Programme Specification
Undergraduate

Applicable to all non-clinical undergraduate programmes*

Please click [here](#) for guidance on completing this specification template.

*Excluding Integrated Master’s degrees.

Part A: Programme Summary Information

<table>
<thead>
<tr>
<th>1. Title of programme:</th>
<th>BSc (Hons) (Marine Biology)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Programme Code:</td>
<td>C160 (UCAS Code)/C16A (Internal Code)</td>
</tr>
<tr>
<td>3. Entry Award:</td>
<td>Credit: Level:</td>
</tr>
<tr>
<td>☒ BSc (Hons)</td>
<td>360 Year 1: Pass 120 credits with the majority of credit at level 4. Year 2: Pass 120 credits with the majority of credit at level 5. Year 3: Pass at least 90 credits at level 6 or above.</td>
</tr>
<tr>
<td>☐ Other (please specify below):</td>
<td></td>
</tr>
<tr>
<td>4. Exit Awards:</td>
<td>Credit: Level:</td>
</tr>
<tr>
<td>☒ Diploma in Higher Education (Dip HE)</td>
<td>240 Year 1: Pass 120 credits with the majority of credit at level 4. Year 2: Pass 120 credits with the majority of credit at level 5.</td>
</tr>
<tr>
<td>☒ Certificate in Higher Education (Cert HE)</td>
<td>120 Year 1: Pass 120 credits with the majority of credit at level 4.</td>
</tr>
<tr>
<td>5. Date of first intake:</td>
<td>September 2006</td>
</tr>
<tr>
<td>6. Frequency of intake:</td>
<td>Annually in September</td>
</tr>
<tr>
<td>7. Duration and mode of study:</td>
<td>Full-time, 3 years</td>
</tr>
</tbody>
</table>
8. **Applicable framework:** Model for Non-Clinical First Degree Programmes

   **Framework exemption required:**
   - ☒ No (please go to section 9)
   - ☐ Yes (please provide a brief summary below)

9. **Applicable Ordinance:** General Ordinance for Undergraduate Degrees

   **New/revised Ordinance required:**
   - ☐ No (please go to section 10)
   - ☐ Yes (please provide a brief summary below)

10. **Faculty:** Faculty of Science and Engineering

11. **Level 2 School/Institute:** School of Environmental Sciences

12. **Level 1 unit:** Department of Earth, Ocean and Ecological Sciences

13. **Campus:** Liverpool

14. **Other contributors from UoL:** School of Life Sciences

15. **Teaching other than at UoL:**

16. **Director of Studies:** Prof David Shaw (School) Dr Jonathan Green (Programme)

17. **Board of Studies:** School of Environmental Sciences

18. **Board of Examiners:** School of Environmental Sciences

19. **External Examiner(s):**
    - Name: Professor John Spicer, Professor of Marine Zoology, Plymouth University
20. **Professional, Statutory or Regulatory body:**
   Accreditation by The Institute of Marine Engineering, Science and Technology (IMarEST).

21. **QAA Subject benchmark Statements(s):**
   Earth Science, Environmental Sciences and Environmental Studies

22. **Other reference points:**
   None

23. **Fees:**
   Full time standard fees

24. **Additional costs to the student:**
   Essential fieldwork costs will be covered by the School of Environmental Sciences. Students may be asked to contribute towards the cost of food in catered field stations. Students are responsible for the purchase of text books. The overseas study visit in ENVS301 is currently subsidised by the School (£200) but may incur additional costs to the student.

25. **AQSC approval:**

### Part B: Programme Aims & Objectives

26. **Aims of the Programme**

The aim of the degree programme is to help students develop a broad understanding of the marine environment, covering key discipline areas such as ecology, physiology, conservation biology, molecular biology, oceanography, environmental management and statistics. Students will understand:

- The importance of diversity (genetic, species, habitat and ecosystem level),
- The variability in functional ecology and physiology of marine organisms,
- The spatial and temporal dynamics of marine species and the environment they live in,
- The complexity of marine ecosystems, and
- The ways in which humans interact with this.

The programme emphasises high-quality research skills and aims to teach students to employ these in the field and laboratory where required. There is a strong practical element running through each year of study to provide the necessary expertise for marine ecological and environmental investigations and assessment. This practical element involves various fieldwork exercises including opportunities in all three years of the programme to perform work at sea using the University of Liverpool’s research vessel Marisa.
Programme Specification UG

Aim:

1. Understand the big issues currently threatening the sustainability of marine ecosystems (e.g. food security, climate change, biodiversity loss, fuel supply)
2. Understand how marine ecosystems vary and what the drivers of change in these systems are (both natural and anthropogenic)
3. Be equipped to play leading roles in industry, research and the public services.
4. Have the skills to adapt and respond positively to changing circumstances.
5. Have the capacity for individual work and teamwork.
6. Be lifelong learners with intellectual and practical skills.

