Nottingham Trent University Course Specification

	Basic Course Information	
1.	Awarding Institution:	Nottingham Trent University
2.	School/Campus:	School of Animal, Rural & Environmental Sciences / Brackenhurst Campus
3.	Final Award, Course Title and Modes of Study:	BSc (Hons) Environmental Science Full-time, sandwich
4.	Normal Duration:	Full time (3 years); Sandwich (4 years)
5.	UCAS Code:	F750; F751

6. Overview and general educational aims of the course

The BSc (Honours) Environmental Science course is designed to provide an interdisciplinary approach to the investigation and understanding of environmental issues and problems. It aims to provide you with the opportunity to examine a wide range of issues of environmental importance based on the study of the physical, chemical and biological processes operating on and within the Earth. You will be introduced to analytical skills, study how to conserve global biodiversity, investigate environmental monitoring and pollution mitigation, monitor environmental change, waste management and environmental law and policy. Major themes running through the course include a focus on developing technical skills, consideration of conservation issues, solving environment problems and the challenge of managing our natural resources, with a focus reflecting graduate jobs in renewable energies, environmental impact assessment and sustainability.

BSc (Honours) Environmental Science has the following broad educational aims:

- To foster an awareness and understanding of global and local earth systems, sustainability and conservation;
- To encourage you to think and make decisions in an integrated and holistic way and to work with and appreciate complexity and change;
- To enable you to become an independent learner, to be creative and enterprising, and to foster flexibility, adaptability and critical reasoning;
- To develop skills in the generation of a diverse range of data types and in the manipulation and presentation of these data;
- To enable you to develop arguments drawing on scientific, philosophical and ethical perspectives;
- To develop skills and experience in working in teams in laboratory, office and field-based projects and research;
- To develop skills in time-management, risk-assessment, problem solving and project management, including planning, execution and evaluation.

7. **Course outcomes**

Course outcomes describe what you should know and be able to do by the end of your course if you take advantage of the opportunities for learning that we provide.

Knowledge and understanding

By the end of the course you should be able to:

- Assess the interaction of human and Earth systems and the roles of organisations and other stakeholders in managing and regulating human impacts on the environment **(B)**;
- Critically evaluate the contributions of the natural sciences and the social sciences to the identification, understanding and resolution of environmental issues **(B)**;
- Appraise the processes which shape the natural world at different spatial and temporal scales and how they influence, and are influenced by, human activities **(B)**;
- Assess how knowledge of environmental issues forms the basis for informed concern about the Earth and its people **(B)**;
- Evaluate the methods of acquiring, interpreting and analysing information relating to the environment, with a critical understanding of the appropriate contexts for their use, and apply these methods to enable monitoring and management of natural and human-induced environmental changes **(B)**;
- Evaluate the issues concerning the availability and sustainability of the Earth's resources, including the consequences for the environment of resource exploitation and waste disposal and the human responses to environmental problems such as environmental impact assessments, management and policy **(B)**.

(B) indicates outcomes having specific reference to the relevant QAA Subject benchmark statements for ES3 Earth Sciences, Environmental Sciences and Environmental Studies.

Skills, qualities and attributes

By the end of the course you should be able to:

- Assess the moral and ethical issues relating to environmental sciences, to include scientific examination of the implications of sustainability relating to natural resources and sustainable development **(B)**;
- Collect, organise, analyse, evaluate and interpret information and communicate any findings, both orally and in writing, in a coherent manner **(B)**;
- Apply a range of transferable skills in order to work effectively in a diverse range of activities within the environment sector **(B)**;
- Demonstrate the skills and confidence to make an effective contribution to their chosen career by planning work, using time effectively and working collaboratively in teams **(B)**;
- Demonstrate appropriate independent research skills for the investigation of issues in environmental science, including experimental design, fieldwork, survey and monitoring, laboratory work, statistical testing and spatial representation of data **(B)**.

(B) indicates outcomes having specific reference to the relevant QAA Subject benchmark statements for ES3 Earth Sciences, Environmental Sciences and Environmental Studies.

