Syllabus of Economic Growth, year 2017-2018

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Bibliography

- <u>The basic textbook</u> is the book by Charles I. Jones, "Introduction to Economic Growth", Prentice Hall, 3rd edition, if posible.
- Additionally, we will read the following articles
  - Charles I. Jones & Paul M. Romer, 2010. "The New Kaldor Facts: Ideas, Institutions, Population, and Human Capital," American Economic Journal: Macroeconomics, American Economic Association, vol. 2(1), pages 224-45, January.
  - Charles I. Jones, 2015: "The Facts of Economic Growth", NBER working paper.
- The book by Robert Barro y Xavier Sala-i-Martin "Economic Growth" en MIT Press will be used as side material.
- Wiliam Easterly, "The Elusive Quest for Growth", MIT Press.

Topics

1. Growth facts and methodology
(1 weeks)

1. "Kaldor Facts".

2. Foundations of the aggregate production function:

   a. The concept of Total Factor Productivity.

   b. The factor distribution of income and the aggregate production function.

2. The Solow model
(3 weeks)

1. A bit of maths.

2. Steady state.
3. Comparative statics.
4. Technological progress.
5. Transitional dynamics.

3. Validating the Solow model
(2 weeks)

1. Speed of convergence. Model versus data.

2. Differences in income across countries and the role of human capital.

4. Growth in TFP: Models of endogenous growth.
(3 weeks)

1. Growth and innovation.

2. Learning by doing.

5. The government and public infrastructures.
(1 weeks)

7. Globalization and growth.
(1 week)

6. Growth and inequality.
(1 week)

7. Globalization and growth.
(1 week)

Final grade

The final grade will depend on the final exam (60%), a midterm exam (20%) and a project. This project will be developed in groups. It will consist in studying the growth patterns of a particular country. You will need use data bases as EU KLEMS and software as Excel.

Each week the profesor will hand out exercises that will be solved in class. These exercises are not graded. However, solving them and participating in the discussion in class will be very helpful to prepare the exams and the project.

Those students that cannot take the midterm exam in the announced date because of illness (properly documented by a doctor certificate) will take the exam during the last wkk of the semester.

The final grade of those students who have to retake the class in the extraordinary exam will be the máximum of the following: (1) the weighted average replacing the final exam grade by the grade in the extraordinary exam or (2) 100% of the grade in the extraordinary exam.

Cronograma Economic Growth, year 20015-20016			Group		Observations	Student work			
Week of class	Session and day	Contents of the session	Magistral	Reducido			Description	Class time	Work time (7h max)
1				x				1.5	
1		Topic 1: Kaldor facts and the aggregate production function		x			Introduction	1.5	
2		Solow model (I)	x				"	1.5	
2		HW 1: Definition of GDP. Factor dristibution of GDP.		x			"		
3		Solow model (II)	x				"	1.5	
3		HW 2: Exercises on Solow model		x			" .	1.5	
4		Solow model (II)	x				" .	1.5	
4		HW 3: Exercises on Solow model.		x			"	1.5	
5		Solow model (III)	X				"	1.5	
5		Transitional dynamics in the Solow model		X	Computer room		" .	1.5	
6		Taking the Solow model to the data (I)	X				"	1.5	
6		Part I of protect due.		X			"		
7		Taking the Solow model to the data (II)	X				"	1.5	
7		HW 4: Transtional dynamics in the Solow model.		X			"	1.5	
8		Endogenous growth models (I)	X				"	1.5	
8		Midterm exam		X			"	1.5	
9		Endogenous growth models (II)	X				"	1.5	
9		HW 5: Human capital in the Solow model. Part III of project due..		X			"	1.5	
10		Endogenous growth models (III)	X				"	1.5	
10		HW 6. Models of R+D (I)		X			"	1.5	
11		Endogenous growth models (IV)	X				"	1.5	
11		HW 7. Models of R+D (II)		X			"	1.5	
12		Government and infrastructures	X				"	1.5	
12		HW 8: Adoption of technology and part III of Project due.		X			"	1.5	
13		Globalization and growth	X				"	1.5	

13		HW 9:		X			1.5	
14		Growth and inequality	X			"	1.5	
14		HW 10.		X				
15		Growth and natural resources.	X			"	1.5	
15		Final Project due.		X				