

## Course Specification

Course Summary Information		
1	<b>Course Title</b>	BSc (Hons) Human Biosciences
2	<b>Course Code</b>	US1521
3	<b>Awarding Institution</b>	Birmingham City University
4	<b>Teaching Institution(s)</b> (if different from point 3)	Not applicable
5	<b>Professional Statutory or Regulatory Body (PSRB) accreditation</b> (if applicable)	Not applicable

6	Course Description
	<p><b>Course overview:</b></p> <p>Human Biosciences is an exciting branch of modern science, involving many disciplines and cutting-edge technology. It is focused on human biology and health, providing a perfect springboard for a variety of careers within the growing life sciences sector.</p> <p>Our degree is practice-led and designed to support you to develop a range of practical and analytical skills, valued by employers. Through the course, you will gain an insight into human life processes, both in health and disease.</p> <p><b>What is covered in this course?</b></p> <p>Our Human Biosciences course encompasses several disciplines, including human anatomy and physiology, human nutrition and metabolism, human molecular genetics, infection and immunity, pharmacology and toxicology and science communication. These subjects play a huge role in healthcare provision and medical research, as well as underpinning the biotechnology and pharmaceutical industries. With input from industry and healthcare science, this course has been designed to help you develop important practical and scientific skills sought after by employers.</p> <p>To further support your employability, you will have the opportunity to complete a professional placement year in an industrial or research setting between years two and three of the course. You would be responsible for securing your placement with support from our dedicated placements tutor, however a placement cannot be guaranteed. In the final year you will also undertake an independent research project under the guidance of one of our expert academic staff.</p> <p>During year one, you will learn alongside students on our BSc (Hons) Biomedical Science course. During years two and three you will study a Human Biosciences-specific curriculum, covering a greater variety of subjects with more optional modules in your final year compared with the IBMS-accredited BSc (Hons) Biomedical Science. These include human nutrition and metabolism, communicating science, biomaterials and tissue engineering, proteomics, and pharmacology and toxicology. This gives you the opportunity to explore subjects which you may wish to build upon in your career, in roles in drug development and clinical trials, sales and marketing, or research, or through postgraduate level study for example in Sport and Exercise Nutrition, Dietetics, or Medical Engineering.</p>

<b>7</b>	<b>Course Awards</b>		
<b>7a</b>	<b>Name of Final Award</b>	<b>Level</b>	<b>Credits Awarded</b>
	Bachelor of Science with Honours Human Biosciences	Level 6	360
	Bachelor of Science with Honours Human Biosciences with Professional Placement Year	Level 6	360
<b>7b</b>	<b>Exit Awards and Credits Awarded</b>		
	Bachelor of Science Human Biosciences	Level 6	300
	Diploma of Higher Education in Human Biosciences	Level 5	240
	Certificate of Higher Education in Human Biosciences	Level 4	120

<b>8</b>	<b>Variation from the University Regulations</b>
	Not applicable

<b>9</b>	<b>Delivery Patterns</b>			
	<b>Mode(s) of Study</b>	<b>Location(s) of Study</b>	<b>Duration of Study</b>	<b>Code(s)</b>
	Full time	City South	3 years	US1521
	Full time with placement year	City South	4 years	US1523

<b>10</b>	<b>Entry Requirements</b>	
	<b>Home:</b>	The admission requirements for this course are stated on the course page of the BCU website at <a href="https://www.bcu.ac.uk">https://www.bcu.ac.uk</a> or may be found by searching for the course entry profile located on the UCAS website.
	<b>EU:</b>	
	<b>International:</b>	
	<b>Access:</b>	

<b>11</b>	<b>Course Aims</b>
	The BSc (Hons) Human Bioscience course aims to develop competent, professional, and independent graduates with the subject knowledge, and technical and transferable skills to succeed in a range of Human Bioscience careers.

