

MGT-494

**Economics for challenging times**

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<b>Cursus</b>	<b>Sem.</b>	<b>Type</b>
Managmt, dur et tech	MA1	Obl.

Language of teaching	English
Credits	6
Session	Winter
Semester	Fall
Exam	Oral
Workload	180h
Weeks	14
<b>Hours</b>	<b>4 weekly</b>
Lecture	4 weekly
<b>Number of positions</b>	

**Summary**

We address societal grand challenges (inequality, climate change ...) using quantitative tools for analyzing market-oriented economies. We aim at designing incentive-compatible policy interventions and actions. Students will use data management/vizualisation/analysis technics.

**Content**

**Session 1: Economics for Action: An Introduction**  
**Session 2: Practicing Econometrics**  
**Session 3: Practicing Econometrics**  
**Session 4: Basics of market economies**  
**Session 5: Market power, pricing and pass-through**  
**Session 6: Strategic behavior and game theory**  
**Session 7: Incentives and Cognitive Bias**  
**Session 8: Introduction to environmental economics**  
**Session 9: Climate change economics**  
**Session 10: Prosperity: Facts and Proximate Drivers**  
**Session 11: Fundamental Drivers of Development**  
**Session 12: Inequalities and Discrimination**  
**Session 13: A Global World**  
**Session 14: Governance and Public Policies**

**Learning Outcomes**

By the end of the course, the student must be able to:

- Develop an economic argument based on logic and data
- Model complex socio-economic issues (such as inequality, climate change)
- Structure critical thinking

**Transversal skills**

- Use a work methodology appropriate to the task.
- Write a scientific or technical report.
- Make an oral presentation.
- Communicate effectively, being understood, including across different languages and cultures.

**Teaching methods**

The course will be based on active participation of students. We will cover the important theoretical and empirical tools in

class, using active teaching methods such as group work and online voting, and students will have to apply this knowledge and develop their own solutions in teams using specific datasets during the seminars. They will work in mixed team (engineers and managers) to design an original answer to the questions and present it to the rest of the class. Such active learning techniques accelerate learning and improve the depth of understanding. They will also focus on skills that are particularly valuable in professional life (such as team working and evaluating each others work). Class attendance is thus fundamental and active student participation is strongly encouraged.

Our idea is to flip the usual learning model: students acquire the basic knowledge before coming to class and time spent in class is devoted to the most complex issues and solving problems in teams.

### Expected student activities

The course is divided into lectures and training sessions. Lectures are devoted to the exposition of the big challenges; training sessions are devoted to the acquisition of the quantitative tools and skills (formal models, computational skills, data manipulation and exploration).

Students will have to read textbook chapters, research papers and watch short videos ahead of meetings. This work can be done individually or in small groups.

### Assessment methods

**Active participation in class (20% of the final grade):** Active participation will be graded according to the EPFL participation grid. Class attendance is mandatory and will be checked with attendance sheet at each class (each unexcused absence will decrease the participation grade).

**Oral presentations (30% of the final grade):** On Moodle, you will find a question for oral presentations for each class (various format) based on readings. You will have to select 2 of these oral presentations during the term.

**Final Exam (50% of the grade):** Presentation of a term paper. You will have to present one extension of a research paper (from a reading list that we will circulate in week 4). This work is made in a team of 4-5 students, composed at the beginning of the year. By week 6, you should have chosen a paper to replicate and extend. Replication means that you re-produce the main tables of results. Extension means you add to the paper in some way for example by combining the original data with new data, exploiting variation within the existing data that were not utilized, adding robustness checks or constructing new hypothesis tests. If the code is available for the empirical papers, your mark will be heavily weighted towards the extension. You will be required to present your paper and its extension in an oral defense with your team during the exam session in January. Presentations should last at most 30 minutes followed with a 15mn Q&As.

### Resources

#### Virtual desktop infrastructure (VDI)

Yes

#### Moodle Link

- <https://go.epfl.ch/MGT-494>