

## Programme Specification – 2015/16

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| <b>1. Awarding Body</b>  | University of Surrey  |
| <b>2. Teaching Institution (if different)</b>  |   |
| <b>3. Final Award</b>  | BSc (Hons)  |
| <b>4. Programme title/route/pathway</b>  | Biological Sciences   |
| <b>5. Subsidiary award(s) and title(s)</b>   | BSc (Ord) Biosciences, Dip HE Biosciences, Cert HE Biosciences  |
| <b>6. FHEQ Level</b>   | FHEQ Levels 4, 5 & 6  |
| <b>7. Credits and ECTS credits</b>   | 360 UK credits, 180 ECTS credits  |
| <b>8. Name of Professional, Statutory or Regulatory Body (PSRB)</b>  | N/A   |
| <b>9. Date of last accreditation (if applicable)</b>   | N/A   |
| <b>10. Mode of study</b>   | Full-time   |
| <b>11. Language of study</b>   | English   |
| <b>12. UCAS Code</b>   | C701  |
| <b>13. QAA Subject Benchmark Statement (if applicable)</b>   | QAA Biosciences Benchmark Statement for Biosciences   |
| <b>14. Other internal and / or external reference points</b>   | N/A   |
| <b>15. Faculty / Department</b>  | Faculty of Health and Medical Sciences, Department of Biosciences and Physiology  |
| <b>16. Programme Leader</b>  | Dr Kate Plant   |
| <b>17. Date of Production / Revision of the specification</b>  | November 2014   |
| <b>18. Educational aims of the Programme</b>   |   |
| <ul style="list-style-type: none"> <li>• To provide a high quality education in the various aspects of Biological Sciences for students with diverse interests and career aspirations (including researcher, scientific writer/editor, teacher).</li> <li>• To further the students' knowledge of the fundamental principles of biology and to develop a deeper knowledge in specific aspects of biological sciences, leading in some cases to a specialism.</li> <li>• To provide the appropriate environment to encourage the development of the students interest in biological sciences and to help them acquire appropriate intellectual, scientific, technical and key transferable skills to promote self-directed and life-long learning.</li> </ul> |   |
| <b>19. Programme learning outcomes - BSc (Hons) Biological Sciences – the programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:</b>   |   |
| <u>Knowledge and Understanding</u>   | <u>Teaching and learning strategies</u>   |
| <ol style="list-style-type: none"> <li>1. An understanding of laboratory and field-based investigation and its application to a variety of aspects of Biological Sciences</li> <li>2. A good breadth of knowledge in the field of biological sciences in general and a good depth of knowledge in more specialised fields, particularly at the molecular and organism level</li> <li>3. Familiarity with the terminology, nomenclature and classification systems</li> </ol>   | <p>Core knowledge outcomes are acquired through lectures, practical classes, seminars, tutorials and dissertation supervision.</p> <p><u>Assessment</u></p> <p>Knowledge and understanding is assessed via examination, coursework and the dissertation. Multiple Choice Questions (MCQs) and short answer tests assess knowledge while practical</p> |

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| <p>used in Biological Sciences</p> <ol style="list-style-type: none"> <li>4. Engagement with the essential facts, major concepts, principles and theories associated with the chosen discipline</li> <li>5. An appreciation of the complexity and diversity of life processes through the study of organisms, their molecular, cellular and physiological processes, their genetics and evolution, and the interrelationships between them and their environment</li> <li>6. Some understanding of ethical issues and the impact on society of advances in the biosciences</li> </ol> <p>(QAA Benchmark statements 3.2 &amp; 3.3)</p> <p>Additionally for students engaged on one of the specialisms:</p> <ol style="list-style-type: none"> <li>7. An in depth and cutting edge understanding of the chosen specialism: Cancer and Molecular Sciences, Infection and Immunity, Neuroscience, Pharmacology &amp; Toxicology (Drug Science), or Systems Biology</li> </ol> | <p>reports, coursework essays, poster and oral presentations and examinations assess understanding</p>  |
| <p><u>Skills and other attributes - <i>Intellectual / cognitive skills</i></u></p> <ol style="list-style-type: none"> <li>1. Evaluate research findings and scientific literature and demonstrate the ability to find and evaluate appropriate sources of material and to critically assess it (3.3).</li> <li>2. Demonstrate an understanding of research design and planning and the limits of scientific findings (3.5)</li> <li>3. Recognise that statements should be tested and that evidence is subject to assessment and critical evaluation</li> <li>4. Think independently, set tasks and solve problems (3.3, 3.5)</li> <li>5. recognise the moral and ethical issues of investigations and appreciate the need for ethical standards and professional codes of conduct (3.5)</li> </ol>   | <p><u>Teaching and learning strategies</u></p> <p>Cognitive skills are developed through the media of lectures, practical classes, demonstrations, tutorials, seminars and dissertation supervision.</p> <p><u>Assessment</u></p> <p>Assessment is via coursework, practical reports, class tests and examinations. These allow students to demonstrate their ability to recognise the relative importance of information, analyse and discuss in depth issues relevant to Biology. The dissertation allows the student to demonstrate their ability to plan, execute, analyse and report upon a specific area of Biological science.</p> |
| <p><u>Skills and other attributes - <i>Professional practical skills</i></u></p> <ol style="list-style-type: none"> <li>1. Demonstrate competence in basic laboratory and field skills relevant to Biological Sciences (3.4, 3.6)</li> <li>2. Develop advanced practical skills relevant to a particular specialism in the biological sciences (3.4, 3.6)</li> <li>3. Interpret qualitative and quantitative data (3.5, 3.7)</li> </ol>   | <p><u>Teaching and learning strategies</u></p> <p>Promoted through research practicals, class activities and the Level 3 dissertation. The PTY allows students to practice and apply these skills in a real work setting</p> <p><u>Assessment</u></p> <p>Assessment is via practical reports and tests and</p>  |

