УНИВЕРСИТЕТ ЗА НАЦИОНАЛНО И СВЕТОВНО СТОПАНСТВО

UNIVERSITY OF NATIONAL AND WORLD ECONOMY

Adopted by the Faculty Council Decision of Faculty of General Economics
protocol № ….. / ……

Approved by:

Dean of Faculty
Prof. Georgi Petrunov, PhD

SYLLABUS

Course	**ECONOMIC GROWTH**	
Course category	**COMPULSORY SPECIALIZED**	
Area of study	**3. SOCIAL SCIENCES, ECONOMICS AND LAW**	
Field of study	**3.8. ECONOMICS**	
Degree programme	**ECONOMICS TAUGHT IN ENGLISH**	
Educational and qualification degree	**BACHELOR OF ECONOMICS**	
Faculty	**FACULTY OF GENERAL ECONOMICS**	
Department	**ECONOMICS**	
Academic hours	*Full Time*	**60 hours**
Extracurricular academic hours	*Full Time*	**90 hours**
Credits	**6**	
Lecturer	**Assoc. prof. Vera Pirimova, PhD** **Assoc. prof. Dimitar Damyanov, PhD** **Assoc. prof. Nikolay Velichkov, PhD**	

COURSE DESCRIPTION

1. The course in Economic Growth has been taught to students enrolled in the "Economics taught in English" degree programme for the "Bachelor" EQD since the 2022/2023 academic year.

2. Content description:

The specialized course in Economic Growth builds on the knowledge acquired by students in other courses such as Macroeconomics, Economic Policy, Microeconomic Theory, and Public Sector Economics. The main objective of the course is to familiarize students with the main aspects of the theory of economic growth and the manifestations of the process in reality. The course reflects the evolution of perceptions about the process of growth, its factors, the assumptions and sources in the various theoretical schools; the diversity of theoretical, applied and mathematical models of growth, and the methodologies used for the study of the process in reality. The indicators and measurement options for the study and forecasting of growth through analytical, mathematical and statistical methods are also covered. A special emphasis is put on the relationship between economic growth and the main macroeconomic policies, as well as on the characteristics and the dynamics of growth in Bulgaria in recent years.

The main objective of the course is to enable the development of key competencies for lifelong learning and in particular: competencies necessary for personal realization and development, employability, social inclusion, active citizenship, etc., as described in the European Reference Framework for Key Competences for Lifelong Learning (Official Journal of the European Union C 189/7 4.6.2018). In this regard, the necessary knowledge, skills and competencies required as a result of training in accordance with the National Qualifications Framework of the Republic of Bulgaria (DCM №96/02.02.2012) – namely: independence and responsibility, learning competencies, communicative and social competencies, and, above all, professional competencies – are implemented in the structure of the curriculum.

3. Language of instruction: English

CONTENT

№	TOPIC	Academic hours			
		Full time		Distance learning	
		L	S	L	S
	INTRODUCTION TO THE THEORY OF ECONOMIC GROWTH				
1.	**REVIEW OF THE DEVELOPMENT OF THE THEORY OF ECONOMIC GROWTH** Economic background and the stages of the development of the theory of economic growth. Early studies, indicators and approaches to economic growth. Developments of the theory during the 19th century. Main assumptions, factors of growth, and general equilibrium conditions in the models of Adam Smith and David Ricardo. Dynamic characteristics and the specifics of the growth process in the models of Knut Wicksell and Grigory Feldman.	4			

