PN3312 Neuropharmacology

SCOTCAT Credits:	20	SCQF level 9	**Semester**	2
Academic year:	2021-2022			
Planned timetable:	Lectures: 11.00 am Mon, Tue and Wed Practicals: to be arranged.			

This module assumes that students are familiar with the material covered in the second year prerequisite modules. The module introduces students to Pharmacology, which can be defined as the study of the actions of drugs. The module has a strong focus on the nervous system, which is reflected in the module name. The basic principles of pharmacology will be covered, including drug interactions with specific receptors in target tissues and pharmacokinetics. Students will gain an understanding of how drugs work and will be familiar with pharmacological concepts and terminology. Students will also consider the drug development process and the many ways in which new therapeutics are designed and developed. The effects of different classes of drugs upon the peripheral and central nervous systems and on different neurotransmitter pathways will be covered. How drugs can be used to understand the function of these systems and to alleviate their malfunctioning in various diseases and afflictions will be explained. The practical components will apply the principles of drug action and receptor theory and illustrate the use of bioassays in pharmacological investigations. Practical sessions aim to build upon student knowledge of drug applications and pharmacological principles.

Pre-requisite(s):	Before taking this module you must pass at least 2 modules from {BL2301, BL2302, BL2305, BL2306}	
Learning and teaching methods of delivery:	**Weekly contact**: Lectures and tutorials: 29 hours in total, Usually 3 lectures or tutorials (x 11 weeks) Practicals: 2 x 3 hours during the semester.	
	Scheduled learning: 35 hours	**Guided independent study:** 165 hours
Assessment pattern:	**As defined by QAA:** Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%	
	As used by St Andrews: 2-hour Examination = 60%, Coursework = 40%	
Re-assessment pattern:	2-hour Examination = 60%, Coursework = 40% applied to failed components only	
Module coordinator:	Dr A E Smith	
Module coordinator Email:	kts1@st-andrews.ac.uk	
Module teaching staff:	Dr G Doherty, Dr W Li, Dr P Miles, Dr A Smith, Dr Judith Schweimer	

PN3313 Neuroscience

SCOTCAT Credits:	20	SCQF level 9	**Semester**	1
Academic year:	2021-2022			
Planned timetable:	Lectures: 12.00 am Mon, Tue and Wed Practicals: to be arranged.			
This module covers biochemical, cellular and behavioural aspects of the nervous system in health and disease. It starts with understanding of neuronal survival and loss, followed by the basic biochemistry of neural membrane proteins such as receptors and channels, and considers the cellular mechanisms of action potential generation and propagation, and synaptic transmission. The physiology of sensory perception is illustrated by examining the visual system, while motor control is considered in terms of vertebrate locomotion. Selected aspects of learning and memory processes are also examined. Students are given hands-on experience of computer simulation as a learning tool in this course. The associated practical work illustrates the lecture course through experiments on the nerve impulse, optogenetics and mechanisms of neuronal cell loss.				
Pre-requisite(s):	Before taking this module you must pass BL2301 and pass BL2305			
Learning and teaching methods of delivery:	**Weekly contact**: 29 hours of lectures or tutorials in total, 3 x 3-hour practicals and 4 hours of computer simulation labs during the semester.			
	Scheduled learning: 42 hours		**Guided independent study:** 158 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 60%, Practical Examinations = 0%, Coursework = 40%			
	As used by St Andrews: Continual assessment 40% (15% lab report 1 and 25% lab report 2) and 2hr Exam 60%			
Re-assessment pattern:	Continual assessment 40% (15% lab report 1 and 25% lab report 2) and 2hr Exam 60%. Applies to failed components only			
Module coordinator:	Dr W Li			
Module coordinator Email:	wl21@st-andrews.ac.uk			
Module teaching staff:	Dr Judith Schweimer, Dr S Pulver, Prof G Miles, Dr W Heitler, Dr W Li, Dr G Doherty, Dr A Smith			

PN3322 From data to insight in the behavioural and neural sciences

SCOTCAT Credits:	10	SCQF level 9	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Enrollment is limited to BSc Neuroscience students			
Planned timetable:	To be arranged			
This module aims to introduce students to an increasingly important aspect of the scientific process in psychology and neuroscience: data analysis and visualisation. Weekly lectures delivered by a different member of staff drawn from various subdisciplines of the biological/behavioural sciences will highlight the variety and complexity of different data types and how insights from these data can be visualised and communicated effectively. Students will self-direct their learning and work to analyse datasets provided by members of staff, and create scientific figures for assessment. Throughout, students will learn to critically evaluate primary research articles. At the end of the module, a one-day conference will be held in which students give oral presentations on new advances in the field.				
Pre-requisite(s):	Honours entry to BSc Neuroscience			
Learning and teaching methods of delivery:	**Weekly contact**: Week 1: -1-hour introductory meeting with teaching staff, Weeks 2-11: -6 x 1-hour lectures -6 x 1-hour tutorials -2 hours devoted to critical analysis of primary research -1 full day (5 hours) of oral presentations as part of research festival			
	Scheduled learning: 20 hours		**Guided independent study:** 80 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%. Re-assessment applies to failed components only.			
Module coordinator:	Dr J V R Schweimer			
Module coordinator Email:	jvrs1@st-andrews.ac.uk			
Module teaching staff:	Dr Judith Schweimer, Dr Erin Robbins, Dr Stefan Pulver, Dr Anna Smith, Dr Wenchang Li			