8. Teaching and Learning Methods

The teaching and learning methods you will encounter include: lectures, seminars, workshops, group project work, field investigation, practical classes, laboratory work, directed learning, computer-aided learning, library research and others where appropriate. All modules are supported by web-based learning materials through the University's virtual learning environment (NTU Online Workspace, NOW), including lecture slides/notes, relevant web links and reading lists. Specialist software is integrated into your learning experience with Geographical Information Systems (GIS) and statistical analysis applications integral to the curriculum. Laboratory practicals and fieldwork are integrated into all three levels of study. In Level 6 supervised independent research is undertaken for your dissertation.

All modules are designed to develop your skills and competencies, with a view to enhancing your future employability. Learning and teaching support is comprehensive: all modules are supported by module and assessment packs; staff are available for you to seek individual assistance; and you are also encouraged to use electronic communication with module tutors and fellow students. Your feedback is actively sought and your comments inform future development of the course and its modules.

9. Assessment Methods

The assessment strategy adopted by the teaching team is flexible and provides diverse, wide-ranging and progressively more challenging approaches to assessment as you progress through your studies. The majority of modules are 20 credit points; modes of assessment do vary, but assessment 'equivalence' between modules is ensured. All modules make extensive use of coursework (e.g. reports, reviews, portfolios of practical work, presentations [group and individual] and field notebooks).

General criteria for assessment are provided and module specific criteria are published in each module guide. These are guided by University and School statements on levels of achievement, but are defined for each module in relation to specific learning outcomes. You are assessed on the basis of your knowledge and understanding, discipline specific skills and intellectual skills. Module teams annually review assessment tasks, and all assessments are internally verified and moderated. All modules include elements of formative and summative assessment and you are expected to pass all summative elements. Level 4 assessment fulfils a formative role for both subject development and degree outcomes. Level 5 contributes 20% towards the final award, while Level 6 contributes 80% of the aggregate mark for your final award.

Feedback is provided in various ways, including annotations on your work, a coversheet returned with additional formative comments, 'feed forward' comments and individual verbal feedback. Examinations are anonymously marked and two members of staff independently mark the Level 6 dissertation. Standards are additionally quality assured by the course external examiner.

10. Course structure and curriculum

The course has the format of a typical honours degree course. It takes three years to complete (if taken full-time) and leads to a Bachelor of Science degree with Honours. A part-time route is available which normally takes 5 years to complete. A sandwich course is also available, allowing you the option to spend one year working in industry, taken between years 2 and 3.

The modules listed below have been devised and organised to enable you to achieve the course outcomes. A 'curriculum map' is available on request to identify how each module contributes to the course outcomes.

Level 4 Modules

Core Modules	**Module credit rating**
Principles of Environmental Science	20
Principles of Ecology	20
Biodiversity Conservation	20
Introduction to Global Environmental Issues	20
Introduction to Earth Science	20
Skills for Scientists	20

Level 5 Modules

Core Modules

Technical Skills for Environmental Scientists	20
Experimental Design and Analysis	20
Living with Climate Change	20
Sustainability	20
Environmental Law and Policy	20
Environmental Monitoring & GIS	20

***Option*:** Industrial placement for 36 weeks leading to *Diploma in Industrial Studies*.
To be taken between Level 5 and Level 6.

Level 6 Modules

Core Modules

Dissertation	40
Frontiers in Environmental Biogeochemistry	20
Innovations in Energy	20
Natural Resource Management	20

Optional Modules

20 credits from the following list:

Applied Hydrology and Water Resources	20
Applications of Remote Sensing	20
Marine and Freshwater Ecology	20

Placement Learning

You have the opportunity of taking a placement for one year between years two and three with employers such as the Environment Agency, British Geological Survey, County Council and environmental consultancies. The placements focus on developing employment skills and a deeper understanding of the chosen sector of industry. You will acquire employability skills through placement work, as well as the chance to achieve a professional development qualification.

Students who undertake the sandwich placement will be eligible for a Placement Diploma in Professional Practice award if they:

a) satisfactorily complete at least 36 weeks of supervised work experience;
b) receive satisfactory reports from the placement tutor and/or workplace supervisor in respect of the competencies or learning outcomes or experience gained;
c) submit a satisfactory placement report.

These arrangements are consistent with the University's guidelines on the certification of placement activity.

