

NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES OF
UKRAINE

Faculty of Agricultural Management

Department of economic theory

APPROVED

Dean of Economic Faculty

_____ Professor A. Dibrova

" ___ " _____ 2020

The working educational program

of discipline “**Macroeconomics**”

for undergraduate students training

Branch of knowledge 05 - Social and behavioral sciences

Specialty 051 – Economy (enterprise economy)

Branch of knowledge 07 – Management and administration

Specialty 071 – Accounting and Tax (Accounting and Auditing)

Specialty 072 – Finances, banking, insurance (Finance and Credit)

Specialty 076 – Entrepreneurship, trade and exchange activity

Course convenor

Olena Koval

PhD in Economics, Associated Professor

Kyiv – 2020

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Considered and approved on
Department of Economic theory session

Head of the Department

_____ Professor M. Talavirya

Protocol № 11_from _18_/ 06_/ 2020

TRAINING PROGRAM FOR BACHELORS

of discipline “**Macroeconomics**”

Branch of knowledge 05 - Social and behavioral sciences

Specialty 051 – Economy (enterprise economy)

Branch of knowledge 07 – Management and administration

Specialty 071 – Accounting and Tax (Accounting and Auditing)

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Specialty 076 – Entrepreneurship, trade and exchange activity

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1. Characteristics of Training Program "Macroeconomics"

Branch of knowledge, direction of training, specialty, educational degree	
Educational degree	Bachelor
Specialty	051 – Economy (enterprise economy) 071 – Accounting and Tax (Accounting and Auditing) 072 – Finances, banking, insurance (Finance and Credit) 076 Entrepreneurship, Trade and Exchange Activity.
Branch of knowledge	05 - Social and behavioral sciences 07 – Management and administration
Characteristics of the curriculum	
Type	Obligatory
The total number of hours	120
Number of ECTS credits allocated	4
Number of content modules	2
Forms of control	Exam
Indicators of academic discipline for full-time forms of training course	
Year	2
Semester	2-3
Numbers of lectures, hours	30
Numbers of practical classes, hours	30
Independent study, hours	60
Individual lessons	-
Numbers of weekly in-class academic hours for full-time forms of training	4

2. Goals of the course:

- to develop logical intellection in general level of economy
- to analyze economic events and public policies formation by various models
- to give ideas about economic policy and globalization

Objectives

- to evaluate economic effectiveness and national economic indexes
- to analyze economic relations and economic events
- to learn economic categories and economic laws

Outcomes skills

- knowledge of defining economic terms, explaining main characteristics of economic events and processes, using different methods of scientific research;
- apply demonstrate interconnection between all parts of economic system, interpret functions of production, distribution, exchange and consumption;
- create construct the structure model of economy, market, infrastructure:

- formulate the main essence of economic laws;
- appraise an economic situation in country and world.

3. CONTENT OF THE COURSE

Module 1

Unit 1. THE SCIENCE OF MACROECONOMICS

1. Macroeconomics as a component of Economics. Modern economic theories.
2. Economic systems and their types
3. Object of Macroeconomics and its functions
4. Macroeconomic methods and principles of research

Unit 2. MACROECONOMIC MODELLING

1. Functions as a mathematical concept
2. Macroeconomic Model of Resources Products and Incomes Circulation:
3. “Resources, products and income circulation model”;
4. “Savings, Investments and Financial Markets in the Circulation Model”;
5. “The Circulation Model in Closed Economy with State Intervention”;
6. “The Circulation Model in Open Economy”.

Unit 3. MACROECONOMIC INDICES IN ACCOUNTING SYSTEM

1. National Accounting System.
2. The Main Macroeconomic indices.
3. Nominal and real macroeconomic indices.
4. Social welfare and its indices.

