



**UNIVERSITY OF  
PLYMOUTH**  

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**Faculty of Health**

**School of Biomedical Sciences**

**Programme Specification**

**BSc (Hons) Human Biosciences**

Academic Year 2022/23

Date of approval: December 2011, Re-approved 2015  
Date of implementation: September 2012  
Year of first award: 2014

Internal Programme Code	Award Title	Site	Mode of Study
1391	BSc (Hons) Human Biosciences	Ply	FT
4392	BSc (Hons) Human Biosciences (Integrated)	Ply	FT

Reviewed	Amended following review (Y/N)	Sections amended

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## 1. BSc (Hons) Human Biosciences

**Final award title:** BSc (Hons) Human Biosciences

**Level 4 Intermediate award title:** Certificate of Higher Education

**Level 5 Intermediate award title:** Diploma of Higher Education

**UCAS code:** C190

**JACS code:** C990

## 2. Awarding Institution: University of Plymouth

**Teaching institution:** University of Plymouth

## 3. Accrediting body: N/A

## 4. Distinctive Features of the Programme and the Student Experience

The BSc (Hons) Human Biosciences programme seeks to develop an understanding of how fundamental molecular, cellular, physiological, and psychological processes affect human health and biology, and how advances in these areas of contemporary science impact on society. Human Biosciences is a research-informed course, which aims to provide the scientific basis to health and disease.

Key Features of the programme are as follows:

- A strong foundation in a broad range of bioscience disciplines, underpinned by a biomolecular knowledge base relevant to human biology today.
- Opportunities to include optional elements of psychology at each stage of the programme.
- Enables students to explore themes of personal interest within the biosciences at all stages.
- Staff with expertise in a wide range of biomedical research topics directly inform learning and teaching.
- Strong international reputation in translational research with significant financial investment in laboratory infrastructure.
- Emphasis on practical laboratory skills relevant to research and other scientific careers.
- Benefit from collaboration with a wider health care education community at the University.
- Personal tutoring in modules throughout the programme of study.

- Equips graduates with the knowledge, skills and other attributes suitable for a wide variety of careers.

The significant developments in our basic understanding of the human organism have been enhanced, in particular, by new technologies associated with remarkable achievements especially in the fields of molecular and cellular biology. These in turn have had a substantial impact on our knowledge of the underlying basis of human health and disease. Recent advances (e.g. cloning of stem cells, gene patenting, and genetic modification) provide various social, ethical, and legal challenges. Society requires graduates who understand the scope and limitations of this knowledge and techniques and who are able to effectively communicate with others.

The title of this specialist degree 'Human Biosciences' emphasises the strong cellular and molecular basis of the programme which, with other appropriate modules, will provide students with a wider background to which these aspects can be applied. The structure of this programme initially aims to develop students' abilities in core areas such as molecular and cell biology, genetics, physiology, anatomy, biochemistry, and microbiology. An introduction to psychology is also included at stage 1. The programme offers flexibility allowing students to follow their own interests within the field. During stage 2, the foundations of the above subjects are developed further in core modules, which are combined with optional modules in biochemistry or psychology. This consequently provides a focus for student choice in the final year where students study related themes in health and disease from a variety of research-informed modules that discuss current hot topics in human biosciences. In the final year, all students also undertake a research module enabling them to apply the skills they have developed over the course in an area of major interest to them.

Graduates should be well equipped with the knowledge and practical skills to enable them to appreciate and contribute to informed discussion of human health issues, enabling them to pursue a career in bioscience. There are a wide range of career opportunities in, for example, biomedical and public health laboratories, health counselling, the leisure industry, pharmaceutical sales and marketing, health product development, clinical science, medical laboratory technology, environmental agencies, the cosmetics industry, food quality control, alternative therapies, and scientific publishing for which Human Bioscience graduates are suited. Graduates are also well placed to obtain positions in the scientific civil service, the teaching profession, and other areas where the benefits of a science degree are recognised. In recent years, an increasing number of our graduates in Human Biosciences have gone on to study either medicine or dentistry, gaining admission via one of the medical graduate entry programmes (GEPs). Other graduates progress onto postgraduate study either to enhance their knowledge via an MSc in a more specialised area of bioscience (eg cancer therapeutics or medical genetics), or they may undertake research for a PhD with the aim of developing a research career in bioscience.