PN4230 Maladaptive changes in the nervous system

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	BSc Hons Neuroscience students have priority on this module, and numbers are capped at 24 due to the size of the teaching laboratory used for delivery.			
Planned timetable:	tbc			
In this module, students will develop a detailed understanding of the molecular neuroscience of maladaptive changes in the nervous system. Work will focus at the cellular and molecular level allowing in-depth understanding of the events underpinning nervous system diseases and disorders. The module concentrates on key areas relating to maladaptive processes including but not limited to age-related change and neurodegeneration. In addition, students will learn about the empirical models that are used to study these processes through laboratory classes and structured seminars.				
Pre-requisite(s):	Before taking this module you must pass PN3313 and pass BL3303			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hr Seminars (9 weeks), 6-hr Practicals (1 week)			
	Scheduled learning: 24 hours		**Guided independent study:** 126 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%			
	As used by St Andrews: Continual assessment 30% (10% commentaries and 20% lab report) and 2hr Exam 70%			
Re-assessment pattern:	Continual assessment 30% (10% commentaries and 20% lab report) and 2hr Exam 70%. Applies to failed components only			
Module coordinator:	Dr G H Middleton			
Module coordinator Email:	ghm@st-andrews.ac.uk			
Module teaching staff:	Team taught			

PN4231 Neuromodulation

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	BSc Hons Neuroscience and MRes Neuroscience students have priority on this module			
Planned timetable:	Lectures: 11.00 am - 12.00 noon Tue and 10.00 am - 11.00 am Fri.			
Until recently the nervous system was viewed as a black and white world in which neuronal networks carried out tasks using fast chemical synaptic transmission to produce an appropriate network output. However the output of neuronal networks is not fixed but instead is modifiable under different behavioural or developmental circumstances. A major source of flexibility in the output neuronal networks derives from neuromodulation; a process in which the basic operation of the networks remains the same but the strengths of synaptic connections and the integrative electrical properties of neurons in the networks are changed by the actions of a range of neuromodulators. This module explores the diverse range of neuromodulatory mechanisms and outlines their importance in information processing in the nervous system.				
Pre-requisite(s):	Before taking this module you must pass PN3313			
Learning and teaching methods of delivery:	**Weekly contact**: 2 seminars.			
	Scheduled learning: 24 hours		**Guided independent study:** 126 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%			
	As used by St Andrews: Continual assessment 30% (poster and viva) and 2hr Exam 70%			
Re-assessment pattern:	Continual assessment 30% (poster and viva) and 2hr Exam 70%, applies to failed components only.			
Module coordinator:	Dr S R Pulver			
Module coordinator Email:	sp96@st-andrews.ac.uk			
Module teaching staff:	Dr S Pulver, Prof K Sillar, Dr W Li, Dr M Zwart			

PN4232 Neuroethology

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	BSc Hons Neuroscience students have priority on this module			
Planned timetable:	Lectures: Week(s) 1- 5 & 7, 10 & 11 Fri 2-4pm. Practical 1 Week 2 Thu 11-1pm. Practical 2 Week 8 Thu 2-5pm. Practical 3 Week 9 Fri 2-5pm			
Predators and their prey are locked in an evolutionary arms race which continuously refines and improves the abilities of predators to locate and capture prey and of prey to detect and evade predators. The resulting selective pressure has produced spectacular adaptations in both the nervous systems and the anatomy of the animals concerned. This, combined with the usually unambiguous motivation of the animals involved in predator-prey interactions (eat or starve, escape or be eaten) has made such adaptations favoured targets for study by neuroscientists, behavioural scientists and bio-mechanicists. Students on this course will undertake a sense of guided case studies researching the primary literature, and the course will also include some hands-on laboratory demonstrations. The aim ls both to uncover some general principles of neural and biomechanical organisation, and also to reveal the variety and ingenuity with which evolution has found different solutions to shared problem				
Learning and teaching methods of delivery:	**Weekly contact**: Maximum weekly contact 3 hrs delivered via a combination of lectures and labs – details as follows:8x 2hr lectures or workshops in weeks 1,2,3,4,5,7,10,11. 2x 3hr labs in weeks 8 and 9			
	Scheduled learning: 22 hours		**Guided independent study:** 128 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%			
	As used by St Andrews: Continual assessment 30% (essay) and 2hr Exam 70%			
Re-assessment pattern:	30% continual assessment, 70% written exam. Re-assessment applies to failed components only.			
Module coordinator:	Dr J V R Schweimer			
Module coordinator Email:	jvrs1@st-andrews.ac.uk			
Module teaching staff:	Dr Judith Schweimer, Prof Keith Sillar, Dr Bill Heitler			

PN4234 Synaptic Transmission in Health and Disease

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	BSc Hons Neuroscience students have priority on this module			
Planned timetable:	Lectures: 11.00 am - 12:30 pm Wed and 12.00 noon - 1.00 pm Fri. Practicals to be arranged.			
Extensive and versatile communication between nerve cells using special junctions called synapses endows the nervous system with many complex functions like learning and memory. This module will cover important recent progress in understanding the morphology and ultrastructure of synapses, neurotransmitter corelease and recycling mechanisms, retrograde signalling, synaptic plasticity, the role of glial cells and the development of neurotransmission. Some laboratory work will provide students with hands-on experience of advanced research methods.				
Pre-requisite(s):	Before taking this module you must pass PN3313			
Learning and teaching methods of delivery:	**Weekly contact**: A total of 6 x 1.5 hour seminars, 7 x 1 hour lectures and 2 x 3 hour practicals over 10 weeks			
	Scheduled learning: 22 hours		**Guided independent study:** 128 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%			
	As used by St Andrews: Continual assessment 30% (10% commentaries and 20% lab report) and 2hr Exam 70%			
Re-assessment pattern:	Continual assessment 30% (10% commentaries and 20% lab report) and 2hr Exam 70%, applies to failed components only.			
Module coordinator:	Dr W Li			
Module coordinator Email:	wl21@st-andrews.ac.uk			
Module teaching staff:	Dr W Li, Dr S Pulver, Dr A Smith			

