



# UNIVERSITY OF PIRAEUS

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| <b>FACULTY/SCHOOL</b>       | <b>School of Economics, Business and International Studies</b> |                            |          |
| <b>DEPARTMENT</b>           | <b>Department of Economics</b>                                 |                            |          |
| <b>LEVEL OF STUDY</b>       | <b>Undergraduate</b>   |                            |          |
| <b>COURSE UNIT CODE</b>     | <b>OKOIK07</b>   | <b>SEMESTER</b>            | <b>7</b> |
| <b>COURSE TITLE</b>         | <b>ECONOMIC GROWTH</b>   |                            |          |
| <b>WEEKLY TEACHNG HOURS</b> | <b>4</b>   | <b>CREDITS (ECTS)</b>      | <b>6</b> |
| <b>COURSE TYPE</b>          | General Knowledge  |                            |          |
| <b>PREREQUISITE COURSES</b> | -  |                            |          |
| <b>INSTRUCTION LANGUAGE</b> | Greek  | <b>ASSESSMENT LANGUAGE</b> | Greek    |
| <b>OPEN TO ERASMUS</b>      | -  |                            |          |

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| <b>LEARNING OUTCOMES</b> | <p>This course gives an overview of the causes and effects of economic growth and the theories and instruments that economists use to explain economic growth. We are especially interested in explaining the differences in the rate of growth of different countries and in different eras. The material covered by the course 'Macroeconomics' includes the role of savings, the capital stock, population growth and (exogenous) technological progress. All of these were discussed in the context of the Solow model. In this course, we go beyond that model and investigate the role of a large number of other factors: demography, human capital, innovation, globalization, institutions, geography, government policy, cultural differences and raw materials. We will discuss several models that economists use to explain economic growth. While the discussion will require some mathematics, the objective of this course is mainly to create an understanding of economic considerations.</p> |
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| <b>GENERAL COMPETENCES</b> | <ul style="list-style-type: none"> <li>- Group/Team work</li> <li>- Critical thinking</li> <li>- Development of free, creative and inductive thinking</li> </ul> <p>The student acquires a deeper insight into the process of economic growth and the manner in which economists analyze and model this process. The student also learns to analyze economic growth using empirical data. Upon finishing this course, the student is able to:</p> <ul style="list-style-type: none"> <li>• formulate the necessary conditions for economic growth;</li> <li>• describe the different theoretical and practical problems that occur when analyzing economic growth;</li> <li>• analyze economic growth using formal models, and with these analyses give insight into the effects of economic policy on growth;</li> <li>• analyze a growth process systematically based on economic theory and empirical data (essential skill writing a report or a policy document).</li> </ul> <p>The course will focus on the development of the essential skill academic reasoning and working.</p> |
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| <b>COURSE CONTENT</b> | <ul style="list-style-type: none"> <li>• Physical capital &amp; Human capital</li> <li>• Productivity and technology</li> <li>• The cutting edge of technology &amp; efficiency</li> <li>• Government &amp; income inequality</li> <li>• Culture, geography, and natural resources</li> </ul> |
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| <b>USE OF ICT IN TEACHING</b> | e-class notes |
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| <b>COURSE DESIGN</b>                | <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Activity/Method</th> <th style="width: 40%;">Semester workload</th> </tr> </thead> <tbody> <tr> <td>Lectures</td> <td style="text-align: center;">125</td> </tr> <tr> <td>Study and analysis of term-projects</td> <td style="text-align: center;">23</td> </tr> <tr> <td>Exam</td> <td style="text-align: center;">2</td> </tr> <tr> <td><b>Total</b></td> <td style="text-align: center;"><b>150</b></td> </tr> </tbody> </table> | Activity/Method | Semester workload | Lectures | 125 | Study and analysis of term-projects | 23 | Exam | 2 | <b>Total</b> | <b>150</b> |
|-------------------------------------|---|-----------------|-------------------|----------|-----|-------------------------------------|----|------|---|--------------|------------|
| Activity/Method                     | Semester workload   |                 |                   |          |     |                                     |    |      |   |              |            |
| Lectures                            | 125   |                 |                   |          |     |                                     |    |      |   |              |            |
| Study and analysis of term-projects | 23  |                 |                   |          |     |                                     |    |      |   |              |            |
| Exam                                | 2   |                 |                   |          |     |                                     |    |      |   |              |            |
| <b>Total</b>                        | <b>150</b>  |                 |                   |          |     |                                     |    |      |   |              |            |