Unit 4. AGGREGATE DEMAND AND AGGREGATE SUPPLY

1. Aggregate demand (AD)
2. Aggregate supply (AS).
3. The equilibrium of aggregate demand and aggregate supply.

Unit 5. MACROECONOMIC EQUILIBRIUM MODELS: Keynesian Cross

1. The Keynesian Cross .
2. The multiplier in the AD-AS model.
3. Investment Function and Accelerator principle.

Unit 6. MACROECONOMIC EQUILIBRIUM MODELS: The IS-LM

1. The Investment-Saving (IS) Curve
2. The Money Market
3. The Liquidity of Money (LM) Curve

Module 2

Unit 7. THE MONETARY SYSTEM AND POLICY

1. The Definition, the Functions and the Types of Money.
2. The Monetary System.
3. The Monetary Policy.

Unit 8. FISCAL POLICY

1. The nature of fiscal policy.
2. Fiscal policy to achieve full employment.
3. Fiscal policy to achieve price stability.
4. Discretionary fiscal spending and automatic stabilizers.

Unit 9. MACROECONOMIC INSTABILITY: INFLATION

1. The Business Cycle
2. Models of economic cycles
3. State regulation of economic cycles
4. Inflation: Its Causes, effects, and Social Costs

Unit 10 . MACROECONOMIC INSTABILITY: UNEMPLOYMENT

1. Unemployment and its types
2. Labor market and its equilibrium
3. Hixs – Hansen model for three markets: goods, money and labor markets.

Unit 11. ECONOMIC GROWTH

1. Economic growth and its factors.
2. Keynes' models of economic growth.
3. Neoclassical model of economic growth.

Unit 12. MACROECONOMIC POLICY IN AN OPEN ECONOMY

1. The Small Open Economy Under Floating Exchange Rates
2. The Small Open Economy Under Fixed Exchange Rates
3. The Mundell–Fleming Model

4. Program and structure of the discipline

Topics	total			
		lect	sem	inden
1	2	3	4	5
The science of Macroeconomics	8	2	2	4
Macroeconomic modelling	8	2	2	4
Macroeconomic indexes in the system of national accounts	8	2	2	4
Aggregate demand and aggregate supply	8	2	2	4
Macroeconomic equilibrium models: Keynesian Cross	8	2	2	4
Macroeconomic equilibrium models: the IS-LM	8	4	4	4
The monetary system and policy	8	4	4	4
Fiscal policy	16	4	2	8
Macroeconomic instability: inflation	16	4	4	8
Macroeconomic instability: unemployment	16	2	2	8
Economic growth	8	2	2	4
Macroeconomic policy in an open economy	8	2	4	4
Total	120	30	30	60

5. Topics of the seminars:

The science of Macroeconomics	2
Macroeconomic modelling	2
Macroeconomic indexes in the system of national accounts	2
Aggregate demand and aggregate supply	2
Macroeconomic equilibrium models: Keynesian Cross	2
Macroeconomic equilibrium models: the IS-LM	2
Mid-term control work	2
The monetary system and policy	2
Fiscal policy	
Macroeconomic instability: inflation	4
Macroeconomic instability: unemployment	2
Economic growth	2
Macroeconomic policy in an open economy	2
Final control work	2
Total	30

6. Exam questions for Macroeconomics

1 module

1. Macroeconomics as a component of Economics. Economic system structure and the types.
2. Macroeconomic methods and principles of research.
3. Economic Models. Model of Resources, Products and Incomes Circulation:
4. The Main Macroeconomic indices: GDP, National income, Value added.
5. Aggregate demand (AD) and Aggregate supply (AS) Model.
6. The equilibrium of aggregate demand and aggregate supply in short-run and long-run period.
7. The Keynesian Cross Model.
8. Consumption and saving functions. Marginal propensity to consume.
9. The multiplier in the AD-AS model.
10. Investment Function and Accelerator principle.
11. The IS Curve and the way of its building.

