

COURSES :

- Introduction to Economics for Biologists / introduction to Ecology for Economists
- Introduction to Non-market Valuation
- Applied Project in Ecology and Economics
- Biodiversity and Ecosystems
- Structures & Dynamics of Ecological Systems
- Population Demography and Life-history theory
- Ecology – concepts and experiments
- Datanomics: regulation of data spreading and data protection
- Ecosystem Management and Policies
- Sustainable Management and Evaluation of Ecosystems
- Cost-benefit analysis: Foundations and Practice
- Topics in Environmental Economics
- Structural Models and Policy Evaluation

SKILLS :

Pouvoir identifier, sélectionner, analyser avec esprit critique et synthétiser les savoirs spécialisés de l'écologie et de l'économie pour répondre à des questions à l'interface telles que:

- Evaluation des impacts écologiques des activités économiques
- Gestion écologique de la biodiversité, des ressources naturelles et de l'utilisation des terres
- Conception de politiques économiques pour faire face aux problèmes écologiques

CAREERS:

- Types de postes : Economistes, chercheurs, consultants ou analystes spécialisés dans toute organisation qui doit relever des défis à l'interface de l'écologie et de l'économie.
- Principaux secteurs : agences gouvernementales (au niveau national et local), organisations supranationales, entreprises et acteurs territoriaux notamment des secteurs de l'énergie, des transports, de la transition agroécologique ou du conseil environnemental, services en charge de la gestion des ressources en eau, ONGs, centres de recherche

Living species go extinct because of human action at an accelerating rate, and ecologists agree that the sustainability of human societies is intimately linked to the sustainability of other species.

Countries and international organizations are taking action to address this issue:

- In France: new law on biodiversity, creation of the French Agency for Biodiversity ...
- At the international level: the Intergovernmental Panel on Biodiversity and Ecosystem Services, the European Union's biodiversity strategy and the 2011-2020 Decade on Biodiversity of the United Nations

In this context, Toulouse School of Economics, in partnership with the University of Toulouse 3 Paul Sabatier, is offering a new multidisciplinary specialization: the "Economics and Ecology" Master's degree.

This master program provides students with a unique set of skills aimed at measuring both the impact of human activities on biodiversity and the functioning of ecosystems, and at evaluating, analyzing and recommending economic policies that influence human behavior and its consequences on biodiversity and ecosystems.

The courses are taught in English. The economics courses are taught by researchers from the Toulouse School of Economics, and ecology classes are given by research groups such as "Evolution et Diversité Biologique", and "Station d'Ecologie Théorique et Expérimentale" of Université Paul Sabatier. Group projects involving economists and ecologists are carried out throughout the year, including a collective project with local stakeholders.

Courses are offered in the Pyrenees, a unique place for experimental and theoretical ecological research on biodiversity.

Marion Desquilbet (TSE), Claire de Mazancourt and Mélanie Roy (UPS) – Program Directors

Clarisse Samson

Master Graduate – Internship at ARDEAR Occitanie

This master's degree has enabled me to develop many skills. I can start from a complex problem and implement a solid and adapted methodology to meet the expected results. Thanks to the numerous group projects and the interdisciplinary nature of the master's degree, working in a team is easy, including with people with different backgrounds and training. I also gained an understanding of how ecosystems work.

Luke Edwards

Master Graduate – Self Employed (Regenerative farming system project)

An understanding of the interaction between natural systems (ecology) and human systems (economics), helped me attain a role in policy within an NGO. The ability to critically analyse economic studies, which often make large assumptions overlooking ecological processes, can help evaluate the ecosystem impact across a range of outcomes, identifying unintended consequences during development of a policy, and thus its sustainability. Through working on stakeholder panels I found this critical thinking, which is often holistic and not siloed, is also highly valued by companies and government bodies who are seeing changes to resource availability and impacts of activities that are multi-dimensional, and should be analysed accordingly for the best solutions. The knowledge base from this masters, integrating methods from ecology, is highly valuable in new buzz areas such as the 'circular bioeconomy', and in reshaping approaches to address global issues.

Stanislas Nösperger

Research Engineer - EDF

Within EDF R&D, Technologies and Research for Energy Efficiency department, I work in a research team on territories and circular economy. One of our activities consists in describing and evaluating the economic models of industrial symbiosis approaches related to energy (heat flows) or materials (water, waste, sediments...) and enhancing the environmental and social impacts on the territory. We recruited several TSE trainees to assist us in this task because of their solid training in environmental economics, which we were aware of beforehand and that constituted a necessary basis for their work. We have appreciated retrospectively the quality of their documentary research work, their method in the realization of the analysis work and in the restitution of the results and their great editorial quality. We would also like to emphasize their enthusiasm and curiosity in the discovery and appropriation of concepts and models that complemented the courses they already mastered. This curiosity has been an essential resource in their research work.

Marion Desquilbet

Chercheur TSE et INRAE

The growing awareness of global change in biodiversity, and the increase in public and private initiatives for the protection of biodiversity, make skills at the interface of ecology and economics increasingly useful. This master's degree aims to train students to understand the economic and ecological perspectives of environmental issues affecting ecosystems. Thus, the master gives them tools to understand how biodiversity and ecosystems are modeled and measured and can be valued. It provides them with the skills to analyze, evaluate and recommend policies that impact human behavior and its consequences on biodiversity and ecosystems. The emphasis is on theory, practical experience with ecological and public policy data, and teamwork. By bringing together students with backgrounds in ecology and economics for one year, the course enhances their ability to communicate and collaborate in an interdisciplinary setting.

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