

BSc Psychology and Biology
For students entering Part 1 in 2010/1

UCAS code: CC18

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	Psychology and Biosciences
Faculty:	Life Sciences Faculty
Programme length:	3 years
Date of specification:	21/May/2012
Programme Director:	Dr Claire Williams
Programme Advisor:	Dr Demetris Savva
Board of Studies:	Psychology
Accreditation:	British Psychological Society Graduate Basis for Chartered Membership; Society 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 will have been encouraged to further develop and enhance the full set of skills through a variety of opportunities available outside their curriculum.

As part of this programme students are expected to have reached an appropriate level of competence in a number of transferable skills which include: the ability to communicate clearly and effectively both verbally and in writing; an ability to take responsibility for their own learning; modern techniques in information retrieval, data handling, the use of information technology; presentation and analysis of quantitative data; written reports on projects; oral presentation and written summary of research and other material; critical evaluation of research; project management; the ability to work effectively as individuals and in a group. Students will have been encouraged to become aware of career opportunities and of the organisation and activities of science-based business and to have taken steps to plan their career path.

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>Code</i>	<i>Module title</i>	<i>Credits</i>	<i>Level</i>
PY1IN	Introduction to Neuroscience	10	4
BI1BA1	The Living Cell	10	4
BI1BC2	Genes and Chromosomes	10	4
PY1PR	Psychological Research	10	4
PY1PC	Perception	10	4

PY1CG	Cognition and Learning	10	4
PY1DV	Developmental Psychology	10	4

Either:

BI1EC1	Exploiters and Exploited	10	4
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Or:

BI1EC12	Exploiters and Exploited	20	4
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Optional modules:

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

PY1SK	Skills for Psychology	20	4
BI1ED2	Mammals, Diversity, Behaviour and Conservation	10	4
AP1A18	Digestion and Nutrition	10	4
BI1BB2	Biochemistry and Metabolism	10	4
BI1EF2	Ecology: species and their interactions	10	4
BI1BG3	Practical Biochemistry	10	4
CH1FC1	Fundamental Chemistry A	10	4
PM1PB2	Human Physiology	20	4
PM1PB2A	Physiology	10	4

Part 2 (three terms)

Compulsory modules

<i>Code</i>	<i>Module title</i>	<i>Credits</i>	<i>Level</i>
PY2RM1	Research Methods & Data Analysis 1	10	5
PY2RM2	Research Methods & Data Analysis 2	10	5
BI2BM34	Professional Career Development	10	5
PY2DP	Developmental Psychology	10	5
PY2SP	Social Psychology	10	5

At least one of:

PY2N1	Neuroscience 1	10	5
PY2N2	Neuroscience 2	20	5

At least one of:

PY2C1	Cognition 1	10	5
PY2C3	Cognition 3	10	5

British Psychological Society Graduate Basis for Chartered Membership (GBC). Students must gain Lower Second Class Honours or higher to qualify for BPS GBC.

Psychology Part 2 modules PY2RM1 + PY2RM2 + PY2DP + PY2SP + *either* PY2N1 *or* PY2N2 + *either* PY2C1 *or* PY2C3 are the minimum required for BPS accreditation. All of the modules from this list that are taken must be passed with at least 40%. *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	Molecular biology of gene expression	10	5
BI2BB4	Endocrinology	10	5
BI2BE4	Pharmacology and toxicology	10	5
BI2BD4	Life and death of the cell	10	5
BI2BN4	Vertebrate Zoology; structure, form and function	10	5
BI2BS5	Vertebrate Zoology 2	10	5

BI2EE4	Evolutionary Biology	10	5
BI2EN5	Animal Behaviour	10	5
BI2BL5	Protein structure and function	10	5
BI2EI4	Invertebrate zoology	10	5
BI2BI5	Immunology	10	5
BI2BP6	Practical Skills: Recombinant DNA exercise	10	5

Part 3 (three terms)

Compulsory modules

<i>Code</i>	<i>Module title</i>	<i>Credits</i>	<i>Level</i>
PY3C	Contemporary Issues	10	6
<i>And either</i>			
PY3P**	Project	40	6
<i>Or</i>			
BI3PRO**	Project	40	6

