

Syllabus
of the educational component _____
(the code of the educational course (EC) in the educational program (EP))

Forecasting Socio-Economic Processes

Subject name	Forecasting Socio-Economic Processes
Higher education level	First (bachelor's degree)
Moodle course webpage	https://dl2022.khadi-kh.com/course/view.php?id=2076
Volume of the educational component	4 credits ECTS (120 hours)
Form of final control	Credit Test
Consultation	According to the schedule
Department name	Economics and Entrepreneurship
Teaching language	English
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Summary of educational component:

The goal of the course are the formation of competences in the application of theoretical and methodological approaches to identifying trends in changes in socio-economic processes (SEP), determining the possible conditions of socio-economic objects in the future, researching the ways of their development, and assessing the potential consequences by the made decisions.

Subject course: theoretical and methodological basis, methodological provisions for socio-economic processes forecasting at the current stage.

The main tasks of the study of the academic discipline are:

- acquainting students with the theory and modern practice of SEP forecasting;
- students' ability to analyze SEP that are taking place;
- consolidation of the skills of independent forecasting calculations and justification of the socio-economic parameters system of the state;
- development of research and organizational abilities of students during the study of SEP.

Prerequisites:

Macroeconomics; Microeconomics; Social economy; National economy; Economic and mathematical methods and models; Economic statistics.

Student's competences upon completion of this Course will be:

- to use information and communication technologies;
- to search, process and analyze information from different sources;
- to forecast socio-economic processes on the basis of standard theoretical and econometric models;
- to apply economic and mathematical methods and models to solve economic problems;

- to deeply analyze problems and phenomena in one or more professional areas, taking into account economic risks and possible socio-economic consequences.

Program Learning Outcomes (PLO) will be:

To apply the acquired knowledge to identify, set and solve problems in different practical situations in business, trade and exchange activities.

To use modern computer and telecommunication technologies for the exchange and distribution of professionally oriented information in the field of entrepreneurship, trade and stock market activity.

To perform an interdisciplinary analysis of socio-economic phenomena and problems in one or more professional areas, taking into account risks and possible socio-economic consequences.

To organize the search, independent selection, high-quality processing of information from different sources for the formation of data banks in the field of entrepreneurship, trade and exchange activity.

To use knowledge of the forms of interaction of subjects of market relations to ensure the activity of business, trade and exchange structures.

Thematic Plan

Session	Theme (Lecture Classes (LC), Practical Classes (PC), Individual Work (IW))	Hours	
		Full-time learning	Part-time learning
1	2	3	4
1	LC. SEP forecasting methodology in the context of sustainable development	2	-
	PC. Online game from the Global Compact Network Ukraine on Sustainable Development Goals (UN)	2	-
	IW. Interrelationship of SEP forecasting directions. World practice of implementing projects for the sustainable development of socio-economic systems	12	8
2	LC. The main functions of social-economic processes management	2	-
	PC. Qualitative methods of forecasting the development of business structures	2	-
	IW. Randomness, uncertainty and conflict of SEP. Research on the methodology of building economic development forecasting models by the Ministry of Economy of Ukraine	12	12
3	LC. Economic growth forecasting	2	-
	PC. Economic growth forecasting models	2	1
	IW. Statistical forecasting of population living standards in the context of sustainable development. Peculiarities of innovation and investment policy of Ukraine	11	16
4	LC. Forecasting the development of industrial relations in the economy	2	2
	PC. Production functions	2	1
	IW. The structure of forecasts by branches of the national economy of Ukraine. Basic numerical characteristics of production functions	11	14
5	LC. Inflation and unemployment forecasting	2	2
	PC. Balance of labor resources	2	1
	IW. The essence and structure of the "consumer basket". Main trends of the European and Ukrainian labor market	10	16

1	2	3	4
6	LC. Basic concepts and preliminary time series analysis	2	2
	PC. Analysis of time series	2	1
	IW. Stationary and unstationary time series. Examination procedure and sequence of analysis of expert assessments	10	17
7	LC. Subjective (expert) forecasting methods	2	-
	PC. Expert methods of evaluation of a socio-economic object	2	-
	IW. Functional and substantive structure of the regional development forecasting system. The structure of forecasts of the economic and social development of Ukraine for the long-, medium- and short-term periods	12	16
8	LC. Forecast evaluation	2	-
	PC. Evaluation of parameters and verification of the significance of forecasting results	2	-
	IW. Advantages and disadvantages of the methodology for forecasting the main macroeconomic indicators for the short-term period. Parametric and non-parametric methods of forecast accuracy analysis	10	11
Total	Lecture Classes (LC)	16	6
	Practical Classes (PC)	16	4
	Individual Work (IW)	88	110

Individual educational and research task (if available): _

Teaching methods:

1) verbal:

1.1 traditional: lectures, explanations, etc.;

1.2 interactive (non-traditional): problem lectures, discussions, etc.;

2) visual: method of illustrations, method of demonstrations;

3) practical:

3.1 traditional: practical classes;

3.2 interactive (non-traditional): quizzes, online game, brainstorming.

