

Code	MScAPEC	Instructor	ECTS	Semester	H/week	Grading policy	Status
Module: Economic tools in practice							
5ER2028	Microeconomic Policy	<i>M. Farsi</i>	6	Autumn	4	E	Compulsory
5ER2050	Behavioral Economics	<i>C. Zihlmann; S. Khelifa</i>	3	Autumn	2	EI+E	Compulsory
5EN2022	Social Policy	<i>D. Ilić ; T. Brändle</i>	3	Autumn	2	EI+E	Compulsory
5ER2041	Topics in Labor Economics	<i>M. Pecoraro</i>	3	Autumn	2	EI+E	Compulsory
5AF2017	Applied Macroeconometrics	<i>D. Kaufmann</i>	6	Autumn	4	EI+E	Compulsory
5ER2043	International Economics and Trade Policy	<i>NN ; J.-A. Monteiro</i>	3	Spring	2	E	Compulsory
5ER2010	Economics of Regulation	<i>B. Rime</i>	3	Spring	2	E	Compulsory
5ER2019	Political Economy	<i>P. Fortunato</i>	3	Spring	2	E	Compulsory
5ER2042	Topics in Development Economics	<i>J.-M. Grether ; M.L. Alzua</i>	3	Spring	2	EI+E	Compulsory
5ER2020	Applied Microeconometrics	<i>B. Lanz</i>	6	Spring	4	EI+E	Compulsory
Electives¹							
5ER2017	Global Public Goods ^{a)}	<i>J.-M. Solleder</i>	3	Autumn	2	E	Elective
5ER2016	Public Policy Evaluation ^{a)}	<i>D. Kistler</i>	3	Autumn	2	EI+E	Elective
5MI2017	Data Management ^{b)}	<i>I. Ciorascu</i>	6	Autumn	4	EI+E	Elective
3IN2078	Machine Learning: Theory, Fairness and Privacy ^{b)d)}	<i>C. Dimitrakakis</i>	5	Autumn	4	EI+E	Elective
5ST2001	Econometrics	<i>C. Hasler</i>	6	Autumn	4	EI+E	Elective
5ER2048	Monetary Policy in a New Era	<i>F. Canetg</i>	3	Autumn	2	EI	Elective
5ER2032	Energy Economics ^{a)}	<i>M. Farsi</i>	3	Spring	2	E	Elective
5ER2023	Environmental Economics ^{a)}	<i>N. Mathys</i>	3	Spring	2	E	Elective
5ZZ2011	Innovation and Technology Policies ^{a)}	<i>A. Mack</i>	3	Spring	2	EI+E	Elective
5MI2012	Computational Thinking ^{b) 2}	<i>V. Macko</i>	3	-	1 week	EI	Elective
5MI2018	Machine Learning ^{b)}	<i>I. Ciorascu</i>	6	Spring	4	EI+E	Elective
5ER2051	Health Economics and Policy	<i>J. Marti</i>	3	Spring	2	EI	Elective
5ER2052	International Finance and Macroeconomics	<i>D. Kaufmann</i>	3	Spring	2	E	Elective
2GG2036	Cours interdisciplinaire en changements climatiques et sociétés	<i>L. Schneider</i>	5-6 ³	Spring	2	EI	Elective
Total			60				
5ER2047 or 5ER2046	Master thesis or internship thesis ^{c)}		30				
GRAND TOTAL			90				

^{a)} Required to obtain a major in "Energy and Environmental Policy".

^{b)} Minimum 14 ECTS among these courses required to obtain a major in "Data Science".

^{c)} To obtain a major, the thesis must be written on a topic in the corresponding field.

^{d)} Enrollment in the course and exam is subject to specific conditions and must be completed within the designated deadlines: [Organization – Swiss Joint Master of Science in Computer Science \(unibn.ch\)](http://www.unibn.ch)

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

² Course offered before the spring semester. The enrolment must take place in IS-Academia before the deadline for the spring semester.

³ See course description for the allocation of 6 credits

The relevant terms of evaluation are specified in the course descriptions

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

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
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