27. Learning Outcomes

No. Learning outcomes – Bachelor’s Honour’s degree

1. The need for both a multidisciplinary and an interdisciplinary approach in advancing knowledge and understanding of Marine systems, drawing, as appropriate, from the natural and the social sciences.
2. The importance of hierarchical processes within ecology (from the biochemical to the community level) and the contributions of evolutionary biology to understanding change.
3. A sound knowledge of the processes which shape the natural world at different temporal and spatial scales and their influence on and by human activities.
4. A sound grasp of the terminology, nomenclature and classification systems used.
5. Experience and understand methods of acquiring, interpreting and analysing information with a critical understanding of the appropriate contexts for their use.
6. An informed view of the issues concerning the availability and sustainability of resources, for example, the different value sets relating to the Earth’s resources as commodities and/or heritage.
7. An informed view of the contribution of Marine Biology to debates on environmental issues and how knowledge of these forms the basis for informed concern about the Earth and its people.
8. An awareness of the contribution of Marine Biology to the development of knowledge about the world we live in.
9. An appreciation of the relevance of knowledge and skills acquired on their programme of study to professional activity, responsible citizenship and the world of work.

No. Learning outcomes – Bachelor’s Non-Honour’s degree

1. The need for both a multidisciplinary and an interdisciplinary approach in advancing knowledge and understanding of Marine systems, drawing, as appropriate, from the natural and the social sciences.
2. The importance of hierarchical processes within ecology (from the biochemical to the community level) and the contributions of evolutionary biology to understanding change.
3. A knowledge of the processes which shape the natural world at different temporal and spatial scales and their influence on and by human activities.
4. A grasp of the terminology, nomenclature and classification systems used.
5. Experience and understand methods of acquiring, interpreting and analysing information...
Learning Outcomes

No. Learning outcomes – Diploma in Higher Education award

1 Improved understanding of the need for both a multidisciplinary and an interdisciplinary approach in advancing knowledge and understanding of Marine systems, drawing, as appropriate, from the natural and the social sciences.

2 Improved understanding of the importance of hierarchical processes within ecology (from the biochemical to the community level) and the contributions of evolutionary biology to understanding change.

3 An intermediate knowledge of the processes which shape the natural world at different temporal and spatial scales and their influence on and by human activities.

4 An intermediate grasp of the terminology, nomenclature and classification systems used.

5 An intermediate experience and understanding of methods of acquiring, interpreting and analysing information with some understanding of the appropriate contexts for their use.

6 An intermediate view of the issues concerning the availability and sustainability of resources, for example, the different value sets relating to the Earth's resources as commodities and/or heritage.

7 An intermediate view of the contribution of Marine Biology to debates on environmental issues and how knowledge of these forms the basis for informed concern about the Earth and its people.

8 An intermediate awareness of the contribution of Marine Biology to the development of knowledge about the world we live in.

9 An intermediate appreciation of the relevance of knowledge and skills acquired on their programme of study to professional activity, responsible citizenship and the world of work.

Learning Outcomes

No. Learning outcomes – Certificate in Higher Education award

1 A basic understanding of the need for both a multidisciplinary and an interdisciplinary approach in advancing knowledge and understanding of Marine systems, drawing, as appropriate, from the natural and the social sciences.

2 A basic understanding of the importance of hierarchical processes within ecology (from the biochemical to the community level) and the contributions of evolutionary biology to understanding change.

3 A basic knowledge of the processes which shape the natural world at different temporal and spatial scales and their influence on and by human activities.
<table>
<thead>
<tr>
<th>Learning outcome No.</th>
<th>Module(s) in which this will be delivered</th>
<th>Mode of assessing achievement of learning outcome</th>
<th>PSRB/Subject benchmark statement (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ENVS122, ENVS157, ENVS251, ENVS328, ENVS391</td>
<td>Exam, Exam/Practical Reports, Exam/Essay/Workshop report, Exam/Essay/Workshop reports</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>LIFE101, LIFE103, ENVS122, ENVS157, ENVS171, ENVS251, ENVS265, ENVS266, ENVS328, ENVS391</td>
<td>Exam, Exam, Exam, Field &amp; Lab notebook/Practical Report, Exam/Practical Reports, Exam/Practical Reports, Essays/Exam, Practical Reports, Exam/Essay/Workshop report, Exam/Essay/Workshop reports</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>ENVS121, ENVS122, ENVS328</td>
<td>Exam/Lab Report/Field Report, Exam, Exam/Essay/Workshop report</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>ENVS104, ENVS171, ENVS215, ENVS222, ENVS271</td>
<td>GIS Assessments, Field &amp; Lab notebook/Practical Report, Practical Reports, Exam/Project Reports, Practical Reports</td>
<td></td>
</tr>
</tbody>
</table>
28. Skills and Other Attributes