The School of Biomedical Sciences has a system of student support, which is regarded as an excellent model in the University. A tutorial system for pastoral support is coordinated by a Senior Tutor who has an overview of student problems, attendance, progression and disabled student's' issues, and who acts as a link between the students, tutors and other student support agencies within the University. Our personal tutorial system is designed to provide academic support and guidance as well as pastoral care. Module briefings, provided at the start of the academic year, make clear the nature and expectations of modules. Expectations for assessments are described and enhanced by cross-reference to the School Generic Marking Criteria.

Student work is normally returned within four weeks after submission. As well as being categorically graded, work is accompanied by feedback indicating strengths, weaknesses and guidance on improving performance. This may include structured feedback sheets, annotations and debriefing sessions. Students are encouraged to seek further advice as necessary.

## 5. Relevant QAA Subject Benchmark Group

All programmes in the School conform to the academic standards set out in The Quality Assurance Agency for Higher Education subject benchmark statements for honours degrees. The BSc (Hons) Human Biosciences programme adheres to the Benchmark Statement for Biosciences, which is available at:

<http://www.qaa.ac.uk/en/Publications/Documents/Subject-benchmark-statement-Biosciences.pdf>

Additionally, the programme follows the level descriptors suggested by the Southern England Consortium (SEEC) for credit accumulation and transfer in the document "SEEC Credit Level Descriptors for Higher Education" which is available at:

<http://www.seec.org.uk/academic-credit/seec-credit-level-descriptors-2010>

## 6. Programme Structure

A complete stage of study consists of 120 credits. Stages 1, 2 and 4 are composed of 20 credit modules apart from the 40 credit research module in Stage 4. During stages 1 and 2, students study compulsory or 'core' modules, but in stage 2 one module is an optional module. In stage 4, there is a compulsory research module with other modules being chosen from a range of optional modules.

The programme is delivered over 3 years with an optional placement year between years 2 and 3.

Students are expected to pass all modules (120 credits) in order to progress to the next stage.

### 6.1 Stage One

*BSc (Hons) Human Biosciences - Stage One*

<b>BHCS1001</b> Biomedical Investigation and Experimentation (20cr)		<b>BHCS1011</b>  Study skills and personal development (0cr)
<b>BHCS1002</b> Human Anatomy and Physiology: Cells to Systems (20cr)	<b>BHCS1003</b> Human Metabolism (20cr)	
Inter-semester break		
<b>PSYC108PP</b> Psychobiological & Cognitive Aspects of Health Behaviour (20cr)		
<b>BHCS1005</b> Human Disease (20cr)	<b>BHCS1006</b> Infection and Immunity (20cr)	

- Year one provides you with the founding knowledge and practical skills associated with the core human bioscience disciplines that can be expanded on upon progression through this programme. All modules are compulsory.

- Modules cover fundamental aspects of biochemistry, cell biology, microbiology, immunology, genetics, anatomy and physiology and psychology.
- Key transferable and academic skills in literature searching, IT, scientific communication, experimental design, statistical analysis and safe laboratory practice delivered across the programme.
- BHCS1001 introduces the key elements of investigation and experimentation within disciplines encompassed by human biosciences and biomedical sciences. It supports the development of basic skills (personal & transferable) and knowledge for effective practice in these discipline areas.
- The 0 credit module BHCS1011 supports the development of key study and learning skills. Timetabled tutorials will help promote self-reflection and provide a framework for personal development planning and careers.
- Personal tutorials allow high-quality, individual feedback on formative and summative assessments and also enable close academic and pastoral support.
- Options within the Plymouth Plus (PP) psychology module allow students to focus on areas of relevant interest and develop independent learning, group work and scientific communication skills.
- Students taking BSc (Hons) Psychology with Human Biology minor take one HBS module in semester 1 (BHCS1002) and one in semester 2 (BHCS1005).

## Progression

Progression to stage 2 or award of Certificate of Higher Education requires 120 credits at level 4.

### Year 1 Transfer to BMBS and/or BDS

Students commencing a BSc in either Biomedical Science or Human Bioscience with the University of Plymouth, who meet the pre-determined academic profile, can apply to transfer into Year 1 of the BMBS or BDS Programmes. Eligible students must achieve the equivalent of a 1<sup>st</sup> for Year 1 of the BSc.

Still subject to interview performance and all offers will be conditional. For non-academic conditions please refer to the course entry requirements page of the relevant degree programme.

