

MASTER OF SCIENCE IN APPLIED ECONOMICS (MSCAPEC), 90 ECTS MASTER OF SCIENCE EN ÉCONOMIE APPLIQUÉE, 90 ECTS

OPTIONAL TRACKS IN SUSTAINABILITY OR DATA SCIENCE

Code	Title	Instructor	ECTS	Semester	H/week	Grading policy	Status
Compulsory courses							
5ER2028	Microeconomic Policy	M. Farsi	6	Autumn	4	E	Compulsory
5ER2050	Behavioral Economics	C. Zihlmann ; S. Khelifa	3	Autumn	2	EI+E	Compulsory
5EN2022	Social Policy	D. Ilić ; T. Brändle	3	Autumn	2	E	Compulsory
5AF2017	Applied Macroeconometrics	D. Kaufmann	6	Autumn	4	EI+E	Compulsory
5ER2043	Globalization and Trade Policy	G. Loumeau	6	Spring	4	EI+E	Compulsory
5ER2053	Economic Research and Al	Q. Gallea	3	Spring	2	EI+E	Compulsory
5ER2054	Macroeconomic Policy	P. Wegmüller	3	Spring	2	E	Compulsory
5ER2020	Applied Microeconometrics	B. Lanz	6	Spring	4	EI+E	Compulsory
Electives ¹							
5ER2041	Empirical Labor Economics	R. Strobl	6	Autumn	4	EI+E	Elective
5ER2048	Monetary Policy in a New Era	F. Canetg	3	Autumn	2	El	Elective
5ER2051	Health Economics and Policy	R. Strobl	3	Spring	2	E	Elective
5ER2019	Political Economy	P. Fortunato	3	Spring	2	E	Elective
5ER2052	International Finance and Macroeconomics	D. Kaufmann	3	Spring	2	E	Elective
Electives: Track in Data Science ²							
5MI2017	Data Management	I. Ciorascu	6	Autumn	4	EI+E	Elective
5AF2029	Programming	E. Simon	3	Autumn	2	E	Elective
3IN2011	Machine Learning and Data Mining ⁴	C. Dimitrakakis	5	Autumn	4	E	Elective
3IN2064	Reinforcement Learning and Decision Making under Uncertainty ⁴	C. Dimitrakakis	5	Spring	4	EI+E	Elective
5MI2018	Machine Learning	I. Ciorascu	6	Spring	4	EI+E	Elective
Electives: Track in Su	stainability ²						
5ER2017	Global Public Goods	JM. Solleder	3	Autumn	2	Е	Elective
5ER2023	Environmental Economics	N. Mathys	3	Spring	2	Е	Elective
5AF2049	Sustainable Finance	M. Hasler	6	Spring	4	EI+E	Elective
5ZZ2011	Innovation and Technology Policies	A. Mack	3	Spring	2	EI+E	Elective
Total			72				
5ER2047 or 5ER2046	Master thesis or internship thesis ³		18				
GRAND TOTAL			90				

¹ Students select elective courses in order to complete the required total of 72 ECTS. Elective courses that are not listed above require the program director's prior approval.

The relevant terms of evaluation are specified in the course descriptions

E: written exam during the exam session at the end of the semester. El: evaluation organized during the semester

² Minimum 12 ECTS among these courses required to obtain a track in *Data Science* or in *Sustainability*.

³ To obtain a track, the thesis must be written on a topic in the corresponding field.

⁴ Enrollment in the course and exam is subject to specific conditions and must be completed within the designated deadlines: See mcs.unibnf.ch/organization/

LEARNING OUTCOMES

On completion of this program, students will be able to:

Overarching skill

• Conduct and communicate evidence-based analysis to support economic decisions, from private decisions to public policies

Knowledge and understanding acquired in the program:

- Work with a set of economic models that are useful for applied analysis
- Understand how causal relationships can be identified from economic data
- Exploit economic data for predictions

Applying knowledge and understanding:

- Apply abstract analytical frameworks to real-world issues
- Construct datasets that are relevant to economic decisions
- Undertake econometric analyses with state-of-the-art software

Making judgements:

- Assess theories and empirical evidence on a specific economic issue
- Formulate recommendations to prepare economic decisions or policies

Communication skills:

- Define objectives and contributions of academic research to existing knowledge
- Combine different sources of information to form a coherent and sound argument
- Communicate results to specialists and non-specialists (orally and in writing)

Learningskills:

- Adopt an analytical and scientific approach to solve individual or societal problems
- Establish contacts to gather the required information
- Contribute actively to teamwork and team-building