УНИВЕРСИТЕТ ЗА НАЦИОНАЛНО И СВЕТОВНО СТОПАНСТВО

UNIVERSITY OF NATIONAL AND WORLD ECONOMY

Adopted with Faculty Council decision
of Faculty of *General economics*
Protocol № ….. / ……

Approved by:
Dean of Faculty
Prof. Georgi Petrunov, PhD

SYLLABUS

Course		**GREEN ECONOMY**	
Course Category		**OPTIONAL**	
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**	
Faculty		**GENERAL ECONOMICS**	
Department		**ECONOMICS**	
Academic Hours/classes		**Full Time**	60
		Distance Learning	0
Extracurricular activities		**Full Time**	90
		Distance Learning	0
Credits		**6**	
Lecturer		**Chief. Asst. prof. Shteryo Nozharov, PhD** **Asst. prof. Neda Muzho, PhD**	

COURSE DESCRIPTION

1. The course „Green Economy“ is taught to students enrolled in “Economics taught in English“ degree programme for “bachelors” EQD since 2022/2023 academic year.

2. Content description:

This is an introductory course. A “Green economy” is an economy that aims at reducing environmental risks and ecological scarcity, and that aims for sustainable development without degrading the environment. It is closely related with ecological economics, but has a more politically applied focus. The 2011 UNEP Green Economy Report argues "that to be green, an economy must not only be efficient, but also fair. Fairness implies recognizing global and country level equity dimensions, particularly in ensuring a Just Transition to an economy that is low-carbon, resource efficient, and socially inclusive."

A feature distinguishing it from prior economic regimes is the direct valuation of natural capital and ecological services as having economic value and a full cost accounting regime in which costs are externalized onto society via ecosystems are reliably traced back to, and accounted for as liabilities of, the entity that does the harm or neglects an asset.

3. Language of Instruction: English

CONTENT

№	TOPIC	Academic Hours			
		Full Time		Distance Learning	
		L	S	L	S
1.	**SUSTAINABLE DEVELOPMENT – MAIN ISSUES, GOALS AND PRINCIPLES** • Sustainable development definition. • Methodological aspects of the sustainable development category. • Modification of the sustainable development definition. • Principles and purposes of the sustainable development in the economic aspect context.	3	2		
2	**UN AGENDA 21** • Principles of UN Agenda 21 • Social and economic dimensions • Management and protection of resources • Strengthening the role of main groups • Tools for execution • Sustainable development goals till 2030	3	2		
3	**EU POLICY FOR SUSTAINABLE DEVELOPMENT, THE "GREEN PACKAGE"** • Green package definition • Energy effectiveness • Renewable energy resources • Directive on renewable energy resources • European green deal	3	2		

4	**ECOFISCAL POLICY FOR SUSTAINABLE DEVELOPMENT** • Green taxes and customs. • Green public procurements. • Eco-subsidies and others. • Reaching fiscal neutrality in the usage of eco-fiscal tools.	3	2		
5	**MONETARY POLICY FOR SUSTAINABLE DEVELOPMENT** • Tools for sustainable development, applied by the monetary, credit and capital markets and institutions. • Sustainable development indices, introduced by the financial markets. • Emissions trading schemes on the financial markets. • Specialized credit institutions, funding projects, related to sustainable development.	3	2		
6	**CSR AND COMPETITIVENESS** • CSR and competitiveness • Principles of competitiveness • The correlation CSR and competitiveness • Approaches for increasing the competitiveness of the sustainable business.	3	2		
7	**CORPORATE COMMUNITY INVOLVEMENT AND SOCIAL CAPITAL** • Principles of the social capital • Theory of the stakeholders • Key economic subjects in CSR • Regulative mechanisms, applied by leading economic companies	2	3		
8	**BUSINESS MODELS FOR SUSTAINABILITY** • Principles of business models for sustainable development • Main views and concept • Sustainable business models for circular economy • Sustainable business models for sharing economy	2	3		
9	**EMPLOYMENT POLICY. DISTRIBUTION OF INCOME. POVERTY REDUCTION** • Definition of poverty (poverty line); Differences in welfare (inequality); • Correlation amongst productiveness, incomes, prices, inflation, and tax policy. • Gini coefficient;	2	3		
10	**CIRCULAR ECONOMY** • Origin of the idea • Distinction of the linear model • „Cradle to Cradle“ model • "R" models	2	3		

