. 2003. Song as an honest signal of developmental stress in the zebra finch (*Taeniopygia guttata*). *Hormones and Behavior* 44, 2, p. 132-139

Dr Tomas Otto: Otto T.U., & Mamassian P. 2012. Noise and correlations in parallel perceptual decision making. *Current Biology*, 22(15): 1391-1396.

Dr Catherine Cross. Cross, C. P., Copping, L. T., & Campbell, A. (2011). Sex differences in impulsivity: a meta-analysis. *Psychological bulletin*, 137(1), 97.

IMPORTANT NOTE: Students must choose their 5 placements and email their selection to kas21@st-andrews.ac.uk by end of September. This allows Karen to make sure all the PIs know who is coming to their sessions. The full list of students attending each session will be on Moodle at the end of September.

Introductory sessions – these will be conducted by Karen in the first weeks of the course. It's a chance to talk about the course and assessment and it is always scheduled prior to the start of any PI sessions. You **MUST** attend **BOTH** of these intro sessions in Week 3 as attendance will be taken and we will discuss the assessments in detail. If you cannot attend please contact Karen ASAP. The dates for this year's meetings are:

Monday 1st October 10am -12pm Karen's office 2.53

Thursday 4th October 11am-1pm Karen's office 2.53

The sessions will cover the following:

- Intro to the course
- How to write an essay on impact
- How to write a research proposal
- How to write a methodological critique paper

Each session will be up to 2 hour long and scheduled within the timetable to allow all students to attend. Slides will be placed on Moodle after the sessions.

Assessment

This 15-credit module is assessed entirely by Continuous Assessment, consisting of three written pieces of work: three equally weighted 1500 word reports. This is a maximum word limit which does not include references or figure legends. The student can choose the sessions from which the pieces of work will be produced and the three reports can be submitted in any order. Students cannot base two of the assessments on a single session. Students also cannot produce essays based on the work of PIs that did not contribute a teaching session. Students **MUST** submit one of each assessment type A, B and C. It is not allowed to write two type B assessments for example.

Assessment A – Essay. Each essay needs to briefly describe the paper that the initial session was based upon and then go on to discuss and evaluate the impact of the work. There are details of how to look at impact in the introductory session file that Karen will give at the start of the course.

To get a good mark you need to:

1. Concisely describe the paper.
2. Evaluate the impact of the paper on the field/society – if the paper is new then tell us what impact the paper could have in the future.

Assessment B – Research proposal. This proposal needs to utilise the methodology that was described in the intro and laboratory sessions as a basis for a novel research proposal that addresses a current question in the relevant research area. The proposal should introduce the research area and question they pose then describe the proposed study with an explanation of how the methodology would be used and the pros and cons of using such a method.

Assessment C – Critique of methodology. This report should describe the method in detail and discuss all pros and cons of the methodology, evaluation of the methods and how they are used is required and outside reading will be required to give a good critique of the methodology.

Full details of all assessments will be given in the sessions run by Karen as well as further in-depth information provided on Moodle at the start of Week 1.

You must submit one assessment (A, B or C) in semester 1 – deadline 30th November 2018 and the remaining two in semester 2 - deadline 26th April 2019.

Reading material

Students will be provided with suggested reading material by each PI via Moodle or via hard copies. Students will be required to carry out additional, unsupervised reading for their assessments. No feedback on student essays will be provided by PIs prior to submission.

Absence from Classes

Attendance is a basic assessment requirement for credit award, and failure to attend classes or meetings with academic staff may result in your losing the right to be assessed in that module. Please ensure that you are familiar with the 'Academic Alert' policy as stated in PGT handbook. If you have missed timetabled classes/events or any other compulsory elements of the module due to illness or an unavoidable pre-arranged event or appointment, you must complete a Self Certificate of Absence form as soon as possible. Please go to <http://mysaint.st-andrews.ac.uk/>, the relevant section can be found under 'My Details'. If you submit more than three Self Certificates in a single semester, or if the period of absence extends to more than two weeks, you may be contacted by Student Services, the relevant Pro Dean, or by an appropriate member of staff in your School. Completion of a Self Certificate is not an acceptable substitute for contacting your tutors well in advance if you have to be absent. Advance notice of absence is acceptable only for good reason (for example, a hospital appointment or job interview). It is your responsibility to contact the appropriate member of staff to complete any remedial work necessary. Attendance records are taken at each of the PI sessions and the two Intro sessions run by Karen.

Transferable skills/ Graduate attributes

During the course you will engage with primary and secondary sources of material, as well as directly with current research and gain experience of relevant skills. You will be encouraged to demonstrate reflective learning, creativity and independent thought, as well as hone your time management and analytical skills. This course will also help you to develop several transferable skills, including the ability to demonstrate original thought, construct a coherent argument, and apply critical analysis and evaluation.