## 6.2 Stage Two

### *BSc (Hons) Human Biosciences - Stage Two*

<b>BHCS2003</b> Genetic Continuity and Diversity (20cr)	<b>BHCS2018</b> Systems Physiology: Function and Dysfunction (20cr)		<b>BHCS2019</b> Methods in Human Biosciences (20cr)	<b>BHCS2027</b> Placements and Employability (0cr)
<b>Inter-semester break</b>				
<b>BHCS2004</b> Cell Biology in Health and Disease (20cr)	<b>BHCS2006</b> Infection, Immunity and Disease (20cr)	<b>BHCS2020</b> Human Metabolism (20cr) (optional)	<b>PSYC518</b> Psychology of Health & Wellbeing (20cr) (optional)	

Stage two modules build on the first year knowledge and skills base and cover the major disciplines relating to human bioscience.

- Modules expand on key knowledge and skills introduced in Stage one.
- Start of optional choices that allows the student to tailor their own degree according to their interests: BHCS2020 option offers biochemistry underpinning of human metabolism to those interested in the biology of disease, complementing the non-optional modules. PSYC518 allows those students interested in psychology to build upon information acquired in their first year and will allow the student to progress to applied psychology & neurobiology in their final year options.
- Modules provide underpinning for the research-led aspects of the final year and blend theory and practice.
- Assessments develop critical thinking, organisational and group work skills.
- Transferable graduate skills will be further developed in the methods in human biosciences module that provides a vehicle for analytical and experimental skills, which also acts as important preparation for final year dissertation projects.
- The 0 credit rated BHCS2027 Placements and Employability module will provide a visible vehicle providing access to university support for optional third year placements and relevant graduate employability skills and attributes. These sessions give important insight into applying for a placement and details the university processes involved and what employers expect from graduates.
- Students taking BSc (Hons) Psychology with Human Biology minor take one HBS module in semester 1 (BHCS2018) and one in semester 2 (BHCS2004).

## Progression

Progression to final year or award of Diploma of Higher Education requires 240 credits at level 4 and 5.

### 6.3 Stage Three (optional placement year)

BSc (Hons) Human Biosciences students have the opportunity to gain work experience by taking an optional placement year between Stages two and four.

The placement year is introduced to students at the beginning of Stage two in timetabled sessions that discuss the benefits of taking a placement and outline potential sources of placements. These sessions give important insights into applying for a placement and detail the university processes involved. Acquisition of an appropriate placement is the responsibility of individual students, but advice is available from the university placements office and school placements co-ordinator.

Placements must be a minimum of six months full-time or part-time equivalent in a setting relevant to the biosciences.

Where deemed appropriate (e.g. working with vulnerable adults, NHS research labs, or sensitive personal data) a Disclosure and Barring Service (DBS) check and occupational health assessment will have to be successfully completed before a placement is approved.

Support for students on placement comes from the school's placement co-ordinator, academic staff nominated as placement tutors, and the university's placement office. Tutors perform an on-site visit to ensure student welfare and progress. Students on placement also enrol on the BHCS3030 Biomedical Sciences: Placement module (0 credits). This provides a framework in which they undertake a research project, conceptualise the skills learned, and reflect on the relevance of their learning experience to the programme aims and their future careers.

Successful completion leads to the University's *Certificate of Industrial Experience*.

## 6.4 Stage Four

BSc (Hons) Human Bioscience (students enrol on BHCS3001 and two optional modules in semester one and two optional modules in semester two).

### *BSc (Hons) Human Biosciences – Stage Four*

Personal Research Project (40cr)	<b>BHCS3001</b>	<b>BHCS3003</b>	<b>BHCS3014</b>	<b>BHCS3022</b>	<b>PSYC606</b>	<b>BHCS3031</b>
		Clinical Microbiology (20cr) (optional)	Reproductive Science (20cr) (optional)	Contemporary Issues in Human Health (20cr) (optional)	Current Topics in Applied Psychology (20cr) (optional)	
	<b>Inter-semester Break</b>					
	<b>BHCS3006</b>	<b>BHCS3007</b>	<b>BHCS3009</b>	<b>BHCS3024</b>		
	Cellular Basis of Immunity (20cr) (optional)	Current issues in Neurobiology (20cr)(optional)	Medical Genetics (20cr) (optional)	Diet Exercise & Chronic Disease (20cr) (optional)		Personal development and employability (0cr)

