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 social interactions in a given context, and
• Empirical methods employed to quantify the relevance of causal mechanisms with real-world data.
Applying these tools, applied economists shed light on a wide range of social issues, and can inform decisions within the firm or the family and the design of public policy interventions.

This programme provides students with a unique opportunity to learn how to use the tools of economics, and tackle real-life questions such as:
• When do markets work and fail?
• What are the trade-offs involved in regulating the banking sector?
• How do we tackle climate change?
• What are the costs and benefits of globalisation?
• How can businesses leverage new sources of big data to their best advantage?

As a collection of diverse models and empirical methods, economics as a discipline does not have a particular ideological bent, nor lead to a unique conclusion. Instead, 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 focusing on their applications with the most widely used software (R and Stata),
• The ability to read and reflect on the scientific literature, applying these tools to real-world issues, and
• Performing 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. Nevertheless, we offer a 1-week entry-level refresher in basic calculus and statistics, and the programme can therefore be followed by students from diverse backgrounds.

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 who graduated in another discipline (such as Political Science, Sociology, International Relations, Engineering Sciences, etc.) and have acquired a minimum of 30 ECTS in Economics can be admitted directly. For other students, including those from Swiss Universities of Applied Sciences, admission to the programme is conditional on completing a pre-programme (one or two semesters) based on their background before embarking on the regular Master curriculum.

Application deadline
Students can apply all year round to start the programme in the fall semester. Upon request, it is possible to start in the spring semester (February). 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 major in one of two fields:

- Energy and environmental policy
- Data Science

These specialisations enable students to enhance their knowledge in specific areas of economics, as well as to signal their interest and skills to potential employers.

Career opportunities
The programme covers many different applications of economics, which can develop students’ interest in different professional specialisations. The skills acquired will open the door to opportunities in public institutions, international organisations and NGOs, as well as private businesses such as consultancy companies or in the financial sector. Example of placements for past graduate students in economics include:

- Government and administration: Swiss federal administration (Energy, Defence, Economy, Statistics), Australian Department of Finance;
- International organisations: World Trade Organisation, World Economic Forum;
- Finance and insurance: UBS, Crédit Suisse, Swiss Life Group;
- Private sector and consultancy: Partners Group, Huawei Technologies, Price Waterhouse Cooper;
- Research and academic: Canadian Energy Research Institute, FORS Swiss Center for Expertise in Social Sciences, doctoral programmes in Economics, both in Switzerland and abroad.

See our website for a more comprehensive list of placements.

Course structure
The programme is normally completed within 3 semesters. The first two semesters include core and optional courses, and the last semester is devoted to the writing of a Master’s thesis under supervision of the faculty. Students motivated to finish the programme within a year can start work on the thesis during the first two semesters. Students can also combine their thesis work with an internship in a public or private institution.

Interactive teaching
The teaching team is a rare blend of academic faculty members and professional economists who are experts in their respective fields. A key feature of the programme is the enviably small size of each cohort of students, who enjoy maximum support and close supervision by the teaching staff. All courses are interactive and promote active student participation, providing a unique atmosphere in the classroom, and greatly facilitating interactions 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
- Monetary Policy in a New Era
- Social Policy
- International Monetary System

* Compulsory courses

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