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| <ol style="list-style-type: none"> <li>4. Take responsibility for planning and organisation of work both their own and in a team (3.10)</li> <li>5. Undertake field and/or laboratory investigations of living systems in a responsible, safe and ethical manner</li> </ol>  | <p>the Level 6 dissertation. The PTY is assessed through a written report and reports from placement supervisors and placement visitors.</p>  |
| <p><u>Skills and other attributes - Key / transferable skills</u></p> <ol style="list-style-type: none"> <li>1. Learn independently (3.10)</li> <li>2. Communicate about their subject appropriately to a variety of audiences using a range of formats and approaches, using appropriate scientific language (3.8)</li> <li>3. Work effectively and independently on a given project or task (3.10)</li> <li>4. Work effectively in small groups and teams towards a common goal/outcome (3.9)</li> <li>5. Apply basic statistical and numerical skills to biological data, to interpret and present data using appropriate software (3.7)</li> <li>6. Use the internet and other electronic sources critically as a means of communication and a source of information (3.8)</li> </ol>  | <p><u>Teaching and learning strategies</u></p> <p>Proficiency in key skills is achieved through lectures, seminars, demonstrations, and hands-on experience. Varied key skills are taught, practised and assessed in most modules, but are particularly emphasised in modules BMS1023 (numeracy &amp; IT skills), BMS1029 and BMS1040 (communication, IT and group working), BMS2061 &amp; 2062 (group working, problem solving, communication). The use of many key skills are re-emphasised and strengthened during the final year project. Key skills are also reinforced via the tutorial system.</p> <p><u>Assessment</u></p> <p>Through coursework (including assessed oral and written presentations), completion of practical assignments based on the key IT and numerical skills. Group working is assessed both academically and by peer review.</p> |
| <p><b>Programme learning outcomes – BSc (Ord) Biosciences</b> - the programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:</p>   |   |
| <p><u>Knowledge and understanding</u></p> <ol style="list-style-type: none"> <li>1. An understanding of the key principles of good laboratory, clinical and field-based investigation and their application to a variety of aspects of Biosciences</li> <li>2. A good breadth knowledge at the molecular, cellular and organism levels with some degree of specialist knowledge apparent</li> <li>3. Appropriate use of key terminology, nomenclature and classification systems used in specific fields within the Biosciences</li> <li>4. Engagement with many of the essential facts, major concepts, principles and theories associated with a chosen discipline within the Biosciences</li> <li>5. An appreciation of the complexity and diversity of life processes through the study of organisms</li> <li>6. A basic appreciation of some ethical issues and the impact on society of advances in the</li> </ol> | <p><u>Teaching and learning strategies</u></p> <p>Core knowledge outcomes are acquired through lectures, practicals, seminars, tutorials and dissertation supervision.</p> <p><u>Assessment</u></p> <p>Knowledge and understanding is assessed via examination, coursework and the dissertation. Multiple Choice Questions (MCQs) and short answer tests assess knowledge while practical reports, coursework essays, poster and oral presentations and examinations assess understanding</p>   |