PN4235 Motoneurons: From Physiology to Pathology

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	BSc Hons Neuroscience students have priority on this module			
Planned timetable:	Lectures : 2.00 pm - 3.00 pm Mon and 9.00 am - 10.30 am Fri. Practicals to be arranged.			
This module aims to provide in depth knowledge of key aspects of neuronal function and potential dysfunction by focussing on one of the most studied and best characterised classes of neurons in the central nervous system, motoneurons. The module will cover topics such as: the history of motoneurons in neuroscience research; the genetics controlling motoneuron development, the intrinsic electrical properties of motoneurons; synaptic inputs received by motoneurons; motoneuron recruitment; and motoneuron disease.				
Pre-requisite(s):	Before taking this module you must pass PN3313			
Learning and teaching methods of delivery:	**Weekly contact**: 10 hours of seminars, 6 hours of lectures and 6 hours of practical over the semester.			
	Scheduled learning: 22 hours		**Guided independent study:** 128 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%			
	As used by St Andrews: Continual assessment 30% (10% commentaries and 20% lab report) and 2hr Exam 70%			
Re-assessment pattern:	Continual assessment 30% (10% commentaries and 20% lab report) and 2hr Exam 70%, applies to failed components only.			
Module coordinator:	Professor G B Miles			
Module coordinator Email:	gmb4@st-andrews.ac.uk			
Module teaching staff:	Dr W Li, Prof K Sillar, Prof G Miles, Dr W Heitler, Dr A Smith			

PN4299 Neuroscience Research Project

SCOTCAT Credits:	60	SCQF level 10	**Semester**	Full Year
Academic year:	2021-2022			
Availability restrictions:	Not automatically available to General Degree students			
Planned timetable:	To be arranged with the supervisor.			
This project will involve extensive laboratory or field research to investigate a defined problem broadly within biology, psychology, or neuroscience appropriate to the degree programme being studied by each student. The project will involve diligence, initiative and independence in pursuing the literature, good experimental design, good experimental and/or analytical technique either in the field or the laboratory, and excellent record keeping. The project will culminate in the production of a high-quality report that demonstrates a deep understanding of the chosen area of research. Students will be allocated to a member of staff within the School of Psychology and Neuroscience or the School of Biology who will guide and advise them in research activities throughout the academic year.				
Pre-requisite(s):	Before taking this module you must pass PN3312 and pass PN3313			
Anti-requisite(s)	You cannot take this module if you take BL4200 or take BL4201 or take PS4050 or take PS4299 or take PS4796 or take PS4797			
Learning and teaching methods of delivery:	**Weekly contact**: Meetings with supervisor			
	Scheduled learning: 33 hours		**Guided independent study:** 567 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%. Re-assessment applies to failed components only.			
Module coordinator:	Dr G H Middleton			
Module coordinator Email:	ghm@st-andrews.ac.uk			
Module teaching staff:	Individual Supervisors across the School of Psychology and Neuroscience or the School of Biology			

PS3021 Research Design and Analysis 1

SCOTCAT Credits:	15	SCQF level 9	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Not available to General Degree Students.			
Planned timetable:	Lectures: 9.00 am - 11.00 am Mon. 1-hour practical: one of Mon 1-2, 2-3, 3-4, 4-5			
This module is designed to provide a basic understanding of research design and statistics that will provide the foundations for independent empirical research and critical analysis required in the final year of the Honours programme. Emphasis will be placed on the acquisition of design and analysis skills and an understanding of the underlying philosophy that guides research. The syllabus will include core aspects such as ethical issues in research, basic statistics, technical writing and the use of statistical packages.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1-hour laboratory/tutorial class or seminar.			
	Scheduled learning: 30 hours		**Guided independent study:** 120 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%, Re-assessment applies to failed components only			
Module coordinator:	Dr S C Edwards			
Module coordinator Email:	se30@st-andrews.ac.uk			
Module teaching staff:	Dr M W Oram, Kenneth Mavor			

PS3022 Research Design and Analysis 2

SCOTCAT Credits:	15	SCQF level 9	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Not available to General Degree Students.			
Planned timetable:	Lectures: 9.00 am - 11.00 am Mon. 2-hour practical: two of Mon 1-2, 2-3, 3-4, 4-5			
This module is designed to provide a more advanced understanding of research design and statistics. Emphasis will be placed on the acquisition of analytical skills covering typical research situations encountered in the behavioural sciences. There is also an emphasis on integration of concepts across a family of techniques based on correlation and regression. The syllabus will include such topics as multiple regression, path analysis, mediation analysis, factor analysis, ANOVA designs using regression, and moderated multiple regression. There is a focus on computerized data analysis, interpretation, and presentation. A section on qualitative analysis is included to highlight a broader range of research approaches and questions.				
Pre-requisite(s):	Before taking this module you must take PS3021			
Learning and teaching methods of delivery:	**Weekly contact**: 1 X 2-hour lecture (weeks 1-11) and 2 X 1 hour laboratory/tutorial (weeks 1-10)			
	Scheduled learning: 42 hours		**Guided independent study:** 108 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%			
	As used by St Andrews: Written Examination = 70%, Coursework = 30%			
Re-assessment pattern:	Written Examination = 70%, Coursework = 30%			
Module coordinator:	Dr K I Mavor			
Module coordinator Email:	km221@st-andrews.ac.uk			
Module teaching staff:	Dr Sophie Edwards, Dr S Pehrson, P Gardner			

PS3031 Conceptual Issues and Theoretical Perspectives

SCOTCAT Credits:	10	SCQF level 9	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Thu. 1-hour practical: one of Thu 2-3, 3-4, 4-5. (Module runs in weeks 1-5 only)			
This module addresses the historical and philosophical background to current debates in psychology. The module will be taught via lectures and seminars including student presentations. Emphasis will be placed on the development of critical analysis of alternative models and levels of explanations of behaviour, and the ability to relate conceptual debates in psychology to issues in the real world.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1-hour workshop (Weeks 1 - 5).			
	Scheduled learning: 15 hours		**Guided independent study:** 85 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Mr P L Gardner			
Module coordinator Email:	plg@st-andrews.ac.uk			

