

MGT-408

Transitions and technology policy

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Cursus	Sem.	Type
Energy Science and Technology	MA1, MA3	Opt.
Management, Technology and Entrepreneurship minor	H	Opt.
Managmt, tech et entr.	MA1, MA3	Opt.
Minor in Engineering for sustainability	H	Opt.

Language of teaching	English
Credits	2
Session	Winter
Semester	Fall
Exam	During the semester
Workload	60h
Weeks	14
Hours	2 weekly
Courses	1.5 weekly
Number of positions	

Remark

Special schedule. See the MTE website: <https://go.epfl.ch/mte>

Summary

This course addresses the issue of designing innovation strategies and technology policies to support transitions towards sustainable development goals

Content

We present a general framework of analysis based on the notions of positive and negative externalities and market failures. Based on this framework various types of interventions by the State are explored in order to achieve sustainable development goals. These interventions involves promoting innovation, changing the economy, involving society and establishing better rules for policy.

Keywords

Mission innovations
 Rate and direction of technical changes
 Productivity
 Green growth
 Innovation policies
 Push and pull mechanisms to promote innovation
 Externalities
 Policy monitoring and evaluation

Learning Prerequisites**Recommended courses**

Principles of microeconomics (A.Mack)

Learning Outcomes

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

- Define the key concepts of externalities
- Choose appropriate policy tools
- Assess / Evaluate national innovation policies
- Develop a policy roadmap

Transversal skills

- Access and evaluate appropriate sources of information.
- Make an oral presentation.
- Plan and carry out activities in a way which makes optimal use of available time and other resources.

Teaching methods

formal lectures

interactive sessions - team work - student presentations

Expected student activities

preparation of oral presentation

writing a document

Assessment methods

continuous assessment combining

25% individual work

75% final project

Resources

Bibliography

to be provided at the first session