Summary
This course uses the basics of microeconomic theory to address and develop the main economic issues about innovation in the biomedical sector (competition, monopoly and price formation, productivity crisis, knowledge access, neglected diseases, geography of innovation).

Content
The course alternates between the basic principles of microeconomics (consumer theory, production theory, State interventions on the markets, imperfect competition, public goods) and the economic fundamentals of innovation in the pharma/biomedical sector (price formation, intellectual property rights, etc.).

Keywords
Microeconomics, externality, public good, intellectual property right, imperfect competition, price formation

Learning Prerequisites
Required courses
no

Recommended courses
no

Important concepts to start the course
no

Learning Outcomes
By the end of the course, the student must be able to:
• Apply some elementary results of applied micro-economics for addressing innovation issues in the biomedical sector
• Understand the role of innovation and patent in competition
• Understand the role of competition on price formation
• Know the strengths and weaknesses of national systems of innovation (US case)
• Develop your own thinking about the potential reasons for the productivity crisis
• Analyze optimal prices at global scale
• Identify the various methods to produce optimal prices
• Assess / Evaluate various mechanisms that allow the development of drugs for non-profitable markets
• Predict the evolution of the geography of innovation
Transversal skills

• Use a work methodology appropriate to the task.
• Assess one's own level of skill acquisition, and plan their on-going learning goals.
• Access and evaluate appropriate sources of information.

Teaching methods
formal lectures; exercises (problem sets in microeconomics); discussions and debates

Expected student activities
Homeworks, final exam preparation

Assessment methods
two homeworks (problem sets in microeconomics) during the semester, one group project and one final exam

Resources
Bibliography
Provided during the course

Notes/Handbook
no

Websites
• http://non

Moodle Link
• http://moodle.epfl.ch

Videos
• http://non

Prerequisite for
no