- BHCS3001 enables students to employ the laboratory, analytical and communication skills developed in previous years to answer a scientific hypothesis in conjunction with an academic advisor.
- Professional aspects of BHCS3001 promote employability; enabling students to reflect on their current skills and relate them to future career goals.
- Optional modules allow students to focus on areas of particular interest to them or their careers. All modules are research-led focusing on areas of staff research expertise.
- All modules examine current developments in the primary literature and promote an understanding of cutting-edge techniques relevant to the field.
- Assessments are varied and include student conferences, case studies, presentations, data interpretation, review essays, seen and un-seen examinations.
- The 0 credit rated BHCS3031 will provide personal academic support and careers guidance. It will provide a forum for students to discuss their achievements and develop plans to address potential areas of weakness and achieve future career goals.
- Intercalating medical and dental students enrolled on BSc Human Biosciences (Intercalated) enter directly into stage four and have the same module choice as BSc Human Biosciences.



- Students taking BSc (Hons) Psychology with Human Biology minor take one HBS module in semester 1 (BHCS3022) and one in semester 2 (BHCS3007).

## 6.5 Graduate Entry to BMBS and BDS

Students who have achieved a 1<sup>st</sup> in one of the five University of Plymouth School of Biomedical Sciences degree programmes can apply to join the BMBS or BDS programmes through UCAS. The degree needs to have been awarded no more than two years preceding application. Students selecting this entry route do not need to sit the Graduate Medical Schools Admissions Test (GAMSAT).

*Still subject to interview performance and all offers will be conditional. For non-academic conditions please refer to the course entry requirements page of the relevant degree programme.*

## 7. Programme Aims

We aim to deliver a programme that:

- offers a relevant and contemporary curriculum, enriched by the research and scholarly activity of staff,
- provides plentiful opportunities for practical work and experiential learning in biosciences,
- provide a rich and stimulating learning environment that immerses students in the full range of bioscience subjects,
- challenges, stimulates, enthuses and encourages students to develop and follow their own interests within the subject.

In addition, the BSc (Hons) Human Biosciences programme has the following specific aims:

1. To provide a sound foundation in a range of disciplines underpinning the biosciences.
2. To encourage students to acquire a thorough knowledge and practical experience across the major subject disciplines within the biosciences.
3. To provide an introduction to psychological aspects of behaviours influencing health.
4. To encourage students to develop a theoretical understanding of how to utilise knowledge in a variety of settings.
5. To provide a critical, evidence-based approach to bioscience developments and issues.
6. To produce graduates who have developed the full range of intellectual, specialist, and transferrable skills in order to enhance graduates' employment prospects and their abilities to compete effectively.
7. Provide a learning experience and support to assist students to develop into graduates who are confident, adaptable, independent learners who are intellectually inquisitive and equipped for life-long learning.

## 8. Programme Intended Learning Outcomes

The BSc (Hons) Human Biosciences programme has been constructed, to emphasise how recent and current developments and technologies in molecular and cellular biology have enhanced our understanding of the scientific basis of human health and disease. In designing the latest version of this established programme, we have paid particular attention to the feedback we have received from potential employers and our industrial and research contacts, our external examiners, current students, and especially the National Subject Benchmark Statement for Biosciences. The curriculum will ensure that students graduating with an Honours degree will meet at least the 'threshold' standards required

for a general award. These will include all generic standards and all the subject specific standards for “Molecular Aspects of Biology” plus a selection from “Organisms”.

The BSc (Hons) Human Biosciences programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the areas listed below.

### **8.1. Knowledge and understanding**

On successful completion graduates should have developed:

1. An understanding of the role of biosciences in contributing to knowledge.
2. Understanding of the applications of biological knowledge to human affairs, and their ethical implications.
3. An appreciation of the philosophical underpinnings of science and the importance of the progression from description and pattern seeking through to scientific advancement by hypothesis testing.
4. Understanding of the scientific importance of current advances in knowledge in specialised areas of the biosciences, which are enriched by staff research and scholarship.
5. Knowledge and an appreciation of the complexity and diversity of life processes through the study of the molecular, cellular, and physiological processes in humans.
6. Knowledge of how a range of cellular, physiological, molecular, genetic, immunological, biochemical, and microbiological aspects of human biology impact on human health and disease.