	Developments and main branches of the theory of economic growth during the 20th and 21st centuries. General description and comparison of the concepts of growth in the Keynesian, neoclassical and endogenous growth theories; global growth models.				
2.	**THE NATURE OF ECONOMIC GROWTH** General characteristics of economic growth. Main types of economic growth. Long-run and short-run economic growth. Approaches to the measurement of economic growth. Other types of economic growth. The productive capacity concept and its applicability. Stages of economic growth – theories and classifications. Relationships between growth theory, real-life growth and economic policy. Economic situation, long-term growth trend, economic development and economic (business) cycle.Economic growth and sustainable development. Economic growth, increase in living standards and well-being.	4			
3.	**CONDITIONS, FACTORS AND SOURCES OF ECONOMIC GROWTH** Methodological notes. Types of conditions, factors and sources of growth. Direct and indirect, internal and external, extensive and intensive, stimulating and limiting, exogenous and endogenous conditions and factors. Main groups of growth factors – factors of aggregate demand and factors of aggregate supply. Economic sectors and sectoral sources of growth. Institutional sectors and economic growth. General classification of growth factors – E. Dennison system. Explicit and implicit (hidden) factors and signs of growth. Modifications of the main factors and sources of growth in modern times.	4			
4.	**MEASUREMENT AND INDICATORS OF ECONOMIC GROWTH** Main and additional growth indicators. Methods and indicators for measuring, characterizing and typifying growth. Varieties, ways of presentation, interrelation and importance of the indicators of growth and its factors. Aggregate and supplementary, primary and derived, absolute and relative indicators and their applicability in factual growth analyses. Rate of change of the indicators and rate of economic growth. Variants and selection of a specific system of growth indicators. Types of economic growth. Quality and "cost" of growth.	4			
5.	**METHODS FOR STUDYING AND FORECASTING OF ECONOMIC GROWTH** Mathematical, statistical, and econometric methods for the analysis of economic growth. Application ofthe various mathematical functions according to the dynamic features	4			

	of the growth process – linear, parabolic, hyperbolic, logistic and exponential functions and models. Correlation, regression and factor analysis of growth – general and comparative characteristics. Analytical methods for forecasting growth. System dynamics method. Trend extrapolation.				
	ECONOMIC GROWTH: FACTORS AND MODELS				
6.	**GROWTH FACTORS IN THE BASIC QUANTITATIVE MODELS** Sources of growth in the one-factor models with constant multipliers and in two-factor models with constant coefficients. Conditions for proportional growth. The role of consumption and capital formation –the two-sector growth model (G. Feldman). Classical production function – general form and properties. Classification of production functions. Estimating the factors of growth using production functions.	4			
7.	**AGGREGATE DEMAND AND ECONOMIC GROWTH (KEYNESIAN AND NEOKEYNESIAN MODELS)** Economic growth and the components of aggregate demand. Effects of investment on aggregate income and equilibrium economic growth (static multiplier model of J. M. Keynes). Effect of investment on production capacity and types of growth (R. Harrod and E. Domar's dynamic multiplier model). Actual, desired (expected) and natural growth rate. Multiplier, accelerator, multiplier-accelerator mechanism. Importance of autonomous and induced, government and private investment for growth. Investment policy and economic growth.	4			
8.	**AGGREGATE DEMAND AND ECONOMIC GROWTH (DEVELOPMENTs OF THE NEOKEYNESIAN MODELS)** Aggregate expenditure lags and aggregate income dynamics (P. Samuelson - J. Hicks model). The distinction between stable and unstable growth. The role of aggregate cost induced investment. Importance of autonomous investments of an innovative nature. Formation of an equilibrium line of growth ("Hicks'supermultiplier"). Upper and lower growth limits. Income distribution between entrepreneurs and workers (N. Kaldor-J. Mirrlees model). Optimal capital stock and investment demand. Optimal distribution of income and stable equilibrium economic growth. Technical progress and long-term economic growth. Innovation policy, social policy and economic growth.	4			
9.	**AGGREGATE SUPPLY AND ECONOMIC GROWTH (NEOCLASSICAL MODELS)** Dependence of economic growth on aggregate supply factors. Traditional supply-side factors and growth analysis using production functions (R. Solow and J. Meade models). Limited production factors and long-term	4			