2 module

12. The Money Market. Its components and equilibrium.
13. The LM Curve.
14. The Definition, the Functions and the Types of Money.
15. The Monetary System.
16. The Monetary Policy and its Effectiveness.
17. Business Cycle and economic fluctuations.
18. Models of economic cycles and State regulation of economic cycles.
19. Inflation: Its Causes, effects, and Social Costs.
20. Unemployment and its types.
21. Labor market and its equilibrium.
22. Hixs – Hansen model for three markets: goods, money and labor markets.
23. Economic growth and its factors.
24. Keynes' models of economic growth.
25. Neoclassical model of economic growth.
26. Fiscal policy and its Effectiveness.
27. Government Debt and Budget deficits.
28. The Balance of Trade and National Income: A Closed Economy and An Open Economy.
29. Macroeconomic Equilibrium in Open Economy. Mundel-Fleming Model.
30. International Capital Mobility.

7. Tests

Question 1 If actual interest rate increases, then:

- 1 Investment demand curve will shift to the right.
- 2 Investment demand curve will shift to the left.
- 3 Investment costs decrease.
- 4 Investment costs increase.

Question 2 There are the next kinds of unemployment:

- 1 Cyclical.
- 2 Frictional.
- 3 Structural.
- 4 All of the above.

Question 3 Economic growth factors of supply are:

- 1 Internal investment volume.
- 2 Total expenditures.
- 3 Quality and quantity of labor resources.
- 4 Supply on money market.

Question 4 A movement along the aggregate supply curve is the same as:

- 1 A shift in the supply curve.
- 2 A change in the quantity supplied.
- 3 A changes in the quantity demanded.
- 4 All of the above.

Question 5 Macroeconomics object is:

- 1 Economic recourses of the country;
- 2 The main capital;
- 3 Economic system;
- 4 Private economy.

Question 6 Nominal GDP is calculated by prices of:

- 1 Previous year;
- 2 Current year;
- 3 Next year;
- 4 Basic year.

Question 7 What results when the aggregate spending for final goods and services at full employment is below full-employment GDP?

- 1 Undesired investment.
- 2 An excess of desired investment over desired saving.
- 3 Dissaving.
- 4 Entry of new firms as a result of increased profits

Question 8 The three factors of production are:

- 1 Labor, natural resources, and equipment.
- 2 Rent, wages, and profit.
- 3 Land, labor, and capital.
- 4 None of the above.

Question 9 Which of the following are leakages?

- 1 Savings.
- 2 Imports.
- 3 Taxes.
- 4 All of the above.

Question 10 Macroeconomics object is:

- 1 Economic recourses of the country;
- 2 The main capital;
- 3 Economic system;
- 4 Private economy.

8. Forms of training

The main principles of the training are differentiation and individualization, optimally combination of the human and technical potential, communication and dialogue. In order to achieve the main goals of this course there are next methods:

lections, seminars, trainings, worth orientation, case study, coaching, role-playing games, work in pairs, method of reflection, method of rotation, "leader and driven" method, "flying", mythologems, brainstorm, thematic discussions, consulting, participation in the conferences, exhibitions, use of information and computer technologies.

Solve the next tasks.1.

Year	GDP at current price	GDP at constant prices of 2010	Deflators 2010=100
2010	1079346	1079346	
2011	1299991	1138338	
2012	1404669	1141055	
2013	1465198	1140750	
2014	1586915	1066001	
2005	1988544	961821	

2.

year	GDP	Final consumption expenditure	Gross capital formation	External balance of goods and services
2010		897583	225296	-43533
2011		1094231	291678	-85918
2012		1221163	305031	-121525
2013		1329632	270895	-135329
2014		1429959	212591	-55635
2015		1709213	316841	-37510
Structure, %				
2010	100			
2011	100			
2012	100			
2013	100			
2014	100			
2015	100			

3. Consider an economy of the country, which is described with the next data (billion euro): $C=30+0,7(Y-T)$; $Y=250$; $T=45$. How much is aggregate demand, which is computing from the expenditure side?

4. Consider an economy, where the nominal GDP is 185,2 billion euro, consumers expenditures are 55%, gross domestic investment 22%, net export 5%. Compute a rate and an amount of government expenditure.

5. In the Keynesian cross, assume that the consumption function is given by $C=200+0.75(Y-T)$. Planned investment is 100; government purchases and taxes are both 100.