No. Skills and attributes:

Within the framework of the programmes and the subject-based learning outcomes outlined above, students will have considerable opportunities to learn, practise and be assessed in the following transferable key skills recommended in the QAA subject benchmark statements:

1. **Intellectual (for learning and research)**
   (a) Analysing, synthesising and summarising information
   (b) Collecting and integrating evidence to formulate and test hypotheses
   (c) Applying knowledge and understanding
   (d) Recognising moral and ethical issues

2. **Practical (learning, research and employability)**
   (a) Planning, conducting, and reporting on investigations
   (b) Collecting, recording and analysing data using appropriate techniques in field and laboratory
   (c) Undertaking field and laboratory investigations in a responsible and safe manner
   (d) Referencing work in an appropriate manner

3. **Communication (learning, research and employability)**
   (a) Receiving and responding to a variety of information sources (textual, numerical, graphical, verbal)
   (b) Communicating appropriately to a variety of audiences in written, verbal and graphical forms

4. **Numeracy and ICT (research and employability)**
   (a) Issues of sample selection, accuracy, precision and uncertainty during collection, recording and analysis in the field or lab
   (b) Preparing, processing, interpreting and presenting data (including GIS)
   (c) Solving numerical problems using computer and non-computer based techniques
   (d) Using the internet critically as a means of communication and source of information

5. **Interpersonal (learning, research and employability)**
   (a) Identifying individual and collective goals and responsibilities
   (b) Recognising and respecting the views and opinions of other team members
   (c) Evaluating performance as an individual and a team member

6. **Self Management (learning, research and employability)**
   (a) Developing skills for self-managed and lifelong learning (independence, time management, organisation)
   (b) Identifying and working towards targets for personal, academic and career development
   (c) Developing an adaptable and flexible approach to work and study.
### 28a. Mapping of skills and other attributes:

<table>
<thead>
<tr>
<th>Skills and other attributes No.</th>
<th>Module(s) in which this will be delivered and assessed</th>
<th>Learning skills, research skills, employability skills</th>
<th>Mode of assessing achievement of the skill or other attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. (a)</td>
<td>All modules.</td>
<td>LR</td>
<td>Essay/Exam/Project Report/Poster/Talk</td>
</tr>
<tr>
<td>(b) ENVS104, ENVS171, ENVS204,</td>
<td></td>
<td>LR</td>
<td>Project Report/Practical Reports</td>
</tr>
<tr>
<td>ENVS271, ENVS215, ENVS305</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) All modules</td>
<td></td>
<td>LR</td>
<td>Essay/Exam/Project Report/Poster/Talk</td>
</tr>
<tr>
<td>(d) ENVS122, ENVS157, ENVS204,</td>
<td></td>
<td>LR</td>
<td>Essay/Exam</td>
</tr>
<tr>
<td>ENVS251, ENVS328, ENVS301</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. (a)</td>
<td>ENVS104, ENVS171, ENVS204,</td>
<td>LRE</td>
<td>Project Report/Practical Report/Lab &amp; Field Book</td>
</tr>
<tr>
<td>ENVS271, ENVS215, ENVS301,</td>
<td></td>
<td></td>
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<tr>
<td>ENVS305</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(b) ENVS104, ENVS171, ENVS204,</td>
<td></td>
<td>LRE</td>
<td>Project Report/Practical Report/Lab &amp; Field Book</td>
</tr>
<tr>
<td>ENVS271, ENVS301,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENVS305</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) ENVS104, ENVS171, ENVS204,</td>
<td></td>
<td>LRE</td>
<td>Project Report/Practical Report/Lab &amp; Field Book</td>
</tr>
<tr>
<td>ENVS215, ENVS271, ENVS301,</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ENVS305</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) ENVS104, ENVS204, ENVS301,</td>
<td></td>
<td>LRE</td>
<td>Essay/Project Report</td>
</tr>
<tr>
<td>ENVS305</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. (a)</td>
<td>All modules</td>
<td>LRE</td>
<td>Essay/Exam/Project Report/Poster/Talk</td>
</tr>
<tr>
<td>(b) All modules</td>
<td></td>
<td>LRE</td>
<td>Essay/Project Report/Poster/Talk</td>
</tr>
<tr>
<td>4. (a)</td>
<td>ENVS104, ENVS171, ENVS215,</td>
<td>RE</td>
<td>Project Report/Practical Report/Lab &amp; Field Book</td>
</tr>
<tr>
<td>ENVS222, ENVS301, ENVS305</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(b) ENVS104, ENVS171, ENVS215,</td>
<td></td>
<td>RE</td>
<td>Project Report/Practical Report/Lab &amp; Field Book/Map</td>
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<tr>
<td>ENVS222, ENVS301, ENVS305</td>
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<td></td>
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</tr>
<tr>
<td>(c) ENVS104, ENVS171, ENVS215,</td>
<td></td>
<td>RE</td>
<td>Project Report/Practical Report/Exam</td>
</tr>
<tr>
<td>ENVS222, ENVS301, ENVS305</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) ENVS104, ENVS204, ENVS301</td>
<td></td>
<td>RE</td>
<td>Essay/Exam</td>
</tr>
</tbody>
</table>
29. **Career opportunities:**

