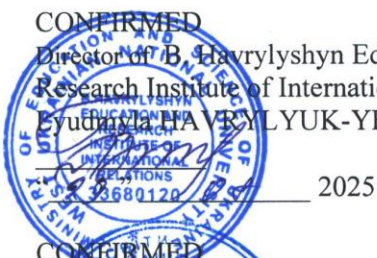


MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
WEST UKRAINIAN NATIONAL UNIVERSITY

CONFIRMED

Director of B. Havrylyshyn Education and
Research Institute of International Relations
Yuriy HAVRYLYUK-YENSEN



2025

CONFIRMED

Director of the Educational and Research
Institute of New Educational Technologies
Svyatoslav HATEL



2025

CONFIRMED

Vice Rector for Academic Affairs and
Research
Viktor OSTROVERKHON



"

2025

WORK PROGRAM

on discipline

«MACROECONOMICS»

Degree of higher education – Bachelor

Branch of knowledge C Social Sciences, Journalism, Information, and International Relations

Specialty C1 Economics and International Economic Relations (by specializations)

specialization C1.01 Economics

Educational and professional program “International Business”

Department of Economics and Economic Theory

Form of study	Year	Semester	Lectures, (hours)	Practical classes, (hours)	Individual student's work, (hours)	Training, (hours)	Self-studies of students, (hours)	Total, (hours)	Exam (semester)
Full-time	I	II	30	30	4	8	48	120	II
Part-time	I	II	8	4	—	—	108	120	II

29.08.2025

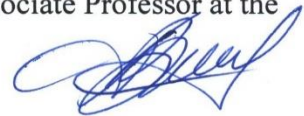
Ternopil – WUNU
2025

The work program has been developed based on the educational and professional Bachelor's program in the branch of knowledge C Social Sciences, Journalism, Information, and International Relations Specialty C1 Economics and International Economic Relations (by specializations) specialization C1.01 Economics approved by the Academic Council of West Ukrainian National University (WUNU), Protocol No. 8 dated June 26, 2025.

The work program were prepared by:

Professor Oleksandr Dlugopolskyi, Doctor of Economic Sciences, Professor at the Department of Economics and Economic Theory

Associate Professor Anastasiya Virkovska, PhD in Economics, Associate Professor at the Department of Economics and Economic Theory



The work program was approved at the meeting of the Department of Economics and Economic Theory, Protocol No. 1 dated August 27, 2025.

Acting Head of the Department
of Economics and Economic Theory
Doctor of Economic Sciences, Professor



Viktor KOZIUK

Guarantor of the Educational and
Professional Program
"International Business"
PhD in Economics, Associate Professor



Oksana MYKHAL

STRUCTURE OF THE WORK PROGRAM OF COURSE “MACROECONOMICS”

1. DESCRIPTION OF COURSE “MACROECONOMICS”

Course of study – Macroeconomics	Branch of knowledge, specialty, degree of higher education	Description of the course of study
Quantity of credits ECTS – 4	Branch of knowledge – C Social Sciences, Journalism, Information, and International Relations	Normative course of the cycle of natural-scientific and general- economic training Language – English
Quantity of test modules – 5	Specialty C1 Economics and International Economic Relations (by specializations) specialization C1.01Economics	Year of study – 1 Semester – 2
Quantity of content modules – 1	Educational and professional program: “International Business”	Full-time: Lectures – 30 Practical classes 30 Part-time: Lectures – 8 Practical classes – 4
Total quantity of hours - 120	Degree of higher education – Bachelor	Full-time: Self-studies of students – 48 Training – 8 Individual student’s work – 4 Part-time: Self-studies of students – 108
Weekly hours – 8 Lecture-hall hours – 4		Type of result test – Exam

2. AIMS AND TASKS OF THE COURSE “MACROECONOMICS” STUDYING

2.1 PURPOSE OF COURSE STUDY

The focus of this course is on the theoretical and practical aspects of Macroeconomics. Students will learn the theory and principles of macroeconomics and modern macroeconomic methods. They will also be given an opportunity to communicate effectively, write academically competent material, present arguments, make macroeconomic analyses, get their ideas across more quickly, evaluate the impact economic policies have on businesses, and apply a variety of skills, methods, and strategies to communicate in economic situations.

