

| PROGRAMME SPECIFICATION for an award of the University of East Anglia | | | | | | |
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| 1 | Title | Applied Ecology and Conservation | | | | |
| 2 | Course Code(s) | T1CD14101 (Full-Time) T2CD14201 (Part-Time) | | | | |
| 3 | School (s) | Biological Sciences | | | | |
| 4 | Faculty | Faculty of Science | | | | |
| 5 | Date of first student intake | Not Applicable – current course, already available | | | | |
| 6 | Award | MSc | | | | |
| 7 | Interim Award/ degree title | Standard | Certificate of Higher Education and Diploma of Higher Education (UG); Postgraduate Certificate or Postgraduate Diploma (PG). | | | x |
| | | Non- standard (detail) | | | | |
| 8 | Level | Level 6 FHEQ (Bachelors) | | | | |
| | | Level 7 FHEQ (Masters/Integrated Masters) | | | | |
| | | Other (specify) | | | | |
| 9 | Award Regulatory Framework | Bachelors and Integrated Masters | | | | |
| | | Common Masters Framework | | | | x |
| | | Other (specify) | | | | |
| | | Award Regulations are published in the Calendar | | | | |
| 10 | Course-specific regulatory requirements | N/A | | | | |
| 11 | Length of course | 1 year full-time 2 years part-time | | | | |
| 12 | Board of Examiners | https://portal.uea.ac.uk/learning-and-teaching/staff/assessment/exams/board-of-examiners | | | | |
| 13 | Mode of Attendance | Full-time | x | Part-time | x | Other |
| 14 | Professional Accreditation details | N/A | | | | |
| 15 | Placement information | | | | | |
| | | Professional placement | | | | |

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| | | Year Abroad | |
| | | Year in Industry | |
| | | Semester Abroad | |
| | | Other | |
| | | None | X |
| 16 | Relevant Subject Benchmark | http://www.gaa.ac.uk/AssuringStandardsAndQuality/subject-guidance/Pages/Subject-benchmark-statements.aspx | |
| 17 | Course Description | <p>The Masters programme in Applied Ecology and Conservation can be taken either as a full-time or part-time programme and consists of a total of 180 credits. Credit is awarded on the successful completion of assessment for each module and the attainment of the learning outcomes.</p> <p>As a full time programme, it runs for one year. 100 credits are completed within the first half of the year, spanning one and a half semesters. These are taught modules, 60 credits of which are compulsory, and the remaining 40 are selected from a range of modules spanning two schools, BIO and ENV. Modules offered each year vary depending on time-tabling constraints, unavoidable in such a multi-disciplinary programme. There is one optional module that is work-based.</p> <p>The compulsory dissertation module can be carried out within the University or in collaboration with one of the many outside institutions involved in this MSc programme. The dissertation project is written up in the style of a paper and this dissertation, together with a seminar presentation on the project, is worth 80 credits. Many of these dissertation studies are subsequently published in peer-reviewed journals. Students are expected to be in the field, or undertaking desk-based data analyses, for between 2 and 3 months, with approximately 40 hours per week spent on their project. On return from the field, students are expected to spend a further 1 to 2 months writing up the project, spending approximately 40 hours per week in personal study time.</p> <p>The part time programme runs over two years. In the first year, 80 credits are typically completed over two semesters. These comprise taught modules, 60 credits of which are compulsory, and the remaining 20 are selected from a range of modules spanning two schools, BIO and ENV. Modules offered each year vary depending on time-tabling constraints, unavoidable in such a multi-disciplinary programme. There is one optional module that is work-based. In the second year, the remaining 20 credits</p> | |

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| | | <p>of modules and the compulsory dissertation module are undertaken. The dissertation project can be carried out within the University or in collaboration with one of the many outside institutions involved in this MSc programme.</p> <p>The dissertation project is written up in the style of a paper and this dissertation, together with a seminar presentation on the project, is worth 80 credits. Many of these dissertation studies are subsequently published in peer-reviewed journals. Students are expected to be in the field, or undertaking desk-based data analyses, for between 2 and 3 months, with approximately 40 hours per week spent on their project. On return from the field, students are expected to spend a further 1 to 2 months writing up the project, spending approximately 40 hours per in personal study time.</p> <p>In addition to faculty with a broad range of research interests, the School also has Honorary Lecturers and Professors who contribute specialist advanced lectures and, where appropriate, co-supervise research projects.</p> |
| 18 | Course Profile details | <p>The purpose of the MSc in Applied Ecology and Conservation is to provide a flexible course structure, within defined limits, suitable for students who wish to acquire skills necessary for a range of careers in applied ecology and conservation. A modular structure within a single programme facilitates this flexibility. The multidisciplinary nature of the programme means that students can learn from many areas of expertise across the schools of Biological Sciences and Environmental Sciences. Students learn a practical approach to ecological and conservation management issues, integrating knowledge gained from theoretical teaching with practical learning.</p> <p>The MSc programme is designed:</p> <ul style="list-style-type: none"> ● to cultivate originality in the application of knowledge and to pursue this in relation to the general intellectual skills of reasoning, self-expression, numeracy, computer literacy, group work and independent research; ● to foster self-direction and originality in systematically solving problems, while acting autonomously at a professional level; |

