

Academic Year: ( 2024 / 2025 )

Review date: 05-04-2024

Department assigned to the subject: Social Sciences Department

Coordinating teacher: ALVAREZ NOGAL, CARLOS

Type: Electives ECTS Credits : 6.0

Year : Semester :

## OBJECTIVES

- Explain the economic, social and political problems associated with structural change and economic growth.
- Discuss the Spanish case in a comparative context with other countries at similar levels of per capita income.
- Develop the student's ability to look for relevant information to support an argument, and to present it with clarity, both in class and in a written essay.
- Write an essay or critical survey on the subject.
- Learn to analyse economic problems using a multidisciplinary approach.
- Develop the ability to ask questions related to the subject, and resolve them using economic analysis and quantitative methods.
- An ability to adopt an open attitude to the different problems associated with Spanish economic growth and structural change.
- An ability to criticize constructively, as well as to accept criticism.
- An ability to understand and find solutions to problems in less Developed Countries today.
- Awaken the curiosity of students to complex problems present in today's world.

## DESCRIPTION OF CONTENTS: PROGRAMME

1. Economic growth and technological change
2. Innovation and productivity
3. Macro and microinventions
4. Technology and labor markets
5. Technology and social changes
6. Technological innovation and institutions

## LEARNING ACTIVITIES AND METHODOLOGY

The course consists of (a) a weekly lecture by the professor, (b) a short summary of a paper prepared by the student each week for discussion in class; (c) class presentations by an individual, or group of students, on a specific part of the program; (d) and participation by students in the class and debates.

Students will also be expected to prepare a short individual essay on a relevant topic to the course.

The 6 ECTS credits correspond approximately to:

- 1 credit for preparing the weekly summary
- 2 credits for the preparation and presentation of a paper
- 3 credit for the participation in class during the course

The teacher will present the main ideas of each topic in the lecture, both in terms of the underlying theoretical problems, as well as the historical background. This information, together with obligatory class readings and individual student essays, will provide the material to conduct debates in the class.

Class presentations by students aim to develop their ability to synthesise complex material and present

it orally to their fellow students. Their ability to answer questions will also be tested.

The weekly essays will show that the student has understood the material to be discussed.

## ASSESSMENT SYSTEM

<b>% end-of-term-examination:</b>	0
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	100

The course will be graded on the basis of class attendance. Class attendance is mandatory. Missing three or more classes means -3 in the final grade. The evaluation will be focused on:

- Comprehension and presentation of the reading materials (30% of the grade, half may correspond to Aula Global participation)
- Participation in day-to-day discussions (40%)
- Final project and essay (30%).

The use of AI is neither necessary nor recommended.

## BASIC BIBLIOGRAPHY

- ATKINSON, A.B., STIGLITZ, J.E. "A new View of Technological Change", *Economic Journal*, 1969, pp. 573-578
- Aghion, Philippe, Antonin, Céline and Bunel, Simón. *The Power of Creative Destruction: Economic Upheaval and the Wealth of Nations*, Harvard University Press, 2021
- EISENSTEIN, E.L. *The Printing Press as an Agent of Change*, Cambridge University Press, 1979
- LANDES, D. *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present*, Cambridge University Press, 2003
- LEWIS, F. D. ¿Explaining the Shift of Labor from Agriculture to Industry in the United States: 1869 to 1899¿, *Journal of Economic History*, Vol. 39, No. 3, 1979, 681-698.
- MOKYR, J. *The Lever of Riches: Technological Creativity and Economic Progress*, Oxford University Press, 1992
- NELSON, R. R., WRIGHT, G. ¿The Rise and Fall of American Technological Leadership: The Postwar Era in Historical Perspective¿, *Journal of Economic Literature*, Vol. 30, No. 4, 1982, pp. 1931-1964
- WHITE, L.A. ¿La expansión de la tecnología, 500-1500", en CIPOLLA, C.M., *Historia económica de Europa (1). La Edad Media*, Ariel, 1987, pp. 152-185.

## ADDITIONAL BIBLIOGRAPHY

- Beniger, James *The Control Revolution: Technological and Economic Origins of the Information Society*, Harvard University Press, 1989
- Hounshell, David *From the American System to Mass Production*, Johns Hopkins University Press, 1984
- Lucas, R. E. ¿Making a Miracle¿, *Econometrica*, 61, 2, 1993, pp. 251-272
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- Nordhaus, W.D. *Invention, Growth and Welfare: A Theoretical Treatment of Technological Change*, MIT Press, 1969

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- Rabinbach, A. The Human Motor: Energy, Fatigue, and the Origins of Modernity, University of California Press, 1992
- Romer, P. "Idea Gaps and Object Gaps in Economic Development", Journal of Monetary Economics, Vol. 32, 1993, pp. 543-573.
- Steinberg, S.H. Five Hundred Years of Printing, Penguin, 1955
- Yates, Joanne Control through Communication: The Rise of System in American Management, Johns Hopkins University Press, 1989
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