PS3032 Assessment in Clinical Psychology

SCOTCAT Credits:	10	SCQF level 9	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Thu. 1-hour practical: one of Thu 2-3, 3-4, 4-5. (Module runs in weeks 6-10 only).			
This module presents psychopathological conditions and provides a basic understanding of the underlying neuronal and/or cognitive-behavioural mechanisms. Examples will be drawn from the field of clinical psychology and/or clinical neuropsychology. The module will further explore in detail the tools and procedures used to assess psychopathological conditions by discussing their theoretical/statistical background and by demonstrating how to use these tools in clinical and experimental settings.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1-hour laboratory class or seminar (Weeks 6 - 10).			
	Scheduled learning: 15 hours		**Guided independent study:** 85 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: 1.5-hour Written Examination = 100%			
Re-assessment pattern:	1.5-hour Written Examination = 100%			
Module coordinator:	Dr D Balslev			
Module coordinator Email:	db87@st-andrews.ac.uk			

PS3033 Developmental Psychology

SCOTCAT Credits:	10	SCQF level 9	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Thu. 1.5-hour practical: Thu, either 2-3:30 or 3:30-5. (Module runs in weeks 1 - 5 only)			
This module is designed to equip students with an appreciation of key principles, concepts, methods and discoveries in developmental psychology, with an emphasis on evolutionary and comparative perspectives that are a particular strength of such work in St Andrews. The module aims to offer a broad perspective spanning infancy to childhood, and a range of key topics in cognitive and social development.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1.5-hour laboratory class or seminar (Weeks 1 - 5).			
	Scheduled learning: 17 hours		**Guided independent study:** 82 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr E Robbins			
Module coordinator Email:	er70@st-andrews.ac.uk			

PS3034 Social Psychology

SCOTCAT Credits:	10	SCQF level 9	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Tue. 1-hour practical: one of Tue 2-3, 3-4, 4-5 (Module runs in weeks 1 - 5 only)			
This module explores several major themes and debates in social psychology, the central one being the nature of the relationship between individuals and groups. We will be looking in depth at the ways in which human experience and behaviour is shaped by social groups, and how this helps us to understand a range of behaviours. A variety of methodological approaches theoretical perspectives on these topics will be examined in order to develop your understanding of the field and your ability to evaluate social psychological research critically. We will examine strengths and limitations of different approaches, introduce current debates in the literature, and link theoretical knowledge to current events.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1-hour laboratory class or seminar (Weeks 1 - 5)			
	Scheduled learning: 15 hours		**Guided independent study:** 85 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr S D Pehrson			
Module coordinator Email:	sdp21@st-andrews.ac.uk			

Module teaching staff:	Dr Samuel Pehrson

PS3035 Cognitive and Behavioural Neuroscience

SCOTCAT Credits:	10	SCQF level 9	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Tue. 1-hour practical: one of Tue 2-3, 3-4, 4-5 (Module runs in weeks 1 - 5 only).			
This module aims to provide an understanding of psychological knowledge in several inter-related domains concerned with the biological bases of behaviour. Emphasis will be laid on basic experimental science from analysis of molecular and synaptic events, single cell studies, brain activity scans, and clinical studies, and the relationship between cognitive, emotional, behavioural, neurological and physiological processes will be examined.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture per week (weeks 1 - 5) and 3 x 1-hour seminar spread over weeks 1 - 5.			
	Scheduled learning: 13 hours		**Guided independent study:** 87 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: 1.5-hour Written Examination = 100%			
Re-assessment pattern:	1.5-hour Written Examination = 100%			
Module coordinator:	Dr I Jentzsch			
Module coordinator Email:	ij7@st-andrews.ac.uk			

PS3036 Evolutionary and Comparative Psychology

SCOTCAT Credits:	10	SCQF level 9	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Tue. 1.5-hour practical: one of Tue 2-3:30, 3:30-5pm. (Module runs in weeks 6 - 11 only).			
This module will address evolutionary and comparative approaches to psychology. The aim is to provide an understanding of major evolutionary forces and how they have shaped animal and human behaviour and psychology. Key principles, concepts and methodologies will be introduced and related to specific topic areas such as the evolution of social behaviour and the evolutionary origins of language and cognition.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture and 1 x 1.5-hour laboratory class or seminar (Weeks 6 - 11).			
	Scheduled learning: 17 hours		**Guided independent study:** 82 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: Take-home format Written Examination = 100%			
Re-assessment pattern:	Take-home format Written Examination = 100%			
Module coordinator:	Dr C L Hobaiter			
Module coordinator Email:	clh42@st-andrews.ac.uk			
Module teaching staff:	Dr C Hobaiter			

PS3037 Perception

SCOTCAT Credits:	10	SCQF level 9	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Tue. Practicals: one of Tue 2-3:30, 3:30-5pm. (Module runs in weeks 7 - 11 only).			
The aim of this module is to develop an understanding of visual perception and its functions. Stress will be laid on the integration of findings from physiology, neuropsychology, anatomy, and experimental psychology. Topic areas covered will include theories of human vision and their application to understanding our ability to perceive distinct visual properties, for example the shape, size, location and identity of objects. Emphasis will be placed on the development of the skill of critical evaluation of evidence and theory.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture and (weeks 7 - 11) and 4 x 1.5-hour laboratory class or seminar spread over Weeks 7 - 11.			
	Scheduled learning: 16 hours		**Guided independent study:** 84 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: 1.5-hour Written Examination = 100%			
Re-assessment pattern:	1.5-hour Written Examination = 100%			
Module coordinator:	Dr J M Ales			
Module coordinator Email:	jma23@st-andrews.ac.uk			
Module teaching staff:	Dr Justin Ales			

PS3038 Cognition

SCOTCAT Credits:	10	SCQF level 9	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available to General Degree students with permission of the Psychology Honours Adviser			
Planned timetable:	Lectures: 9.00 am - 11.00 am Thu. 1-hour seminarl: one of Thu 2-3, 3-4, 4-5. (Module runs in weeks 7 - 11 only).			
The aim of this module is to develop an understanding of human cognitive processes. Topic areas covered include, for example, attention, memory, reasoning, and decision making. Emphasis will be placed on the development of the skill of critical evaluation of evidence and theory. Lectures will be accompanied by seminars in which the link between experimental paradigms, empirical data, and theory will be critically discussed.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 x 2-hour lecture per week (weeks 7 - 11) and 3 x 1-hour seminar spread over weeks 7 - 11.			
	Scheduled learning: 13 hours		**Guided independent study:** 87 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: Written Examination = 100%			
Re-assessment pattern:	Written Examination = 100%			