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| | | <ul style="list-style-type: none"> ● to maintain the central role of research to inform teaching and to involve students in issues at the frontier of research; ● to provide a high quality degree programme which combines intellectual challenge and relevance to current interdisciplinary issues in applied ecology and conservation; ● to provide a choice of modules that allows students to demonstrate initiative and personal responsibility in constructing an education appropriate to their varied background interests and continuing professional development. <p>The programme offers an opportunity for students to develop specific skills in key areas through a range of optional modules and a field course at the beginning of the programme.</p> <p>Details of all courses currently offered by the University are available at https://www.uea.ac.uk/study/undergraduate/degrees and https://www.uea.ac.uk/study/postgraduate/taught-degrees</p> |
| 19 | Learning Outcomes | <p>Knowledge and understanding</p> <ol style="list-style-type: none"> a) To provide a detailed understanding of the importance of biodiversity and the range of strategies developed to conserve it. b) To impart an in-depth understanding of the ecological principles underpinning modern conservation science. c) To provide an in-depth understanding of the uses, assumptions and limitations of advanced statistical procedures relevant to ecology and conservation. d) To have a broad knowledge of the range of sampling, census and survey techniques available. e) To achieve a comprehensive understanding of research-based applied ecology and conservation within an interdisciplinary scientific framework. <p>Teaching is through a combination of lectures, seminars, fieldwork and project supervision. Many modules involve group discussions, presentations or other workshop-based techniques in addition to lectures. Field work generally includes trips to local sites; facilitating interaction with staff and first-hand examples of applied ecology and conservation in the wide range</p> |

of ecosystems available in the region. Directed student-centred learning is encouraged using the web, library and other facilities.

The dissertation is an independent research project that brings together the key skills in study design, execution, analysis and presentation that are taught within modules. Many dissertation projects are subsequently published in peer-reviewed journals. Teaching is by direct one-to-one contact with a supervising member of staff, by phone, skype and email during data collection where necessary, and direct contact for guidance while writing up.

Cognitive Skills

Able to:

- a) Critically apply ecological theory to practical management situations.
- b) Solve complex ecological problems
- c) Frame hypotheses
- d) Test theory with observation
- e) Analyse and interpret diverse data
- f) Apply numerical and reasoning skills
- g) Demonstrate and critically evaluate research design
- h) Critically review scientific literature
- i) Bridge disciplines (think flexibly and laterally)
- j) Show broad independence of thought, initiative, and creativity
- k) Develop advanced knowledge and understanding

Intellectual skills are developed by direct contact with lecturers who are internationally recognized researchers in applied ecology and conservation. Staff from different Schools at UEA are involved in the programme, which helps students learn to bridge disciplines. Throughout the programme, modules involve work of an applied nature. Students are expected to read scientific literature and apply this to specific scenarios. They are expected to interpret data and to assess critically specific applied problems. Many of these skills are developed through group discussions.

Research design and analysis are brought together in the compulsory research project which must have clear applied ecology or conservation management implications. As preparation for the research project students write a research proposal allowing them to devise hypotheses and develop their

skills in research design. The dissertation, as a report on the project, allows students to develop their skills in applying their knowledge to a specific area and to think independently.

Subject Specific Practical Skills

Able to:

- a) Plan and manage an applied research project with applied ecology or conservation management implications
- b) Critically assess conservation issues for given situations
- c) Complete an ecological census of any given environment
- d) Write assessments in specific applied formats
- e) Give seminar presentations
- f) Demonstrate field-based skills and follow safety procedures
- g) Apply and evaluate statistical treatment to scientific data
- h) Use information technology for scientific study and presentation
- i) Undertake search, selection and evaluation of scientific literature and data

Much of this course is practically orientated towards training in applied ecology and conservation. The field course develops practical skills in assessing ecological and management strategies for different habitats. Many modules have practical components specifically directed to the development of practical skills in study design and analysis. The optional module Practical Conservation and Work Experience is designed to allow students to develop specific practical skills relevant to their chosen career paths.

In addition, practical skills are taught centrally by the University and School: introductory sessions on the use of the University Library resources and IT facilities are provided. Specialist training, required for individual research projects, is provided on an individual basis by research supervisors.

