

BSc Psychology & Biology

UCAS code: CC18

Awarding Institution: The University of Reading
Teaching Institution: The University of Reading
Relevant QAA subject benchmarking group(s): Psychology and Biosciences
Faculty of Life Sciences Programme length: 3 years
For students entering Part 3 in 2009 Date of profile: Apr 2009
Programme Director: Dr E Gaffan
Programme Adviser: Dr D Savva
Board of Studies: Psychology
Accreditation: British Psychological Society Graduate Basis of Registration; Institute of Biology Basis for Graduate Membership

Summary of programme aims

The aim of studies in Psychology will be to introduce students to the wide range of approaches that constitute modern Psychology as a social and biological science. They are made aware of current research – its methods, applications and unresolved issues. Within the Biology component, the aim is to provide a sound knowledge base in biology as a whole to underpin the more specialised aspects. The course allows considerable flexibility for the student to emphasise either behaviour, ecology and conservation, or the physiological, cell-biological and genetic bases of behaviour, or a mixture of those aspects if required. In both components, students have the opportunity to apply their knowledge to chosen areas of interest, increasing their degree of choice and independence as they move through the programme, with staff research expertise providing stimulation, guidance and high-quality laboratory facilities. Students will also be enabled to develop an ability to analyse, synthesise and evaluate scientific information.

Transferable skills

During the course of their studies at Reading, all students will be expected to enhance their academic and personal transferable skills in line with the University's Strategy for Learning and Teaching. In following this programme, students will have had the opportunity to develop such skills, in particular relating to written and oral communication, interpersonal skills, learning skills, numeracy, self-management, use of IT, problem-solving, project management and reporting, and encouraged to further develop and enhance the full set of skills through a variety of opportunities available outside their curriculum.

Programme content

The profile which follows states which modules must be taken (the compulsory part), together with one or more lists of modules from which the student must make a selection (the 'selected' modules). Students must choose such additional modules as they wish, in consultation with their programme adviser, to make 120 credits in each Part.

Part 1 (three terms)

Compulsory modules:

| | | <i>Credits</i> | <i>Level</i> |
|--------|-------------------------------------|----------------|--------------|
| PY1PR1 | <i>Psychological Research 1</i> | 10 | C |
| PY1PL | <i>Perception & Learning</i> | 10 | C |
| PY1IN | <i>Introduction to Neuroscience</i> | 10 | C |

| | | | |
|---------------|--|----|---|
| PY1PR2 | <i>Psychological Research 2</i> | 10 | C |
| PY1CA | <i>Cognition & Applied Psychology</i> | 10 | C |
| PY1DS | <i>Developmental & Social Psychology</i> | 10 | C |
| BI1BA1 | <i>The Living Cell</i> | 10 | C |
| BI1BC2 | <i>Genes and Chromosomes</i> | 10 | C |
| Either BI1EC1 | <i>Exploiters and Exploited</i> | 10 | C |
| Or BI1EC12 | <i>Exploiters and Exploited</i> | 20 | C |

Optional modules:

Other modules to make a total of 120 credits will be chosen in consultation with the Programme Director. These may include

| | | | |
|---------|---|----|---|
| PY1SK | <i>Skills for Psychology</i> | 20 | C |
| BI1ED2 | <i>Mammals, diversity, behaviour and conservation</i> | 10 | C |
| AP1A18 | <i>Digestion and nutrition</i> | 10 | C |
| BI1BB2 | <i>Biochemistry and metabolism</i> | 10 | C |
| BI1EF2 | <i>Ecology: species and their interactions</i> | 10 | C |
| BI1BG3 | <i>Practical biochemistry</i> | 10 | C |
| CH1FC1 | <i>Fundamental Chemistry A</i> | 10 | C |
| PM1PB2 | <i>Human Physiology</i> | 20 | C |
| PM1PB2A | <i>Physiology</i> | 10 | C |

Part 2 (three terms)