### **8.2. Cognitive and intellectual skills**

On successful completion graduates should have developed:

1. Skills enabling the recognition and application of subject-specific theories, paradigms, concepts or principles.
2. The ability to understand the contested and developing nature of knowledge and the skills to identify and evaluate alternative hypotheses and viewpoints.
3. The ability to assess the reliability and validity of evidence.
4. The ability to develop reasoned and informed arguments.
5. Skills enabling the identification, formulation, and resolution of problems.
6. The ability to synthesise and integrate information from disparate sources.
7. The ability to interpret a particular case in the context of generalised or abstract concepts, and *vice versa*.
8. The abilities to think logically, creatively and critically, and to formulate and test scientific hypotheses.

### **8.3. Key and transferable skills**

On successful completion graduates should have developed:

1. The skills to select and use appropriate communication and information technologies, including the Internet, word-processing, graphics, spreadsheets and specialist software packages.
2. The abilities to communicate effectively through the spoken word and in a variety of written and graphical formats.

3. The skills and abilities to work independently and organise his/her own learning.
4. The ability to search for, retrieve, sift, select and order information from a variety of sources.
5. Skills enabling the collation, analysis and interpretation of data in quantitative and qualitative forms.
6. The ability to participate effectively and supportively in groups, meeting obligations to others.
7. Transferable skills and the ability to apply them in new contexts.
8. The ability to reflect on his/her own learning and evaluate personal strengths and weaknesses.

#### **8.4. Employment related skills**

On successful completion graduates should have developed:

1. Team working and interpersonal skills.
2. A flexible approach to learning and working.
3. An awareness of the importance of motivation, enthusiasm, initiative, and proactivity.
4. Planning and organisational skills.
5. Personal development planning skills.

#### **8.5. Practical skills**

On successful completion graduates should have developed:

1. The abilities to plan, design, execute and report on an original biological research investigation.
2. Abilities enabling the application of concepts and principles of biological knowledge to new issues and situations,
3. Skills to select and apply appropriate biological techniques, and interpret and present their results, in the following contexts:
  - a. laboratory work,
  - b. manual and computer-based analysis of quantitative and qualitative data.
4. The abilities to be able to demonstrate the practice of a range of laboratory skills relating to cellular, physiological, molecular, immunological, microbiological, genetic and biochemical aspects of human biology.

### **9. Admissions Criteria, including APCL, APEL and DAS arrangements**

We welcome applications to our courses from people who will derive the greatest benefit from studying here. We consider a variety of qualifications and experience and assess every application on its own merits and the applicant's ability to complete the course selected. We are looking for people who have a commitment and enthusiasm to learn, and a determination to make a significant contribution to society when they graduate.

All applicants must have GCSE (or equivalent) Maths and English at Grade C or above (or 4+ on the new grading system).

Evidence of English language ability is required for those whose previous education has not been in English (for example, an IELTS score of 6.0 or above). Suitable qualifications are laid out on the University of Plymouth website:

<https://www.plymouth.ac.uk/international/how-to-apply/international-students-entry-requirements>

IELTS requirement for human biosciences undergraduate programme currently stands at: IELTS 6.0 overall with at least 5.5 in all four elements (listening, reading, speaking & writing).

The University's regulations for Accreditation of Prior Certificated Learning (APCL) and Assessment of Prior Experiential Learning (APEL) are set out in the 'University Academic Regulations':

<https://www.plymouth.ac.uk/student-life/academic-regulations>

We may also consider admission on the basis of work or life experience.

We welcome evidence of prior learning and experience from applicants. Due to the range and mixture of prior qualification and experience applications presenting such evidence will be considered on an individual basis by the Admissions Tutor in consultation with the programmes team.

<b>Entry Requirements for BSc (Hons) Human Biosciences</b>	
A-level	Normal entry requirements are 104 to 120 points, including a grade B in Biology and a second science – these can include mathematics, physics, chemistry, environmental science, environmental studies, psychology, geography, geology, or applied science.  Students who are not sure of their eligibility of qualifications for this programme are encouraged to contact Admissions: <a href="mailto:admissions@plymouth.ac.uk">admissions@plymouth.ac.uk</a>
GCSE	Grade 4 or above in Maths and English Language
BTEC National Certificate/Diploma	18 Unit BTEC National Diploma/QCF Extended Diploma in Science: DDM applied science acceptable provided at least six specialist units are in Biology and Science.
Access to Higher Education	Pass an Access to HE Diploma (Science based) with at least 33 credits at Level 3, all of which are Biology and Science based units, to include at least 15 credits in Biology with Merit and 18 credits in Science at Merit.
International Baccalaureate	28 points including 5 at Higher Level Biology or Chemistry
Progression from Human Biology with Foundation Year	Students need to achieve an overall mark of at least 60% with at least 60% in Biology and Chemistry elements. Students not meeting these requirements may be considered on completion of a successful interview.
T Level	Accepted – preference pathways would be Health or Science. Typical offer will be confirmed once an application is received.

