Subject card

Subject name and code	ECONOMIC GROWTH AND CONVERGENCE ANALYSIS, PG_00071049		
Field of study	Economic Analytics		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	second-cycle studies	Subject group	Obligatory subject group in the field of study
			Subject group related to scientific research in the field of study
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	3.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Economic -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Joanna Wolszczak-Derlacz	
	Teachers		

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	30.0	0.0	0.0	45
	E-learning hours included: 0.0						

Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
	Number of study hours	45	3.0	27.0	75

Subject objectives	Preparing students to apply the key models of economic growth theory and convergence, as well as computational methods used in their empirical verification, and to shape attitudes related to critical analysis and professional presentation of research results in the context of academic debates and solving economic problems.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_K03] responsibly fulfills professional roles, demonstrating the ability to identify ethical dilemmas and recognize and evaluate alternative courses of action.	is ready to responsibly analyze processes of economic growth and convergence, recognizing related ethical dilemmas and considering possible courses of action.	[SK2] Assessment of progress of work [SK5] Assessment of ability to solve problems that arise in practice
	[K7_U04] is able to prepare and convincingly present the results of specialized analyses, providing in-depth interpretation during debates and meetings with various audiences.	can develop and convincingly present the results of specialized analyses of economic growth and convergence, providing in-depth interpretation during debates and discussions with various audiences.	[SU3] Assessment of ability to use knowledge gained from the subject
	[K7_W01] "demonstrates in-depth knowledge and understanding of economic problems, and selects methods for resolving them while taking into account the complex interrelationships among the phenomena being analyzed. "	Knows and understands economic problems in depth and selects appropriate methods for solving them, taking into account the complex interdependencies between the analyzed phenomena in the context of growth and convergence theories.	[SW1] Assessment of factual knowledge

Subject contents	Course content – lecture 1. Stylized facts about economic growth 2. Production function and its properties 3. Solow growth model 4. Convergence in the Solow model 5. Endogenous growth models 6. The role of human capital 7. The role of technology 8. Openness and growth 9. Real and nominal convergence
	Course content – laboratory 1. Introduction to databases 2. Growth measures 3. Mathematical and statistical measures of convergence 4. The Solow growth model examining saving rates 5. Determinants of population growth 6. The role of endogenous factors: human Capital 7. The role of endogenous factors: technology 8. Openness and convergence 9. Inequality and convergence 10. Absolute and conditional convergence

Prerequisites and co-requisites	

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Written assessment.	60.0%	50.0%
A test with tasks solved using a computer.	60.0%	60.0%

Recommended reading

Basic literature	1. Jones Ch.I., Vollrath D. (2024). Introduction to Economic Growth, 4th ed. WWNorton. 2. Marzec B. (2022) Wzrost gospodarczy w teorii i praktyce, PWN 3. Malinowski G. (2016) Nierówności i wzrost gospodarczy, PWN 4. Weil D. (2014). Economic Growth . Routledge. 5. Jones, C. I. (2016). The facts of economic growth. In Handbook of macroeconomics (Vol. 2, pp. 3-69). Elsevier. 6. D. Romer, Makroekonomia dla zaawansowanych, PWN 2000 7. Raporty: World Bank, UNCTAD
Supplementary literature	1. Barro, R. J. (2012). Convergence and modernization revisited (No. w18295). National Bureau of Economic Research 2. Dobrinsky, R., & Havlik, P. (2014). Economic convergence and structural change: The role of transition and EU accession. WIIW Research Report 395 3. Mankiw, Romer, Weil (1992) A Contribution to the Emirics of Economic Growth, The Quarterly Journal of Economics, vol 107 (2): 407-437 4. Próchniak, M. (2011), Determinants of Economic Growth in Central and Eastern Europe: the Global Crisis Perspective, Post-Communist Economies, Vol. 2 3, No. 4, pp. 449-468. 5. Rapacki R. & Próchniak M. (2009) Real beta and sigma convergence in 27 transition countries, 19902005, Post-Communist Economies, 21:3, 307-326 6. Sala-i-Martin X. (1997) I Just Ran Two Million Regressions, American Economic Review, Vol. 87, No. 2, pp. 178-183. 7. Wolszczak-Derlacz, J. (2008). Price convergence in the EUan aggregate and disaggregate approach. International Economics and Economic Policy, 5(1-2), 25-47
eResources addresses	

Example issues/ example questions/ tasks being completed	• State the properties of the Cobb-Douglas production function • Explain the Solow diagram • Define the differences between absolute and conditional convergence • Download data on production in economies and on growth factors. On their basis, conduct a convergence analysis of a group of economies
Practical activites within the subject	Not applicable

Document generated electronically. Does not require a seal or signature.