11	**LOW-CARBON ECONOMY** • Sustainability of the ecosystem and economic benefits. • Decarbonization activities by economic sectors (industry, agriculture, and services) • UN and EU policies for decarbonization of the economy.	2	3		
12	**DIGITAL TRANSFORMATION AND GREEN ECONOMY** • Key sectors for digital transformation and green economy (artificial intelligence, space technologies and etc.); • Integration of information technologies into the green economy.	2	3		
	Total	30	30		

Legend: L – Lectures; S – Seminars

TEACHING AND LEARNING METHODS

A combination of different teaching techniques and methods is applied in instruction such as lectures, seminars, discussions, outsourced training in a business environment or administration, individual assignments, reports, surveys, case studies, among other methods.

The necessary technical resources for the purpose of instruction are: multimedia, software, Information and communications technology (ICT), e-learning platforms (Teams, etc.), digitally-aided education and other digital devices.

The preparation of the individual course designed for the students enrolled in distance form of education includes:

1. **Reading**

You will be required to familiarize yourself *in detail* with the mandatory readings before each class. Your final exam will be partly based on those readings. Please check below for a list of mandatory and additional papers.

2. **Term papers (20 pts.)**

A crucial part of your grade will be determined by how well you formulate and defend a research idea in a written form. When you find a given idea from what you read at home or from our class discussions interesting, you are encouraged to put a provocative title on it and develop it along the following lines:

2. 1. (4 pts.) **Introduction and Motivation**: tell me why I should care about your idea, what is interesting in it for you, and what novel idea you expect to bring to the historical research table. The introduction should end with a specific hypothesis or a position you are trying to argue for or – why not – test by using empirical methods, including econometric methods.

2.2. (4 pts.) **Literature**: tell me how other researchers approached your topic. Be specific about what they did, how they did it, and what they did not do. Compare the various sources on your topic and how they build upon each other. Use as many references as you can from top-tier economic journals. Give preference to more recent papers. Finally, try to find the gap in

the current state of the debate on your topic. By the end of the literature review, you should be clear about what gap in the literature you are trying to fill.

2.3. (4 pts.) **Research Methods**: tell me exactly how you are going to fill the gap you just identified. For example, if you are arguing in favor of a specific position you want to defend, tell me the steps you go through to convince me your position is right. Further, if you have formulated a hypothesis, tell me how you are going to test it, including a brief but informative data description.

2.4. (4 pts.) **Results**: tell me what you got from empirically testing your hypothesis or from arguing on purely logical grounds in favor of your position. I will be also looking to see if your results flow naturally from applying your methods.

2.5. (4 pts.) **Conclusion**: tell me what you did, how you did it, and what new I learned from reading your paper. In other words, can you formulate your contribution to the topic you have just discussed?

2.6. **References:** you must use APA reference style (6th ed.) when citing your sources. Your references should come after your conclusion. Penalties apply for mis-specified references.

Specifics about the points on your term paper: Please note that I insist on you following the above structure of term papers. Within each component of your paper, I will be giving you points as follows: 4 pts. for an excellent presentation, 3 pts. for a good one, 2 pts. for a mere satisfactory level argument, and just 1 point for a poorly written component. In rare cases, up to 2 bonus points could be given for an exceptionally well written term paper: a paper in which every component is in its right place, the flow of thoughts is coherent and natural, the hypothesis is testable and has indeed been tested, it is very easy to follow the argument, and I learn a new thing from reading it.