Over a third of graduates in Marine Biology go on to take higher degrees (M.Sc., M.Phil., Ph.D.) and stay in the environmental or biological sciences. A significant proportion of graduates select the public sector and are in demand by research institutes, the Environment Agency, conservation agencies and government departments such as DEFRA. In the private sector most are attracted to environmental consultancies, conservation groups and the aquaculture industry, especially abroad. Our graduates are also well qualified for employment opportunities in computing, accountancy, management and journalism, tasks for which they have proved to be well equipped. Several students each year enter the teaching profession after obtaining a PGCE qualification.

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### Part C: Entrance Requirements

30. **Academic Requirements:**

The typical offer for entrance to this degree program will be equivalent to 320 UCAS tariff points. Applicants will be required to offer Biology and a second science (Chemistry, Physical, Maths, Geography, Geology) at A2 level. The balance of the tariff points may come from either an additional subject at A2 level, or a combination which might include A2 and AS level subjects, vocational A levels and Key Skills. General Studies is not accepted. Applications are also welcome from students with BTEC, EB/FB/IB, Advanced GNVQ, ILC and SHCE qualifications. Mature applicants are welcome and will normally be expected to show evidence of recent academic study, such as an appropriate Access course. International students should have a TOEFL score of 600 or above in paper-based tests, or 250 or above in computer based tests. An IELTS score of 6 or above is acceptable provided that 5.5 or above was obtained in all assessments.

31. **Work experience:**

Not a specific requirement, but the importance of independent work experience is stressed during tutorials and in a dedicated session as part of ENVS204.
32. **Other requirements:**

Not applicable.

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**Part D: Programme Structure**

33. **Programme Structure:**

The programme is studied at three Levels (equivalent to 3 years of full time study). Entry and exit points at each Level (together with the qualifications gained by their credit accumulation) and progression routes are indicated in the first row for each year. Marine Biologists take a range of core theory modules in the first year covering aspects of biology, ecology and the physical environment. This allows students to experience the breadth of subjects available for further study, which will help inform choice of subsequent modules. Thereafter, students must complete required modules which integrate theory and practice, supported by compulsory modules in conducting field investigations, experiments and statistics. Alongside other optional modules in theory and practice, this allows students to fulfil the requirements for entry into FHEQ Level 6 Marine Biology, but also allows for diversity in learning experiences across a range of topics. This choice allows for flexibility, in that students may select an alternative Honours subject at the end of FHEQ Level 5, provided that they have studied the required modules for that subject.

Students will attend three Field Courses in Marine Biology during the programme. The value for each module is indicated in brackets, normally 15 credits. A 15 credit module is equivalent to 150 h of formal or private study. Choice of modules may be influenced by timetabling.
### Year 1

#### REQUIRED MODULES

**All Year**

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS104 Study Skills and GIS (Ecology &amp; Marine Biology) 15 (count in 1st semester)</td>
<td>ENVS117 Practical Skills for Ecologists 15</td>
</tr>
<tr>
<td>ENVS121 Marine Biology: Life in the Seas and Oceans 15</td>
<td>ENVS122 Marine Ecosystems: Diversity Processes and Threats 15</td>
</tr>
<tr>
<td>LIFE103 Evolution 15</td>
<td></td>
</tr>
</tbody>
</table>

#### OPTIONAL MODULES

**Semester 1** (choose 1 module)

- ENVS119 Living with Environmental Change 15
- ENVS111 Climate, Atmosphere & Oceans 15
- ENVS117* Maths & Physics for Environmental Scientists 15
- LIFE101 Molecules and Cells 15

**Semester 2** (choose 2 modules)

- ENVS157 Ecology and Conservation 15
- ENVS158 Ocean Chemistry and Life 15
- LIFE108 Applied Genetic and Molecular Technologies 15
- LIFE110 Microbiology 15
- LIFE120 Ecology and the Global Environment 15
- ENVS153* Environmental Chemistry 15

