

## 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 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.

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.



### 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 who graduated 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, 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  
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### Information

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### ● 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)

### Module: Economic tools in practice (27 ECTS)

- Microeconomic Policy
- Behavioral Economics
- Social Policy
- Empirical Research
- International Economics and Trade Policy
- Economics of Regulation
- Political Economy
- Topics in Development Economics

### Module: Quantitative methods (min. 12 ECTS)

- Econometrics
- Applied Macroeconometrics
- Applied Microeconometrics

### Electives<sup>1</sup>

- Global Public Goods<sup>a</sup>
- Public Policy Evaluation<sup>a</sup>
- Energy Economics<sup>a</sup>
- Environmental Economics<sup>a</sup>
- Innovation and Technology Policies<sup>a</sup>
- Data Management<sup>b</sup>
- Machine Learning<sup>b</sup>
- Computational Thinking<sup>b</sup>
- Health Economics and Policy
- Monetary Policy in a New Era

### Master thesis or internship thesis (30 ECTS)<sup>c</sup>

<sup>a</sup> Required for the major In Energy and Environmental Policy

<sup>b</sup> Required for the major in Data science

<sup>c</sup> To obtain a major, the thesis must be written on a topic that is relevant for the targeted major

<sup>1</sup> Students select elective courses in order to complete the required total of 60 ECTS of courses. Elective courses that are not listed above require the program director's prior approval