- a) Graph planned expenditure as a function of income.
- b) What is the equilibrium level of income?
- c) If government purchases increase to 125, what is the new equilibrium income?
- d) What level of government purchases is needed to achieve an income of 1,600?

6. In the Keynesian cross model, assume that the consumption function is given by $C=120+0.8(Y-T)$. Planned investment is 200; government purchases and taxes are both 400.

- a. Graph planned expenditure as a function of income.
- b. What is the equilibrium level of income?
- c. If government purchases increase to 420, what is the new equilibrium income? What is the multiplier for government purchases?
- d. What level of government purchases is needed to achieve an income of 2,400? (Taxes remain at 400.)
- e. What level of taxes is needed to achieve an income of 2,400? (Government purchases remain at 400.)

7. Methods of training

The main forms of training are lectures, practical classes, independent work of students on the basis of methodological support and the e-learning course "Macroeconomics". Variety of methods: explanatory and illustrative, analysis and synthesis, visual image, schematic, graphical, tabular, visual, modeling, formalization, calculations.

8. Forms of control

Measurement of students' performance is based on the ECTS principles and educational information portal elearn.nubip.edu.ua/ Traditional and modern methods of knowledge evaluation are oral interview, written check, seminar score, control work, check home work, testing, rating evaluation, seminar papers or research design, exam.

Current control (surveys, individual assignments, tests, written work, modular control works, interviews), interim and final certification are carried out in accordance with the provisions "On examinations and credits in NUBiP of Ukraine", approved by the Academic Council of NULES of Ukraine on February 27, 2019 protocol No. 7

The current control is carried out during the practical classes and is aimed at verifying the level of readiness of applicants for higher education to perform specific work. Intermediate certification is carried out after studying the program material of each content module for determining the level of knowledge of applicants of higher education from the program content of the content module (rating grade from the content module) obtained during all types of classes and independent work.

Grading

Forms and methods of intermediate attestation, assimilation of the program content of the content module: in the form of testing, written control work, colloquium. Mastering the higher education content of the content content of the content module is considered successful if the rating is no less than 60 points per 100-point scale.

After conducting intermediate attestations from two content modules and defining their ratings, the lecturer of the discipline determines the rank of the higher education applicant from the educational work of the NRC (no more than 70 points) by the formula

$$RPP = \frac{0.7 \cdot (R(1) ZM \cdot K(1) ZM + \dots + R(n) ZM \cdot K(n) ZM)}{KDIS}, (1)$$

KDIS

where $R(1) MR, \dots, R(n) MR$ - rating grades from content modules on a 100-point scale;
 n - number of content modules;

$K(1) ZM, \dots, K(n) ZM$ - number of credits of the European Credit Transfer and Accumulation System (ECTS) (or hours), provided by the working curriculum for the corresponding content module;

$KDIS = K(1) MR + \dots + K(n) MR$ - the number of ECTS credits (or hours) provided by the work curriculum for discipline in the current semester.

Formula (1) can be simplified if we take $K(1) MR = \dots = K(n) MR$. Then she will have a look

$$RPP = \frac{0.7 \cdot (R(1) MR + \dots + R(n) MR)}{n}, (2)$$

n

The grade from the educational work is rounded up to an integer. Ratings from the academic work may be influenced by the rating of extra work and the rating of the penalty. The rating for additional work is added to the rating from the training and can not exceed 20 points. It is determined by the lecturer and is given to the applicants of higher education by the decision of the department for the performance of work not provided for by the curriculum, but contributes to raising their level of knowledge on discipline, such as participation in the conference and the publication of abstracts of the report or authorship (co-authorship) in the published scientific article on the subject discipline.

The penalty fee does not exceed 5 points and is subtracted from the rating from the educational work. He is determined by the lecturer and introduced by the decision of the department for applicants of higher education, who inadequately learned materials of content modules, did not adhere to the schedule of work, missed classes, etc.

Semester certification is conducted in the form of a semester exam.