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| <p>Biosciences</p> <p>(QAA Benchmark statements 3.2 &amp; 3.3)</p>  |  |
| <p><u>Skills and other attributes - Intellectual / cognitive skills</u></p> <ol style="list-style-type: none"> <li>1. Synthesise information gathered different sources to address specific scientific questions (3.3).</li> <li>2. Demonstrate an understanding of the principles of research design and planning (3.5)</li> <li>3. Recognise the on-going nature of scientific research in defining our modern understanding of biological systems</li> <li>4. Identify and solve problems using previously developed strategies (3.3, 3.5)</li> <li>5. Demonstrate an understanding of ethical issues and the impact of advances in the biosciences encompassing an appreciation of the responsibilities of Bioscientists to wider society (3.5)</li> </ol>                          | <p><u>Teaching and learning strategies</u></p> <p>Cognitive skills are developed through the media of lectures, practical classes, demonstrations, tutorials, seminars and dissertation supervision.</p> <p><u>Assessment</u></p> <p>Assessment is via coursework, practical reports, class tests and examinations. These allow students to demonstrate their ability to recognise the relative importance of information, analyse and discuss in depth issues relevant to the Biosciences. The dissertation allows the student to demonstrate their ability to plan, execute, analyse and report upon a specific area of the Biosciences.</p> |
| <p><u>Skills and other attributes - Professional practical skills</u></p> <ol style="list-style-type: none"> <li>1. With minimal instruction demonstrate competence in basic laboratory, clinical and/or field skills relevant to Biosciences (3.4, 3.6)</li> <li>2. With minimal instruction demonstrate competence in some of the key practical skills relevant to a particular specialism within Biosciences (3.4, 3.6)</li> <li>3. Accurately report and analyse biological data to draw conclusions (3.5, 3.7)</li> <li>4. Follow detailed investigative protocols as instructed, and plan the work set out individually or within a team as appropriate (3.10)</li> <li>5. Undertake laboratory, clinical and/or fieldwork as instructed, in a safe and ethical manner</li> </ol> | <p><u>Teaching and learning strategies</u></p> <p>Practical skills are promoted through practical class activities and the Level 3 dissertation. The PTY allows also students to practice and apply these skills in a real work setting</p> <p><u>Assessment</u></p> <p>Assessment is via practical reports and tests and the Level 3 dissertation. The PTY is assessed through a written report and reports from placement supervisors and placement visitors.</p>  |
| <p><u>Skills and other attributes - Key / transferable skills</u></p> <ol style="list-style-type: none"> <li>1. Employ learning and time-management strategies to organise learning effectively (3.10)</li> <li>2. Communicate biological concepts in a range of formats using appropriate scientific language (3.8)</li> <li>3. With minimal guidance work effectively on a</li> </ol>   | <p><u>Teaching and learning strategies</u></p> <p>Proficiency in key skills is achieved through lectures, seminars, demonstrations, and hands-on experience. Varied key skills are taught, practised and assessed in most modules. Key skills are also reinforced via the tutorial system.</p> <p><u>Assessment</u></p>  |

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| <p>given project or task (3.10)</p> <ol style="list-style-type: none"> <li>4. With minimal guidance work effectively in small groups and teams towards a common goal (3.9)</li> <li>5. Select and apply the numerical and statistical approaches required to analyse particular biological data (3.7)</li> <li>6. Use academic literature, the internet and other electronic sources critically as a source of information (3.8)</li> </ol> | <p>Through coursework (including assessed oral and written presentations), completion of practical assignments based on the key IT and numerical skills. Group working is assessed both academically and by peer review. A wide variety of key skills are assessed during the final year project; these will be specific to the project but typically include numerical, IT, communication and problem solving skills</p> |
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**Programme learning outcomes – Dip HE Biosciences** - the programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:

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| <p><u>Knowledge and understanding</u></p> <ol style="list-style-type: none"> <li>1. Ability to recognise and outline the key principles of laboratory, clinical and/or field-based investigation within the Biosciences</li> <li>2. Broad basic knowledge at the molecular, cellular and organism levels with some degree of specialist knowledge developing</li> <li>3. Recollection of much of the key terminology, nomenclature and classification systems used in specific fields within the Biosciences</li> <li>4. Recollection of many of the essential facts, major concepts, principles and theories associated with a chosen discipline within the Biosciences</li> <li>5. A knowledge of many life processes and a basic appreciation their complexity and diversity</li> </ol> <p>(QAA Benchmark statements 3.2 &amp; 3.3)</p> | <p><u>Teaching and learning strategies</u></p> <p>Core knowledge outcomes are acquired through lectures, practicals and tutorials</p> <p><u>Assessment</u></p> <p>Knowledge acquisition is primarily assessed via Multiple Choice Question (MCQ) and short answer tests while practical reports, essays and group presentations are also employed to assess understanding</p>  |
| <p><u>Skills and other attributes - Intellectual / cognitive skills</u></p> <ol style="list-style-type: none"> <li>1. Apply information gathered from suitable sources to address specific scientific questions (3.3).</li> <li>2. Recognise the importance of following research procedures accurately and the consequences of failing to do so (3.5)</li> <li>3. Recognise the place of research in defining new paradigms</li> <li>4. Employ previously developed strategies to guide problem solving (3.3, 3.5)</li> <li>5. Demonstrate an appreciation of the wider ethical issues of research and the impact of advances in the Biosciences on wider society and the environment (3.5)</li> </ol>  | <p><u>Teaching and learning strategies</u></p> <p>Cognitive skills are developed through the media of lectures, practical classes, demonstrations and tutorials</p> <p><u>Assessment</u></p> <p>Assessment is via coursework, practical reports, class tests and examinations. These allow students to demonstrate their ability to recognise the relative importance of information, analyse and discuss in depth issues relevant to the Biosciences.</p> |

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| <p><u>Skills and other attributes - Professional practical skills</u></p> <ol style="list-style-type: none"> <li>1. With appropriate instruction, demonstrate competence in basic laboratory, clinical and/or field skills relevant to Biosciences (3.4, 3.6)</li> <li>2. With appropriate instruction, demonstrate an ability to perform some key practical skills relevant to a particular specialism within Biosciences (3.4, 3.6)</li> <li>3. Accurately report and analyse biological data to draw basic conclusions (3.5, 3.7)</li> <li>4. Follow investigative protocols as instructed and perform the work set out efficiently either individually or within a team (3.10)</li> <li>5. Undertake laboratory, clinical and/or fieldwork as instructed, in a safe and ethical manner</li> </ol> | <p><u>Teaching and learning strategies</u></p> <p>Practical skills are promoted through practical class activities.</p> <p><u>Assessment</u></p> <p>Assessment is via practical reports and tests, which may address specific aspects of the practical.</p>  |
| <p><u>Skills and other attributes - Key / transferable skills</u></p> <ol style="list-style-type: none"> <li>1. Identify own strategies for effective learning and develop time-management skills (3.10)</li> <li>2. Communicate basic biological principles using appropriate scientific language (3.8)</li> <li>3. With some guidance work effectively on an individual task (3.10)</li> <li>4. With some guidance work effectively in small groups to achieve a common goal (3.9)</li> <li>5. Apply basic statistical and numerical skills, with some guidance, to analyse simple biological data (3.7)</li> <li>6. Use the internet and other electronic resources to identify appropriate sources of scientific information (3.8)</li> </ol>   | <p><u>Teaching and learning strategies</u></p> <p>Proficiency in key skills is achieved through lectures, seminars, demonstrations, and hands-on experience. Varied key skills are taught, practised and assessed in most modules. Key skills are also reinforced via the tutorial system.</p> <p><u>Assessment</u></p> <p>Through coursework (including assessed oral and written presentations), completion of practical assignments based on the key IT and numerical skills. Group working is assessed both academically and by peer review.</p> |
| <p><b>Programme learning outcomes – Cert HE Biosciences</b> - the programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas:</p>  |  |
| <p><u>Knowledge and understanding</u></p> <ol style="list-style-type: none"> <li>1. Ability to recognise the purpose of laboratory, clinical and/or field-based investigations within the Biosciences</li> <li>2. Basic factual biological knowledge at the molecular, cellular and organism levels</li> <li>3. Recognition of some of the key terminology, nomenclature and classification systems used in Biosciences</li> <li>4. Recognition of some of the essential facts, major concepts, principles and theories associated with a chosen discipline within the Biosciences</li> </ol>   | <p><u>Teaching and learning strategies</u></p> <p>Core knowledge outcomes are acquired through lectures, practicals and tutorials</p> <p><u>Assessment</u></p> <p>Knowledge acquisition is primarily assessed via Multiple Choice Question (MCQ) and short answer tests while practical reports, essays and group presentations are also employed to assess understanding</p>  |