Module coordinator:	Dr T Otto

PS4040 Psychology Review

SCOTCAT Credits:	10	SCQF level 10	**Semester**	Full Year
Academic year:	2021-2022			
Availability restrictions:	Available only to students in a Psychology Honours Programme.			
Planned timetable:	Not applicable.			
The aim of PS4040 is for students to develop the ability to critically evaluate current thinking in an area of psychology of their own choosing, by producing a review essay. Students will gain experience in pursuing an independent piece of work in close collaboration with a member of staff. Students will: 1) Develop skills in conducting literature searches using the university's library and electronic database facilities. 2) Develop skills in reading, digesting and critically evaluating psychological research articles. 3) Develop skills in writing about psychological concepts, theories, and data, and crafting a coherent, critical argument.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Co-requisite(s):	In the same year as taking this module you should take PS3021 and take PS3022			
Learning and teaching methods of delivery:	**Weekly contact**: Individual supervision by pre-assigned member of staff.			
	Scheduled learning: 3 hours		**Guided independent study:** 97 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Review = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr A M Seed			
Module coordinator Email:	ams18@st-andrews.ac.uk			
Module teaching staff:	Various			

PS4050 Psychology Project (30)

SCOTCAT Credits:	30	SCQF level 10	**Semester**	Full Year
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme			
Planned timetable:	Not applicable.			
The aim of the project is to develop and foster the skills of experimental design, appropriate research management and statistical analysis. A wide choice of topics is possible, but the skills developed in modules PS3021, PS3022 and PS4040 are an essential preparation. The empirical part of the project may be conducted with another student, to allow greater research scope and the choice of more realistic problems, but all analysis and report-writing must be carried out individually. Topics range over all areas of psychology under active investigation in the School, and effort is made to arrange for students to work in one of their preferred areas.				
Pre-requisite(s):	Before taking this module you must pass PS4040 and pass PS3021 and pass PS3022			
Anti-requisite(s)	You cannot take this module if you take PN4299 or take BL4200 or take PS4299 or take PS4796 or take PS4797			
Learning and teaching methods of delivery:	**Weekly contact**: Meetings with supervisor			
	Scheduled learning: 33 hours		**Guided independent study:** 267 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Research Report = 100%			
Re-assessment pattern:	Research Report = 100%			
Module coordinator:	Dr K I Mavor			
Module coordinator Email:	ken.mavor@st-andrews.ac.uk			
Module teaching staff:	Various			

PS4060 Review Essay

SCOTCAT Credits:	15	SCQF level 10	**Semester**	Full Year
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme.			
Planned timetable:	To be arranged.			
In this module students will select a key psychological or neuroscience research finding to review (subject to approval by module controller). Students will engage with understanding the historical antecedents, as well as the theoretical and methodological context related to the area and the specific research finding. Students will also engage with how to develop evidence-based evaluation of the impact of research findings on psychological science/neuroscience and society.				
Pre-requisite(s):	Before taking this module you must pass PS2002. Module prerequisites may be waived for students with entry into Honours Psychology			
Anti-requisite(s)	You cannot take this module if you take BL4200 or take PN4299 or take PS4299			
Learning and teaching methods of delivery:	**Weekly contact**: 6 x 1-hour workshops in Semester 1 and 2			
	Scheduled learning: 6 hours		**Guided independent study:** 144 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr E M Bowman			
Module coordinator Email:	emb@st-andrews.ac.uk			
Module teaching staff:	TBC			

PS4065 Vision in a complex world

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme			
Planned timetable:	To be arranged			

The aim of the module is to develop an advanced understanding of the psychological processes involved in visual perception. The module extends basic knowledge of visual processing, from perceptual psychology and visual neuroscience, to how vision is used to interpret our complex world and to interact with it. We will consider the purpose and processes involved in using vision along two broad themes: recognising and interpreting the world via perception, and using vision to control our own actions in the world. The module will cover selected topics that illustrate the extraordinary range of problems our perceptual systems solve in the real world, including topics from: active vision (how do our visual systems allow us to function fast enough to drive a car, play fast-action sports), camouflage and search (how do we find and recognise objects in our cluttered world), material perception (how do we perceive things as dirty, smooth, shiny, patterned).

Pre-requisite(s):	Before taking this module you must pass PS2002 and pass PS3037. Module prerequisites may be waived for students with entry into Honours Psychology	
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.	
	Scheduled learning: 22 hours	**Guided independent study:** 128 hours
Assessment pattern:	**As defined by QAA:** Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%	
	As used by St Andrews: 2-hour Written Examination = 75%, Coursework = 25%	
Re-assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%, Re-assessment applies to failed components only	
Module coordinator:	Professor J Harris	
Module coordinator Email:	jh81@st-andrews.ac.uk	
Module teaching staff:	Prof J Harris	

PS4069 Collective Behaviour

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme.			
Planned timetable:	To be arranged.			
This module aims to develop an advanced understanding of selected topics relating to the psychology of groups and collective behaviour. It will address how behaviour is affected by the group context and examine the psychological mechanisms which shape how people act as group members. Teaching will be seminar based and students will be expected to read independently and contribute actively to sessions. Emphasis will be placed on the development of critical skills and the ability to relate individual studies and theories to broader conceptual debates in social psychology. More detailed module content will be announced in advance of student choices.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminar and office hour			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 75%, Coursework = 25%			
Re-assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%, Re-assessment applies to failed components only			
Module coordinator:	Professor S D Reicher			
Module teaching staff:	Prof S Reicher			