Interim Awards

At the end of level 4 students completing all modules successfully but not progressing further are eligible for the Certificate of Higher Education. Those completing level 5 successfully but not progressing further are awarded the Diploma in Higher Education.

Students who successfully complete levels 4 and 5 of the course and 60 credit points at level 6 are awarded an ordinary degree.

11. Admission to the course

Entry requirements

For current information regarding all entry requirements for this course, please see the course information web page.

12. Support for Learning

The academic year begins with a 'pre-teaching' "Welcome week", which includes induction to the course at the start of the first year (Level 4). This gives an overview of the way your course runs and includes introductions to IT and library resources and to the range of student support services available at the University. When fully enrolled you have access to the Nottingham Trent University Online Workspace (NOW), a virtual learning environment which offers all students up-to-date module information, access to a news board, resources, a means of communicating between students and tutors and a diverse range of University services and support.

The course leader oversees all students enrolled on the course and will monitor your individual progress. You can seek academic support from your tutors both through electronic communication and during posted office hours, which allow one to one contact between you and your tutor. Pastoral support is provided through the tutorial process. Study skills are fully integrated into the Level 4 curriculum.

You will be encouraged to enhance your skills for employment by the use of personal development planning. This process will allow you to develop your study and communication skills through a structured process. Support will be given to enable you to access the online tools for this.

The University offers a range of general, specialist and professional support services for students via Student Support Services.

13. Graduate destinations / employability

Environmental Science graduates have a track record of gaining employment across a number of different professions and organisations. The skills and qualities developed through studying environmental science are highly transferable into a variety of roles and different working environments. The abilities to think through issues, analyse situations and problems and come up with creative solutions, and to work with others in sometimes challenging timeframes and unfamiliar environments, are familiar skills to environmental scientists and desirable to a wide range of organisations and employers.

Career opportunities for Environmental Science graduates exist with organisations such as local authorities, government agencies (e.g. Environment Agency and Natural England), water companies, leisure companies, environmental consultancies, waste management companies, energy generators, Wildlife Trusts and other environmental charities.

The University's Employability Service is available to all students, offering individual consultation: NTU Employability Service

Graduates from the BSc Environmental Science course will be eligible to apply to study for higher degrees.

14. Course standards and quality

There are well established systems for managing the quality of the curriculum within the School with Course Standards are monitored in a variety of ways:

- A Course Committee, which includes membership from undergraduate students at all levels of study, meets three times a year to review the course, agree modifications to the course and engage with student feedback about the course and individual modules.
- Induction questionnaires, Mid-year Reviews, End-of-year Reviews, Module Feedback Questionnaires and School end-of-year questionnaires are all used to gather feedback from students on their learning experiences.
- Students will be provided with feedback for all assessed work.
- The Course has an External Examiner from another UK HE institution who submits annual reports on standards and quality of the course.
- The subject benchmarks of the Quality Assurance Agency for ES3 Earth Sciences, Environmental Sciences and Environmental Studies have been incorporated into the Course Learning Outcomes.
- The University was the subject of a successful institutional audit by the Quality Assurance Agency in February 2015.

15. Assessment regulations

This course is subject to the University's Common Assessment Regulations. Any course specific assessment features are described below:

The award classification will be calculated using 20% of the aggregate mark for level 5 and 80% of the aggregate mark at Level 6.

16. Additional Information

Collaborative partner(s):	None
Course referenced to national QAA Benchmark Statements:	ES3 Earth Sciences, Environmental Sciences and Environmental Studies

Course recognised by:	Institute of Environmental Sciences
Date this course specification approved:	December 2016
Any additional information:	

Fieldwork is an important aspect to the course, including residential fieldtrips to various places. In Level 4 the students will undertake a residential fieldtrip to Derbyshire as part of the Introduction to Earth Sciences module. In Level 5 an overseas fieldtrip in the Technical Skills for Environmental Scientists module at Level 5 will take students to Spain. Students will be required to finance travel to and from the residential fieldwork location, but costs will be kept to a minimum. In the Level 6 elective module of Marine and Freshwater Ecology students will be able to apply key field working techniques in a range of freshwater, estuarine and marine habitats through both day trips and residential trips in the UK and abroad. Further details are available on request.