120 credits are required in total in Year 1

*Students who are interested in keeping their options open in terms of changing to C1F7 (Marine Biology with Oceanography) in Year 2 will need either Maths A level or to have taken ENVS117 and/or Chemistry A level or to have taken ENVS153. Please check module specifications and pre-requisites for Year 2 Ocean Science modules.*
## Year 2

### REQUIRED MODULES

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS204 Research Skills (Ecology) 15</td>
<td></td>
</tr>
<tr>
<td>ENVS215 Marine Ecology Field Studies 15</td>
<td>ENVS251 Marine Ecology and Resource Exploitation 15</td>
</tr>
<tr>
<td>ENVS222 Statistics for Environmental Scientists 15</td>
<td>ENVS271 Marine Biology Practical Skills 7.5</td>
</tr>
<tr>
<td></td>
<td>LIFE230 Advanced Techniques in Zoology 7.5</td>
</tr>
</tbody>
</table>

### OPTIONAL MODULES

#### Semester 1 (choose 2 modules)

<table>
<thead>
<tr>
<th>Module</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS265 Life in a Dynamic Ocean</td>
<td>15</td>
</tr>
<tr>
<td>ENVS232 Marine Pollution</td>
<td>15</td>
</tr>
<tr>
<td>LIFE211 Animal Behaviour</td>
<td>15</td>
</tr>
<tr>
<td>LIFE213 Evolutionary Biology</td>
<td>15</td>
</tr>
</tbody>
</table>

#### Semester 2 (choose 1 module)

<table>
<thead>
<tr>
<th>Module</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIFE212 Comparative Animal Physiology</td>
<td>15</td>
</tr>
<tr>
<td>LIFE214 Population and Community Ecology</td>
<td>15</td>
</tr>
<tr>
<td>ENVS255 Understanding Marine and Terrestrial Spatial Ecology Using GIS</td>
<td>15</td>
</tr>
</tbody>
</table>

120 credits are required in total in Year 2
Year 3

**REQUIRED MODULES**

<table>
<thead>
<tr>
<th>Module Code</th>
<th>Module Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS301</td>
<td>Marine Biology: Contemporary Issues</td>
<td>30</td>
</tr>
<tr>
<td>ENVS305</td>
<td>Honours Project – Ecology &amp; Environment/Marine Biology</td>
<td>30</td>
</tr>
</tbody>
</table>

**OPTIONAL MODULES**

(Choose 60 credits. We recommend you split these evenly between semesters.)

<table>
<thead>
<tr>
<th>Semester 1</th>
<th>Semester 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS310</td>
<td>ENVS383</td>
</tr>
<tr>
<td>ENVS376</td>
<td>LIFE322</td>
</tr>
<tr>
<td>ENVS341</td>
<td>LIFE324</td>
</tr>
<tr>
<td>LIFE337</td>
<td>LIFE326</td>
</tr>
<tr>
<td>LIFE339</td>
<td></td>
</tr>
</tbody>
</table>

Surviving the Marine Environment: Adaptation, Behaviour & Conservation
Coastal Environments: Spatial and Temporal Change
Marine Planning Theory & Practice
Advanced Topics in Ecology
Integrative Comparative Animal Physiology
Marine Ecology: Theory and Applications
Current Topics in Animal Behaviour
Current Skills and Topics in Evolutionary Biology
Conservation Biology

120 credits are required in Year 3

Other FHEQ Level 6 modules may be available. Please consult with your programme director.
34. **Industrial placement/work placement/year abroad:**

FHEQ Level 5 students are encouraged to apply for a competitive sandwich placement before returning to complete FHEQ Level 6. Opportunities exist within the National Oceanography Centre, Liverpool and the Countryside Commission for Wales.

Otherwise, students are encouraged to seek work experience in a relevant field.

As part of ENVS301 students undertake a self-organised overseas study visit to an institution to assess and report on international practice within marine biology. Examples include (a) assessment of use of biomarkers in shellfish aquaculture in Crete and (b) evaluation of ecotourism benefits of turtle watching in Japan.

35. **Liaison between the Level 2 Schools/Institutes involved:**

Programme Group Meetings will be held once per semester including representatives from both SoES and SoLS. These meetings will report to the Board of Studies of both Schools.

### Part E: Learning, Teaching And Assessment Strategies

36. **Learning, Teaching and Assessment Strategies:**

The Marine Biology degree programme operates under the teaching and learning policies of the School of Environmental Sciences and the University of Liverpool. The entire teaching, learning and assessment programme is subject to approval from both the School Teaching and Learning Committee (which contains student representatives) and the Board of Studies. Teaching, learning and assessment strategies are outlined in the student handbook, and differences between years are highlighted at the start of each year. For each module, the Handbooks give details of eligibility and prerequisites, content, structure, learning objectives and assessment structure.