PS4071 Behavioural Neuroscience

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	UG - Available only to students in the second year of the Honours Programme.			
Planned timetable:	11.00 am - 1.00 pm Thu			
The overall aim of this module is to allow students access to current research in the area of behavioural neuroscience. Possible topics include motivation, learning and attention. Past themes explored in the module include: the relationship between 'normal' learning and addiction; the transition from goal-directed action to stimulus-response habit; the neural basis of compulsive gambling; the efficacy of biological treatments of addiction; and the behavioural and neural effects of MDMA ('ecstasy'). Results from both human and animal research will be considered in parallel, with examples of papers ranging from molecular neuroscience to neuropsychology. Weekly workshops will include lectures (which are designed to provide the students with the background necessary to read research articles), guided seminars, tutorials and student presentations summarising research articles.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.			
	Scheduled learning: 23 hours		**Guided independent study:** 127 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 75%, Coursework = 25%			
Re-assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%, Re-assessment applies to failed components only			
Module coordinator:	Dr E M Bowman			

Module coordinator Email:	emb@st-andrews.ac.uk

PS4074 Cognitive Psychology and the Emotional Disorders

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme.			
Planned timetable:	9.00 am - 11.00 am Mon			
This module is designed to demonstrate how theories from cognitive psychology can enhance our understanding of the emotional disorders. Teaching will consist of lectures, practical exercises, discussions of news articles relevant to the course and student led presentations. The course will focus on topics such as autobiographical memory and depression, autobiographical memory and anxiety, attentional bias in depression and anxiety, and interpretative biases in depression and anxiety. At the end of the course students should understand how the emotional disorders can be differentiated on the basis of these biases.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.			
	Scheduled learning: 23 hours		**Guided independent study:** 127 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 75%, Coursework = 25%			
Re-assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%, Re-assessment applies to failed components only			
Module coordinator:	Dr B Dritschel			
Module coordinator Email:	bd9@st-andrews.ac.uk			

PS4083 Psychology of Music

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme.			
Planned timetable:	11-1 Monday Sem 1			
The aim of the module is to introduce students to psychological processes underlying music perception, cognition, and performance. The relationship between musical phenomena and mental functions will be illustrated. The module will cover different aspects of music perception including psychoacoustics and sound perception, music cognition including music memory emotion and expectancies, skilled performance as well as abnormalities in music perception and performance. The module will be taught in the form of seminars including student presentations. Emphasis will be placed on the development of critical thinking and the ability to relate conceptual debates in psychology to issues in the real world.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 75%, Coursework = 25%			
Re-assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%, Re-assessment applies to failed components only			
Module coordinator:	Dr I Jentzsch			
Module coordinator Email:	ij7@st-andrews.ac.uk			

PS4084 Psychology of Visual Art

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme.			
Planned timetable:	11.00 am - 1.00 pm Wed			
This module examines the psychology of artistic activity and aesthetic appreciation, both from the standpoint of the artistic object (e.g., painting), as well as the individual who creates or appreciates art. What psychological processes are involved in experiencing art? Why are some things more aesthetically pleasing than others? Why do some people have a greater capacity to create aesthetic things? What defines something as art from a psychological standpoint? The module will explore the links between aesthetic creation and appreciation on the one hand and perceptual and cognitive processes on the other. These links will be examined from theoretical, behavioural, and neurological viewpoints. We also consider the neurological factors that might heighten individual differences in the capacity to create and appreciate aesthetic objects, including mental disorders (e.g., frontotemporal dementia, autism) and atypical cognitive development (e.g., dyslexia). This will be a critical seminar style module with readings and discussions.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.			
	Scheduled learning: 22 hours		**Guided independent study:** 128 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr D Vishwanath			
Module coordinator Email:	dv10@st-andrews.ac.uk			

PS4085 Evolution and Development of Social and Technical Intelligence

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available only to undergraduate students in the second year of the Honours Programme. Also available to postgraduate students on MSc Evolutionary and Comparative Psychology: the Origins of Mind			
Planned timetable:	11.00 am - 1.00 pm Fri			
The last few decades have witnessed a surge of research on social and technical intelligence, both in humans and in an increasingly wide range of non-human animal species. This module surveys the principal discoveries, integrating research on humans and field and captive studies of animals, using both observational and experimental methods, to trace the evolution and development of social learning and culture.				
Pre-requisite(s):	Before taking this module you must pass PS2001 and pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Professor M J Carpenter			
Module coordinator Email:	mc213@st-andrews.ac.uk			
Module teaching staff:	Prof M Carpenter			

PS4086 Theory of Mind in development, evolution and autism

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to undergraduate students in the second year of the Honours Programme. Also available to postgraduate students on MSc in Evolutionary and Comparative Psychology: the Origins of Mind			
Planned timetable:	9.00 am - 11.00 am Fri			
This module addresses the nature and origins of the social-cognitive ability known as 'mentalising' or 'theory of mind', whose function is to compute and understand the mental states of others (and oneself) in social interaction. This ability is at the heart of complex human cognition, including communication, cooperation and competition, and one of the most complex adaptive achievements in evolution. We will discuss cutting edge interdisciplinary research on the nature of theory of mind analysing its emergence in primate evolution and infant development, and how it applies to autism.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.			
	Scheduled learning: 22 hours		**Guided independent study:** 128 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 2-hour Written Examination = 75%, Coursework = 25%			
Re-assessment pattern:	2-hour Written Examination = 75%, Coursework = 25%, Re-assessment applies to failed components only			
Module coordinator:	Dr J Gomez			
Module coordinator Email:	jg5@st-andrews.ac.uk			
Module teaching staff:	Dr J-C Gomez			

PS4089 Neural Basis of Episodic Memory

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme			
Planned timetable:	11.00 am - 1.00 pm Friday			
This module will examine how the brain enables us to remember information from our personal experience. It will present students with cutting edge research using both humans and animals that gives us an insight into how the psychological components of episodic memory can be represented and processed by the brain. We will go on to look at how this type of research is applied in fields such as future thinking and memory decline in dementia. The course will include lectures and student presentations based around current research articles in the field.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour seminars plus office hour.			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J A Ainge			