## 10. Progression criteria for Final and Intermediate Awards

Human Biosciences is offered as a single subject, leading to BSc (Hons) Human Biosciences. The programme is modular and takes a minimum of three years to complete. Most students complete a Stage of study each year; thus, Stage 1 is completed in the first year, Stage 2 in the second year and Stage 4 in the third. In addition, students may undertake an optional work experience placement year between Stages 2 and 4. This does not contribute credits to the degree award but satisfactory completion leads to the University's *Certificate of Industrial Experience*. There may be opportunities to complete the programme over an extended period of time by taking a reduced complement of modules in any one year.

The School has established exchange schemes with universities in other countries, including those in North America and continental Europe. Students may spend one or both semesters at Stage 2 on such a scheme. Students on exchange must follow and pass an approved programme of study, but the marks gained do not contribute numerically to the final degree. For these students, classification of the degree is based on stage 4 performance only.

A complete stage of study consists of 120 credits which must be obtained before proceeding to the next stage.

## **11 Exceptions to Regulations**

There are no exemptions or special academic regulations. The School of Biomedical Sciences operates under the standard University of Plymouth assessment and progression regulations. These are available on the University web site at: <https://www.plymouth.ac.uk/student-life/your-studies/essential-information/regulations>.

## **12 Transitional Arrangements**

A new programme structure (CEP/Semesterisation) was successfully implemented across all years from Summer 2015. From summer 2017, two additional 0-credit modules, BHCS1011 Study skills & personal development and BHCS3031 Personal development & employability, were introduced to support and enhance student employability.

## **13. Appendices**

## Appendix 1 - Intended programme learning outcomes mapped against modules

Programme Learning Outcome	Related Core Modules
<p><b>Knowledge and understanding</b></p> <p>On completion graduates should have developed a knowledge and understanding of:</p> <ol style="list-style-type: none"> <li>1. the role of biosciences in contributing to knowledge</li> <li>2. the applications of biological knowledge to human affairs and their ethical implications</li> <li>3. the philosophical underpinnings of science and the importance of the progression from description and pattern seeking through to scientific advancement by hypothesis testing</li> <li>4. the scientific importance of current advances in knowledge in specialised areas which are enriched by staff research and scholarship</li> <li>5. the complexity and diversity of life processes through the study of the molecular, cellular, and physiological processes in humans</li> <li>6. how a range of cellular, physiological, molecular, genetic, immunological, biochemical, and microbiological aspects of human biology impact on human health and disease.</li> </ol>	<p>Stage 2 modules plus stage 4 option modules</p> <p>BHCS2019 and stage 4 option modules</p> <p>BHCS1001, BHCS2019, BHCS3001</p> <p>Stage 2 modules plus stage 4 option modules</p> <p>Stage 2 modules plus stage 4 option modules</p> <p>Stage 1 modules, stage 2 modules plus stage 4 option modules</p>
<p><b>Cognitive and intellectual skills</b></p>	