Volume of work, DEADLINES AND ACADEMIC INTEGRITY: Your term paper should not exceed 2000 words, and penalties of 1 pt. apply for each 10% above the 2000 word limit. Please note that your term papers WILL be checked for plagiarism at www.turnitin.com, and anyone who did not cite properly even a minor part of his or her paper will fail this assignment. Both a paper-based and an e-version should be handed by due date. Due dates will be administered during the semester. Late submissions will be penalized with 10% of your term paper grade for each day of delay.

3. Replication and extension of published results and group presentations (30 pts.)

To be able to generate your own ideas, you need to be able to replicate well-established ideas first. Therefore, one or two classes will be devoted to group presentations on well-established results from the institutional economics literature. Moreover, those group presentations will not only focus on published results but also on their extensions done by the group presenting. Namely, you will be required to: 1) use a statistical software, preferably STATA, v.9.0 or above; 2) find a suitable *empirical paper* to replicate. It may be from the mandatory or additional reading list or it may be a paper you spotted and looks interesting to the group and relates well to the topics in class; 3) download the paper, the program, and the data (the .do file and the .dta file). Most recent published papers have supplementary materials online (e.g., see American Economic Review) containing exactly what you need.; 4) run the program at home, and see where the published results come from; 5) find a gap in the methodology or in the results, and fill it. This extension could come from more recent data to run the model on, or an additional variable to add to the existing data and the existing method, or – best option – a novel method applied on more recent data; 6) Describe the

original methodology and results; and the extension you did. How are the original and the new results different?; 7) Present the original work and your extensions. Your grade in this component will depend on: success in replication (10 pts.), success in extension (10pts), and quality of presentation (10 pts). The quality of presentation will be judged on efficient use of time, clarity of thought, structure and coherence of argument. To evaluate your replication and extension efforts, you need to send me your .do and .dta file at least one week before the presentation.

4. **Final exam (40 pts.)**

A preliminary final exam will be given at the last class. It will be a comprehensive multiple choice exam of up to 50 questions for up to 90 minutes.

After summing up the points, a preliminary grade will be given to everyone in the course. After getting the preliminary grades, students may choose to stick with the given grade. In case you choose to stick with the grade, you need to inform me by email about it up to 24 hours after I have announced the preliminary grades. This grade will be your final grade for the course. If you decide to pass on your preliminary grade, you must attend the regular final exam during the official exam period. If a student chooses to go to the regular exam period, the student has no right to revert to their original grade once the final grade has been announced. In this case, the preliminary final exam will count for 0 points, and the regular final exam will count for 50 points.

Missed exams

If you miss an exam, it may not be retaken. The only exception is allowed for those who cannot show up on the exam for proven medical reasons or family emergencies. In those circumstances, you need to inform me **by email at least 12 hours** before the exam stating the reasons for your planned absence and requesting another exam take. I may request additional information to verify the reasons for your absence. Birthdays, sports competition participations, conflicting work or study duties outside of school, and any kind of trips are not a legitimate reason for asking for exam rescheduling.

5. **Class Attendance and Participation (10 pts)**

Students are expected to actively participate in the class discussions, and conduct readings on a weekly basis. In line with school policies, everyone is expected to attend all the classes and return promptly from breaks. An excessive lateness may constitute an absence from the class. I will keep a record of attendance for each student at each class. If a student is missing more than half of the time (i.e. 8 classes or more), the student WILL fail the course and will have no right to show up on either the preliminary or the regular exam period. In that case, the student will go straight to the make-up exam period.

After summing up the points from the course requirements, the following grading table will be applied:

Points	GRADE (BG)	GRADE (US)
> 80	6 (Excellent)	A
> 70	5 (V. Good)	B
> 60	4 (Good)	C
> 50	3 (Pass)	D
<= 50	2 (Fail)	F

An example: 79,99 points is 5. No exceptions will be made for anyone, no excuses will be accepted. This table is subject to modification. The instructor will communicate any changes by email.