Module coordinator Email:	jaa7@st-andrews.ac.uk

PS4093 The Psychology of Dementia

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours programme			
Planned timetable:	9.00 am - 11.00 am Fri			
This module will examine the psychology of dementia focusing on the cognitive and psychosocial impact on individuals with a diagnosis and those who care for them. Students will examine patterns of both lost and retained cognitive skills in people with dementia. We will then focus on how retained skills can be maximised and how the caregiving experience can be improved for both people living with dementia and their caregivers. The module will include lectures and student presentations based around current research articles in the field.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 1 lecture, 1 seminar plus office hour.			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 60%, 90-minute Written Examination = 40%			
Re-assessment pattern:	Coursework = 60%, Examination = 40%			
Module coordinator:	Dr M P Ellis			
Module coordinator Email:	mpe2@st-andrews.ac.uk			
Module teaching staff:	Dr M Ellis			

PS4094 Communicating Psychology and Neuroscience

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours programme			
Planned timetable:	11.00 am - 1.00 pm Mon			
This module provides final year students within the School of Psychology and Neuroscience with first-hand experience of science communication through a series of expert led master-classes (e.g. Bright Club, BBC, print journalists, science bloggers), presentations and interaction with new media (e.g. podcasts, blogs, Twitter, FaceBook). This module will enable students to gain substantial experience of working to tight deadlines, evaluating how the media translates psychological/neuroscience findings and of communicating complex ideas at various different levels, including presenting work to the press, the public and school children. Topics covered may include: why scientists must communicate with the public; how psychology/neuroscience hits the headlines; evaluating media coverage; using new media to get the message across and designing a science exhibit. While of particular value to students aiming for a career in public engagement, these core skills are equally important for any career that requires good communication, including post-graduate study. In addition students will be required to monitor relevant periodicals and evaluate several new studies in psychology/neuroscience and so should expose students to the latest trends within the field.				
Pre-requisite(s):	Before taking this module you must pass PS3021 or pass PN3313			
Anti-requisite(s)	You cannot take this module if you take ID4001 or take ID4002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour lecture, plus office hour and occasional fieldwork.			
	Scheduled learning: 26 hours		**Guided independent study:** 124 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: 100% Coursework			
Re-assessment pattern:	100% Coursework. Reassessment applies to failed components only			
Module coordinator:	Professor K A Spencer			
Module coordinator Email:	kas21@st-andrews.ac.uk			
Module teaching staff:	Prof. Karen Spencer			

PS4096 Mechanisms of Behaviour: integrating psychological and neuroscience perspectives

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours programme			
Planned timetable:	To be assigned			
The aim of this module is to explore some of the many physiological and neural systems that modulate patterns of behaviour in a range of species, including humans. It will highlight the importance of integrating information from psychology and neuroscience disciplines in order to further our understanding of how and why animals and humans behave the way they do in different situations. The module will deal with examples of mechanisms across different levels of complexity (from genes to physiology). The module will include lectures and student presentations/journal club discussions based around current research articles in the field and a practical sessions with hands on experience of a physiological technique.				
Pre-requisite(s):	Before taking this module you must pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour lecture (x 9 weeks) plus office hour and practical sessions held across the semester.			
	Scheduled learning: 24 hours		**Guided independent study:** 126 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 15%, Coursework = 85%			
	As used by St Andrews: Coursework (including presentation) = 100%			
Re-assessment pattern:	Coursework = 100%. Re-assessment applies to failed components only			
Module coordinator:	Professor K A Spencer			
Module teaching staff:	Prof. Karen Spencer			

PS4104 Aggressive Behaviour

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme			
Planned timetable:	To be arranged			
In this course, students will critically evaluate attempts by psychologists to understand aggressive behaviour in humans. This course will develop students' skills in reading and critiquing papers, presenting complex information in a range of formats, and identifying and refuting misleading claims using scientific evidence. Students will consider issues such as: defining aggression; measurement of aggression; the utility of theoretical approaches to explaining aggression; the utility of different approaches to treatment for aggressive individuals.				
Pre-requisite(s):	PS2001 AND PS2002 OR Permission of the Psychology and Neuroscience Director of Teaching.			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hour weekly class plus office hour			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 70%, Practical Examinations = 0%, Coursework = 30%			
	As used by St Andrews: Take Home Written Examination = 70%, Coursework = 30%			
Re-assessment pattern:	Take Home Written Examination = 70%, Coursework = 30%. Reassessment applies to failed components only			
Module coordinator:	Dr C P Cross			
Module coordinator Email:	cpc2@st-andrews.ac.uk			
Module teaching staff:	Dr Catharine Cross			

PS4105 Clinical Neuropsychology

SCOTCAT Credits:	15	SCQF level 10	**Semester**	2
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme.			
Planned timetable:	Lecture - Monday 9-11am			
The module gives a theoretical foundation for future clinical and experimental work in an exciting, border crossing field between Psychology, Psychiatry and Neurology. It introduces students to theoretical concepts of neuropsychology, basics of neuroanatomy, important clinical syndromes, methods of neuropsychological assessment, and concepts of neuropsychological rehabilitation. Students will also read and discuss clinical cases. At the end of the course, students should have gained an understanding of basic assumptions of clinical and experimental neuropsychology, and have knowledge of the most common disorders of higher mental functions. This includes disorders of perception, attention, executive functions, and memory. In addition, students should have developed a basic understanding of neuropsychological testing and rehabilitation.				
Pre-requisite(s):	Before taking this module you must pass PS2001 and pass PS2002			
Learning and teaching methods of delivery:	**Weekly contact**: 2-hourly class plus office hour			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 100%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: 2-hour Written Examination = 100%			
Re-assessment pattern:	2-hour Written Examination = 100%			
Module coordinator:	Dr R H Sprengelmeyer			
Module coordinator Email:	rhs3@st-andrews.ac.uk			
Module teaching staff:	Dr Reiner Sprengelmeyer			