36a. **Learning, Teaching and Assessment methods:**

**Learning** methods involve a mix of guided study (lectures, seminars, tutorials), guided ‘learning through doing’ (e.g. tutorials, practicals, dissertation), guided self-reflexive learning (tutorials, field trips, dissertation), and independent study. The former methods are more commonly used in FHEQ Level 4 courses, with the latter methods becoming more prominent in FHEQ Level 5 and FHEQ Level 6 courses.

**Teaching** methods include a mix of lectures, tutorials, seminars, field classes, practicals and individual work under supervision. The maximum size of a tutorial group is 8; normal tutorial group size ranges between 5-8. Seminar groups normally do not exceed 30 students. Group work is undertaken mainly in the field, normally involving groups of no more than 4 students. With progression from Level 1 to Level 3 (FHEQ Level 4-6) the material covered increasingly challenges students to engage with current debates, to think critically and to study independently.

**Assessment** methods are tailored to the specific needs of each module, and are designed to reflect student progression from year to year. Assessment methods include exams, assessed essays, laboratory and computer practicals, field assignments, group work, oral presentations and dissertations. Assessment is designed to both motivate and monitor student performance in attaining appropriate standards in the programme specific knowledge and skills outlined in section A. Whilst the majority of assessment is summative, a number of modules also use formative assessment.

- FHEQ Level 4 exams generally comprise multiple choice questions (MCQs), or a mix of MCQs and short answer questions.
- FHEQ Level 5 and 6 exams (which count towards the final degree classification) are
generally assessed by a two-hour exam which includes two essays and some short answer questions, or by coursework which may include an assessed essay, project report or scientific paper.

- A number of courses are fully assessed by a series of reports on practicals or field exercises. The length and challenge of these exercises vary according to level of the course.
- A small number of courses (mainly FHEQ Level 6) are also assessed in full by a three-hour three-question exam. The weight given to these exams reflects the year in which they are taken.
- Oral presentation is formally taught, practiced and assessed in FHEQ Level 4 and 5 tutorials, some FHEQ Level 5 and 6 field classes and the FHEQ Level 6 honours project.
- To reflect progression, the School uses level-specific assessment criteria. Wherever possible, all exams and submitted assessed work are marked and moderated anonymously. The exceptions are: tutorial assignments; oral presentations; field class group-work; dissertations.

37. **Assessment information for students:**

**Code of Practice on Assessment**

The University has a Code of Practice on Assessment which brings together the main institutional policies and rules on assessment. The Code is an authoritative statement of the philosophy and principles underlying all assessment activities and of the University’s expectations in relation to how academic subjects design, implement and review assessment strategies for all taught programmes of study.

The Code of Practice includes a number of Appendices which provide more detail on the regulations and rules that govern assessment activity; these include:

- The University marks scale, marking descriptors and qualification descriptors;
- The model for non-clinical first degree programmes;
- The system for classifying three-year, non-clinical, undergraduate degrees;
- The system for classifying four-year, non-clinical, undergraduate degrees that include a year in industry or a year abroad;
- Information about students’ progress, including guidance for students;
- The procedure for assessment appeals;
- Regulations for the conduct of exams;
- The University’s policy on making adjustments to exam arrangements for disabled students.
- The code of practice relating to external examining (see also below)
- The Academic Integrity Policy, which covers matters such as plagiarism and collusion and includes guidance for students;
- The policy relating to mitigating circumstances which explains what you should do if you have mitigating circumstances that have affected assessment; and
- The policy on providing students with feedback on assessment.

Please click [here](#) to access the Code of Practice on Assessment and its appendices; this link will also give you access to assessment information that is specific to your cohort:

A summary of key assessment information is also available in the ‘Your University’ handbook.

**Marking criteria:** Details of marking criteria can be found in the School of Environmental Sciences Undergraduate Handbook.

The marking descriptors for the School of Environmental Sciences will be used in marking all work on
this programme.

Qualitative marking descriptors and generic learning outcomes for levels 4-6

Level 4 “Knowledge and understanding of underlying concepts and principles. Some understanding and experience of the methods required to address problems.”

Level 5 “Knowledge and critical understanding of principles, and an understanding how these principles have been developed and applied. Knowledge of the methods and approaches required to solve problems. Experience in the analysis of collected data.”

Level 6 “Comprehensive knowledge, with areas of specialisation. An ability to synthesise and evaluate critically evidence to derive and support conclusions. An ability to define and address complex problems by applying and analysing appropriate knowledge and skills.”

