# GDAŃSK UNIVERSITY OF TECHNOLOGY

## Subject card

| Subject name and code | ECONOMIC GROWTH, PG_00049582 | | | | | | |
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| Field of study | Management | | | | | | |
| Date of commencement of studies | October 2022 | | Academic year of realisation of subject | | 2023/2024 | | |
| Education level | second-cycle studies | | Subject group | | Optional subject group<br>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 | 2 | | Language of instruction | | English | | |
| Semester of study | 3 | | ECTS credits | | 4.0 | | |
| Learning profile | general academic profile | | Assessment form | | exam | | |
| Conducting unit | Faculty of Management and Economics | | | | | | |
| Name and surname of lecturer (lecturers) | Subject supervisor | | dr hab. Joanna Wolszczak-Derlacz | | | | |
| | Teachers | | dr hab. Joanna Wolszczak-Derlacz | | | | |

| Lesson types and methods of instruction | Lesson type | Lecture | Tutorial | Laboratory | Project | Seminar | SUM |
|---|---|---|---|---|---|---|---|
| | Number of study hours | 30.0 | 0.0 | 15.0 | 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 |
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| | Number of study hours | 45 | 8.0 | 47.0 | 100 |

| Subject objectives | Main aim of the subject is to present knowledge concerning growth models and process of real and nominal convergence and practical ability to conduct empirical research on the verufication of growth models and real convergence with the use of real data. |
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| Learning outcomes | Course outcome | Subject outcome | Method of verification |
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| | [K7_W02] has an in-depth knowledge of classical and modern management concepts and their application in the management of modern organizations of various types | Student knows the types and determinants of real convergence as the process in the integrated Europe. Student knows the social implication of the processes of real convergence and its consequences on the activity of a company/organization. | [SW1] Assessment of factual knowledge |
| | [K7_U02] analyses complex economic processes and phenomena using selected methods and techniques for analysing socio-economic data, and formulates their own opinions and conclusions concerning these processes and phenomena | Student has the ability to analyze and interpret the data from the sources expressed in English, and is able to conduct the analysis of the convergence processes. | [SU4] Assessment of ability to use methods and tools |

| Subject contents | **Lectures:** How to measure growth and real/nominal convergence. Sigma and beta convergence. Polarisation of development in the world, History of economic growth and convergence process. Models of economic growth - introduction. Solow growth model. Growth models - extensions and endogenous factors of growth and convergence  (Mankiew-Romer-Weil, AK, learning by doing, Lucas model, Barro model). Empirical studies on real convergence. Price convergence.<br><br>**Computer labs:** practical analysis of topics discussed during the lectures, the use of real statistical data.. Introduction to databases. Measures of growth. Mathematical and statistical measures of convergence. Real convergence - empirical analysis. Growth models. Role of endogeneous factors of growth in the convergence process. |
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| Prerequisites and co-requisites | |
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| Assessment methods and criteria | Subject passing criteria | Passing threshold | Percentage of the final grade |
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| | Written test with the use of computers | 60.0% | 50.0% |
| | Written or oral test | 60.0% | 50.0% |

| Recommended reading | Basic literature | Aghion P., Howitt P. (2009) The Economics of Growth, MIT Press<br>Jones Ch.I., (2020), Introduction to Economic Growth, W.W. Norton & Company<br>Weil D., Economic Growth, (2014) Pearson International Edition<br>Wolszczak-Derlacz J. Convergence or divergence in the European Union (2007) in:Selected economic problems (ed.) Gawrycka M., Technical University of Gdańsk. |
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| | Supplementary literature | Acemoglu D. (2009) Introduction to Modern Economic Growth, Princeton University Press<br>Barro R. (1990), Government Spending in a Simple Model of Endogenous Growth. J*ournal of Political Economy* vol.98, no.5, 103-126<br>Barro R.J., Xavier Sala-i-Martin (2003) Economic Growth: 2nd Edition, MIT Press<br>Romer P. (1990) Endogenous Technological Change, *Journal of Polictical Economy vol 98 no 5: s.71-102* |
| | eResources addresses | Adresy na platformie eNauczanie:<br>Economic growth_winter2023_2024 - Moodle ID: 31313<br>https://enauczanie.pg.edu.pl/moodle/course/view.php?id=31313 |

| Example issues/ example questions/ tasks being completed | What are the endogenous factors of growth?<br>Explain the Solow diagram<br>Define the differences between absolute and nominal convergence.<br>With the use of statistical data, conduct the empirical analysis to estimate the basic determinants of growth and to test the conditional convergence |
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| Work placement | Not applicable |
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