Compulsory modules:

| | | | |
|--------|--|----|---|
| PY2RMJ | <i>Research Methods 2 for Joint Honours</i> | 10 | I |
| PY2D1 | <i>Developmental & Social Psychology 1</i> | 10 | I |
| BI2BM5 | <i>Science Communication</i> | 10 | I |

At least one of:

| | | | |
|-------|-----------------------|----|---|
| PY2N1 | <i>Neuroscience 1</i> | 10 | I |
| PY2N2 | <i>Neuroscience 2</i> | 10 | I |

At least one of:

| | | | |
|-------|--------------------|----|---|
| PY2C1 | <i>Cognition 1</i> | 10 | I |
| PY2C3 | <i>Cognition 3</i> | 10 | I |

Optional modules

Modules chosen from the following, if necessary, to make an overall total of 60 credits in Psychology:

| | | | |
|-------|--|----|---|
| PY2C2 | <i>Cognition 2</i> | 10 | I |
| PY2AP | <i>Applied Psychology</i> | 10 | I |
| PY2D2 | <i>Developmental & Social Psychology 2</i> | 10 | I |
| PY2CL | <i>Clinical Psychology</i> | 10 | I |

British Psychological Society Graduate Basis of Registration. Students must gain Lower Second Class Honours or higher to qualify for BPS GBR.

Psychology Part 2 modules PY2RM1 + PY2RMJ + PY2D1 + *either* PY2N1 *or* PY2N2 + *either* PY2C1 *or* PY2C3 are the minimum required for BPS accreditation. *See also Part 3 Project.*

Other modules will be chosen in consultation with the Programme Director to bring the Part 2

programme to a total of 120 credits. These will normally be chosen from the modules listed below, but up to 20 further credits can be taken in Psychology.

| | | | |
|--------|---|----|---|
| BI2BK5 | <i>Molecular biology of gene expression</i> | 10 | I |
| BI2BB4 | <i>Endocrinology</i> | 10 | I |
| BI2BE4 | <i>Pharmacology and toxicology</i> | 10 | I |
| BI2BD4 | <i>Life and death of the cell</i> | 10 | I |
| BI2BN5 | <i>Vertebrate zoology</i> | 10 | I |
| BI2EE4 | <i>Evolutionary Biology</i> | 10 | I |
| BI2EN5 | <i>Animal behaviour</i> | 10 | I |
| BI2BD4 | <i>Life and death of the cell</i> | 10 | I |
| BI2BL5 | <i>Protein structure and function</i> | 10 | I |
| BI2EI4 | <i>Invertebrate zoology</i> | 10 | I |
| BI2BI5 | <i>Immunology</i> | 10 | I |
| BI2BP6 | <i>Practical Skills: Recombinant DNA exercise</i> | 10 | I |

Part 3 (three terms)

Compulsory modules:

| | | | |
|--------------------|--|----|---|
| PY3P** or BI3PRO** | <i>Project</i> | 40 | H |
| PY3C | <i>Contemporary Issues in Psychology</i> | 10 | H |

****British Psychological Society Graduate Basis of Registration.** To qualify for BPS accreditation, the Project must be passed with at least 40%, and the topic chosen must be suitable to be examined by a Psychology Examiner.

Optional modules:

3 modules to the value of 30 credits chosen from a list of Psychology options such as the following:

| | | | |
|--------|--|----|---|
| PY3ACP | <i>Cognitive Perspectives of Adult Clinical Psychology</i> | 10 | H |
| PY3AP | <i>Auditory Perception</i> | 10 | H |
| PY3ASD | <i>Autism Spectrum Disorders</i> | 10 | H |
| PY3AV | <i>Active Vision</i> | 10 | H |
| PY3CA | <i>Cognitive Neuropsychology of Ageing</i> | 10 | H |
| PY3CLM | <i>Clinical Aspects of Learning and Memory</i> | 10 | H |
| PY3CBD | <i>Cognitive Behavioural Approaches to Psychological Disorders</i> | 10 | H |
| PY3DN | <i>Developmental Neuroscience</i> | 10 | H |
| PY3ELD | <i>Early Lexical Development</i> | 10 | H |
| PY3FP1 | <i>Forensic Psychology 1: Managing Offending Behaviour</i> | 10 | H |
| PY3FP2 | <i>Forensic Psychology 2: Clinical Applications of Forensic Psychology</i> | 10 | H |
| PY3GD | <i>Genes and Development</i> | 10 | H |
| PY3HP | <i>Health Psychology</i> | 10 | H |
| PY3IC | <i>Implicit Cognition</i> | 10 | H |
| PY3IR | <i>Issues in Rationality</i> | 10 | H |
| PY3LPA | <i>Lexical Processing & Aphasia</i> | 10 | H |
| PY3NFD | <i>Neuropsychology of Frontostriatal Disorders</i> | 10 | H |
| PY3OS | <i>Occupational Stress</i> | 10 | H |
| PY3PCD | <i>Psychopharmacology of Clinical Disorders</i> | 10 | H |
| PY3RA | <i>Risk & Accidents</i> | 10 | H |
| PY3SC | <i>Social Cognition</i> | 10 | H |

| | | | |
|--------|--|----|---|
| PY3WMC | <i>Working Memory & Cognition</i> | 10 | H |
| PY3TDV | <i>3D Vision</i> | 10 | H |
| PY3CTT | <i>Cognitive & Behavioural Theory to Therapy</i> | 10 | H |
| PY3SAN | <i>Social & Affective Neuroscience</i> | 10 | H |
| PY31GR | <i>Improving Intergroup Relations</i> | 10 | H |

2 modules to the value of 40 credits chosen from a list of options such as the following:

| | | | |
|---------|--|----|---|
| BI3BE7 | <i>Cardiovascular disease</i> | 10 | H |
| BI3BD8 | <i>Cancer</i> | 10 | H |
| BI3BA7 | <i>Medical genetics</i> | 10 | H |
| BI3EJ7 | <i>Conservation biology</i> | 10 | H |
| BI3EG7 | <i>Evolutionary genetics and phylogeny</i> | 10 | H |
| BI3BH8 | <i>Mammalian reproduction</i> | 10 | H |
| BI3EK8 | <i>Behavioural ecology and life history theory</i> | 10 | H |
| BI3EI8 | <i>Research topics in ecology</i> | 10 | H |
| BI3ED6P | <i>Marine biology field course</i> | 10 | H |

Progression requirements

Part 1. To gain a threshold performance at Part 1 a student shall normally be required to achieve an overall average of 40% over 120 credits taken in Part 1, and a mark of at least 30% in individual modules amounting to not less than 100 credits. **In order to progress from Part 1 to Part 2 in Psychology and Biology**, a student shall normally be required to achieve a threshold performance at Part 1 and to have obtained at least 40% in the Psychology modules PY1PR1, PY1PL, PY1IN, PY1PR2, PY1CA and PY1DS averaged together, with at least 30% in 5 or more of those 6 modules; and to have obtained at least 40% in the compulsory SBS modules averaged together.

Part 2. To gain a threshold performance at Part 2 a student shall normally be required to achieve: an overall average of 40% over 120 credits taken in Part 2, and a mark of at least 30% in individual modules amounting to not less than 100 credits.

In order to progress from Part 2 to Part 3, a student should normally be required to achieve a threshold performance at Part 2.

To be eligible for Honours students must pass the Project module.

Summary of teaching and assessment

Teaching is organised in modules that are principally taught by lectures, but may also involve practicals or seminars. Modules are assessed by a mixture of coursework and formal examination; only the Part 3 Project is assessed 100% by coursework. At Part 1 the coursework principally constitutes essays and practical reports; at Part 2, essays and short project reports; at Part 3, essays, some presentations (e.g. oral presentations, poster) and the Project report. The proportion of credit for coursework relative to examinations increases from Part 1 to Part 3 as students become more independent. The assessment is carried out within the University's degree classification scheme, details of which are in the programme handbooks. Part 2 contributes one third of the overall assessment and Part 3 the remaining two thirds.