These are:

<table>
<thead>
<tr>
<th>Mark</th>
<th>Class</th>
<th>Criteria for written examinations and course essays/reports</th>
<th>Criteria for presentation of project work / dissertation</th>
<th>Criteria for interpretation of project work / dissertation</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-100</td>
<td>I</td>
<td><strong>Outstanding answer.</strong> Factually faultless; strong degree of originality; clearly directed; outstanding coverage; extensive evidence of supplementary reading; very well written.</td>
<td>Dissertation organised &amp; presented appropriately, clearly, succinctly &amp; professionally; could be published with only minor corrections. Outstanding evaluation of relevant (and recent) literature &amp; clear statement of aims. References correctly cited and presented. Information can be grasped at a glance; no duplication.</td>
<td>Outstanding handling of data, innovative &amp; original, with maximum information obtained from results, whether quantitative or otherwise, &amp; implications evaluated both in the light of other, published work &amp; of the limitations of experimental procedures used. Where appropriate, full statistical treatment employed. Awareness of how the work might develop. Clear separation of evidence and interpretation</td>
</tr>
<tr>
<td>80-89</td>
<td>Excellent answer. Factually faultless; clearly directed logical; evidence of wide supplementary reading; originality present; very well written</td>
<td>As above but some corrections, deletions &amp; amendments would be needed before publication. Style of writing clear and perceptive.</td>
<td>As above, but with a few omissions in both treatment &amp; interpretation of information. No evidence of over interpreting data. Clear separation of evidence and interpretation</td>
<td></td>
</tr>
<tr>
<td>70-79</td>
<td><strong>Very Good answer.</strong> Presentation is fresh, logical &amp; perhaps enlightening; some originality of thought or approach; sound evidence of outside reading; excellent coverage; very well written &amp; directed.</td>
<td>Clear &amp; easy to read, but not necessarily publishable. Presentation first class but with occasional repetition. Some inadequacies of style, leading to occasional misunderstandings.</td>
<td>Handling of own information &amp; literature excellent for the most part, but just occasionally reading more into the data than errors and/or good judgement would warrant. Clear separation of evidence and interpretation</td>
<td></td>
</tr>
<tr>
<td>60-69</td>
<td>Good answer. Clear, logical; thorough; factually sound (sufficiency of facts and/or no serious errors); evidence of outside reading and/or originality; well written &amp; directed.</td>
<td>Very good, logical presentation; writing style generally good, but some paragraphs obscure. Some repetition of both information &amp; remarks. Overall easy to follow.</td>
<td>On the whole data &amp; literature handled very well, though the full implications of all the data not appreciated, &amp; some data over-enthusiastically interpreted. Clear separation of evidence and interpretation</td>
<td></td>
</tr>
<tr>
<td>50-59</td>
<td>Adequate answer. Accurate; perhaps some errors or key facts missing; no originality, expression/style/grammar moderate. Minimal evidence of reading.</td>
<td>Good presentation, but writing style not very good. Often inappropriate choice of illustrations, possibly too few or too many, too small, too complex, etc. Graphs &amp; tables not very well laid out. Repetition or poor</td>
<td>As above, but some of the data handled poorly, literature use incomplete, and interpretations sometimes presented as though they are evidence.</td>
<td></td>
</tr>
<tr>
<td>Score Range</td>
<td>Grade</td>
<td>Description</td>
<td>Strengths</td>
<td>Weaknesses</td>
</tr>
<tr>
<td>-------------</td>
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<td>-------------</td>
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<td>------------</td>
</tr>
<tr>
<td>40-49</td>
<td>III</td>
<td>Incomplete answer. Information fairly sparse; some inaccuracies; broadly relevant to the question but poor coverage of lecture material; no sign of outside reading; expression/style/grammar poor.</td>
<td>Overall impression satisfactory &amp; gives a reasonable knowledge of the major findings of the project, but poor presentation, e.g. graphs with bad scales and/or too few points, illustrations not well chosen, written style unclear, poor organisation of references etc.</td>
<td>Handling of results is poor, e.g. evidence incorrectly interpreted (evidence and interpretation not clearly separated), wrong statistical procedures etc. but, on the whole, data comprehensively presented. Little awareness of literature or of how the work might develop.</td>
</tr>
<tr>
<td>35-39</td>
<td>Fail</td>
<td>Deficient answer. Poorly directed at question; many omissions or errors but some relevant facts correct, the general drift may appear sensible, but understanding poor, expression/style/grammar poor.</td>
<td>Presentation with many inadequacies, difficult to ascertain all that has been discovered. However, a significant portion of the report is reasonably understandable.</td>
<td>Insufficient data collected to support valid interpretations. Handling of results shows many inadequacies and, a sizeable proportion of the data wrongly interpreted. Literature awareness minimal.</td>
</tr>
<tr>
<td>16-34</td>
<td>Fail</td>
<td>Very deficient answer. Largely irrelevant to the question; a few facts correct, but many omissions &amp; errors, expressions/ style/ grammar very poor.</td>
<td>Inadequate presentation. Information mixed up &amp; not sensibly organised. Painful reading and, at the end, little clear idea of the major findings of the investigation.</td>
<td>Insufficient data collected to support valid interpretations. Inadequate handling of most results in every way. The majority of the data wrongly interpreted. No literature awareness.</td>
</tr>
<tr>
<td>0-15</td>
<td>Fail</td>
<td>Totally inadequate answer. Little or no relevance to question or little or no substance/factual material; approach may be all wrong; expression/style/grammar dreadful.</td>
<td>Very poor presentation. Information unorganised into any logically apparent sequence. Findings incoherent.</td>
<td>Insufficient data collected to support valid interpretations. Totally inadequate handling of results in every way. All/nearly all data wrongly interpreted, or left uninterpreted. No literature awareness.</td>
</tr>
</tbody>
</table>