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| <p>5. A knowledge of many life processes<br/>(QAA Benchmark statements 3.2 &amp; 3.3)</p>  |  |
| <p><u>Skills and other attributes - Intellectual / cognitive skills</u></p> <ol style="list-style-type: none"> <li>1. Identify suitable sources of scientific information (3.3).</li> <li>2. Recognise the importance of following research procedures accurately (3.5)</li> <li>3. Utilise previously defined scientific procedures to illustrate biological principles</li> <li>4. Follow well defined schemes to solve problems (3.3, 3.5)</li> <li>5. Demonstrate a basic appreciation of some of the ethical issues surrounding the Biosciences including the need to carry out biological procedures in a safe and ethical manner (3.5)</li> </ol>   | <p><u>Teaching and learning strategies</u></p> <p>Cognitive skills are developed through the media of lectures, practical classes, demonstrations and tutorials</p> <p><u>Assessment</u></p> <p>Assessment is via coursework, practical reports, class tests and examinations. These allow students to demonstrate their ability to recognise the relative importance of information, analyse and discuss in depth issues relevant to the Biosciences.</p>   |
| <p><u>Skills and other attributes - Professional practical skills</u></p> <ol style="list-style-type: none"> <li>1. With detailed instruction, demonstrate some ability to perform basic laboratory, clinical and/or field skills in Biosciences (3.4, 3.6)</li> <li>2. Clearly and concisely report biological procedures and data and draw some basic conclusions (3.5, 3.7)</li> <li>3. Follow basic laboratory protocols as instructed (3.10)</li> <li>4. Undertake laboratory, clinical and/or fieldwork as instructed, in a safe and ethical manner</li> </ol>   | <p><u>Teaching and learning strategies</u></p> <p>Practical skills are promoted through practical class activities.</p> <p><u>Assessment</u></p> <p>Assessment is via practical reports and tests, which may address specific aspects of the practical.</p>  |
| <p><u>Skills and other attributes - Key / transferable skills</u></p> <ol style="list-style-type: none"> <li>1. With support, take responsibility for own time-management and academic efforts (3.10)</li> <li>2. Communicate basic scientific information (3.8)</li> <li>3. With guidance work on specific tasks (3.10)</li> <li>4. With guidance work in small groups on a specific task (3.9)</li> <li>5. Apply basic statistical and numerical skills, under direction, to analyse simple biological data (3.7)</li> <li>6. Use the internet and other electronic resources to identify appropriate sources of scientific information (3.8)</li> </ol> | <p><u>Teaching and learning strategies</u></p> <p>Proficiency in key skills is achieved through lectures, seminars, demonstrations, and hands-on experience. Varied key skills are taught, practised and assessed in most modules. Key skills are also reinforced via the tutorial system.</p> <p><u>Assessment</u></p> <p>Through coursework (including assessed oral and written presentations), completion of practical assignments based on the key IT and numerical skills. Group working is assessed both academically and by peer review.</p> |
| <p><b>20. Programme structure</b> – including the route / pathway / field requirements, levels modules, credits, awards and further information on the mode of study.</p>  |  |
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All students are initially registered for Biological Sciences BSc (Hons).

The Biological Sciences degree is studied over 3 academic years (or 4 with Professional Training Year) and is full time.

The Programme is divided into 8 modules per year. All taught modules are worth 15 credits, which is indicative of 150 hours of learning, comprised of student contact, private study and assessment. In order to achieve an honours degree in Biological Sciences students must complete 120 credits at each FHEQ Level 4, 5 and 6.

In the first and second years (FHEQ levels 4 and 5) students cover compulsory modules that address the core requirements for Biological Sciences as addressed in the Biosciences benchmark paper. Additional modules, giving a total of 8 per year, are optional but may be requirements for particular specialisations (see individual entries).

In order for students to progress to FHEQ level 5 they are required to achieve a minimum of 40% and 120 credits at FHEQ level 4. The pass mark for each module is 40%; compensation credits can be awarded in up to TWO modules, provided the module mark is >30% and the level average is >45%. Compensation can only be applied once all attempts have been undertaken. If students fail to complete level 4 no subsidiary award is available.

In order for students to progress to FHEQ level 6 (or to the Professional Training Year) they are required to achieve a minimum of 40% and 120 credits at FHEQ level 5. The pass mark for each module is 40%; compensation credits can be awarded in ONE module, provided the module mark is >30% and the level average is >45%. Compensation can only be applied once all attempts have been undertaken. If students fail to complete level 5 a Certificate of Higher Education in Biosciences may be awarded based on the best 8 modules from levels 4 and 5.

