

# European M.Sc. programmes – educating the next generation of ecological economists

by Nina Hagemann and Irene Ring

Last year's ESEE 20<sup>th</sup> Anniversary Bulletin reflected on the successful evolution of Ecological Economics and its increasing recognition and impact in research and science-policy interfaces. With this special section of the conference newsletter we shift the focus to the next generation of ecological economists and the increasing number of master's programmes that offer either a degree in Ecological Economics or courses in Ecological Economics.

The variety of existing programmes allows prospective students to choose between studying Ecological Economics or Socio-Ecological Economics as a core subject or to enrol in programmes such as Ecosystem Services or sustainability-related studies in which Ecological Economics is a component. During the latter programmes, students will also come across Ecological Economics courses, because many members of our ESEE community are involved in developing and coordinating these programmes and will ensure that students are well educated in this field.

The programmes we present here are all international and characterised – as Ecological Economics itself – by a high degree of interdisciplinarity and often also transdisciplinarity in education. All programmes are open for students from the natural and social sciences – and to some extent the engineering sciences. The fact that students from different disciplines come together in the courses provides ground for fruitful interdisciplinary discourse in the classrooms and beyond. Throughout the programmes students are introduced to a variety of theories and concepts from different disciplines and become familiar with a broad range of qualitative and quantitative methods. Students are also well prepared for their work life as many programmes have practical and applied components, mandatory work placements and offer mobility semesters abroad.

Our list of programmes is not exhaustive and could be extended also with B.Sc. programmes and programmes from outside Europe. However, already this list is impressive in its variety. We invite you to get inspired – as a student to find your programme to conduct further studies, as a teacher to learn about other programmes and find partners for collaboration or simply as an interested person just to share our amazement and see how Ecological Economics became an integral part of university life across Europe. On Thursday during the poster session you can learn even more about the programmes by visiting our booth on M.Sc. programmes and get in touch with representatives of some of the programmes and exchange experiences and visions. This special section will also be available online for download on the ESEE website's education area under Ecological Economics Courses and Programmes.

## M.Sc. Ecological Economics

### Study content

The MSc Ecological Economics programme combines modules that help you build strong conceptual foundations in ecological economics and sustainability, with specialist modules in environmental and heterodox economics. You will study topics ranging from the value of ecosystem services to managing an economy without growth, and learn analytical tools such as input-output analysis and dynamic system modelling.

As part of the programme, you must complete 5 compulsory modules, 3 optional modules (chosen from a long list of options), and a research dissertation. You can potentially carry out your dissertation with a partner organisation. This collaborative arrangement is designed to help you to deliver research that generates a real-world impact, while at the same time creating high employment prospects.

The programme is based in the School of Earth and Environment, with some of the modules being taught by the Leeds University Business School.

### Objective

Many of the most serious environmental and social problems that we face can be traced to root causes in our economic system. On this programme, you'll develop an understanding of how economic activity gives rise to environmental and social problems, and be introduced to the main tools to tackle them. You'll join one of the largest and most renowned centres of ecological economics research in the world on a course that challenges conventional thinking and introduces a real-world approach to teaching economics.

### ESEE contact persons

Dr. Dan O'Neill (Programme Manager)

[d.oneill@leeds.ac.uk](mailto:d.oneill@leeds.ac.uk)


Dr. Milena Büchs (Contact person at the ESEE conference)

[m.m.buchs@leeds.ac.uk](mailto:m.m.buchs@leeds.ac.uk)

### Hosting university:

University of Leeds (UK)

### Programme details

Degree / ECTS	M.Sc. / 90
Language	English
Duration	Full-time over 12 months Part-time over 24 months
Application deadline	It is recommended that students apply before the <b>end of May</b> for a September start. However, applications are accepted up until the <b>end of August</b> .
Admission requirements	A bachelor's degree with a 2:1 (hons) in social sciences, natural sciences, environmental studies, economics, management, engineering, or a related subject. English language requirements: IELTS 6.5 overall, with no less than 6.0 in any component.
Further information	

# M.Sc. Ecological Economics

## Study content

The MSc in Ecological Economics is heavily focused on interdisciplinary problem solving related to sustainability, and seeks to train students in the ideas, concepts, methods, and practice required to contribute to this area work. The MSc has two main components: a taught component and a research component. The compulsory courses are: Foundations in Ecological Economics, Environmental Valuation, Applications in Ecological Economics, and Ecological Economics Field Methods in Research and Practice. Of these, Foundations in Ecological Economics is focused on the concepts and theory that underpin the field. The other courses are applied courses in which students get to use, and critique, a wide range of relevant methodologies. The field course general involves travel overseas (e.g. to South Africa). The optional courses are selected from those on offer within the School of GeoSciences.