	stability of economic growth. Factor utilisation rate, capital intensity of labor and equilibrium economic growth. Technical progress as a separate autonomous factor of growth. Neutral, capital-intensive and labor-intensive technical progress and economic growth. Employment policy and economic growth.				
10.	**THE MONEY MARKET EQUILIBRIUM AND THE LM CURVE** Optimal investment rate and optimal growth path (E. Phelps' "golden rule of accumulation").Distribution of income between present and future consumption (F. Ramsey's "optimal growth rule").Unbalanced and optimized economic growth.Stable regularities (quasi-laws) in the trend of economic growth.Types of technical progress and its role in long-term growth stability.Comparison, applicability, advantages and disadvantages of neo-Keynesian and neoclassical growth models.	4			
11.	**ENDOGENOUS FACTORS AND MODELS OF ECONOMIC GROWTH** An extension to R. Solow and T. Swan's model. Human capital, knowledge and education as factors of growth – R. Lucas, P. Romer and R. Barro's models. G. Mankiw, D. Romer and D. Weil's models. R&D spending and economic growth. The role of information and communication technologies as factors of growth. The concepts of "new economic growth" and the "knowledge economy".	4			
12.	**NEW CONCEPTS AND MODELS OF ECONOMIC GROWTH** The concept of the "new economy". Characteristics, main technological indicators and spread of the "new economy". Impact of the "new economy" on the sources and dynamics of growth. Changes in the labor factor – human capital and economic growth. Comparative analyses, models and indicators of economic growth. The processes of integration and globalization and economic growth. "Digital" economy, "Industry 4.0" and economic growth.	4			
13.	**GLOBAL ISSUES AND MODELS OF ECONOMIC GROWTH** Summary indicators and consequences of growth for the present and the future of the world economy (models of Jay Forrester and D. Meadows, of M. Mesarovic and E. Pestel). Ecosystem and production system. Limits to growth. Unevenness of growth in the world economy, geographic or economic regions and individual countries. Global optimal growth rate. Alternative options for the development of the world economy (Wassily Leontief model). Environmental policy and economic growth.	4			

14.	**MAIN FACTORS OF THE CONTEMPORARY GROWTH PROCESS** The human factor and economic growth. Labor as a classical (traditional) factor. Role of physical and mental, living and embodied, intellectual work. Human capital as a growth factor. Contributions of endogenous theory. Main characteristics of human capital and human capital investment. Basic and proxy indicators of human capital in growth models. Role of education, qualification, healthcare, and social infrastructure. Indicators and development of human capital in Bulgaria. Investment and innovation, working capital, technical progress and economic growth. Contributions of the Keynesian, neoclassical and endogenous theory. National and foreign investment. Innovation and economic growth. Types of innovation. Sources of innovation financing. R&D spending. Structural indicators of innovation in Bulgaria and the EU. ICT, artificial intelligence and economic growth.	4			
15.	**ECONOMIC GROWTH AND ECONOMIC POLICY** Growth as an economic and political objective. Growth as a final (direct) or modal (indirect) objective. Economic growth and well-being. Economic policy and growth. The role of innovation policy, structural policy, stabilization policy, competition protection policy, etc. Fiscal and monetary policy and opportunities to stabilize and accelerate growth. Social policy and implications for welfare and growth. Depletion of natural resources and environmental protection policy. Economic growth, sustainable development and ecological balance.	4			
	Total	**60**			

L – Lectures; S – Seminars

TEACHING AND LEARNING METHODS

The course is organized in 60 lecture hours, during which active discussion and student participation are encouraged. A combination of various contemporary teaching techniques and methods is applied in instruction, such as lectures, seminars, discussions, outsourced training at business organizations or administrative units (whenever possible), individual assignments, reports, surveys, case studies, etc. During the course, practical examples from the Bulgarian macroeconomic environment are analyzed, based on information sourced from National Statistical Institute, Bulgarian National Bank, IMF, Eurostat, World Bank, IMF, etc. The presentation of the material involves the application of modern methodological approaches with a relatively high level of formalization of the relationships studied.

The necessary technical resources for the purpose of instruction are: multimedia, software, information and communications technologies, online information sources, digitally-aided education and other digital devices.

Individual assignment: The individual work requires students to develop a written assignment, whose topic is directly or indirectly related to the specific issues of the course content. It aims to extend students' knowledge in specific issues in economic growth theory and its applications and to develop their abilities to prepare empirical analyses based on official statistical sources. The individual work involves the use of a wide range of theoretical papers and requires a creative approach to solving the tasks required. The evaluation of the assignment is based on the following criteria: originality, appropriate selection and usage of the empirical information, and soundness of the theoretical and empirical conclusions.

EXTRACURRICULAR ACADEMIC HOURS

Components	Number of hours	
	Full time	Distance learning
1. Practical training		
2. Course project / Assignment	20	
3. Essay		
4. Case study		
5. Individual / Team activity		
6. Laboratory training		
7. Midterm exam / test	30	
8. Other: ……		
9. Exam	40	
Total	**90**	

EVALUATION

The course evaluation consists of several components.

For full time students the final grade is formed as follows:

FG = 0.3*MTE + 0.2*IA + 0.5*FE,

where:

FG = Final grade;
MTE = Mid-term exam;
IA = Individual assignment;
FE = Final exam.