The course Macroeconomics is based on a range of topics that will be applied in business situations. The course is designed to teach students to work effectively as a group member in a variety of roles, to provide the skills required for development, preparation, investigation, and presentation of research projects, and to use information technologies within a business environment. The students are suggested to improve their personal skills. Besides, this course suggests that students should be taught how to organize information from a variety of sources for various audiences and purposes and how to gain and practice various written skills.

2.2 TASKS OF COURSE STUDY

- Theories and methodologies for studying the structural features and patterns of functioning of the economic system.
- Analysis of macroeconomic phenomena and processes.
- Construction of models for optimal economic growth and macroeconomic equilibrium.
- Evaluation of the effectiveness of macroeconomic policy.
- Tools for addressing contemporary macro-level economic challenges.
- Analysis of macroeconomic indicators.
- Methods for solving problems of macroeconomic instability.

2.3. TITLE AND DESCRIPTION OF COMPETENCIES DEVELOPED THROUGH THE STUDY OF THE DISCIPLINE:

GC12. Comprehensive knowledge of the subject area and a clear understanding of professional practices, including ethical standards, regulatory frameworks, and the practical application of domain-specific expertise.

SC4. Ability to justify the specific features of implementing forms of international economic relations at the mega-, macro-, meso-, and micro-levels.

SC11. Ability to conduct research on economic phenomena and processes in the international sphere, taking into account causal relationships as well as spatial and temporal dimensions.

2.4 PREREQUISITES FOR STUDYING THE DISCIPLINE

Other disciplines that have been studied before are prerequisites for studying the discipline, such as “Microeconomics,” “Higher mathematics and probability theory,” etc.

2.5. LEARNING OUTCOMES

LO4. Ability to systematize and organize information related to processes and phenomena in the global economy; to assess and explain the impact of endogenous and exogenous factors; to formulate conclusions and develop recommendations considering the specifics of both national and international environments.

LO11. Ability to justify one’s own opinion regarding the specific conditions for implementing forms of international economic relations at the mega-, macro-, meso-, and micro-levels.

LO12. Ability to conduct comprehensive analysis of complex economic systems, compare and contrast their components, and assess the effectiveness of their functioning with reasoned justification.

3. PROGRAM OF COURSE “MACROECONOMICS”

Theme 1. Introduction to Macroeconomics

What is Macroeconomics? Economics as a Discipline. The Need for Abstraction. Theory and Practice, Models and Reality.

What is an Economic Model? Principles and Functions of Macroeconomics.

The Genesis of Macroeconomics: the Macroeconomics of Keynes, the Monetarist Tradition, the New Classical School, the New Keynesian School, the School of Structuralism.

The Methodology of Macroeconomics. Positive and Normative Analysis. Macroeconomic Modeling and Forecasting.

Market Mechanisms (American, European and the Underdeveloped Countries Experience).

The Main Aims of Macroeconomics. The Transformation Curve.

Literature: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Theme 2. Macroeconomic Accounts

Measuring Macroeconomic Activity. Income and the Standard of Living (Welfare, Income Trends).

Definition of National Income. Three Methods on National Income Measurement. Real and Nominal Income. Gross National (*GNP*) and Gross Domestic Product (*GDP*). Output Measuring. Measuring Expenditure. The Relationship among Income, Output, Expenditure.

Problems in Measuring Income, Output and Expenditure directly.

Price Indexes and Interest Rates.