## Objective

The programme aims to i) provide rigorous academic training that also enhances prospects for employment in the field of sustainability and conservation, ii) outline economics from first principles, iii) identify the biophysical and socio-cultural limits to growth in the production and consumption that arises from economic activity, iv) describe theoretical principles of ecological economics associated with these limits, v) teach tools that allow these principles to be applied to multi-dimensional environmental problems, vi) appreciate the systematic interaction between ecology, social systems and economics, which is vital in finding solutions to these problems, vii) examine and criticise how environmental and social policy is formulated and implemented, in developed and developing world economies, in light of this systematic interaction, viii) encourage and provoke discussion and debate about environmental controversies and ix) develop and enhance skills in specialist topics linked to the student's own interest.


## ESEE contact person

Corinne Baulcomb (Programme Director)  
[Corinne.Baulcomb@sruc.ac.uk](mailto:Corinne.Baulcomb@sruc.ac.uk)

## Hosting university:

University of Edinburgh (UK)  
in collaboration with Scotland's Rural  
College (SRUC)

## Programme details

Degree / ECTS	M.Sc. / 180
Language	English
Duration	Full time: 1 year (12 months) Part time (option A): 2 year (24 months) Part time (option B): 3 year (36 months)
Application deadline	<b>Rolling</b> (students who may need to apply for a visa, are advised to apply early)
Admission requirements	A UK 2:1 honours degree, or its international equivalent (we may also consider a UK 2:2 honours degree, or its international equivalent, with appropriate work experience). International qualifications and English language requirements (for further information check our website).
Further information	

# M.Sc. Ecosystem Services

## Study content

Studying how ecosystems benefit humanity and how we use and manage them, this programme assesses the trade-offs involved in our use of the environment. This is a rapidly developing area, involving both natural and social sciences, and an increasingly common approach to environmental policy-making and management in government agencies and businesses. This MSc aims to enhance comprehension of the ecosystem processes that support us and other life forms. It also provides an intellectual basis for evaluating the contribution of ecosystems to human well-being, using tools from economics and other disciplines.

Compulsory courses are Ecosystem Services 1: Dynamics & Functions; Analysing the Environment; Ecosystem Services 2: Values & Management and a week-long study tour, which aims to develop skills in qualitative and quantitative data analysis and provides an opportunity to build up group work skills. Students take a variety of optional courses in such fields as ecology, resource management, economics, GIS and environmental sustainability and also complete a research project on a topic of their choice.

## Objective

This MSc programme provides the skills to develop an understanding of ecosystem function and how this supports human well-being. Specific objectives include:

- Understanding key ecological principles, processes, functionality and dynamics of ecosystems across a range of different biomes and scales;
- Appreciation of the diverse services that ecosystems provide to society, e.g. food, coastal protection, carbon capture, water security, through to aesthetic or cultural services;
- Ability to measure and communicate ES values through a range of qualitative/quantitative research methods;
- Ability to undertake interdisciplinary research, both independently and as part of a team;
- Related courses to support the development of students' own learning.

## ESEE contact person

Dr. Janet Fisher (Programme Director)  
[janet.fisher@ed.ac.uk](mailto:janet.fisher@ed.ac.uk)

## Hosting university:

University of Edinburgh (UK)

## Programme details

Degree / ECTS	M.Sc. / 180
Language	English
Duration	Full-time over 12 months Part-time over 24 or 36 months
Application deadline	For 2017/18 session: <b>One month prior to start date</b> (11 September 2017)
Admission requirements	A UK 2:1 honours degree, or its international equivalent, in a relevant subject in the natural or social sciences or in another relevant subject. English language requirements (learn more: <a href="http://www.ed.ac.uk/geosciences/postgraduate/taught-masters/msc-ecosystem-services">www.ed.ac.uk/geosciences/postgraduate/taught-masters/msc-ecosystem-services</a> ).
Further information	