Compensation applies between criteria. For example, the inclusion of only limited factual material may be compensated positively by very clear direction of that material to the question. Where assessment are marked using non-standard assessment criteria, these will be advertised at the time the assessment is set, and will be made available for inspection on VITAL.

### 38. Student representation and feedback:

A School of Environmental Science's Staff Student Liaison Committee (SSLC) operates in accordance with the University Code of Practice on Student Representation (a copy of the code can be accessed at: [www.liv.ac.uk/tqsd/pol_strat_cop/cop_on_student_representation.doc](http://www.liv.ac.uk/tqsd/pol_strat_cop/cop_on_student_representation.doc)), Committees operate at the level of the Department in the first place (Years One to Three) and there is a separate M-level Committee. All committees comprise student representatives from each year of the School's programs, plus representatives of the Academic Staff. The terms of reference of SSLCs are wide-ranging and largely self-determined, but are likely to include issues associated with lectures, practicals, timetables and assessments, module evaluations, tutorial arrangements, non-curricular student activities (e.g. Student Societies), student facilities or proposed changes in University and School teaching and assessment arrangements. The Minutes of each meeting are considered by the School's Learning and Teaching Group and important matters are forwarded to the School’s Board of Studies and/or the Head of School. Further details about the SSLC can be found in the Environmental Science’s module in VITAL: [https://vital.liv.ac.uk/webapps/login/](https://vital.liv.ac.uk/webapps/login/)

All modules are routinely evaluated by students using a Web-based system, and summary data is reviewed by the School's Quality Assurance Group. In addition,
lecturers are peer-reviewed on a rolling 3-year basis. Finally, all students are encouraged to provide informal feedback, in person or by email, either direct with the teaching staff concerned, or via their allocated tutor.

### Part F: Status Of Professional, Statutory Or Regulatory Body Accreditation

**39. Status of Professional, Statutory or Regulatory Body Accreditation:**

The BSc in Marine Biology at Liverpool is accredited by the Institute of Marine Engineering, Science and Technology (IMarEST) as meeting the base requirements, in full, for registration as a Registered Marine Scientist and the academic base requirements, in part, for registration as a Chartered Scientist and Chartered Marine Scientist.

### Part G: Diversity & Equality Of Opportunity And Widening Participation

**40. Diversity & Equality of Opportunity and Widening Participation:**

This program complies with the University's Policy on Diversity and Equal Opportunity which can be found at: [http://www.liv.ac.uk/hr/diversity_equality/Policies%2C_Schemes_and_Action_Plans.htm](http://www.liv.ac.uk/hr/diversity_equality/Policies%2C_Schemes_and_Action_Plans.htm)
## Annex 1

### Annex of Modifications Made to the Programme

Please complete the table below to record modifications made to the programme.

<table>
<thead>
<tr>
<th>Description of modification (please include details of any student consultation undertaken or confirm that students’ consent was obtained where this was required)</th>
<th>Minor or major modifications</th>
<th>Date approved by FAQSC</th>
<th>Date approved by AQSC (if applicable)</th>
<th>Cohort affected</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHEQ Level 5 module removed (15 credits): ENVS218</td>
<td>MINOR (Programme)</td>
<td></td>
<td></td>
<td>2015/16</td>
</tr>
<tr>
<td>FHEQ Level 5 module introduced (15 credits): ENVS232</td>
<td>MINOR (Programme)</td>
<td></td>
<td></td>
<td>2015/16</td>
</tr>
<tr>
<td>FHEQ Level 6 module introduced (15 credits): ENVS341</td>
<td>MINOR (Programme)</td>
<td></td>
<td></td>
<td>2014/15</td>
</tr>
</tbody>
</table>