The final year (FHEQ level 6) comprises 6 optional modules (for specialisations up to three of these may be compulsory) and a compulsory project module. All modules bear equal credit with the exception of the final year project which provides 30 credits upon successful completion. The Project module takes place across the entire of the final year.

The pass mark for FHEQ level 6 is 40%. The pass mark for each module is 40%; compensation credits can be awarded in ONE 15 credit module, provided the module mark is >30% and the level average is >45%. This can be applied without a resit attempt, if only one module has been failed.

For the award of BSc (Hons) in Biological Sciences students must obtain a total of 360 credits (or 480, including 120 P credits if a year of 'Professional Training' is included). 120 Credits must be at FHEQ6. The final degree mark is based on the FHEQ6 mark contributing 65% and the FHEQ5 mark, 35%.

If students do not achieve the requisite number of credits they may be awarded an BSc Ordinary Degree in Biosciences (300 credits, 60 at level 6), a Diploma of Higher Education in Biosciences (240 credits) or a Certification of Higher Education (120 credits). Having received this award, these credits may not contribute to any other award.

Programme adjustments (if applicable)

N/A

Programme pathways and variants

Five specialisms are available within the Biological Sciences programme:

- Biological Sciences (Infection and Immunity) <sup>1</sup>



- Biological Sciences (Cancer and Molecular Sciences)<sup>C</sup>
- Biological Sciences (Neuroscience)<sup>N</sup>
- Biological Sciences (Drug Science)<sup>D</sup>
- Biological Sciences (Systems Biology)<sup>S</sup>

Students are made aware of these specialisms at the beginning of their degree. They are given advice on how module selection affects their ability to specialise at the end of level 4, prior to making module selections for level 5. Students may opt to specialise at the end of level 4 or, provided they have taken the relevant modules, at the end of level 5 or level P.

Modules which are only compulsory for specific specialisms are indicated with superscript letters as shown in the list above.

**FHEQ Level 4: Potential awards – Certificate HE: 120 credits at Level 4 or above**

| Module code | Module title  | Core /compulsory /optional | Credit volume | Semester (1 / 2) | Award requirements   |
|-------------|---|----------------------------|---------------|------------------|--|
| BMS1023     | Chemistry and Maths for the Biosciences                     | Compulsory                 | 15            | 1                | <b>Certificate Higher Education</b> requires 120 Credits at FHEQ Level 4<br><br>A weighted aggregate mark of 40% is required to pass each separate module.<br><br><b>Progression</b><br>120 Credits required from FHEQ Level 4 |
| BMS1025     | Cell Biology  | Compulsory                 | 15            | 1                |  |
| BMS1026     | Microbiology: An Introduction to the Microbial World        | Compulsory                 | 15            | 1                |  |
| BMS1031     | Introduction to Molecular Biology & Genetics                | Compulsory                 | 15            | 2                |  |
| BMS1032     | Introduction to Principles of Physiology & Practical Skills | Compulsory                 | 15            | 2                |  |
| BMS1040     | Evolutionary Origins of Biodiversity                        | Compulsory                 | 15            | 2                |  |
| BMS1041     | Biochemistry: A Conceptual Overview                         | Compulsory                 | 15            | 2                |  |
| BMS1027     | Food Science and Nutrition                                  | Optional                   | 15            | 1                |  |
| BMS1029     | Current Topics in Biosciences                               | Optional                   | 15            | 1                |  |

How many optional modules must a student choose in order to achieve the necessary amount of credits to achieve this level?

*1 from the 2 listed optional modules*

**FHEQ Level 5: Potential awards – Diploma HE: 240 credits, at least 120 at Level 5**

| Module code | Module title                            | Core /compulsory /optional | Credit volume | Semester (1 / 2) | Award requirements   |
|-------------|---|----------------------------|---------------|------------------|--|
| BMS2036     | Methods in Molecular Biology & Genetics | Compulsory                 | 15            | 1                | <b>Diploma Higher Education</b> requires 240 Credits (120 at FHEQ Level 5 or above)<br><br>A weighted aggregate mark of 40% is |
| BMS2038     | Integration of Physiological Systems    | Compulsory                 | 15            | 1                |  |
| BMS2061     | Plant Biology and the Environment       | Compulsory                 | 15            | 2                |  |
| BMS2062     | Animal Biology                          | Compulsory                 | 15            | 2                |  |
| BMS2035     | Biochemistry -                          | Optional                   | 15            | 1                |  |