Literature: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Theme 3. Macroeconomic Equilibrium

Fighting the Invisible Hand. Demand and the Quantity Demanded. Supply and the Quantity Supplied. Equilibrium of Supply and Demand (*AD-AS* Model). Shifts of the

Aggregate Demand Curve. Shifts of the Aggregate Supply Curve. *AD-AS* and the Multiplier. Implications of *AD-AS* Model

The Goods Market and the *IS* Curve. The *IS* Function. The Slope of the *IS* Curve. Shifts in the *IS* Curve. Significance of the *IS* Curve. Equilibrium in the Goods Market.

The Money Market and the *LM* Curve. Derivation of the *LM* Curve. The Slope of the *LM* Curve. Shifts in the *LM* Curve. Significance of the *LM* Curve. The Price Level, Nominal Interest Rates and Real Income as Determinants of Money Demand. The Money Supply Process. Money Supply Effects. General Equilibrium in the Money Market

Goods and Money Markets Together. The Complete *IS-LM* Model: Exercises. General Equilibrium with Flexible Prices. General Equilibrium with Sticky Prices. Keynesian and Neoclassical versions of the *IS-LM* Model. Comparative Static Analysis with the *IS-LM* Model. *IS-LM* Model with the Government Sector.

Demand and Supply in the Labor Market. Labor Supply and the Labor-Leisure Trade-off. Labor Demand, Productivity and Real Wages. Labor Market Equilibrium.

Literature: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Theme 4. Theory of Economic Growth

Why be Concerned about Economic Growth? Theories of Economic Growth.

Growth in the Neoclassical Model. The *R.Solow* Model of Economic Growth (Golden Rule).

Growth in the Keynesian Model. The Multiplier Process.

The New Keynesian Models of Economic growth. The simple Accelerator Principle. The *R.Harrod* and *E.Domar* Growth Model. *AK* Model

Comparative Growth. Sources of Economic Growth. Technical Progress and Productivity slowdown. Constraints on Growth. Economic Growth an Objective of Policy. Economic Growth and the Production Function.

Government Influence on Economic Growth. Economic Development and Economic Growth

Literature: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Theme 5. Economic Cycles, Employment and Inflation

Explaining the Cycle. The Multiplier-Accelerator Interaction. Four Parts of Macroeconomic Cycle. The Main Types of Economic Cycles.

Unemployment as a Problem of Low Economic Cycle. Unemployment Trends and Characteristics. Types of Unemployment (Frictional, Structural, Institutional, Seasonal and Cyclical Unemployment). The Natural Rate on Unemployment. The Full Employment Objective. *Okun's* Law: Output Growth and Changes of Unemployment. Unemployment Insurance

Inflation as a Problem of High Economic Cycle. Inflation: the Myth and the Reality. Measuring Inflation and Deflation. Inflation Trends. Demand-Pull and Cost-Push Inflation. Structuralist and Monetary Theories of Inflation. Empirical Evidence on the Determinants of Inflation. Inflationary Expectations. The Costs of Inflation. Inflation as a

Tax. Economics and Social Effects of Inflation. Policies to Repressed Inflation. Policies to Deal with Inflation.

The Trade-off between Unemployment and Inflation (*Phillips Curve* in the Short-Run and Long-Run)

Literature: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Theme 6. Macroeconomic Policy

The Nature of Macroeconomic Policy. The micro-theoretic Foundations of Macroeconomic Policy. Does Macroeconomic Policy Really Matter? The New Classical and Keynesian Points of View on Macroeconomic Policy.

Stabilization Policy. The Economic System: Stable or Unstable? Static and Dynamic Stabilization

Fiscal Policy: Definitions and Role. Fiscal Rules. The Government Budget Constraint. Taxation. Functions of Taxes. Types of Taxes (Direct and Indirect Taxes, Regressive, Proportional and Progressive Taxation, Corporative and Property Taxes). Multipliers for Tax Policy. Planning Expansive Fiscal Policy. Planning Restrictive Fiscal Policy. National Debt

Monetary Policy: Definitions and Role. Which Monetary Target? Monetary Base Control. Narrow Effects of Money. Instruments of Monetary Policy. Issues and Trends in Monetary Policy.