Grade policy:

Formative Assessment

1 The current success of applicants for the performance of educational types of work in training sessions and for the performance of independent work tasks is evaluated using a four-point rating scale with subsequent transfer to a 100-point scale. During the evaluation of the current academic performance, all types of work stipulated in the training program are taken into account.

1.1 Lecture classes are evaluated by determining the quality of performance of specified tasks.

1.2 Practical classes are evaluated by the quality of performance of a control or individual task, performance and design of practical work.

1.3 Seminar classes are evaluated by the quality of the performance of an individual task/abstract.

2 Evaluation of the current performance of higher education applicants is carried out at each practical session on a four-point scale ("5", "4", "3", "2") and entered in the log of academic performance:

– «excellent»: the applicant flawlessly mastered the theoretical material, demonstrates in-depth knowledge of the relevant topic or academic discipline, the main provisions;

– «good»: the applicant has mastered the theoretical material well, possesses the main aspects from primary sources and recommended literature, presents it in a reasoned manner; has practical skills, expresses his thoughts on certain problems, but certain inaccuracies and errors are assumed in the logic of the presentation of theoretical content or in the analysis of practical material;

– «satisfactory»: the applicant has mainly acquired theoretical knowledge of the educational topic or discipline, orients himself in primary sources and recommended literature, but answers unconvincingly, confuses concepts, answers additional questions uncertainly, does not have stable knowledge; when answering questions of a practical nature, reveals inaccuracy in knowledge, does not know how to evaluate facts and phenomena, connect them with the future profession;

– «unsatisfactory»: the applicant has not mastered the educational material of the topic (discipline), does not know scientific facts, definitions, hardly orients himself in primary sources and recommended literature, lacks scientific thinking, practical skills are not formed.

3 The final score for the current activity is recognized as the arithmetic mean sum of points for each lesson, for individual work, current control works according to the formula:

$$K_{current} = (K_1 + K_2 + \dots + K_n) / n ,$$

where $K_{current}$ – final evaluation of success based on the results of current control; K_1, K_2, \dots, K_n – evaluation of the success of the current control measure; n – number of measures of current control.

Grades are converted into points according to the calculation scale (table 1).

Table 1 – Recalculation of the average grade for the current activity into a multipoint scale

4-point scale	100-point scale	4-point scale	100-point scale	4-point scale	100-point scale	4-point scale	100-point scale
5	100	4.45	89	3.90	78	3.35	67
4.95	99	4.4	88	3.85	77	3.3	66
4.9	98	4.35	87	3.80	76	3.25	65
4.85	97	4.3	86	3.75	75	3.2	64
4.8	96	4.25	85	3.7	74	3.15	63
4.75	95	4.20	84	3.65	73	3.1	62
4.7	94	4.15	83	3.60	72	3.05	61
4.65	93	4.10	82	3.55	71	3	60
4.6	92	4.05	81	3.5	70	from 1.78 to 2.99	from 35 to 59
						retaking	
4.55	91	4.00	80	3.45	69	from 0 to 1.77	from 0 to 34
4.5	90	3.95	79	3.4	68	retaking	

Summative Assessment

1 An applicant of higher education receives a credit in the last lesson in the discipline based on the results of the current evaluation. The average score for the current activity is converted into points on a 100-point scale, according to the conversion table (Table 1).

Applicants of higher education who have an average current score in the discipline lower than "3" (60 points) can increase their current score in the last session by taking tests in the discipline.

Evaluation of knowledge of applicants by means of testing is carried out according to a scale:

- «Excellent»: not less than 90% of correct answers;
- «Very good»: from 82% to 89% of correct answers;
- «Good»: from 74% to 81% of correct answers;
- «Satisfactory»: from 67% to 73% of correct answers;
- «Satisfactory enough»: from 60% to 66% of correct answers;
- «Unsatisfactory»: less than 60% of correct answers.

2 The conditions for receiving a credit are:

- making up all missed lessons;
- average current grade in the discipline not lower than "3" (60 points).

3 For performing individual independent work and participating in scientific events, applicants are awarded additional points.

3.1 Additional points are added to the sum of points scored by the student of higher education for the current educational activity.

3.2 The number of additional points awarded for different types of individual tasks depends on their volume and importance:

- prize places in the discipline at the international / all-Ukrainian competition of scientific student works – 20 points;
- prize places in the discipline at the all-Ukrainian Olympiads – 20 points;
- participation in the international / all-Ukrainian competition of scientific student works – 15 points;
- participation in international / all-Ukrainian scientific conferences of students and young scientists – 12 points;
- participation in all-Ukrainian Olympiads in the discipline – 10 points;
- participation in Olympiads and scientific conferences of the KhNAHU in the discipline – 5 points;
- performance of individual scientific and research (educational and research) tasks of increased complexity – 5 points.