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|         | Enzymes and Metabolism                      |                            |    |   | <p>required to pass each separate module</p> <p><b>Progression</b><br/>120 Credits required from FHEQ Level 5 to progress to FHEQ level 6 or to the PTY (Level P)</p> |
| BMS2037 | Cellular Microbiology and Virology          | Optional <sup>(I)</sup>    | 15 | 1 |   |
| BMS2039 | Human Nutrition                             | Optional                   | 15 | 1 |   |
| BMS2041 | Food Microbiology: The Micro Flora of Food  | Optional                   | 15 | 1 |   |
| BMS2048 | Neuroscience, From Neuron to Behaviour      | Optional <sup>(N)</sup>    | 15 | 1 |   |
| BMS2043 | Analytical Biochemistry & Chemistry         | Optional                   | 15 | 2 |   |
| BMS2044 | Microbial Communities and Interactions      | Optional                   | 15 | 2 |   |
| BMS2045 | Introduction to Immunology                  | Optional <sup>(I)</sup>    | 15 | 2 |   |
| BMS2046 | Pathology and Medicine                      | Optional                   | 15 | 2 |   |
| BMS2047 | Pharmacology: Introduction to Drug Action   | Optional <sup>(D, N)</sup> | 15 | 2 |   |
| BMS2054 | Animal Nutrition, Toxicology & Pharmacology | Optional                   | 15 | 2 |   |

How many optional modules must a student choose in order to achieve the necessary amount of credits to achieve this level?

3 from the 11 listed optional modules.

**FHEQ Level P: Potential awards – Diploma HE with Level P**

| Module code | Module title                          | Core /compulsory /optional | Credit volume | Semester (1/2) | Award requirements   |
|-------------|---------------------------------------|----------------------------|---------------|----------------|--|
| BMSP004     | Personal and Professional Development | Core                       | 45 P          |                | <p>A weighted aggregate mark of 40% is required to pass each separate module.</p> <p><b>Progression</b><br/>120 P Credits required to progress to Level 6.</p> |
| BMSP005     | Evaluation of Placement Learning      | Core                       | 60 P          |                |  |
| BMSP006     | Transfer of Placement Learning        | Compulsory                 | 15 P          |                |  |

How many optional modules must a student choose in order to achieve the necessary amount of credits to achieve this level?

No optional modules.

**FHEQ Level 6: Potential awards – BSc (Ord), BSc (Hons)**

| Module code | Module title                                    | Core /compulsory /optional | Credit volume | Semester (1 / 2) | Award requirements  |
|-------------|---|----------------------------|---------------|------------------|---|
| BMS3048     | Research Project                                | Compulsory                 | 30            | 1 & 2            | <p><b>BSc (Hons)</b> requires 480 Credits (including 120P Credits) or 360 Credits, at least 120 of which must be from FHEQ Level 6 modules and 30 of which must</p> |
| BMS3052     | Biochemistry: Receptors & Energy Metabolism     | Optional                   | 15            | 1                |   |
| BMS3053     | Advanced Topics in Molecular Biology & Genetics | Optional <sup>(C)</sup>    | 15            | 1                |   |

|         |   |                            |    |   |  |
|---------|---|----------------------------|----|---|--|
| BMS3054 | Clinical Immunology & Immunohaematology               | Optional <sup>(I)</sup>    | 15 | 1 | <p>arise from the final year project.</p> <p><b>BSc (Ordinary)</b> requires 300 credits, at least 60 of which must be from FHEQ Level 6 modules with the exclusion of the modules pertaining to the final year project.</p> <p>A weighted aggregate mark of 40% is required to pass each separate module</p> |
| BMS3055 | Advanced Pharmacology: Selected Topics in Drug Action | Optional <sup>(N, D)</sup> | 15 | 1 |  |
| BMS3060 | Biomedical Microbial Products                         | Optional                   | 15 | 1 |  |
| BMS3079 | Human Microbial Diseases                              | Optional <sup>(I)</sup>    | 15 | 1 |  |
| BMS3058 | International & Public Health Nutrition               | Optional                   | 15 | 2 |  |
| BMS3062 | Veterinary Immunology and Pathology                   | Optional                   | 15 | 2 |  |
| BMS3063 | Cancer: Pathogenesis and Therapeutics                 | Optional <sup>(C)</sup>    | 15 | 2 |  |
| BMS3064 | Neuroscience: From Molecules to Mind                  | Optional <sup>(N)</sup>    | 15 | 2 |  |
| BMS3065 | Mechanistic & Regulatory Toxicology                   | Optional <sup>(D)</sup>    | 15 | 2 |  |
| BMS3066 | Biological Rhythms                                    | Optional                   | 15 | 2 |  |
| BMS3071 | Food Quality Assurance & Security                     | Optional                   | 15 | 2 |  |
| BMS3072 | Systems Biology: Genomes in Action                    | Optional <sup>(S)</sup>    | 15 | 2 |  |
| BMS3073 | Epidemiology of Infectious Diseases                   | Optional <sup>(I)</sup>    | 15 | 2 |  |
| BMS3074 | Animal Infectious Disease & Veterinary Public Health  | Optional                   | 15 | 2 |  |
| BMS30** | Mathematical Biology                                  | Optional <sup>(S)</sup>    | 15 | 1 |  |
| BMS30** | Man and the Environment                               | Optional                   | 15 | 1 |  |
| BMS30** | Advanced Topics in Animal Biology                     | Optional                   | 15 | 2 |  |