The Relative Effectiveness of Monetary and Fiscal Policy.

Literature: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Theme 7. The Open Economy

Reasons for Engaging in International Trade. Gains from Trade. Advantages of Specialization. Low of Comparative Cost. Comparative advantage. Qualifications to Trade Theory. Terms of Trade Index. Protectionism and Free Trade Policy. Liberalization of Trade.

Importance of the Current Balance. The Balancing Item. Balance of Payments Equilibrium and Payments Deficit. Definition and Importance of the Exchange Rates. Increases and Decreases in the Exchange Rates. Determinations of the Exchange Rate. Effect on Import and Export Prices of Changes in the Exchange Rates. Purchasing Power Parity Theory. Characteristics of Floating Exchange Rates. Flexible-Exchange-Rate and Fixed-Exchange-Rate Regimes. Devaluation and Revaluation. The *Marshall-Lerner* Conditions. The *J-Curve*. Depreciation and Appreciation. Government Intervention in the Foreign Exchange Market and Exchange Rate Targets.

Models of the Open Economy: the Keynesian Model and the Neoclassical Model. The *IS-LM-BP* Model (*Mundell-Fleming* model).

Literature: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

4. STRUCTURE OF TEST CREDIT OF COURSE “MACROECONOMICS” (full-time)

	Lectures	Practical classes	Self-studies of students	Training	Individual students work	Control measures
Theme 1. Introduction to Macroeconomics	4	4	6		1	Surveys, testing, tasks
Theme 2. Macroeconomic Accounts	4	4	7		-	Surveys, testing, tasks
Theme 3. Macroeconomic Equilibrium	4	4	7		-	Surveys, testing, tasks
Theme 4. Theory of Economic Growth	4	4	7		1	Surveys, testing, tasks
Theme 5. Economic Cycles, Employment, and Inflation	4	4	7		1	Surveys, testing, tasks
Theme 6. Macroeconomic Policy	4	4	7		-	Surveys, testing, tasks
Theme 7. The Open Economy	6	6	7		1	Surveys, testing, tasks
Total	30	30	48	8	4	

(part-time)

	Lectures	Practical classes	Self-studies of students	Training	Individual students work	Control measures
Theme 1. Introduction to Macroeconomics	4	2	15			Surveys, testing, tasks
Theme 2. Macroeconomic Accounts			15			Surveys, testing, tasks
Theme 3. Macroeconomic Equilibrium			15			Surveys, testing, tasks
Theme 4. Theory of Economic Growth			15			Surveys, testing, tasks
Theme 5. Economic Cycles, Employment, and Inflation	4	2	16			Surveys, testing, tasks
Theme 6. Macroeconomic Policy			16			Surveys, testing, tasks
Theme 7. The Open Economy			16			Surveys, testing, tasks
Total	8	4	108	-	-	