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| <b>COURSE ASSESSMENT</b> | Language of evaluation is Greek and English (if it is requested). Methods of evaluations are term-projects and final exam. |
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| <b>SUGGESTED BIBLIOGRAPHY</b> | <p><b>MAIN TEXTBOOK :</b><br/>Weil, David N. (2014), Economic Growth. Pearson. Addison Wesley.</p> <p><b>SOME SUPPLEMENTARY BOOKS&amp; MATERIAL (optional):</b><br/>Jones, Charles (2002). Introduction to Economic Growth. New York: W.W. Norton.<br/>[An analysis of theories of economic growth, with a particular focus on models of technological progress. The level of mathematical sophistication is somewhat high, but far more accessible than the books by Barro and Sala-i-Martin and by Aghion and Howitt (see below).]<br/>Barro, Robert and Xavier Sala-i-Martin (1999). Economic Growth. MIT Press.<br/>[A rigorous, highly mathematical presentation of the fundamental models used by growth theorists.]<br/>Phillipe Aghion and Peter Howitt (1998). Endogenous Growth Theory. Cambridge: MIT Press.</p> |
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[A highly mathematical treatment of the theory of technological progress.]  
 Grossman, Gene M. and Elhanan Helpman (1991). Innovation and Growth. MIT Press.  
 [A useful overview of recent analyses of innovation and growth, enriching and expanding the available formal theory in a number of important ways.]

Further Reading (for fun):  
 The Mystery of Economic Growth by Helpman, Elhanan (Belknap Press of Harvard University Press, Cambridge, MA., 2004).  
 Handbook of Economic Growth by Aghion, Philippe and Durlauf, Steven N. (North-Holland, Amsterdam, 2005).  
 The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics by Easterly, William (MIT Press, 2001).

**WEEKLY PLANNER**

| <b>Week</b>                        | <b>Lectures</b>  | <b>Material</b>   |
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| <b>Part I. FACTOR ACCUMULATION</b> |  |   |
| 1                                  | Lecture 1<br>Physical capital & Human capital                    | D. Weil, Ch. 1<br>Neoclassical Growth Model (Solow)   |
| 2                                  | Lecture 1 (cond.)<br>Physical capital & Human capital            | D. Weil, Ch. 2<br>Neoclassical Growth Model (Solow)   |
| 3                                  | Lecture 1 (cond.)<br>Physical capital & Human capital            | D. Weil, Ch. 3 & 6<br>Neoclassical Growth Model (Solow)   |
| 4                                  | Lecture 2<br>Productivity & technology                           | D. Weil, Ch. 7<br>Endogenous Growth Model   |
| 5                                  | Lecture 2 (cond.)<br>Productivity & technology                   | D. Weil, Ch. 8<br>Endogenous Growth Model   |
| 6                                  | Lecture 2 (cond.)<br>Productivity & technology                   | R&D-based models (Romer, Jones, Lucas)  |
| 7                                  | Published Paper Presentation                                     | "A Contribution to the Empirics of Economic Growth"<br>[by G. Mankiw, D. Romer and D. Weil]<br><i>Quarterly Journal of Economics</i> , 1992 |
| <b>Part II. PRODUCTIVITY</b>       |  |   |
| 8                                  | Lecture 3<br>The cutting edge of technology & efficiency         | D. Weil, Ch. 9  |
| 9                                  | Lecture 3 (cond.)<br>The cutting edge of technology & efficiency | D. Weil, Ch. 10   |
| <b>Part III. THE FUNDAMENTALS</b>  |  |   |
| 10                                 | Lecture 4<br>Government & income inequality                      | D. Weil, Ch. 12-13<br>(some parts; not whole chapter)   |
| 11                                 | Lecture 5<br>Culture, geography, and natural resources           | D. Weil, Ch. 14-15-16<br>(some parts; not whole chapter)  |
| 12                                 | Material Revision  | Past & Mock Exams   |
| 13                                 | <b>FINAL EXAM</b>  |   |