# M.Sc. Socio-Ecological Economics and Policy

## Hosting university:

Vienna University of Economics and Business (WU) (Austria)

### Study content

Rapid environmental change, population dynamics, poverty, and exclusion are interrelated processes that challenge human development. To tackle these complex issues, traditional disciplinary approaches to analysis and policy formulation are not sufficient. Instead, integrated and interdisciplinary approaches to studying the working of the human-environment system are needed. The Master Socio-Ecological Economics and Policy presents integrated approaches to development and human well-being that go beyond the usual polarization between socioeconomic development and environmental goals.

The programme offers training in socioeconomic analysis and focuses on the interfaces between environmental, economic and social challenges. This interdisciplinary and internationally oriented approach is based on three major pillars: theory, methodology, and application. The theory courses include concepts from a variety of disciplines, chosen for their relevance to global challenges. The methodological courses offer an integrated introduction to qualitative and quantitative methods and thus illustrate how they are best combined in empirical analyses. Relevance for policy making and organizational practice is emphasized throughout the programme.

### Objective

The Master Socio-Ecological Economics and Policy (SEEP) equips participants with the necessary theoretical background and factual information about the interconnected dynamics of economic and social systems and the physical environment. The programme also enables participants to use appropriate analytical tools to engage in decision processes and longer-term policy on multiple spatial levels.

### ESEE contact person

Prof. Dr. Sigrid Stagl (Programme Director)  
[sigrid.stagl@wu.ac.at](mailto:sigrid.stagl@wu.ac.at)

### Programme details

Degree / ECTS	M.Sc. / 120
Language	English
Duration	4 semesters (start in Winter semester only)
Application deadline	<b>Rolling admission</b> with three consecutive deadlines: 8 October, 8 January, 8 March
Admission requirements	<ul style="list-style-type: none"><li>• Bachelor's degree or other equivalent degree programme in Economics OR social sciences OR mathematics / statistics / quantitative methods.</li><li>• Proof of sufficient proficiency in English.</li><li>• Proof of aptitude tested in an interview.</li></ul>
Further information	

# M.Sc. Ecosystem Services

## Hosting university:

Technische Universität Dresden / International Institute (IHI) Zittau (Germany)

### Study content

Ecosystem services (ESS) as the direct and indirect contributions of ecosystems for human well-being are gaining increasing attention in science, policy and society. Identifying, mapping and assessing ecosystem services as well as capturing their values in public and private decision-making are important objectives of national, European and international biodiversity and sustainability strategies. The M.Sc. programme Ecosystem Services is devoted to understanding the causes of biodiversity loss and ecosystem degradation as well as analysing their impacts on ecosystem functioning and human well-being in an interdisciplinary manner.

Compulsory courses include the basics of ecosystem services, biodiversity and ecosystem governance as well as ecological economics. Courses in ecology, such as applied and special ecology, complement the subjects taught in the first two semesters. In the second half of their studies students can choose among a variety of optional courses to deepen their knowledge in fields such as natural resource management, environmental and spatial planning, taxonomy and biodiversity collection management or acquire methodological skills in ecosystem services case studies, empirical methods in social sciences or ecological modelling.


### Objective

The international Master's programme Ecosystem Services provides students with the knowledge base and methods to analyse pressing environmental problems and to develop societally relevant solutions. A special focus lies on inter- and transdisciplinary approaches from the natural and the social sciences in order to conserve and sustainably use biodiversity and to secure the sustainable provision of ecosystem services for present and future generations. Graduates of the programme are expected to work in various fields such as research and education, public administration, economic and policy consultancy, international organisations, non-governmental organisations or scientific management and coordination.