A student of higher education is allowed to take an examination or a score on discipline, if from this discipline he completely fulfills all types of works provided by the work curriculum and the work curriculum, and his rating from the academic work in this discipline is not less than 42 points ($60 \text{ scores} \times 0.7 = 42 \text{ points}$).

Higher education students, who in the current semester had vacancies and before the examination session, did not acquire the material of the missing topics and sections of the content modules of academic disciplines in additional classes, until the semester certification of the relevant discipline is not allowed.

In the note against the names of higher education graduates who are not admitted to the examination (offset), the lecturer of the discipline makes the entry "Not allowed" and puts his signature. In case of disputed questions regarding the non-admission of higher education applicants to semester certification, they are decided by the lecturer of the discipline together with the head of the corresponding department

Students who have completed 60 or more points in their academic work may not take the exam (credit), but must appear with a test book (exam), where, by their written consent (on the answer form for the ticket), they will receive an examination (score) "Automatically", according to the number of points transferred to the national estimates according to Table. 1

If students who have received 60 or more points from the academic work did not appear for the exam (credit), the examiner in the record of the progress record opposite their names makes the entry "Not Appeared" and puts his signature.

After the completion of the written examination on the results of the responses to the examination ticket, an interview is to be conducted by two scientific and pedagogical (pedagogical) employees who have passed the final certification, with the applicant of higher education, after which the final assessment for the examination is determined - the rating of the applicant of higher education in the attestation R AT (no more than 30 points).

The rating of the higher education acquirer for the mastering of discipline in balls is translated into national assessments according to Table. 1

Table 1. The relationship between national ratings and higher education student ratings

National Estimation	Rating of the applicant of higher education, marks
Excellent	90-100
Good	74-89
Satisfactory	60-73
Unsatisfactory	0-59

Methodical support

E- course of Macroeconomics in Elearn:

<http://elearn.nubip.edu.ua/course/view.php?id=1985>

Коваль О.М. Макроекономіка (англійською мовою). Методика проведення семінарських (лабораторних) і самостійних робіт студентам ОС "Бакалавр" галузь знань 07 – Управління та адміністрування спеціальність 072 Фінанси, банківська справа та страхування (Фінанси і кредит); 05 Соціальні та поведінкові науки спеціальність 051 Економіка (Економіка підприємства) і Економічна кібернетика: – К., 2019. – 170 с.

The main information resources

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Macroeconomics: Aggregate Theory and Policy. – Kyiv: Kyiv, 2015. – 565p.

Lipsey, Richard G. *Economics* / Richard G. Lipsey, Paul N. Courant. – 11th ed. New York : HarperCollins College Publishers - 800 p.

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Базилевич В.Д., Базилевич К. С., Баластрик Л.О. *Макроекономіка: Підручник* / За ред. В. Д. Базилевича. – К.: Знання, 2018. – 743 с.

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Панчишин С. *Макроекономіка: Тести і задачі*. – К.: Либідь, 2002. – 216 с.

Принципы макроэкономики. 2-е изд. / Мэнкью Н.Г. – Спб.: Питер, 2003. – 576с.

E- resources

Government Portal : <http://www.kmu.gov.ua/control/en>

European Union : <http://www.europa.eu.int/>

The World Bank : <http://www.worldbank.org/en/topic/macroeconomics>

State Statistic Service of Ukraine: <http://www.ukrstat.gov.ua/>

Verkhovna Rada of Ukraine : <http://rada.gov.ua>

National Bank of Ukraine: <http://www.bank.gov.ua>.

National Library of Ukraine : <http://www.nbuv.gov.ua/http://www.nbuv.gov.ua/>

Food and Agricultural Organization of the United Nations : <http://www.fao.org/>

World Trade Organization: <http://www.wto.org>

[Glossary of Political Economy Terms](#), by Professor Paul M. Johnson

[Glossary of Budget and Economic Terms](#), U.S. Congressional Budget Office

[Dictionary of Finance and Investment Terms](#), by Jerry White and Jordan Goodman

Macroeconomics in New World Encyclopedia :

<http://www.newworldencyclopedia.org/entry/Macroeconomics>