Master of Science in Applied Economics (MScAPEC)

Objectives
Economists are social scientists equipped with a specific set of tools, which include:
- Models (or abstract simplifications) capturing salient aspects of supply and demand in a given context, and
- Empirical methods to quantify causal mechanisms and make predictions based on real-world data.

With these tools, applied economists shed light on a wide range of social issues, help inform decisions by companies or households, and contribute to the design of public policies.

This programme provides a unique opportunity to learn about the practice of economics rather than focusing on technical details, with Professors from leading institutions such as:
- World Trade Organization
- Swiss National Bank
- UN Conference on Trade and Development, or
- Swiss Federal Statistical Office

The core objective of the programme is to teach students how to apply abstract reasoning to real-world problems, and use a data-driven approach to identify likely outcomes of market strategies or policy interventions.

Acquired skills
Students follow a challenging graduate programme in a first-class Swiss institution, developing the skills required for cutting-edge economic analysis. These skills include:
- A core set of models for micro and macro policy analysis used in the economic profession,
- State-of-the-art empirical methods with the most widely used software (R and Stata),
- The ability to read and reflect on the scientific literature applied to real-world issues, and
- Perform individual work by completing a research or internship thesis.

Compared with other programmes, the emphasis is not on technical knowledge such as calculus and statistics. Instead, the programme focuses on applying the intuition derived from models and statistical techniques. The programme is nevertheless highly quantitative, and we offer a 1-week math refresher in basic calculus and statistics.

Degree awarded
Master of Science in Applied Economics with optional Major in:
- Energy and environmental policy
- Data science

Credits
90 ECTS, 3 semesters

Teaching language
English

Admission conditions
A Bachelor’s degree is required. Students with a degree in Economics or Business from a Swiss university are directly admitted. Other applications are reviewed by the admissions committee. Students with a university degree in another discipline (e.g., Political Science, Sociology, International Relations, Engineering Sciences, etc.) and have acquired at least 30 ECTS in Economics can be admitted directly. For students with less ECTS in economics, including those from Swiss Universities of Applied Sciences, admission to the programme is conditional on completing a pre-programme (one or two semesters) that is tailored to their background.

Application deadline
Students have to apply before April 30 to start the programme in the fall semester, and before November 30 to start in the spring semester. Late applications are possible subject to availability. Students who need a visa must allow enough time to complete the application procedure before classes begin.

Registration
Bureau des immatriculations
Av. du 1er-Mars 26
CH-2000 Neuchâtel
www.unine.ch/immatriculation

Information
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By selecting courses during their degree, students have the option to obtain a major in:
• Energy and environmental policy
• Data Science
These specialisations enable students to enhance their knowledge in these fields and signal their skills to potential employers.

Career opportunities
The programme covers many different applications of economics, which can develop students’ interest in different professional specialisations. The programme has a history of excellent placements, including in public and governmental institutions, private businesses such as consultancies or financial companies, as well as international organisations and NGOs. Concrete examples include:
• Swiss federal administration (energy, defense, economy, statistics), Cantons de Vaud et Neuchâtel (budget office, statistics office), Australian Department of Finance;
• World Trade Organisation, World Economic Forum, Medair NGO, World Intellectual Property Organisation
• UBS, Crédit Suisse, Swiss Life Group, China Construction Bank, Caitong Securities
• Partners Group, Huawei Technologies, Price Waterhouse Cooper, Philip Morris International
• Numerous doctoral programmes in Switzerland and abroad, Canadian Energy Research Institute, FORS Swiss Center for Expertise in Social Sciences.

Course structure
The programme normally covers 3 semesters, including two semesters of core and optional courses, and one semester devoted to the writing of a Master’s thesis under supervision of a Professor (can be combined with an internship). The programme can also be completed within 12 months or extended to accommodate part-time work.

Interactive teaching
The programme maintains a policy of small classes, with around 20 students per cohort who enjoy maximum support and close supervision by the teaching staff. All courses are interactive and promote students’ learning experience, providing a unique atmosphere in the classroom and greatly facilitates exchanges between students and professors.

Master’s Programme (90 ECTS)

Semester 1: Fall (24 to 36 ECTS)
• Macroeconomic Policy*
• Microeconomic Policy*
• Economic Statistics*
• Econometrics*
• Empirical Research I*
• Public Policy Evaluation
• Global Public Goods
• Data Management

Semester 2: Spring (18 to 36 ECTS)
• Applied Econometrics*
• International Economics and Trade Policy*
• Economics of Regulation*
• Political Economy*
• Empirical Research II*
• Energy Economics
• Public Finance
• Environmental and Resource Economics
• Computational Thinking
• Machine Learning
• Innovation and Technology Policies
• Social Policy
• International Monetary System

* Compulsory courses
a Required for the major in Energy and environmental policy
b Required for the major in Data science

Semester 3: (30 ECTS)
Master thesis or internship thesis