### ESEE contact person

Prof. Dr. Irene Ring (Course Director)  
[irene.ring@tu-dresden.de](mailto:irene.ring@tu-dresden.de)

### Programme details

Degree / ECTS	M.Sc. / 120
Language	English
Duration	4 semesters (start in Winter semester only)
Application deadline	Winter term 2017/18: For non-EU citizens: <b>1 April - 15 July 2017</b> For EU citizens: <b>1 June - 15 September 2017</b>
Admission requirements	Degree in life or environmental sciences, economics, social sciences, geography, agricultural sciences or related fields English language requirements (level B2 of the CEFR, shown by a certificate such as IELTS or TOEFL).
Further information	

# M.Sc. Sustainable Development

## Study content

The programme consists of two general modules and of specialisation tracks in natural or social science during a mandatory mobility semester. In the general part the challenges of sustainable development are examined and discussed from both the natural sciences and the social sciences perspective. Students are required to work on the confrontation and integration of knowledge and insights in research team. Each specialisation track pays attention to the theoretical background, appropriate research methodology, and intervention methods of a specialised field within the framework of sustainable development. Specialisation tracks include:

- Energy and Materials; Environmental Change and Ecosystems; Earth System Governance (Utrecht University)
- Sustainable Business Management; Climate and Environmental Change (University of Graz)
- Global Environmental Change (Ca' Foscari University of Venice)
- Environmental Technology Management; Resources Management (Leipzig University)
- The Social Dimension of Sustainability (University of Basel)
- Sustainable Development Science and Technology (Hiroshima University)

Further modules for additional mobility are being offered by Stellenbosch University and TERI University.

## Objective

The Programme intends to produce graduates who wish to work towards an environmentally accountable society. At its core is the analysis of the changes needed to achieve such a society (research methodology) and the question of how these changes can be steered locally and globally in both the short and the long term.

Graduates may pursue further studies or hold positions of responsibility in projects and facilities management. Employment options include environmental entrepreneurship, environment, health and safety, innovation management, international organisations, scientific research, training and (continuing) education.

## ESEE contact person

Prof. Dr. Bernd Klauer (Leipzig University/UFZ)

[bernd.klauer@ufz.de](mailto:bernd.klauer@ufz.de)

## Hosting universities:

Utrecht University (The Netherlands)  
University of Graz (Austria)  
Ca' Foscari University of Venice (Italy)  
Leipzig University (Germany)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 120
<b>Language</b>	English
<b>Duration</b>	4 semesters (start in Winter semester only)
<b>Application deadline</b>	Winter term 2018/19: <b>1 February - 31 March 2018</b>
<b>Admission requirements</b>	Bachelor or Diploma degree in natural or social sciences, demonstration of research skills and proof of proficiency in English shown by a certificate such as IELTS, TOEFL or Cambridge EFL
<b>Further information</b>	

# M.Sc. Sustainable Development, Management, and Policy

## Study content

The Master of Science (MSc) in Sustainable Development, Management, and Policy (SDMP) graduate programme focuses on sustainable development policy, life sciences and skills seminars.

The program's multidisciplinary curriculum is composed of six unique modules, providing students with a comprehensive framework in research methods, management, and field-specific content in economics, governance, social psychology, environmental sciences, and geography.

Students can also further enhance their programme by specializing in one of the following areas: Tourism and Services Management, Business Development, Advanced Management, Real Estate Management and Hotel Development and Innovation and Design for Tourism. An internship option is also available.

## Objective

This two-year full-time graduate programme challenges students to consider a wide spectrum of sustainability issues, with special attention given to their complex interrelationships. Students learn skills needed to design and implement sustainable development strategies on the household, business, city, regional, and national levels. Focus is placed on students' understanding of the effective implementation of sustainability strategies and its fundamental societal, economic, and environmental need. Further goals include developing student's ability to anticipate environmental, ecological, economical, and social trends through one-of-a-kind coursework. This practice-driven programme prepares graduates for positions in a variety of public, non-profit, and private organizations.