5. THE SCHEDULES OF PRACTICAL CLASSES

Hours	Themes	Reference material	Assignment
2	Seminar 1: Introduction to Macroeconomics (Theme 1) Aims – formulate knowledge of fundamental principles of macroeconomics, macroeconomic process analysis Key questions: What is Macroeconomics? Economics as a Discipline. The Need for Abstraction. Theory and Practice, Models and Reality. What is an Economic Model? Principles and Functions of Macroeconomics.	Handouts	Personal profiles Major project
	The Genesis of Macroeconomics: the Macroeconomics of Keynes, the Monetarist Tradition, the New Classical School, the New Keynesian School, the School of Structuralism Group dynamics		
2	Seminar 2: Introduction to Macroeconomics (Theme 1) Aims – formulate knowledge of fundamental principles of macroeconomics, macroeconomic process analysis Key questions: The Methodology of Macroeconomics. Positive and Normative Analysis. Macroeconomic Modeling and Forecasting. Market Mechanisms (American, European and the Underdeveloped Countries Experience). The Main Aims of Macroeconomics. The Transformation Curve. Exercises	Handouts	Journal
2	Seminar 3: Macroeconomic Accounts (Theme 2) Aims – formulate knowledge about principles of national accounting system, methodology of macroeconomic indicators calculating Key questions: Measuring Macroeconomic Activity. Income and the Standard of Living (Welfare, Income Trends). Definition of National Income. Three Methods on National Income Measurement. Real and Nominal Income. Gross National (<i>GNP</i>) and Gross Domestic Product (<i>GDP</i>). Output Measuring. Measuring Expenditure. The Relationship among Income, Output, Expenditure. Exercises	Handouts	Journal

2	Seminar 4: Macroeconomic Accounts (Theme 2) Aims – formulate knowledge about principles of national accounting system, methodology of macroeconomic indicators calculating Key questions: Problems in Measuring Income, Output and Expenditure directly. Price Indexes and Interest Rates. Exercises	Handouts	Journal
2	Seminar 5: Macroeconomic Equilibrium (Theme 3) Aims – analyze theoretical principles of building economic equilibrium models in a short-run and long-run on goods, money and labor markets Key questions: Fighting the Invisible Hand. Demand and the Quantity Demanded. Supply and the Quantity Supplied. Equilibrium of Supply and Demand (<i>AD-AS</i> Model). Shifts of the Aggregate Demand Curve. Shifts of the Aggregate Supply Curve. <i>AD-AS</i> and the Multiplier. Implications of <i>AD-AS</i> Model.	Handouts	Journal

	Demand and Supply in the Labour Market. Labour Supply and the Labour-Leisure Trade-off. Labour Demand, Productivity and Real Wages. Labour Market Equilibrium Exercises		
2	Seminar 6: Macroeconomic Equilibrium (Theme 3) Aims – analyze theoretical principles of building economic equilibrium models in a short-run and long-run on goods, money and labor markets Key questions: The Goods Market and the <i>IS</i> Curve. The <i>IS</i> Function. The Slope of the <i>IS</i> Curve. Shifts in the <i>IS</i> Curve. Significance of the <i>IS</i> Curve. Equilibrium in the Goods Market. The Money Market and the <i>LM</i> Curve. Derivation of the <i>LM</i> Curve. The Slope of the <i>LM</i> Curve. Shifts in the <i>LM</i> Curve. Significance of the <i>LM</i> Curve. The Price Level, Nominal Interest Rates and Real Income as Determinants of Money Demand. The Money Supply Process. Money Supply Effects. General Equilibrium in the Money Market. Goods and Money Markets Together. The Complete <i>IS-LM</i> Model: Exercises. General Equilibrium with Flexible Prices. General Equilibrium with Sticky Prices. Keynesian and Neoclassical versions of the <i>IS-LM</i> Model. Comparative Static Analysis with the <i>IS-LM</i> Model. <i>IS-LM</i> Model with the Government Sector Exercises	Handouts	

