

**EVIDENCE MATRIX**

*Please complete this matrix as succinctly as possible providing links to the evidence (e.g. citing specific learning outcomes, module codes, handbooks etc.). Please insert hyperlinks to your documentation if possible. All wording in italics must be deleted, it provides brief guidance, it is not a comprehensive list of what should be included. Separate matrices for each programme can be provided if desired.*

**Section 1 The degrees submitted**

Scope of Application	
Accreditation subject area	<i>Molecular Aspects of Biology Whole Organism Biology Ecological and Environmental Sciences (select all that apply)</i>
Proposing HEI	<i>Name of HEI</i>
Department/Faculty/school etc.	<i>Name of department etc.</i>
Programme title and titles of awards covered	<i>List titles of awards</i>
Programme duration	<i>State duration</i>
Date of HEI formal Approval	<i>Provide month and year</i>
Planned review date	<i>Provide month and year</i>

**Section 2 Summary of Evidence**

*The items of evidence should be provided electronically, and may come from a variety of sources. All evidence, wherever possible, should be easily accessible from the documentation provided (e.g. by reference to specific folders, file names, modules etc.). On-line access to the institution’s e-learning facilities should be made available to the Panel. The following table should be completed in order to signpost the assessors to the relevant aspects of the course or documentation. The Evidence column in the table can be divided into levels in the programme as desired.*

Criteria	Evidence
1. Does documentation indicate that the programme will incorporate a graduating level, capstone, experience which includes the analysis and critical evaluation of data within an independently produced piece of work? The project should contain the following elements:	
a) Be an extended piece of work	<i>Provide items of evidence appropriate to the criteria for the final year project, the project must be at least 30 credits, cite the module code(s) for the project. The Society requires that the capstone experience must be passed for students to achieve an accredited honours degree, please provide evidence of the appropriate degree regulation</i>
b) Be enquiry based	<i>How do ALL projects meet this criterion?</i>
c) Be directly relevant to the student's degree discipline	<i>For example by reference to the student handbook, a list of students and projects etc.</i>
d) Be underpinned by a range of relevant sources	<i>Evidenced for example by the module descriptor, the project handbook and samples of projects</i>
e) Be contextualised and show a recognition of the provisional nature of knowledge	<i>As above</i>
f) Be firmly based on the processes of critical thinking, challenge and evaluation	<i>As above</i>
g) Have a clearly defined and justified approach	<i>As above</i>
h) Build up to its conclusions and, where appropriate, will have an element of reflective commentary, including	<i>As above</i>

recommendations	
i) Communicate the research outcomes appropriately and effectively	<i>As above</i>
j) Inculcate an appropriate understanding of health and safety good practice, an appreciation of ethical issues, and demonstrate an understanding of scientific integrity	<i>As above. Note that this aspect is concerned with the students' acquisition of knowledge and skills learning outcomes, it is not about the HEI's methods for seeking ethical approval or meeting HSE legislation</i>
2. Demonstration of the acquisition of technical skills and familiarity with the practical environment. There will be evidence of:	
a) A list of core technical skills used in the laboratory or field	<i>Confirm the existence of the list. Provide a list as a document in the submission, reference it here</i>
b) How the technical skills are assessed i.e. where and how skills outcomes are achieved	<i>By citing relevant learning outcomes on specified modules or in a separate table as described in Appendix B; explain how students are taught and assessed</i>
c) A basic competency in the core technical skills for all students on the programme,	<i>For example through the use of a record of individual achievement of skills, or identification of compulsory learning outcomes, programme specifications, awards regulations etc.</i>
d) Development of the appropriate technical skills appropriate for the subject, whether in the field, the laboratory or the workplace.	<i>As above, and explain how skills develop during the programme</i>
3. The development and use of transferable graduate skills	
a) There is a system for the development of basic skills such as word processing, spreadsheets etc.	<i>By citing relevant learning outcomes on specified modules or in a separate table as described in Appendix B</i>