## ESEE contact person


Prof. Dr. Astrid Dickinger (Programme Director)

[astrid.dickinger@modul.ac.at](mailto:astrid.dickinger@modul.ac.at)

## Hosting university:

MODUL University Vienna (Austria)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 120
<b>Language</b>	English
<b>Duration</b>	4 semesters (start in Fall and Spring )
<b>Application deadline</b>	<b>Study start Spring</b> EU citizens: 31 January Non EU citizens: 31 October <b>Study start Fall</b> EU citizens: 31 August Non EU citizens: 31 May
<b>Admission requirements</b>	Minimum of three year university degree or equivalent in a field preferably related to natural or social sciences English proficiency shown by a certificate such as TOEFL, IELTS or Cambridge Certificate.
<b>Further information</b>	

# M.Sc. Management of Protected Areas

**Hosting university:**  
Alpen-Adria-Universität Klagenfurt  
(Austria), in cooperation with E.C.O.  
Institute of Ecology

## Study content

Protected areas are embedded in the societal context, are essential for biodiversity conservation and crucial in maintaining stable ecological processes. Planning and operating these areas involves many different legal, administrative and technical aspects and over the past years the global demand for highly skilled experts has been constantly growing. The M.Sc. programme "Management of Protected Areas" (MPA) offers a profound interdisciplinary education and provides an excellent and comprehensive understanding of the aims and roles of protected areas in relation to the conservation of biodiversity and (integrated) regional development. Based on a theoretical scientific background, students will acquire specific in-depth knowledge on applying the full range of tools available for the planning and management of protected areas. Compulsory courses include the design of ecosystem based management plans, the development of regional economic programmes, legal aspects, impact assessment, financing and business planning, organizational development, as well as data and information management. Special emphasis is laid on the practical application of the acquired theoretical knowledge, in particular by analyzing a magnitude of real-life case studies and supervised applied research projects concerning the topic.


## Objective

The M.Sc. programme "Management of Protected Areas" provides a variety of tools to work on numerous challenges in the context of managing protected areas. A main objective is to promote biodiversity conservation and regional sustainable development by educating and training individuals, enabled to adaptively manage protected areas in a long-term perspective. Graduates will be able to analyze and solve various problems encountered when establishing, planning or managing protected areas. Furthermore, they will be empowered to conduct inter- and transdisciplinary dialogues with all stakeholders and to develop and implement appropriate integrated solutions.

## ESEE contact person

Dr. Michael Jungmeier (Programme Director)  
[michael.jungmeier@aau.at](mailto:michael.jungmeier@aau.at)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 90
<b>Language</b>	English
<b>Duration</b>	4 semesters (structured in eight modules, with a presence of 55 days within a period of two years).
<b>Application deadline</b>	30 June 2017
<b>Admission requirements</b>	Minimum requirements for all applicants are sufficient English working skills as well as a university degree (or equivalent qualification). The selection procedure also includes a personal interview with the programme manager.
<b>Further information</b>	

# M.Sc. Global Change Ecology

**Hosting universities:**  
University of Bayreuth (Germany)  
University of Augsburg (Germany)  
University of Würzburg (Germany)

## Study content

The Global Change Ecology (M.Sc.) programme, established in 2006 as part of the Elite Network of Bavaria, is devoted to understanding and analyzing the most consequential environmental concerns of the 21st century; namely, Global Change. Problems of an entirely new and interdisciplinary nature require the establishment of innovative approaches in research and education. A special focus in the programme is the link of natural science perspectives on global change such as land use change and climate change with approaches in social sciences. The University of Bayreuth provides an excellent profile and background in "Ecology and Environmental Science" as determined by the expert commission "Science in Bavaria 2020".

Course modules comprise lectures, seminars and exercises as well as field courses on environmental change, ecological change and societal change. Method courses such as modelling, statistics, use of remotely sensed data, life cycle assessment of products, geographic information systems, international environmental law and impact assessment on land use and ecosystem services and the unique opportunity to credit internships and science schools as a part of the programme round up the study programme.

## Objective

The elite study programme combines expertise of Universities with that of research institutions, and economic, administrative and international organisations. The programme is unique in Germany with respect to programme content and international efforts. The goal is the training of highly qualified leaders for research and problem solving in global change science, environmental protection, and political or economic decision making.