Admission requirements

Entrants to this programme are normally required to have obtained Grade B or better in Mathematics, English and the Sciences at GCSE; and to have achieved: A Levels at AAB including at least 2 sciences (Biology and Chemistry preferred). Higher points may be required if only Biology or Chemistry is offered. Other qualifications: Irish Leaving Certificate AAABB (including Biology), International Baccalaureate Highers 7,7,6 / 7,6,6 and 5 in Ordinary Mathematics. Mature students and those with other qualifications are encouraged to apply.

Admissions Officer: Mrs Teresa Young (Psychology)

Support for students and their learning

University support for students and their learning falls into two categories. Learning support includes IT Services, which has several hundred computers and the University Library, which across its three sites holds over a million volumes, subscribes to around 4,000 current periodicals, has a range of electronic sources of information and houses the Student Access to Independent Learning (S@IL) computer-based teaching and learning facilities. There are language laboratory facilities both for those students studying on a language degree and for those taking modules offered by the Institution-wide Language Programme. Student guidance and welfare support is provided by Personal Tutors, the Careers Advisory Service, the University's Disability Officer, Study Advisors, Hall Wardens and the Students' Union. Each Part of the programme has a Year Tutor, based in the Psychology Department, whose role is to provide information to students in that year. The Senior Tutor monitors the progress of all students (liaising with the School Administrator) and advises those who fall behind in academic work. Staff with relevant expertise, e.g. in dyslexia, support the School Disability Advisor, and we work closely with the University Study Advisors who are psychologists. The School of Psychology and School of Biological Sciences have extensive laboratory facilities for practical and project work.

Career prospects

The degree offers entry to many careers encompassing most that might normally be open to Psychology or Biology graduates. Because the degree is accredited by the British Psychological Society, graduates are qualified to enter professional training as, for example, clinical or educational psychologists. Psychology graduates generally move into an extremely wide range of careers with some bias towards health and education, but extending to many other professional roles. Biological science graduates enter careers in industry

[pharmaceutical, biomedical] management [e.g. health service] the Civil Service [research institutes] or other public bodies [e.g. conservation]. Psychology and Biology graduates will be particularly well-equipped to specialise in the biological aspects of behaviour. As numerate scientists they also enter a wide variety of other commercial and business occupations. Many go on to postgraduate training.

Opportunities for study abroad

Students may have the opportunity to take part in the Socrates exchange programme in which they can spend the first term of Part 3 studying in another European University. Recent exchanges have taken place with the Universities of Bergen, Cork, Crete, Montpellier, Rostock, Thessaloniki, Tours, Trondheim and Uppsala.

Educational aims of the programme

The aim of studies in Psychology will be to introduce students to the wide range of approaches that constitute modern Psychology as a social and biological science. They are made aware of current research – its methods, applications and unresolved issues. Within the Biology component, the aim is to provide a sound knowledge base in biology as a whole to underpin the more specialised aspects. The course allows considerable flexibility for the student to emphasise either behaviour, ecology and conservation, or the physiological, cell-biological and genetic bases of behaviour, or a mixture of those aspects if required. In both components, students have the opportunity to apply their knowledge to chosen areas of interest, increasing their degree of choice and independence as they move through the programme, with staff research expertise providing stimulation, guidance and high-quality laboratory facilities. Students will also be enabled to develop an ability to analyse, synthesise and evaluate scientific information.