<b>12</b>	<b>Course Learning Outcomes</b>
<b>1</b>	Apply and integrate a coherent and detailed knowledge of Human Bioscience subjects, to evaluate complex scientific research.
<b>2</b>	Critically analyse the underpinning causes of a range of human diseases, and the contemporary technologies being developed to prevent, diagnose, and treat them
<b>3</b>	Select and apply laboratory methods in Human Biosciences to generate and report experimental data, in the context of professional practice
<b>4</b>	Select, justify, and apply a range of qualitative and quantitative methods to analyse, interpret and report the results of laboratory tests
<b>5</b>	Apply a coherent and detailed knowledge of good laboratory practice and quality assurance to make judgements on the reliability of laboratory test data
<b>6</b>	Develop and investigate original research questions using qualitative and quantitative methods, considering any safety, ethical and regulatory concerns
<b>7</b>	Select and critically evaluate information from data and current scientific literature, including journals, to develop and sustain a coherent argument

8	Apply a range of professional transferable skills required for graduate employment (e.g. communication, numerical, problem solving, critical analysis, resilience, team working, leadership, networking, digital ICT skills etc.)
9	Communicate complex scientific information effectively to a range of audiences in written and oral formats in an accurate, and clear manner following scientific conventions
10	Use evidence to evaluate personal and professional development in the context of Human Biosciences and engage in continuing professional development

<b>13</b>	<b>Level Learning Outcomes</b>
	<b><i>Upon completion of Level 4 / the Certificate of Higher Education, students will be able to:</i></b>
1	Explain and evaluate fundamental scientific concepts in core Human Bioscience subjects
2	Apply a range of fundamental laboratory techniques in Human Biosciences, to acquire and report experimental data
3	Organise, present, and interpret qualitative and quantitative data, to develop coherent arguments in accordance with basic theories and concepts in Human Biosciences
	<b><i>Upon completion of Level 5 / the Diploma of Higher Education, students will be able to:</i></b>
1	Explain and evaluate key scientific concepts in Human Biosciences disciplines and apply them outside the context in which they were first studied
2	Select and apply a range of fundamental laboratory techniques in Human Biosciences, to acquire and report experimental data
3	Apply knowledge of qualitative and quantitative research methods in Human Biosciences to assess scientific literature and to develop novel research questions, and hypotheses
4	Engage in teamwork, and communicate information and ideas clearly and accurately using a range of written and verbal formats
	<b><i>Upon completion of 60 credits at Level 6 / the Bachelors Degree, students will be able to:</i></b>
1	Apply and integrate a coherent and detailed knowledge of a range of Human Biosciences disciplines to evaluate complex scientific studies
2	Critically analyse the underpinning causes of a range of human diseases, and the contemporary technologies being developed to prevent, diagnose, and treat them
3	Select and critically evaluate information from data and current scientific literature, including journals, to develop and sustain a coherent argument
4	Communicate complex scientific information effectively to a range of audiences in written and oral formats in an accurate, and clear manner following scientific conventions

<b>14</b>	<b>Course Learning, Teaching and Assessment Strategy</b>
	<p>The curriculum design has been informed by the latest research and practice, with input from a range of employers, to ensure that graduates have the skills and experiences needed for a career in the Human Biosciences. The curriculum enables students to acquire a broad but in-depth knowledge of Human Biosciences, and to develop the range of technical and transferable skills needed for a range of jobs or further study.</p> <p>The course is delivered using a blended approach with a combination of scheduled and directed in class and online learning, supplemented with students own independent study. Scheduled classes will include lectures, smaller group workshops to consolidate students learning, and laboratory practicals to develop key lab and data handling skills.</p> <p>Lectures may be delivered in-person or as hybrid and recorded to support accessibility. A range of digital technologies are used to enhance the students learning experience as part of our blended approach (e.g. LT LabStation, Anatomy TV &amp; Anatomage tables, polling software), and each module has its own dedicated Moodle page.</p>

A variety of assessment formats will be used including formal closed book examinations, as well as a range of authentic assessments to support the development of practical employability skills, including individual and group presentations, laboratory reports, case studies employing data analysis and problem solving, literature reviews, research proposals, and a capstone project. Opportunities for formative feedback will be provided in all modules to support students in preparing for summative assessments.