EXTRACURRICULAR ACADEMIC HOURS

Components	Number of Hours	
	Full Time	Distance Learning
1. Practical training	**10**	**-**
2. Course project	**30**	**-**
3. Essay	**-**	**-**
4. Case study	**-**	**-**
5. Individual assignment/ team activity	**30**	**-**
6. Laboratory training	**-**	**-**
7. Mid-term exam/ test	**-**	**-**
8. Ongoing assessment	**-**	**-**
9. Exam	**20**	**-**
Total	**90**	**-**

ASSESSMENT

The course assessment consists of several components.

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

FG = 0.5*E + 0.2*MTE + 0.2*OA + 0.1*IA,

where:

FG	=	Final Grade;
E	=	Exam
MTE	=	Mid-Term Exam;
OA	=	Ongoing assessment;
IA	=	Individual assignments.

Electronic platforms (such as MS Teams; Google Forms; Moodle) and other modern educational technologies are used, both for training and for assessing and controlling its results, including the use of a test center.

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 the grades are as it follows:

Excellent /6/	Very Good /5/	Good /4/	Average /3/		Poor /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, skills and competences for the corresponding EQD and Council Recommendation of Key Competences for Lifelong Learning[2].

The course provides the students with the knowledge of:

- Skills for the principles of circular economy.
- Skills for the principles of the low-carbon economy.
- Skills about the interaction between green economy and digital transformation of the economy.

The course will help students acquire skills such as:

- Skills about development, funding and introduction of investment programs, related to environmental and social effectiveness.
- Analysis of eco-fiscal tools.
- Understanding the conduction of monetary policy for sustainable development.
- Knowledge about CSR.

DISSEMINATION OF THE COURSE

Virtually all respected Economics departments across the globe:

1. **Columbia University - USA**
2. **Duke University - USA**
3. **Harvard Business School – USA**

Literature

A. Basic

1. 1. Barbier, E. B., & Markandya, A. (2013). A new blueprint for a green economy. Routledge.
2. 2. Gechev, R. Sustainable Development: Economic Aspects, University of Indianapolis Press, USA, 2005 Библиотека УНСС II 80368
3. 3. Gechev, R. Economic policy of sustainable development in the countries of transition towards a market economy in Contemporary Post Keynesian Analysis (2004), L.Wray amd M. Forestater, Eds., USA: Edward Elgar, pp.157-172; Бибилотека УНСС II 80604
4. 4. Gechev, R. Belizean Economy in the Globalizing World (2008), Chapter in the Book "Small Economies and Global Economics", Ram Pillarisetti et al. (Ed.), USA: NOVA Sciences Publishing Co.;
5. 5. LOISEAU, Eleonore, et al. Green economy and related concepts: An overview. Journal of cleaner production, 2016, 139: 361-371.
6. 6. Mazzucatto, M. (2024) Governing the Economics of the Common Good: From Correcting Market Failures to Shaping Collective Goals, Journal of Policy Reform, 27(1), 1-24, https://doi.org/10.1080/17487870.2023.2280969.
7. 7. Muzho, N. (2024) Connecting the dots: Renewable energy and Nuclear Energy - Mutually

[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. 8. Nozharov, S. (2022). "Social costs of the circular economy in the EU", Sofia: Academic Publishing House of BAS "Prof. Marin Drinov"
9. 9. Newton, A. C., & Cantarello, E. (2014). An introduction to the green economy. Earthscan, Abingdon, UK.
10. 10. Aldieri, L., & Vinci, C. P. (2018). Green economy and sustainable development: The economic impact of innovation on employment. Sustainability, 10(10), 3541.
11. 11. Mealy, P., & Teytelboym, A. (2020). Economic complexity and the green economy. Research Policy, 103948. https://doi.org/10.1016/j.respol.2020.103948
12. 12. Nandy, S., Fortunato, E., & Martins, R. (**2022**). Green economy and waste management: An inevitable plan for materials science. Progress in Natural Science: Materials International.
13. 13. Wang, W., Imran, M., Ali, K., & Sattar, A. (2024). Green policies and financial development in G7 economies: An in-depth analysis of environmental regulations and green economic growth. In Natural resources forum. Oxford, UK: Blackwell Publishing Ltd. https://doi.org/10.1111/1477-8947.12424