Module controller

Dr Karen Spencer (kas21@st-andrews.ac.uk)

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Appendix 1. Criteria for assessment marking.

Module No: PS5021				Matriculation No:		
Grade	0-6†	7	8-10	11-13	14-16	17-20
	Fail†	Marginal Pass		Pass (BPS required)	Merit	Distinction
Content	Little evidence that appropriate sources have been used OR inappropriate copying* from other sources (even if source is cited).	Minimally acceptable referencing of appropriate sources OR overreliance on other work (including substantial paraphrasing*); barely adequate scholarship	Use of a limited range of sources with some reliance on secondary, irrelevant or out-of-date material; some evidence of independent reading; satisfactory scholarship	Considerable use of a range of sources, with good evidence of independent reading of primary sources; evidence of good scholarship	Substantial use of up-to-date primary and independent sources; evidence of commendable scholarship	Exceptional use of up-to-date primary and independent sources; evidence of outstanding scholarship
Factual accuracy	Little or no accurate material	Many substantive errors	Few substantive errors	Very few substantive errors	No substantive errors, some minor errors	No substantive errors, very few minor errors
Relevance	The majority of material irrelevant to the question	Substantial material irrelevant to the question	Some of the material irrelevant to the question	little material irrelevant to the question	Very little material irrelevant to the question	All material relevant to the question
Organisation and coherence	Inadequate organisation of material	Barely adequate development of an argument, but with much of the writing disjointed or based on listing without development of ideas	Competent development of an argument, but with notable instances of disjointed material or listing with no development of ideas	Good development of an argument, but with some disjointed material and some listing	Clear and well-structured argument with the argument or central thesis well developed in most of the writing	Argument or central thesis well-structured, well-developed and sustained throughout, leading to well-argued conclusion

Precision of expression	Inadequate scientific precision in the use of terms and concepts	Barely adequate use of terms with numerous instances of vague, conceptually inaccurate, or redundant writing	Competent precision in the use of terms and concepts, but notable instances of vague, conceptually inaccurate, or redundant writing	Good precision in overall terms, but some instances of vague, conceptually inaccurate, or redundant writing	Very good use of precise scientific language with few instances of vague, conceptually inaccurate, or redundant writing	Clear analytic use of language, with precise use of concepts and negligible redundancy of expression
Critical evaluation	Fails to identify any main issue relating to judging the quality of data and methodology; no evidence of independent evaluation	Identifies some main issues relating to judging the quality of data and methodology; limited evidence of independent evaluation	Identifies many of the main issues relating to judging the quality of data and methodology; some evidence of independent evaluation	Identifies most of the main issues relating to judging the quality of data and methodology; notable evidence of independent evaluation	Identifies all the main issues relating to judging the quality of data and methodology; considerable evidence of independent evaluation	Sound and thorough evaluation of the quality of data and methodology; widespread evidence of original evaluation
Referencing	Insufficient accuracy and thoroughness in referencing sources, with sloppy stylistic errors indicative of inadequate proofreading	Many references omitted or inaccurate, with prominent stylistic errors and inconsistencies in the reference list	Some omitted or inaccurate references, with notable stylistic errors and inconsistencies in the reference list	Reference list comprehensive and accurate, with notable stylistic errors and inconsistencies in the reference list	Reference list comprehensive and accurate, with few stylistic errors or inconsistencies in the reference list	Thorough and proper referencing throughout, with all references consistently formatted in an appropriate format
Presentation	Inadequate spelling, grammar, stylistic formatting, graphical elements, tables, or figure legends that indicate poor proofreading or inattention to detail	Barely adequate spelling, grammar, stylistic formatting, graphical elements, tables, and figure legends, but would require substantial revisions to be of professional quality	Competent spelling, grammar, stylistic formatting, graphical elements, tables, and figure legends, but would require substantial revisions to be of professional quality	Good spelling, grammar, stylistic formatting, graphical elements, tables, and figure legends, but would require many revisions to be of professional quality	Very good spelling, grammar, stylistic formatting, graphical elements, tables, and figure legends, but would require minor revisions to be of professional quality	Excellent spelling, grammar, stylistic formatting, graphical elements, tables, and figure legends that approach professional quality

Additional Comments			
Marker		Grade	

*In some cases, the nature and extent of plagiarism will not merely attract a failing grade, but will also require referral to the Academic Disciplinary Process.

†Note that mark of 4-6 indicates that the work can be submitted for reassessment/resit. A mark of 0-3 indicates that the work cannot be submitted for reassessment/resit.

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