Programme Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:

Knowledge and Understanding

A. Knowledge and understanding of:

1. the fundamental principles and concepts of the biological systems from the molecular to the ecological levels of organisation
2. concepts, theories and evidence in at least five of six core psychology domains: research methods, individual differences, biological, cognitive, developmental and social psychology
3. a broad variety of methods and approaches used in biological and psychological research, including statistics as applied to biological and behavioural data
4. practical applications of theory and research
5. a selection of optional specialist topics, studied in depth using up-to-date research evidence
6. ethical issues in research and appropriate conduct by researchers

Teaching/learning methods and strategies

1-4 are covered in lectures and seminars. 3 is further supported by practical classes and exercises, miniprojects, computer-simulated practicals, directed student-centred learning and Part 3 projects. Part 3 options cover 5 and extend 1-4 to a more advanced level. Students learn about 6 from participating in research studies in which the principles are made explicit, from lectures, and (where relevant) while planning the Part 3 project.

Assessment

1-5 are assessed by unseen or open-book examinations, coursework essays, reports on empirical work, oral and poster presentations and other exercises. The Part 3 project assesses 3 and 4 through the rationale for the choice of methods, and (where relevant) 6 in the plan and final report.

Skills and other attributes

B. Intellectual skills – able to:

1. use evidence-based reasoning to argue or evaluate a claim
2. apply multiple perspectives and levels of explanation to understand biological processes and behaviour
3. critically evaluate the design and conduct of biological and psychological research
4. write well-structured and well-argued essays
5. integrate material from different fields of psychology, biology and cognate areas
6. integrate theory and practice
7. formulate and test hypotheses

Teaching/learning methods and strategies

1-3 are explicated in lectures and option seminars. Part 3 option seminars focus strongly on 1 and 3. The Contemporary Issues module is not formally taught but gives scope for all of 1-5, especially 5. Essays, increasing in length through the programme, provide practice in 1-5 with formative feedback. The *Concepts & Skills* module and miniprojects at Part 2, and the Part 3 project, develop 6 and 7.

Assessment

1-4 are assessed in examinations and coursework. 5 is encouraged and evaluated throughout, and is emphasised in the Contemporary Issues module (assessed by a pre-seen and planned examination paper). 6 and 7 are assessed at several stages and particularly in the Part 3 project.

C. Practical skills – able to:

1. use suitable sources to search for information about specific topics
2. choose and apply appropriate data-analytic techniques
3. plan and carry out empirical studies with guidance or supervision
4. interpret experimental observations and write reports on empirical studies
5. critically evaluate the applications and limitations of research methods and bioanalytical techniques

Teaching/learning methods and strategies

Dedicated modules using lectures, practical classes and exercises cover 1, 2 and the principles underlying 3, with an emphasis in biological modules on acquisition of basic skills and safe working practices through prescribed exercises. Further learning of 3 - 5 takes place through practical classes, Part 2 miniprojects and the Part 3 project.

Assessment

2-4 are assessed in reports on practical classes, laboratory day-book inspections and oral/poster presentations. Miniproject reports, the Part 3 project plan and report assess all 5 skills. 1 is also assessed in extended essays, and in the *Concepts & Skills* and *Contemporary Issues* modules.

D. Transferable skills – able to:

1. communicate information concisely or at length in writing
2. give oral presentations
3. work with a group
4. plan and implement a project
5. solve practical problems
6. use IT to write, to present information visually, to manage and analyse numeric data, to communicate and to find information
7. manage time
8. start planning a career

Teaching/learning methods and strategies

The Part 2 module *Concepts & Skills* gives training and practical experience in 1-5 and also 8. Transferable skills are also integrated in Psychology subject teaching. 1 is learned, with formative feedback, through essays and other exercises while 2 is included in seminars especially at Part 3. 3 is required in small-group miniprojects; these, and the Part 3 project, entail 4 and 5. Special classes cover 6, and IT resources are applied throughout the programme. Staged deadlines for coursework encourage 7.

Assessment

All the skills are assessed summatively in *Concepts & Skills* at Part 2 with emphasis on 1-4 and 8. In addition, 1 is assessed in written coursework and examinations, 2 within some Part 2 modules and Part 3 seminars. 4 and 5 are necessary for miniprojects and the Part 3 project; 6 and 7 are required for most coursework.

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably expect to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in module and programme handbooks.