

Academic Year: ( 2020 / 2021 )

Review date: 27-07-2020

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:

- 2 credits for assistance
- 1 credit for preparing the weekly summary
- 2 credits for the preparation and presentation of a paper
- 1 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

Students will be assessed during the whole course. Marks will be awarded as following:

- 35% to the weeks essay and participation in class
- 25% on an individual essay
- 40% in the final exam. Students will be expected to obtain a minimum grade of 4 to pass the subject.

The long essay will be based on relevant bibliography for the course, and should be less than 1.000 words.

<b>% end-of-term-examination:</b>	40
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	60

## BASIC BIBLIOGRAPHY

- ATKINSON, A.B., STIGLITZ, J.E. "A new View of Technological Change", Economic Journal, 1969, pp. 573-578
- 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

## 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
- McNeill, William The Pursuit of Power: Technology, Armed Force, and Society since AD 1000, University of Chicago Press, 1984
- Nef, J. U. ¿The Industrial Revolution Reconsidered¿, Journal of Economic History, Vol. 3, No. 1, 1943, pp. 1-31.
- Nordhaus, W.D. Invention, Growth and Welfare: A Theoretical Treatment of Technological Change, MIT Press, 1969
- Parente, S. L., Prescott, E. C. ¿Barriers to Technology Adoption and Development¿, Journal of Political Economy, 102/2, 1994, pp. 298-321.
- Piore, M. J., Sabel, C.F. The Second Industrial Divide: Possibilities for Prosperity, Basic Books, 1990
- 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
- Young, A. ¿Invention and Bounded Learning by Doing¿, Journal of Political Economy, 101/3, 1993, pp. 443-472.