**15 Course Requirements**
**15a Level 4:**

**In order to complete this course a student must successfully complete all the following CORE modules (totalling 120 credits):**

Module Code	Module Name	Credit Value
BMS4001	Essential Skills for the Biosciences	20
BMS4000	Biochemistry	20
BMS4008	Cell and Molecular Biology	20
BMS4005	Microbiology	20
BMS4010	Human Anatomy and Physiology	20
BMS4012	Introduction to Pharmacology	20

**Level 5:**

**In order to complete this course a student must successfully complete all the following CORE modules (totalling 120 credits):**

Module Code	Module Name	Credit Value
BMS5016	Communicating Science	20
BMS5011	Infectious Disease and Immunity	20
BMS5015	Biomaterials and Tissue Engineering	20
BMS5017	Human Nutrition and Metabolism	20
BMS5012	Pathophysiology and Cellular Pathology	20
BMS5014	Research Methods in Biosciences	20

**Level 6:**

**In order to complete this course a student must successfully complete all the following CORE modules (totalling 80 credits):**

Module Code	Module Name	Credit Value
BMS6004	Research Project	40
BMS6013	Human Molecular Genetics	20
BMS6011	Clinical Immunology	20

**In order to complete this course a student must successfully complete at least 40 credits from the following indicative list of OPTIONAL modules.**

Module Code	Module Name	Credit Value
BMS6009	Biology of Ageing	20
BMS6000	Control of Global Infectious Disease	20
BMS6016	Pharmacology and Toxicology	20
BMS6017	Proteomics for Human Biosciences	20

**15b Structure Diagram**

Please note list of optional modules is indicative only. Students' choice will not be guaranteed for optional modules, but a fair and transparent process will be adopted and shared with students.

**Level 4**

SEMESTER ONE	SEMESTER TWO
Core BMS4001: Essential Skills for the Biosciences (20 Credits) BMS4000: Biochemistry (20 Credits) BMS4008: Cell and Molecular Biology (20 Credits)	Core BMS4005: Microbiology (20 Credits) BMS4010: Human Anatomy and Physiology (20 Credits) BMS4012: Introduction to Pharmacology (20 Credits)

**Level 5**

Core BMS5016: Communicating Science (20 Credits) BMS5011: Infectious Disease and Immunity (20 Credits) BMS5017: Human Nutrition and Metabolism (20 Credits)	Core BMS5015: Biomaterials and Tissue Engineering (20 Credits) BMS5012: Pathophysiology and Cellular Pathology (20 Credits) BMS5014: Research Methods in Biosciences (20 Credits)
Optional PPY5005: Professional Placement (0 Credits)	

**Level 6**

Core BMS6013: Human Molecular Genetics (20 Credits)	Core BMS6011: Clinical Immunology (20 Credits)
Optional BMS6009: Biology of Ageing (20 Credits) BMS6000: Control of Global Infectious Disease (20 Credits)	Optional BMS6016: Pharmacology and Toxicology (20 Credits) BMS6017: Proteomics for Human Biosciences (20 Credits)

## BMS6004 Research Project (40 Credits)

**16 Overall Student Workload and Balance of Assessment**

Overall student *workload* consists of class contact hours, independent learning and assessment activity, with each credit taken equating to a total study time of around 10 hours. While actual contact hours may depend on the optional modules selected, the following information gives an indication of how much time students will need to allocate to different activities at each level of the course.

- *Scheduled Learning* includes lectures, practical classes and workshops, contact time specified in timetable
- *Directed Learning* includes placements, work-based learning, external visits, on-line activity, Graduate+, peer learning
- *Private Study* includes preparation for exams

The *balance of assessment* by mode of assessment (e.g. coursework, exam and in-person) depends to some extent on the optional modules chosen by students. The approximate percentage of the course assessed by coursework, exam and in-person is shown below.

**Level 4**
**21 % time spent in timetabled teaching and learning activity**

Activity	Number of Hours
Scheduled Learning	252
Directed Learning	312
Private Study	636
<b>Total Hours</b>	<b>1200</b>

**Balance of Assessment**

Assessment Mode	Percentage
Coursework	38
Exam	31
In-Person	31

**Level 5**
**Workload**
**21 % time spent in timetabled teaching and learning activity**

Activity	Number of Hours
Scheduled Learning	246
Directed Learning	282
Private Study	672
<b>Total Hours</b>	<b>1200</b>

**Balance of Assessment**

Assessment Mode	Percentage
Coursework	42
Exam	16

In-Person	42
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**Level 6**
**Workload**

**14 % time spent in timetabled teaching and learning activity**

<b>Activity</b>	<b>Number of Hours</b>
Scheduled Learning	165
Directed Learning	271
Private Study	764
<b>Total Hours</b>	1200

**Balance of Assessment**

<b>Assessment Mode</b>	<b>Percentage</b>
Coursework	55
Exam	18
In-Person	27