The midterm exam and the final exam may consist of multiple-choice questions and free response questions, as well as of numerical problems or other tasks. A variety of e-learning platforms and other contemporary educational technologies may be used in the evaluation of student performance.

The final grade is based on a six-point scale, in which the lowest grade for successful completion of the course is 3. Converted to the ECTS the grading scale is as follows:

Excellent /6/	Very good /5/	Good /4/	Average /3/		Fail /2/	
A	**B**	**C**	**D**	**E**	**FX**	**F**
The corresponding number of ECTS credit points is being allocated					No ECTS credit points are being allocated	

QUALIFICATION GOALS

This course is designed in compliance with the requirements of the National Qualification Framework[1] in terms of acquired knowledge (theoretical and factual), skills (cognitive and practical) and competences (independence and responsibility, key competences for lifelong learning, language learning, civic and social competences, digital competences, communicative competences, professional competences) for the corresponding EQD and Council Recommendation of Key Competences for Lifelong Learning[2].

The course provides students with knowledge of:

- additional and in-depth knowledge in á specific area of economic theory – the theory of economic growth;
- knowledge about the applied models, the main factors, sources and trends of the process of economic growth;
- knowledge of the methodology for analyzing the process of economic growth.

The course will help students acquire:

- skills and abilities for the practical application of growth models, for the measurement, analysis and forecasting of growth trends;
- skills to build models of stable and accelerated economic growth,
- analytical and managerial skills and abilities.

DISSEMINATION OF THE COURSE

1. London School of Economics, UK
2. Karl Ruprecht University – Heidelberg, Germany
3. University of Leuven, Belgium

LITERATURE

A. Basic / Main

1. Acemoglu D., Introduction to Modern Economic Growth, Princeton University Press, 2009.
2. Aghion Ph., Peter W. Howitt, The Economics of Growth, MIT Press, 2024.
3. Ashraf Q.H., David N. Weil, Economic Growth, 4th Edition, Routledge, 2025.

[1]The National Qualification Frame of Bulgaria gives the definition of the knowledge, skills and competences which are required as a result of the education process in the corresponding EQD in higher education.

[2]Council Recommendation on Key Competences for Lifelong Learning (OJ 2018/C 189/01)

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8. Best M., How Growth Really Happens: The Making of Economic Miracles through Production, Governance, and Skills, Princeton University Press, 2018.
9. Bucci A., Kl. Prettner, Al. Prskawetz, Human Capital and Economic Growth : The Impact of Health, Education and Demographic Change, Springer Nature Switzerland AG, 2021.
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15. Kuznets S., Six Lectures on Economic Growth, Taylor & Francis Ltd., 2018.
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20. Romer D., Advanced Macroeconomics (Mcgraw-hill Economics), McGraw-Hill Education, 5th Edition, 2018.
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22. Weil D., Economic Growth, Third Edition, 2016.

Online sources:

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2. https://www.imf.org
3. https://www.worldbank.org
4. https://www.oecd.org
5. https://www.bnb.bg
6. https://www.nsi.bg

B. Additional

1. Acemoglu D., Economic Growth, 2016, https://ocw.mit.edu/courses/14-452-economic-growth-fall-2016/pages/lecture-notes/
2. Aslund A., S. Djankov, Europe's Growth Challenge, Oxford University Press Inc., 2017
3. Hein E., Distribution and Growth after Keynes: A Post-Keynesian Guide, Edward Elgar Publishing Ltd., 2016
4. Jones Ch., Introduction to Economic Growth, Third Edition, 2013

5. Kim T., Heshmati A., Economic Growth. The New Perspectives for Theory and Policy, 2014
6. Macekura St., Of Limits and Growth: The Rise of Global Sustainable Development in the Twentieth Century, Cambridge University Press, 2016
7. Meadows D., The Limits to Growth, http://www.donellameadows.org/wp-content/userfiles/Limits-to-Growth-digital-scan-version.pdf
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12. Van Den Berg H., Economic Growth and Development (Third Edition), World Scientific Publishing Co Pte Ltd., 2016.

Author / Lecturer: _____

(Assoc. prof. Vera Pirimova, PhD)

Author / Lecturer: _____

(Assoc. prof. Dimitar Damyanov, PhD)

_____

(Assoc. prof. Nikolay Velichkov, PhD)

Head of Department: _____

(Assoc. prof. Ivaylo Beev, PhD)

Dean of Faculty: _____

(Prof. Georgi Petrunov, PhD)