MGT-635

Economics of Innovation and Technological Change

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Cursus	Sem.	Type
Management of technology		Obl.

Language of teaching	English
Credits	4
Session	
Exam	Multiple
Workload	120h
Hours	**56**
Courses	56
Number of positions	

Frequency

Every 2 years

Remark

Spring 2017

Summary

This course will be organised again at EPFL in May 2017.

Content

DTU, EPFL, TU/e and TUM have recently joined forces in a new strategic alliance, named Euro Tech, with the goal to further collaboration in leading research and educational programs. Considering that this institutional framework explicitly encourages the development of Euro Tech communities in several academic disciplines, Professors in innovation and entrepreneurship from the four schools have decided to partake in a comprehensive collaboration. This alliance will serve as the basis for further growth and encourage entrepreneurship & innovation research as a core scholarly discipline in European (technical) universities.
In the spirit of this initiative, a doctoral course on “Economics of Innovation and Technological Change” has been designed by Professors of the four universities under the coordination of Pr. Dominique Foray (EPFL) and will be offered to the students of Copenhagen, Eindhoven, Lausanne and Münich during the 2017 Spring Semester.
This one week block course will alternate formal lectures on various topics in the economics of innovation, interactive sessions, students’presentation as well as individual coaching.

Expected student activities

This one week block course will alternate formal lectures on various topics in the economics of innovation, interactive sessions, students’presentation as well as individual coaching.
Students after following this program will be able to :

- understand better what makes for a good research question anddevelop the ability to identify promising research questions for own thesis and further projects in the field of economics and management of innovation;
- elaborate a solid research design as relating in a consistent way research question, methods and data production and use;
- master the state of the art both in the general field of the economics and management of innovation and in the more specialized sub-field corresponding to own research interest (economics of science, industry dynamics, geography and space, appropriability issue and open innovation, effects of innovation on skills/employment/productivity/firm’s growth, innovation policy, specific technology analysis, and so on)

Resources

Bibliography

Obligatory readings (One paper per lecture)

• Lecture - Empirical methods: Sampat B. and Williams, H., 2014, How do patents affect follow-on innovation?, Evidence from the human genome, available at: http://www.nber.org/confer/2014/SI2014/PRINN/Sampat_Williams.pdf

• Lecture – Innovation and organization: TBD

• Lecture - Technology search and innovation: LI-Ying J. et al., 2014, An inquiry on external technology search through patent in-licensing and firms' technological innovations : Evidence from China, *R&D Management*, 44 (1) : 53-74

• Lecture – Economics of science: Stephan, P.E., 2010, The economics of science, Handbook of the economics of innovation, 1, 217-274

• Lecture – Innovation and standardization: TBD

• Lecture – IPR and open source: TBD

• Lecture – Innovation policy: Romer P., "Implementing a National Technology Strategy with Self-Organizing Industry Investment Boards", *Brookings papers: Microeconomics*, 2, 1993, 345-399.

Recommended textbooks and handbooks

• B.Hall and N.Rosenberg (eds.), 2010, Economics of Innovation, vol 1 & 2, Handbooks in economics, North-Holland

• P.Swann, 2009, The economics of innovation: an introduction, Edward Elgar

• D.Foray (ed.), 2009, The new economics of technology policy, Edward Elgar