<p>On completion graduates should have developed skills to be able to:</p> <ol style="list-style-type: none"> <li>1. recognise and apply subject-specific theories, paradigms, concepts or principles</li> <li>2. understand the contested and developing nature of knowledge and identify and evaluate alternative hypotheses and viewpoints</li> <li>3. assess the reliability and validity of evidence</li> <li>4. develop reasoned and informed arguments</li> <li>5. identify, formulate and resolve problems</li> <li>6. synthesise and integrate information from disparate sources</li> <li>7. interpret a particular case in the context of generalised or abstract concepts, and <i>vice versa</i></li> <li>8. think logically, creatively and critically, and formulate and test scientific hypotheses.</li> </ol>	<p>Stage 2 modules plus stage 4 option modules</p> <p>BHCS1001 and stage 4 option modules</p> <p>BHCS2019 and stage 4 option modules</p> <p>Stage 2 modules plus stage 4 option modules</p> <p>BHCS2019 and BHCS3001</p> <p>Stage 2 modules plus stage 4 option modules</p> <p>Stage 4 option modules</p> <p>BHCS2019 and BHCS3001</p>
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<p><b>Key and transferable skills</b></p>	
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<p>On completion graduates should have developed the ability to:</p> <ol style="list-style-type: none"> <li>1. select and use appropriate communication and information technologies, including the Internet, word-processing, graphics, spreadsheets and specialist software packages</li> <li>2. communicate effectively through the spoken word and in a variety of written and graphical formats</li> <li>3. work independently and organise his/her own learning</li> <li>4. search for, retrieve, sift, select and order information from a variety of sources</li> <li>5. collate, analyse and interpret data in quantitative and qualitative forms</li> <li>6. participate effectively and supportively in groups, meeting obligations to others</li> <li>7. transfer skills and apply them in new contexts</li> <li>8. reflect on his/her own learning and evaluate personal strengths and weaknesses.</li> </ol>	<p>Stages 1, 2 and 4 modules</p> <p>Stages 1, 2 and 4 modules</p> <p>BHCS1001, stage 2 and stage 4 modules</p> <p>Stage 4 option modules</p> <p>BHCS1001, BHCS2019, BHCS3001</p> <p>BHCS1001, BHCS2019 and stage 4 option modules</p> <p>BHCS2019, BHCS3001 and stage 4 option modules</p> <p>BHCS1001, BHCS2019, BHCS2027 and stage 4 option modules</p>
<p><b>Employment related skills</b></p> <p>On completion graduates should have developed the ability to:</p> <ol style="list-style-type: none"> <li>1. work as an effective team member</li> <li>2. adopt a flexible approach to learning and working</li> <li>3. understand the importance of motivation, enthusiasm, initiative, and proactivity in the work place</li> <li>4. plan and organise their work</li> <li>5. effectively use a continuing personal development planning strategy.</li> </ol>	<p>BHCS3001 and stage 4 option modules</p> <p>BHCS3001 and stage 4 option modules</p> <p>BHCS1001, BHCS2019 and BHCS2027</p> <p>BHCS3001 and stage 4 option modules</p> <p>BHCS1001, BHCS2019 and BHCS2027</p>
<p><b>Practical skills</b></p>	



<p>On completion graduates should have developed skills to be able to:</p> <ol style="list-style-type: none"> <li>1. plan, design, execute and report on an original biological research investigation</li> <li>2. apply concepts and principles of biological knowledge to new issues and situations</li> <li>3. select and apply appropriate biological techniques, and interpret and present their results, in the following contexts: <ol style="list-style-type: none"> <li>a. laboratory work</li> <li>b. manual and computer-based analysis of quantitative and qualitative data</li> </ol> </li> <li>4. demonstrate the practice of a range of laboratory skills relating to cellular, physiological, molecular, immunological, microbiological, genetic and biochemical aspects of human biology.</li> </ol>	<p>BHCS2019 and BHCS3001</p> <p>BHCS3001 and stage 4 option modules</p> <p>Stages 1 and 2 modules, BHCS3001</p> <p>Stages 1 and 2 modules, BHCS3001</p>
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## Appendix 2 – Assessments (%) mapped against modules

Module Code	Module Title	Credits	Exam		Coursework		Practice
			E1	T1	C1	A1	P1
<b>Stage 1 (Level 4): Human Biosciences</b>							
BHCS1001	Biomedical Investigation and Experimentation	20			50		50
BHCS1002	Human Anatomy and Physiology: Cells to Systems	20	50		50		
BHCS1003	Human Metabolism	20	50		50		
BHCS1005	Human Disease	20	50		50		
BHCS1006	Infection and Immunity	20	50		50		
PSYC108	Psychobiological and cognitive aspects of health behaviour	20			100		

Module Code	Module Title	Credits	Exam		Coursework		Practice
			E1	T1	C1	A1	P1

<b>Stage 2 (Level 5): Human Biosciences</b>							
BHCS2003	Genetic Continuity and Diversity	20	50		50		
BHCS2004	Cell Biology in Health and Disease	20	50		50		
BHCS2006	Infection, Immunity and Disease	20	50				50
BHCS2018	Systems Physiology: Function and Dysfunction	20	50		50		
BHCS2019	Methods in Human Biosciences	20			75		25
BHCS2020	Human Metabolism	20	50		50		
PSYC518	Psychology of Health & Wellbeing	20	50		50		