How many optional modules must a student choose in order to achieve the necessary amount of credits to achieve this level?

*6 from the 19 listed optional modules.*

**21. Opportunities for placements / work-related learning / collaborative activity – please indicate if any of the following apply to your programme**

|   |     |
|---|-----|
| Data supplied by an external source for student analysis which contributes to an assessment                                   | No  |
| Guest / external / associate lecturer (please detail the extent of their contribution, i.e. do they mark?)                    | Yes |
| Professional Training Year (PTY)  | Yes |
| Placement, study or work placement outside of the PTY (please indicate if this is one day, one month, six months, a year etc) | No  |
| Clinical Placements (that are not part of the PTY Scheme)   | No  |
| ERASMUS Study (that is not taken during Level P)  | No  |
| Study exchanges (that are not part of the ERASMUS Scheme)   | No  |
| Dual Degree   | No  |
| Joint Degree  | No  |

### Further information

Some guest lecturers are involved in the delivery of material for this programme. Some may be involved in marking.

New modules are in development for the final year. It is possible these will require input from external institutions – if required a Memorandum of Understanding will be produced.

Quality control of external lecturers' contributions to modules in both programmes is monitored through the Module Evaluation Questionnaires and the double marking/moderation and external examiner system (following the University's *Code of practice for assessment and feedback*).

### 22. Criteria for admission

**A-levels:** AAB - at least two science/mathematics A-levels, one of which must be either Chemistry or Biology

**GCSE:** English Language and Mathematics at grade C or above.

**BTEC (QCF Level 3) Extended Diploma:** DDD (in Applied Science)

**European Baccalaureate:** 75% (including 8 in at least two science subjects)

**International Baccalaureate:** 35 points (two science grades 6 and 5 at HL, Chemistry or Biology required)

**Other international qualifications:** If you are an international student and you don't meet the entry requirements to this degree, we offer the International Foundation Year.

### 23. Assessment regulations

Please click on the following link for the full assessment *regulations*  
[http://www.surrey.ac.uk/quality\\_enhancement/regulations/index.htm](http://www.surrey.ac.uk/quality_enhancement/regulations/index.htm)

All programmes within the University of Surrey adhere to the *Regulations*. All taught programmes also reference and follow the *Code of practice for assessment and feedback*.

### 24. Support for students and their learning

A range of services will be provided to support students and their learning;

- Welcome week (induction)
- Programme handbook
- Programme Leaders
- Personal Tutors
- Module Coordinators
- Research project supervisors
- Module descriptors
- SurreyLearn
- SPLASH
- Library
- Student Support Office
- Wellbeing Centre
- University of Surrey Students' Union (USSU)

## **25. Quality management – indications of quality and the methods for evaluating and improving quality**

The quality management of this programme is monitored through:

- Periodic programme review
- Annual Programme Review Reports
- Module Evaluation Questionnaires
- The National Student Survey
- Joint Staff Student Liaison Committees
- Personal Tutoring
- Board of Study meetings
- Board of Examiners

## **26. Further information**

Further information can be found on our webpages at <http://www.surrey.ac.uk/undergraduate/biological-sciences> (for example the Key Information Set), and within the Programme Handbook, which is provided on entry to the Programme.

The *Regulations* and *Codes of Practice* for taught programmes can be found at [http://www.surrey.ac.uk/quality\\_enhancement/regulations/index.htm](http://www.surrey.ac.uk/quality_enhancement/regulations/index.htm)  
[http://www.surrey.ac.uk/quality\\_enhancement/standards/index.htm](http://www.surrey.ac.uk/quality_enhancement/standards/index.htm)