

## 。 GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

Subject name and code	ECONOMIC GROWTH AND CONVERGENCE THEORIES, PG_00060800								
Field of study	Economic Analytics								
Date of commencement of studies	October 2023		Academic year of realisation of subject			2023/2024			
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			English			
Semester of study	2		ECTS credits			3.0			
Learning profile	general academic profile		Assessment form			exam			
Conducting unit	Katedra Ekonomii -> Faculty of Management and Economics								
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Aleksandra Parteka						
	Teachers	dr hab. inż. Aleksandra Parteka							
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	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		6.0		24.0		75	
Subject objectives	Explains the most important theoretical models of economic growth and convergence as well as computational (analytical) methods used in their empirical verification.								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K7_W01] identifies in-depth the phenomena related to the field of study and the theories describing them and possible analytical methods					[SW1] Assessment of factual knowledge			
	[K7_U04] prepares and presents convincing, professional presentations of analysis results, with their in-depth interpretation		prepares and presents the results of analyzes in a convincing manner, along with their in-depth interpretation			[SU5] Assessment of ability to present the results of task			

Subject contents							
Subject contents	Lectures:						
	<ol> <li>Introduction. Stylised facts about economic growth.</li> <li>How to measure growth and convergence. Types of convergence.</li> <li>Polarisation of development in the world</li> <li>History of economic growth and convergence process - part I</li> <li>History of economic growth - introduction</li> <li>Production function and its properties.</li> <li>Solow growth model - part I (C-D production function, Solow diagram)</li> <li>Solow growth model - part II (growth accounting, Solow decomposition)</li> <li>Solow growth model - part III (extensions)</li> <li>Growth models - extensions (model MRW, AK)</li> <li>Endogenous growth models - human capital, technology, public spending, trade, institutions.</li> <li>Empirical studies on real convergence - part I</li> <li>Empirical studies on real convergence - part II.</li> </ol>						
	Computer labs: practical analysis of topics discussed during the lectures, the use of real statistical data.						
	<ol> <li>Introduction - key data sources and growth facts.</li> <li>Databases - part I</li> <li>Databases - part II</li> <li>Analytical dataset construction</li> <li>Analysis of growth trends and polarisation of development around the world.</li> <li>Alternative measures of growth.</li> <li>Mathematical and statistical measures of convergence.</li> <li>Solow model analysis - part I</li> <li>Solow model analysis - part II</li> <li>Real convergence - empirical analysis part I</li> <li>Real convergence - empirical analysis part II</li> <li>Growth models - empirical evidence</li> <li>Endogeneous factors of growth - empirical tests</li> <li>Nominal convergence analysis.</li> </ol>						
Prerequisites and co-requisites	Knowledge of macroeconomics and basic statistics/econometrics.						
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	Exam	60.0%	50.0%				
	test on computational methods	60.0%	50.0%				
Recommended reading	Basic literature	Charles I Jones , Dietrich Vollrath (2024). Introduction to Economic Growth, 4th ed. WWNorton.Weil D. (2014). Economic Growth . Routledge. D. Acemoglu, Introduction to Modern Economic Growth, Princeton University Press, 2009Jones, C. I. (2016). The facts of economic growth. In Handbook of macroeconomics (Vol. 2, pp. 3-69). Elsevier.					
	Supplementary literature	R.E. Lucas Jr., Wykłady z teorii wzrostu gospodarczego, C.H.Beck, 2010					
	eResources addresses	Adresy na platformie eNauczanie: ECONOMIC GROWTH AND CONVERGENCE THEORIES _AP - Moodle ID: 36305 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=36305					
Example issues/ example questions/ tasks being completed	Describe the properties of the Cobb-Douglas production function. Explain the Solow diagram. Define the differences between absolute and conditional convergence. Get the data on output and growth factors. Conduct an empirical convergence analysis of a selected group of economies.						
Work placement	Not applicable						

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