B. Additional

1. 1. Howson, P. (**2021**). Distributed degrowth technology: challenges for blockchain beyond the green economy. Ecological Economics, 184, 107020. https://doi.org/10.1016/j.ecolecon.2021.107020
2. 2. Marco-Fondevila, M., Moneva Abadía, J. M., & Scarpellini, S. (2018). CSR and green economy: Determinants and correlation of firms' sustainable development. Corporate Social Responsibility and Environmental Management, 25(5), 756-771.
3. 3. Nikolova, N., & Nozharov, S. (2020). Shadow economy and populism – risk and uncertainty factors for establishing low-carbon economy of Balkan countries (case study for Bulgaria). Economic Studies journal, 29(3), 121-144.
4. 4. Dmuchowski, P., Dmuchowski, W., Baczewska-Dąbrowska, A. H., & Gworek, B. (**2021**). Green economy–growth and maintenance of the conditions of green growth at the level of polish local authorities. Journal of Cleaner Production, 301, 126975.
5. 5. Nozharov, S. (2018). The institutional economics of collective waste recovery systems: An empirical investigation. Economic Studies journal, Volume 27, Issue 5, 172-180.
6. 6. Naqvi, S., Wang, J., & Ali, R. (**2022**). Towards a green economy in Europe: does renewable energy production has asymmetric effects on unemployment?. Environmental Science and Pollution Research, 29(13), 18832-18839.
7. 7. Sinnandavar, C. M., Wong, W. P., & Soh, K. L. (2018). Dynamics of supply environment and information system: Integration, green economy and performance. Transportation Research Part D: Transport and Environment, 62, 536-550.
8. 8. Whittaker, D. H. (**2021**). Beyond secular stagnation: A digital and green economy?. The Japanese Political Economy, 47(4), 365-386.
9. 9. Levidow, L. (2018). Green economy. In Companion to Environmental Studies (pp. 199-204). Routledge.
10. 10. Bogue, R. (**2021**). The role of robots in the green economy. Industrial Robot: the international journal of robotics research and application.
11. 11. Lv, L., & Chen, Y. (2024). The Collision of digital and green: Digital transformation and green economic efficiency. Journal of Environmental Management, 351, 119906. https://doi.org/10.1016/j.jenvman.2023.119906

12. 12. Wani, M. J. G., Loganathan, N., & Esmail, H. A. H. (2024). Impact of green technology and energy on green economic growth: Role of FDI and globalization in G7 economies. Future Business Journal, 10(1), 43. https://link.springer.com/article/10.1186/s43093-024-00329-1
13. 13. Chen, S., & Yang, Q. (2024). Renewable energy technology innovation and urban green economy efficiency. Journal of Environmental Management, 353, 120130. https://doi.org/10.1016/j.jenvman.2024.120130
14. 14. Alqudah, H., Al Qudah, M. Z., Abu Huson, Y., Lutfi, A., Alrawad, M., & Almaiah, M. A. (2024). A decade of green economic literature: An analysis-based bibliometric. International Journal of Energy Economics and Policy, 14(3), 497-511.
15. 15. Ullah, S., Niu, B., & Meo, M. S. (2024). Digital inclusion and environmental taxes: A dynamic duo for energy transition in green economies. Applied Energy, 361, 122911. https://doi.org/10.1016/j.apenergy.2024.122911
16. 16. United Nations, **2021**, National institutional arrangements for SDG implementation: A five-year stocktaking, World Public Sector Report 2021, Division for Public Institutions and Digital Government, Department of Economic and Social Affairs, (DPADM), New York, April., ISBN:9789211232110 [eISBN:9789210057783] DOI: 10.18356/9789210057783

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1. 17. Thorpe, D. (2020, August). How investing in the green economy is the best way to post-Covid-19 economic recovery. In Proceedings of the institution of civil engineers-civil engineering (Vol. 173, No. 3, pp. 100-100). Thomas Telford Ltd.

Web: https://www.icevirtuallibrary.com/doi/abs/10.1680/jcien.2020.173.3.100

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