<p>b) Students should be able to demonstrate how to find and distinguish/evaluate/cite appropriately valid sources of scientific and other information online and offline (<i>i.e.</i>, be able to collect, sort and protect/backup personal online resources, including issues of intellectual property; demonstrate competence in the use of reference management systems; understand and avoid plagiarism; understand the importance of personal integrity; make the most of social media opportunities for networking responsibly)</p>	<p><i>As above</i></p>
<p>c) Students are given the opportunity to develop, and recognize a range of skills that enable them to consider/approach problems critically, confidently and independently</p>	<p><i>Refer to problem solving learning outcomes</i></p>
<p>d) Communication skills are considered in terms of communicating science to a range of audiences, and communicating ideas through oral and written approaches</p>	<p><i>Refer to communication learning outcomes</i></p>
<p>e) There is evidence of an approach to the development of teams and different team members (including leadership)</p>	<p><i>Refer to team working learning outcomes</i></p>
<p>f) There is an approach to general management skills, including project management</p>	<p><i>Refer to management learning outcomes</i></p>
<p>g) Ethical and regulatory issues are appropriately addressed</p>	<p><i>See 1j</i></p>
<p>4. Foundation in mathematics, statistics, chemistry and physics within a biological context appropriate to the discipline</p>	

<p>a) The coverage of mathematics, statistics, chemistry and physics should be of sufficient depth and breadth to provide the necessary knowledge and understanding for students to appreciate and apply these subjects within a biological context.</p>	<p><i>By citing relevant learning outcomes on specified modules or in a separate table as described in Appendix B. It is important that the assessors can see how the learning outcomes are met on different pathways by all students</i></p>
<p>b) Knowledge and understanding of science principles governing current techniques and concepts, and their evolution, are embedded within the curriculum</p>	<p><i>As above, with reference to development of students' abilities</i></p>
<p>c) The knowledge and understanding of mathematical principles that support the application of key biological concepts are sufficient to promote problem-solving at the theoretical and practical levels</p>	<p><i>Show link to problem solving</i></p>
<p>d) Students should be equipped with the mathematics needed to handle variation at different levels,</p>	<p><i>Provide overview of the statistics learning outcomes</i></p>
<p>e) Students should understand the statistical aspects of experimental procedures, encompassing the analysis of collected data, the design and analysis of studies, the development of calibration and analysis techniques, and the robustness of data.</p>	<p><i>Show how students apply statistics in experimental situations</i></p>
<p>5. Specific skills and knowledge appropriate to the degree title</p>	
<p>a) All bioscience graduates in any area should have some basic knowledge of biodiversity, genetics, biochemistry, molecular biology, and organismal biology</p>	<p><i>By citing relevant learning outcomes on specified modules. Section 5.i of the handbook states "bioscience graduates will have some general knowledge of biodiversity, the cell, basic genetics, the concept of evolution, biochemistry, molecular biology and organismal biology"</i></p>
<p>b) There has been consultation with the appropriate Learned Society for the specific skills and knowledge that may be required for a specific programme name</p>	<p><i>Provide evidence of engagement with learned societies, where available</i></p>

<p>c) The programme adheres to the guidance for the Typical Standard of the Biosciences Benchmark, as well as to any guidance developed by the appropriate Learned Society</p>	<p><i>Show how the programmes meet the Benchmark statement (e.g. by reference to the programme specification)</i></p>
<p>6. Developing Creativity and Innovation</p>	
<p>a) Institutions should provide evidence they encourage students to be creative by 'thinking differently'</p>	<p><i>By citing relevant learning outcomes on specified modules. The Society accepts that this is a developing theme in many institutions and not necessarily a learning outcome met by every graduate</i></p>
<p>b) Universities should describe steps they have taken towards providing an environment that promotes creativity and innovation.</p>	<p><i>As above. The HEI can cite schemes within the institution that are available to students as extra-curricular activities or optional units/modules not integral to the biosciences programme</i></p>
<p>c) Engagement of students with techniques that can promote individual and group creativity</p>	<p><i>As 6a</i></p>

### Checklist

Have you included in your electronic submission (Appendix A of handbook refers):

- The Letter of Intent
- Programme Specifications with:
  - Details of programme structure
  - Learning outcomes
  - List/definitions of terms and acronyms used by the HEI
  - Assessment strategy
- Module descriptors
- Resource documents
  - Overview of facilities
  - Brief CVs of staff
  - Relevant handbooks or guidance
- Internal or external reviews or reports
  - Periodic review file

- External examiners' reports for previous two years
  - Link to most recent QAA reviews
- Confirmation of procedures within HEI for ethical approvals, relevant Home Office licences and health and safety
- Destination statistics of graduates
- Most recent summative assessments, marking criteria and model answers
- Accreditation matrix or matrices (state how many in the Letter of Intent)