## ESEE contact persons

Prof. Carl Beierkuhnlein, Prof. Thomas Koellner (both University of Bayreuth)  
[gce@uni-bayreuth.de](mailto:gce@uni-bayreuth.de)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 120
<b>Language</b>	English
<b>Duration</b>	4 semesters (start in Winter semester only)
<b>Application deadline</b>	15 June every year
<b>Admission requirements</b>	An excellent Bachelor's degree in biology, geography, geocology, environmental science, international economics & development, philosophy & economics, physics, law or equivalent graduation. The successful passing of an aptitude assessment test, a pre-selection by means of the application documents and, in case of a positive result, a colloquy (all in English).
<b>Further information</b>	

# M.Sc. Interdisciplinary Studies in Environmental, Economic and Social Sustainability

## Study content

The master's degree in Interdisciplinary Studies in Environmental, Economic and Social Sustainability has 4 specialisations:

- Related to the protection of the environment against the potentially harmful effects of human activity and to the improvement of environmental quality in order to achieve greater well-being.
- Related to sustainable development of systems, optimising and minimising resource use and waste production.
- Related to impacts of global change and particularly to climate change, and their mitigation.
- Related to social, economic, biophysical, cultural and ethical issues that intervene in the management of human economies and their interactions with the natural world.

## Objective

Once the students complete the Master's degree in Interdisciplinary Studies in Environmental, Economic and Social Sustainability they will be qualified to work in private companies, research centres, institutions and NGOs as a specialist in the analysis and interpretation of environmental processes and problems, and also in integrating the relations between environmental phenomena and economic, social and cultural factors. Depending on your specialisation, professional career options include posts in public administration, environmental consultancies, production or engineering industries.


## ESEE contact person

Dr. Carme Miralles-Guasch (Programme Coordinator)  
[Carme.Miralles@uab.cat](mailto:Carme.Miralles@uab.cat)

## Hosting university:

Universitat Autònoma de Barcelona  
(Spain)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 60
<b>Language</b>	English 78 % , Spanish 28%
<b>Duration</b>	1 academic year (2 semesters)
<b>Application deadline</b>	13 January - 8 October 2017
<b>Admission requirements</b>	Official bachelor's degree in the subject areas of natural or environmental sciences, geography, economics or chemical, environmental, civil or agricultural engineering. Students must certify a command of English language at a level equivalent to the First Certificate.
<b>Further information</b>	

# M.Sc. International Environmental Studies

## Study content

This programme provides a solid grounding in sustainable development issues, concepts, theories and approaches. Students are equipped with analytical and practical skills needed to engage critically with environment issues and debates regarding solutions to increasing challenges in the field of the environment. They learn to engage with such issues from an interdisciplinary perspective, and to work across broad areas of policy, research and practices related to sustainable development.

The programme consists of core courses, a broad variety of electives and a 30 ECTS master thesis. The core courses present fundamental concepts and analytical tools in environmental studies, sustainability science as well as scientific methods. The electives include course on e.g. environmental governance, agroecology, climate change and development, political ecology, management of land and marine resources, resilience and social-ecological systems theory. The master thesis as well as the electives allow the students to specialize and tailor their course plan accordingly. The role of international political bodies, national states, markets and civil society are emphasized. Poverty alleviation, health, and human well-being are core aspects of sustainable development that are extensively covered.

## Objective

The programme aims at offering students extensive knowledge regarding the characteristics of environmental challenges and their drivers; in-depth understanding of key concepts and frameworks for studying sustainability problems; comprehensive insights regarding complexity of interrelated social and ecological processes.

It supports the advancement of skills including the capacity to analyse environmental problems and governance issues in an interdisciplinary way; learn about and critically assess policies and academic advancements within the field; be capable of creating and evaluating solutions to environmental problems; competence in planning and carrying out field research; use various methods in the study of socio-environmental issues; develop writing skills.

## ESEE contact person

Prof. Dr. Arild Vatn (Programme Director)  
[arild.vatn@nmbu.no](mailto:arild.vatn@nmbu.no)

## Hosting university:

Norwegian University of Life Sciences  
(Norway)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 120
<b>Language</b>	English
<b>Duration</b>	2 years (starts mid-August and ends mid-May)
<b>Application deadline</b>	International applicants: 1 December Norwegian applicants: 1 June
<b>Admission requirements</b>	Bachelor degree or equivalent education in fields relevant to natural and social aspects of environmental studies (e.g., ecology, agriculture, wildlife management, economics, development studies, political science, sociology, geography, social anthropology).
<b>Further information</b>	

# M.Sc. Land Management and Community Development / Gestion des territoires et développement local

**Hosting university:**  
University Paris Saclay  
(Guyancourt and Paris) (France)

## Study content

The objective of the master "Land Management and Community Development" is to train students to analyse and anticipate, sensitize, mobilize the stakeholders around adaptive and innovative collective strategies at local level. The aim is to provide them with frameworks for evaluating relevant actions and to allow them to think about the modes of building agreements, regulations and policies by integrating the conditions of transition. In fields as diverse as agriculture and food, energy, mobility, urban planning, biodiversity and the environment, they will be led to construct and carry out innovative actions and experiments aiming at building sustainability and resilience of the territories.