3.3 The amount of additional points may not exceed 20 points.

4 The learning result is evaluated:

- on a two-point scale (passed/failed) according to Table 2;
- on a 100-point scale according to Table 3.

Table 2 – The scale for transferring points to the national evaluation system

100-point scale	National Scale
from 60 points to 100 points	credited
less than 60 points	not credited

Table 3 – The scale for evaluating the knowledge of students based on the results of the final control of the academic discipline

Score in points	Evaluation on a national scale		Evaluation according to the ECTS scale	
	exam	credit	Grade	Criteria
90-100	Excellent	Credited	A	The theoretical content of the course is fully mastered, without gaps, the necessary practical skills for working with the mastered material are formed, all educational tasks stipulated in the training program have been completed, the quality of their performance was evaluated with a number of points close to the maximum
80–89	Good	Credited	B	The theoretical content of the course is fully mastered, without gaps, the necessary practical skills for working with the mastered material are mainly formed, all educational tasks stipulated in the training program have been completed, the quality of performance of most of them was evaluated with a number of points close to the maximum
75-79			C	The theoretical content of the course is fully mastered, without gaps, some practical skills of working with the mastered material are insufficiently formed, all educational tasks stipulated in the training program have been completed, the quality of performance of none of them has been evaluated with the minimum number of points, some types of tasks have been completed with errors
67-74	Average		D	The theoretical content of the course is partially mastered, but the gaps are not of a significant nature, the necessary practical skills for working with the mastered material are basically formed, most of the educational tasks stipulated in the training program have been completed, some of the completed tasks may contain errors
60–66			E	The theoretical content of the course is partially mastered, some practical work skills have not been formed, many educational tasks stipulated in the training program have not been completed, or the quality of some of them has been evaluated with a number of points close to the minimum
35–59	Below average	Not credited	FX	The theoretical content of the course is partially mastered, the necessary practical work skills have not been formed, most of the educational tasks stipulated in the training program have not been completed, or the quality of their performance has been evaluated with a number of points close to the minimum; with additional independent work on the course material, it is possible to improve the quality of the performance of educational tasks (with the possibility of re-compilation)
0–34	Failing		F	The theoretical content of the course has not been mastered, the necessary practical work skills have not been formed, all completed educational tasks contain gross errors, additional independent work on the course material will not lead to any significant improvement in the quality of the performance of educational tasks (with a mandatory repeat course)

Course policy:

- the course involves working in a team where the environment is friendly, creative, open to constructive criticism;
- mastering the discipline involves mandatory attendance at lectures and practical classes, as well as independent work;
- independent work involves the study of certain topics of the discipline that are made in accordance with the program for independent processing, or were considered briefly, providing answers to theoretical questions and test tasks;
- all the tasks stipulated in the training program must be completed in due time;
- if the student is absent from the classes for good reason, he or she presents the tasks completed during the independent preparation and consultation of the teacher;
- while studying the course, students must adhere to the rules of academic integrity set forth in the following documents: "Rules of academic integrity of participants in the educational process of the KhNAHU" (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_dobroch_1.pdf), "Academic integrity. Checking the text of academic, scientific and qualification works for plagiarism" (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_85_1_01.pdf), "Code of ethics for participants in the educational process at KNADU" (https://www.khadi.kharkov.ua/fileadmin/P_Standart/pologeniya/stvnz_67_01_MEK_1.pdf).
- in the case of detection of plagiarism, the applicant receives 0 points for the task and must re-perform the tasks provided for in the syllabus;
- write-offs during control work are prohibited (including using mobile devices). Mobile devices are allowed to be used only during online testing.

Recommended literature:**Basic**

1. Carnot, N., Koen, V., Tissot, B. (2005). Economic Forecasting. Palgrave Macmillan London. 315. <https://doi.org/10.1057/9780230005815>
2. Elliott, G., Timmermann, A. (2016). Economic Forecasting. Princeton University Press. 568.
3. Hoshmand A. Reza (2010). Business Forecasting: a Practical Approach. Routledge. 384.
4. Hasan, Abu Ezza, Rashid, Hashemi Jalal Mahdi and Malih, Al-Duraye Jameel Sultan. "25 Prediction Mechanism of the Territorial Socio-Economic Processes in Formation of the Information Systems". The Institutional Foundations of the Digital Economy in the 21st Century, edited by Elena G. Popkova, Artem Krivtsov and Aleksei V. Bogoviz, Berlin, Boston: De Gruyter, pp. 231-240. <https://doi.org/10.1515/9783110651768-025>

Additional sources:

1. Eurostat. Official site. URL: <https://ec.europa.eu/eurostat/web/main/home>
2. Food and Agriculture Organization of the United Nations (FAO). Official site. URL: <https://www.fao.org/food-agriculture-statistics/en/>
3. State Statistics Service of Ukraine. Official site. URL: <https://www.ukrstat.gov.ua/>

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