Module Code	Module Title	Credits	Exam		Coursework		Practice
			E1	T1	C1	A1	P1
<b>Stage 4 (Level 6): Human Biosciences</b>							
BHCS3001	Personal Research Project	40			80	P/F	20
BHCS3003	Clinical Microbiology	20	50				50
BHCS3006	Cellular Basis of Immunity	20	50		50		
BHCS3007	Current Issues in Neurobiology	20	50		50		
BHCS3009	Medical Genetics	20	50		50		
BHCS3014	Reproductive Science	20	50				50
BHCS3022	Contemporary Issues in Human Health	20	30		70		
BHCS3024	Diet, Exercise and Chronic Disease	20	50		50		
PSYC606	Current Topics in Applied Psychology	20			100		

## Appendix 3 - Human Biosciences Mapping to QAA Benchmark Standards (2015) for Biomedical Sciences

### 8.6 Threshold for all Biomedical Sciences

	1001	1002	1003	1005	1006	PSYC108	2003	2018	2019	2004	2006	2020	PSYC518	3001	3003	3014	3022	PSYC606	3006	3007	3009	3024
i		X	X	X	X	X	X	X		X	X	X	X		X	X	X	X	X	X	X	X
ii	X	X	X	X	X				X		X			X	X							
iii	X					X			X					X								
iv	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
v	X					X							X	X		X	X	X			X	X
vi	X			X	X	X	X	X	X		X	X		X	X				X	X		
vii	X					X		X	X			X	X	X	X	X	X	X	X	X	X	X
viii																						
ix	X								X					X								X

### 8.8 Subject-specific threshold standard – Biomedical Sciences

	1001	1002	1003	1005	1006	PSYC108	2003	2018	2019	2004	2006	2020	PSYC518	3001	3003	3014	3022	PSYC606	3006	3007	3009	3024
i	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
ii				X							X				X		X		X	X	X	X
iii	X		X	X	X	X		X	X	X		X	X	X		X	X	X	X	X	X	X
iv											X				X		X	X	X	X	X	X

## Human Biosciences Mapping to QAA Benchmark Standards (2015) for Biosciences

### 7.7 Threshold for all Biosciences - generic

	1001	1002	1003	1005	1006	PSYC108	2003	2018	2019	2004	2006	2020	PSYC518	3001	3003	3014	3022	PSYC606	3006	3007	3009	3024	
i	x	x	x	x	x				x		x			x	x								
ii		x	x	x	x	x	x	x		x	x	x	x		x	x	x	x	x	x	x	x	x
iii	x					x			x					x									
iv	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
v	x					x							x	x		x	x	x				x	x
vi	x					x							x	x		x	x	x				x	x
vii	x			x	x	x	x	x	x		x	x		x	x				x	x			
viii	x						x		x					x			x					x	
ix	x								x					x									x
x	x				x				x		x			x	x	x							

### 7.10 Subject-specific threshold standard – Molecular Aspects of Biology (including Biochemistry)

	1001	1002	1003	1005	1006	PSYC108	2003	2018	2019	2004	2006	2020	PSYC518	3001	3003	3014	3022	PSYC606	3006	3007	3009	3024	
i	x	x	x	x	x		x	x		x	x	x		x	x	x	x		x	x		x	
ii	x		x	x								x			x								x
iii	x		x						x	x		x		x	x		x		x	x	x	x	x
iv	x	x					x			x						x	x					x	
v	x	x		x			x			x									x	x	x		
vi	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
vii		x	x		x							x					x						x
viii	x		x							x		x							x	x			

**Core modules:** *BHCS1001, BHCS1002, BHCS1003, BHCS1005, BHCS1006, PSYC108*  
*BHCS2003, BHCS2018, BHCS2019, BHCS2004, BHCS2006*  
*BHCS3001 (40 credit module)*

**Optional modules:** *BHCS2020, PSYC518 (choose 1 from 2)*

*BHCS3003, BHCS3014, BHCS3022, PSYC606 (choose 2 from 4)*

*BHCS3006, BHCS3007, BHCS3009, BHCS3024 (choose 2 from 4)*