## Objective

Graduates will be specialists, with a multidisciplinary and interdisciplinary training, capable of analysing territorial, environmental and local development issues in their different components (understanding of physical phenomena, analysis of economic impacts, social, territorial, legal and political). They will be trained in the various methods of analysis (institutional, discursive, quantitative, analytical, etc.), evaluation tools and communication adapted to the professional world they are intended for. Three main courses are proposed in semester 3 and 4: Economic Analysis and Risk Governance (AEGR), Governance of the transition, Ecology and Society and, Dynamics in emergent and developing countries.

## ESEE contact person

Dr. Jean-Marc DOUGUET (University Paris Saclay & Université Versailles Saint-Quentin-en-Yvelines)  
[jean-marc.douguet@uvsq.fr](mailto:jean-marc.douguet@uvsq.fr)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 120
<b>Language</b>	French
<b>Duration</b>	4 semesters (start in Winter semester only)
<b>Application deadline</b>	Winter term 2017/18: For EU and non-EU citizens: <b>1 February - 15 July 2017</b>
<b>Admission requirements</b>	Degree in life or economics, politics sciences, social sciences, environmental sciences, geography, agricultural sciences or related fields. French skills, at least equal to level B2 of the CEFR.
<b>Further information</b>	

# Integrated M.Sc. in Environmental Engineering / M.Sc. Environmental Engineering

**Hosting university:**  
Universidade NOVA de Lisboa (Portugal)

## Study content

The structure of the MIEA is based on a first cycle (180 ECTS) with a solid component in subjects such as Mathematics, Chemistry, Physics, Computer Science, as well as a support block for Environmental Engineering which includes the teaching of Basic and Applied Ecology, Pollution, Geographical Information Systems, Soils, Hydraulics, Environmental Economics, and Spatial Planning. This basic structure is complemented in the last two years with two profiles: Environmental Systems Engineering and Sanitary Engineering (120 ECTS each). The Environmental Systems Engineering masters profile is focused on environmental management, ecological economics, environmental auditing, information systems and environmental modelling. The Sanitary Engineering masters profile emphasizes the management and treatment of water, wastewater and waste as well as water resources management.

Masters' curricular organization is based on credit units (ECTS) giving students the opportunity to participate in mobility programs. The Master in Environmental Engineering is organized as an integrated course of five years, corresponding to 300 ECTS, but can be attended by students with a Bachelor in Sciences or Engineering which are enrolled in one of the two profiles (120 ECTS).

## Objective

The Integrated Master in Environmental Engineering is a course integrating a set of subjects from different scientific areas, seeking to promote a comprehensive and horizontal view of environmental issues. The interdisciplinary nature of the courses allows a broad perspective and expertise to understand and seek for solutions to environmental problems in their multiple dimensions (ecological, economic, social and technological). Despite the multidisciplinary essence of Environmental Engineering, education and professional practice in this area include a strong component of project design, providing the graduates with skills to design solutions, develop research and professional practice with the environment as focal point.

## ESEE contact person

Dr. Nuno Videira  
[nmvc@fct.unl.pt](mailto:nmvc@fct.unl.pt)

## Programme details

<b>Degree / ECTS</b>	M.Sc. / 300 (5 years) / 120 (2 years)
<b>Language</b>	Portuguese and English
<b>Duration</b>	Integrated Master in Environmental Engineering: 5 years Master in Environmental Engineering: 2 years
<b>Application deadline</b>	1st phase: <b>6 March - 23 June</b> 2nd phase: <b>26 August - 31 August</b>
<b>Admission requirements</b>	For the Environmental Engineering Master the applicants must have a bachelor degree in sciences or engineering.
<b>Further information</b>	