PS4106 Data Science for Psychology & Neuroscience

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours Programme, Research Methods in Psychology or Master of Research Neuroscience programmes.			
Planned timetable:	To be arranged			
Data science has become a critical part of scientific and industry working. This module will introduce students to modern data science methods such as machine learning and data mining. Emphasis will be given to the practical utilisation of these methods in the context of psychology and neuroscience.				
Pre-requisite(s):	Before taking this module you must take PS3021 and take PS3022 or take PN3322			
Learning and teaching methods of delivery:	**Weekly contact**: 1 lecture, 1 practical (x10 weeks)			
	Scheduled learning: 20 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%			
	As used by St Andrews: Coursework = 100%			
Re-assessment pattern:	Coursework = 100%			
Module coordinator:	Dr J M Ales			
Module coordinator Email:	jma23@st-andrews.ac.uk			
Module teaching staff:	DrJustin Ales			

PS4107 Evolution of Human Behaviour and Culture

SCOTCAT Credits:	15	SCQF level 10	**Semester**	1
Academic year:	2021-2022			
Availability restrictions:	Available only to undergraduate students in their second year of Honours. Also available to postgraduate students on MSc in Evolutionary and Comparative Psychology: the Origins of Mind.			
Planned timetable:				
The aim of this module is to explore how evolutionary theory is being used to study human behaviour. This research field has a long and controversial history, stretching back to the work of Charles Darwin. After this history has been briefly described, the module will focus on four modern, evolutionary approaches to human behaviour, namely Human Behavioural Ecology, Evolutionary Psychology, Cultural Evolution and Gene-Culture Co-Evolution. These sub-fields differ in their underlying assumptions about how the human mind has evolved. Each field will be critically evaluated, and the potential for integrating these sub-fields will be assessed. The types of questions that will be covered include 'does the mind consist of domain-specific modules', 'do mate preferences differ between the sexes', and 'has human culture altered the direction of human evolution'? The module will consist of lectures, small group discussions, and student presentations.				
Anti-requisite(s)	You cannot take this module if you take BL4280			
Learning and teaching methods of delivery:	**Weekly contact**: 2 hours x 10 weeks			
	Scheduled learning: 150 hours		**Guided independent study:** 130 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 75%, Practical Examinations = 0%, Coursework = 25%			
	As used by St Andrews: 75% exam and 25% coursework.			
Re-assessment pattern:	75% exam and 25% coursework. Reassessment applies to failed components only.			
Module coordinator:	Professor G R Brown			
Module teaching staff:	Dr Gillian Brown, Dr Kelly Robinson and Professor Kevin Laland.			

PS4299 Psychology Project (60)

SCOTCAT Credits:	60	SCQF level 10	**Semester**	Full Year
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the second year of the Honours programme			
Planned timetable:	To be arranged with the supervisor.			

This project will involve extensive laboratory or field research to investigate a defined problem broadly within psychology. The project will involve diligence, initiative and independence in pursuing the literature, good experimental design, good experimental and/or analytical technique either in the field or the laboratory, and excellent record keeping. The project will culminate in the production of a high-quality report that demonstrates a deep understanding of the chosen area of research. Students will be allocated to a member of staff within the School of Psychology and Neuroscience who will guide and advise them in research activities throughout the academic year.

Pre-requisite(s):	Before taking this module you must pass PS3021 and pass PS3022 and pass PS4040	
Anti-requisite(s)	You cannot take this module if you take PS4050 or take PS4060 or take PN4299 or take BL4200 or take PS4796 or take PS4797	
Learning and teaching methods of delivery:	**Weekly contact**: Meetings with supervisor	
	Scheduled learning: 33 hours	**Guided independent study:** 567 hours
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 100%	
	As used by St Andrews: Coursework = 100%	
Re-assessment pattern:	Coursework = 100%	
Module coordinator:	Dr K I Mavor	
Module coordinator Email:	ken.mavor@st-andrews.ac.uk	
Module teaching staff:	various	

PS4796 Joint Project (30cr)

SCOTCAT Credits:	30	SCQF level 10	**Semester**	Both
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the Second year of the Honours Programme, who have completed the Letter of Agreement, downloadable from https://www.st-andrews.ac.uk/coursecatalogue). No student may do more than 60 credits in Dissertation or Project modules.			
Planned timetable:	To be arranged.			
The aim of the project is to develop and foster the skills of experimental design, appropriate research management and analysis. The topic and area of research should be chosen in consultation with the supervisors in order to determine that the student has access to sources as well as a clear plan of preparation.				
Pre-requisite(s):	The student requires a Letter of Agreement			
Anti-requisite(s)	Cannot take more than 30 credits in other dissertation/project modules			
Learning and teaching methods of delivery:	**Weekly contact**: As per Letter of Agreement.			
	Scheduled learning: 0 hours		**Guided independent study:** 0 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: As per Letter of Agreement.			
Re-assessment pattern:	As per Letter of Agreement.			

PS4797 Joint Project (60cr)

SCOTCAT Credits:	60	SCQF level 10	**Semester**	Full Year
Academic year:	2021-2022			
Availability restrictions:	Available only to students in the Second year of the Honours Programme, who have completed the Letter of Agreement, downloadable from https://www.st-andrews.ac.uk/coursecatalogue). No student may do more than 60 credits in Dissertation or Project modules.			
Planned timetable:	To be arranged.			
The aim of the project is to develop and foster the skills of experimental design, appropriate research management and analysis. The topic and area of research should be chosen in consultation with the supervisors in order to determine that the student has access to sources as well as a clear plan of preparation.				
Pre-requisite(s):	The student requires a Letter of Agreement			
Anti-requisite(s)	Cannot take any other dissertation/project module			
Learning and teaching methods of delivery:	**Weekly contact**: As per Letter of Agreement.			
	Scheduled learning: 0 hours		**Guided independent study:** 0 hours	
Assessment pattern:	**As defined by QAA:** Written Examinations = 0%, Practical Examinations = 0%, Coursework = 0%			
	As used by St Andrews: As per Letter of Agreement.			
Re-assessment pattern:	As per Letter of Agreement.			