Course description

This is one of the courses dispensed within the framework of the STPS graduate program which studies the process of technological change in Developing Countries (DCs). The analysis of the nature and sources of technological change in DCs as well as its impact on the development process in a changing environment since the 1960s constitutes the main objective of this course.

The course will start with the introduction and discussion of core concepts related to technology and technological change, especially with reference to the case of DCs. Next, the first part will be devoted to the analysis of catch up theories in an historical perspective and discussion of lessons thereof for DCs. Although history rarely repeats itself and more importantly the current international context is radically different from the one observed one century earlier, common elements as to the role of technology in economic development can be identified. The second part of the course will be based on the presentations of students about a number of topics devoted to the role of technological change and innovation in the catch up experiences –some remarkable, others less successful– of DCs in the 20th century (such as import substitution-based development strategy, role of transnational corporations in the technology transfer, recent trends in intellectual property rights regime, emergence of global value chains, and globalization of R&D activities).

Requirements and functioning

Students are expected to attend the class (on time!) and read the assigned materials on a regular basis. In order to achieve active participation of students and ensure their contribution to discussions in class, the following method of organization will be adopted.

The first part of the course on catching up theories will be based on both formal lectures and class discussion for which students must read assigned material. The topics will cover mainly the role of innovation and technological change in the industrialization and catching up experiences of follower countries from the mid-19th to mid 20th century. Although the instructor will have the responsibility of underlining and laying down certain topics for
discussion, students are expected to take part actively to discussions on the basis of the assigned readings. A midterm examination will take place during the eighth week.

The second part of the course will be organized around sessions, each devoted to a different topic relating to the economics of technological change in developing countries. Each student will be required to lead a session on a specific topic, write a critical paper on assigned readings and present it in class. This method of organization has proved its ability to achieve active involvement of students. Further details on the organization of sessions and the list of topics will be provided later by the instructor. A final paper that integrates remarks and critics made by participants in class during the sessions will be prepared and hand out to the instructor.

**Grading**

Midterm examination: 25 points  
Session leadership (paper, presentation, leading): 25 points  
Final term paper: 25 points  
Class participation: 25 points

**Schedule**

February 17: Introduction  
**PART I: CATCH UP THEORIES**  
Week 1: Introduction  
Week 2: The Flying Geese model of technological catch up  
Week 3: Catch up à la Abramowitz: from simple catch up to the potentiality and realization of catch up  
Week 4: Catch up à la Soete and Perez: Any window of opportunity for DCs?  
Week 5: A. Gerschenkron and prerequisites of development (1)  
Week 6: A. Gerschenkron and prerequisites of development (2)  
Week 7: Midterm examination  

**PART II: SESSIONS ON SELECTED TOPICS (presentations by students)**  
Week 8-14

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1 Reading list and material will be provided by the instructor.
Selected work on DCs and technological change


Shin, J-S (1996), *The economics of the latecomers: catching-up, technology transfer, and institutions in Germany, Japan, and South Korea*, Routledge, London.