Key Skills and Attributes

- a) Communicate effectively with a wide range of audiences by oral, written and graphical means
- b) Make full use of information technology: email, word processing, the web, electronic databases, spreadsheets and GIS
- c) Retrieve and synthesize information
- d) Manage own time effectively

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| | | <ul style="list-style-type: none"> e) Work independently and in a team f) Be reflective g) Be assertive while responsive to others h) Design and manage a research project i) Exercise initiative and personal responsibility <p>Make decisions in complex situations</p> <p>Key skills are taught within many compulsory and optional modules. Many of these skills are also developed during the preparation of a research project proposal. Students are expected to communicate effectively with members of the teaching staff to discuss and devise their own project. They plan their work taking into account time management and budget implications. They also address safety and ethical issues.</p> <p>Project design goes hand in hand with data collection and thorough instruction in statistical treatment of data is given before students carry out the research. Students are taught how to write the dissertation as a concise research paper, how to incorporate IT skills and presentation of statistical tests. Personal time management is learned through meeting published coursework deadlines.</p> |
| 20 | <p>Graduate Attributes and Employability Skills</p> | <p>Graduates from this course gain key skills in the design, application and interpretation of ecological research as such are well-placed for a wide range of future career directions.</p> <p>Graduates from the AEC programme hold important positions in a wide variety of governmental and non-governmental conservation organisations worldwide. Recent graduates have gained employment as ecologists and conservationists in government departments, NGOs, ecological consultancies, environmental education, national parks and universities and research institutes.</p> <p>Approximately 30% of our graduates go on to undertake PhD research, and many have gone on to establish strong careers in ecological research, in academia and beyond. Graduates also gain skills in time management and organisation, team-working, field techniques and natural history and presentation skills, as well as skills in statistical analysis and GIS.</p> |
| 21 | <p>Assessment and Feedback Strategy</p> | <p>Most of the assessment is through coursework only. Assessment methods are generally applied to skills required in</p> |

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| | | <p>practical or research occupations. Examples include writing research proposals, grant applications or government reports. Some optional modules assess students through course tests. The primary coursework in modules is double-marked or moderated. The project is assessed through a PowerPoint presentation to an academic audience and the writing of a dissertation in the form of a research paper.</p> <p>Intellectual skills are assessed throughout the course. Most pieces of coursework assess student ability to apply information to applied ecology or management situations. Some optional modules, which are chosen with the Director's approval, assess the student's knowledge and understanding through seminars (directed group discussions), while some compulsory modules use student's Powerpoint presentations as a form of assessment. Numerical and reasoning skills are assessed through problem-solving exercises. The research project gives students the freedom to design, implement in the field, analyse and write up results on an applied topic of their choice, allowing assessment of cognitive skills at the highest level.</p> <p>Practical skills are assessed through coursework where students are expected to critically evaluate techniques and methods. The ability of students in practical skills, such as census techniques, is reflected in the quality of their coursework. Reports and other forms of coursework are assessed, in part, on the skill with which bibliographic material has been obtained and discussed within the context of the assignment. Students are also assessed on the application of practical skills to the ecological problem being addressed. Analytical assignments allow the assessment of statistical and numerical skills to solve applied problems. Some optional modules assess the ability of the student to present work in seminars. The independent dissertation project brings together the practical skills acquired, tests student skills in designing, executing, analysing and presenting scientific research to the required standard, and allows an overall assessment of the student's practical abilities as a conservation ecologist.</p> <p>Key skills are assessed generally within course assessments and the research dissertation. Effective learning of key skills is reflected in the quality of work produced. In addition, good planning and management of the research project are also assessed as they reflect on the overall quality of the research carried out and presented. Group discussions and seminar</p> |
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| | | activities, in both compulsory and optional modules, assess students' ability to be communicative, reflective, assertive and responsive. Communication ability is also assessed through student presentations. |
| 22 | Additional course-specific costs that students should expect to meet | None |
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| For Office Use | | Programme Specification Update Record | |
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| Faculty | Faculty of Science | School | Biological Sciences |
| Course Code(s) | T1CD14101 (Full-Time) T2CD14201 (Part-Time) | Degree Award | MSc |
| Course Title(s) | Applied Ecology and Conservation | | |
| Log of annual review - Version and date of production/ revision | | <p>The Programme Spec should be reviewed annually and the review logged here:</p> <ol style="list-style-type: none"> 1) If there is no change, no new version is required. 2) If there are any changes, the version number should be incremented, and a summary of the changes recorded here. This should include a summary of any course profile changes. | |
| Review Date | Course Director sign off | | |
| May 2017 | Prof. Jenny Gill | Reviewed, minor changes | |
| Jan 2017 | | Reviewed, no change | |
| Jan 2018 | | Reviewed, changes to accreditation details and course profile (options in Year 3). | |
| Last active academic year | | To be completed if course is discontinued | |
| Date archived | | To be completed if course is discontinued | |

| For Office Use: Admin Action (post-approval publication and annual review) | Date | Name |
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| Course Profile updated on eVision (Team Leader) | | |
| Programme Specification placed in shared drive folder (Team Leader) | 27.06.17 | R. Rogers |
| Web link to External Examiner information added (LTS Web administrator) | | |
| Programme Specification uploaded onto website (LTS Web administrator) | | |
| Planning Office informed of upload of Programme Specification onto website (LTS Web administrator) | | |