****British Psychological Society Graduate Basis for Chartered Membership:**

To qualify for BPS accreditation, the Project must be passed with at least 40%, and the project 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	Cognitive Perspectives of Adult Clinical Psychology	10	6
PY3AOB	Attachment and Offending Behaviour	10	6
PY3ASC	Autism Spectrum Conditions	10	6
PY3AV	Active Vision	10	6
PY3BE	Behavioural Economics	10	6
PY3CA	Cognitive Neuropsychology of Ageing	10	6
PY3CAN	Cognitive and Affective Neuroscience	10	6
PY3CBD	Cognitive Behavioural Approaches to Psychological Disorders	10	6
PY3CCN	Controversies in Cognitive Neuroscience	10	6
PY3CCT	Cognitive and Behavioural Theory to Therapy	10	6
PY3DN	Developmental Neuroscience	10	6
PY3ELD	Early Lexical Development	10	6
PY3FP1	Forensic Psychology 1: Managing Offending Behaviour	10	6
PY3HP	Health Psychology	10	6
PY3IGR	Improving Intergroup Relations	10	6
PY3LPA	Lexical Processing and Aphasia	10	6
PY3LDM	Brain Mechanisms of Learning and Decision Making	10	6
PY3NFD	Neuropsychology of Frontostriatal Disorders	10	6
PY3NUT	Nutritional Psychology	10	6
PY3PCD	Psychopharmacology of Clinical Disorders	10	6
PY3SC	Social Cognition	10	6
PY3VPM	Visual Perception: More than Meets the Eye?	10	6
PY3WMC	Working Memory and Cognition	10	6

Modules to the value of 40 credits be chosen from a list of options such as the following:

BI3EK7	Behavioural Ecology and the Life History Theory	10	6
BI3BE8	Cardiovascular Disease	10	6
BI3BD8	Cancer	10	6
BI3BF7	Cell Communication and Disease	10	6
BI3EJ8	Conservation Biology	10	6
BI3EG7	Evolutionary Genetics and Phylogeny	10	6
BI2BD4	Life and Death of a Cell	10	6
BI3BH8	Mammalian Reproduction	10	6
BI3BA7	Medical Genetics	10	6
BI3EI8	Research Topics in Ecology	10	6

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. In addition, all modules that are taken from the list shown above under British Psychological Society Graduate Basis for Chartered Membership (GBC) must be passed with at least 40%.

To be eligible for Honours students must pass the Project module. Part 2 contributes one third of the overall assessment and Part 3 the remaining two thirds. The assessment is carried-out within the University's degree classification scheme, details of which are in the programme handbooks.

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.

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/ABBB including at least 2 sciences (Biology and Chemistry preferred). Other qualifications: Irish Leaving Certificate AAABB (including Biology), International Baccalaureate Diploma 6,6,6 at Higher level plus at least 5 in Ordinary Mathematics, Access Distinctions and Merits at Level 3.

Admissions Tutor: 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 is provided by a wide array of services across the University, including: the University Library, the Student Employment, Experience and Careers Centre (SEEC), In-sessional English Support Programme, the Study Advice and Mathematics Support Centre teams, IT Services and 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, School Senior Tutors, the Students' Union, the Medical Practice and advisers in the Student Services Centre. The Student Services Centre is housed in the Carrington Building and offers advice on accommodation, careers, disability, finance, and wellbeing. Students can get key information and guidance from the team of Helpdesk Advisers, or make an appointment with a specialist adviser; Student Services also offer drop-in sessions and runs workshops and seminars on a range of topics. For more information see www.reading.ac.uk/student

Each Part of the programme has a Year Tutor, based in the Psychology Department, whose role is to provide information to students. Senior Tutors in both departments monitor students' progress and advise those who fall behind in academic work. Psychology staff with relevant expertise, e.g. in dyslexia, support the Psychology Disability Officer. 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 or for placements

Students may have the opportunity to take part in the Erasmus 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.

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 *Science Communication* 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

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

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 *Science Communication* and *Contemporary Issues* modules.

Teaching/learning methods and strategies

The Part 2 module *Science Communication* 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 *Science Communication* 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 be expected 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 the module description and in the programme handbook. The University reserves the right to modify this specification in unforeseen circumstances, or where the process of academic development and feedback from students, quality assurance process or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.