2	Seminar 7: Theory of Economic Growth (Theme 4) Aims – formulate knowledge about roots, factors and types of economic growth, economic growth models Key questions: Why be Concerned about Economic Growth? Theories of Economic Growth. Growth in the Neoclassical Model. The <i>R.Solow</i> Model of Economic Growth (Golden Rule). Growth in the Keynesian Model. The Multiplier Process. The New Keynesian Models of Economic growth. The simple Accelerator Principle. The <i>R.Harrod</i> and <i>E.Domar</i> Growth Model. AK Model. Explaining the Cycle. The Multiplier-Accelerator Interaction. Four Parts of Macroeconomic Cycle. The Main Types of Economic Cycles. Unemployment as a Problem of Low Economic Cycle. Unemployment Trends and Characteristics. Types of Unemployment (Frictional, Structural, Institutional, Seasonal and Cyclical Unemployment). The Natural Rate on Unemployment. The Full Employment Objective. <i>Okun's</i> Law: Output Growth and Changes of Unemployment. Unemployment Insurance Exercises	Handouts	Journal
2	Seminar 8: Theory of Economic Growth (Theme 4) Aims – formulate knowledge about roots, factors and types of economic growth, economic growth models Key questions: Comparative Growth. Sources of Economic Growth. Technical Progress and Productivity slowdown. Constraints on Growth. Economic Growth an Objective of Policy. Economic Growth and the Production Function. Government Influence on Economic Growth. Economic Development and Economic Growth. Exercises	Handouts	Journal

2	Seminar 9: Economic Cycles, Employment and Inflation (Theme 5) Aims – formulate knowledge about roots of economic cycles, peculiarities of inflation and unemployment problems, vectors of ant inflation policy and employment policy Key questions: Explaining the Cycle. The Multiplier-Accelerator Interaction. Four Parts of Macroeconomic Cycle. The Main Types of Economic Cycles. Unemployment as a Problem of Low Economic Cycle. Unemployment Trends and Characteristics. Types of Unemployment (Frictional, Structural, Institutional, Seasonal and Cyclical Unemployment). The Natural Rate on Unemployment. The Full Employment Objective. <i>Okun's Law</i>: Output Growth and Changes of Unemployment. Unemployment Insurance. Presentation	Handouts	Journal
2	Seminar 10: Economic Cycles, Employment and Inflation (Theme 5) Aims – formulate knowledge about roots of economic cycles, peculiarities of inflation and unemployment problems, vectors of ant inflation policy and employment policy Key questions: Inflation as a Problem of High Economic Cycle. Inflation: the Myth and the Reality. Measuring Inflation and Deflation. Inflation Trends. Demand-Pull and Cost-Push Inflation. Structuralist and Monetary Theories of Inflation. Empirical Evidence on the Determinants of Inflation. Inflationary Expectations. The Costs of Inflation. Inflation as a Tax. Economics and Social Effects of Inflation. Policies to Repressed Inflation. Policies to Deal with Inflation. The Trade-off between Unemployment and Inflation (<i>Phillips Curve</i> in the Short-Run and Long-Run). Presentation	Handouts	Journal

2	Seminar 11: Macroeconomic Policy (Theme 6) Aims – formulate knowledge about meaning of fiscal policy, monetary policy, develop skills of budget deficit and public debt analysis, monetary instruments analysis Key questions: The Nature of Macroeconomic Policy. The micro-theoretic Foundations of Macroeconomic Policy. Does Macroeconomic Policy Really Matter? The New Classical and Keynesian Points of View on Macroeconomic Policy. Stabilization Policy. The Economic System: Stable or Unstable? Static and Dynamic Stabilization. Fiscal Policy: Definitions and Role. Fiscal Rules. The Government Budget Constraint. Taxation. Functions of Taxes. Types of Taxes (Direct and Indirect Taxes, Regressive, Proportional and Progressive Taxation, Corporative and Property Taxes). Multipliers for Tax Policy. Planning Expansive Fiscal Policy. Planning Restrictive Fiscal Policy. National Debt Presentation	Handouts	Journal
2	Seminar 12: Macroeconomic Policy (Theme 6) Aims – formulate knowledge about meaning of fiscal policy, monetary policy, develop skills of budget deficit and public debt analysis, monetary instruments analysis Key questions: Fiscal Policy: Definitions and Role. Fiscal Rules. The Government Budget Constraint. Taxation. Functions of Taxes. Types of Taxes (Direct and Indirect Taxes, Regressive, Proportional and Progressive Taxation, Corporative and Property Taxes). Multipliers for Tax Policy. Planning Expansive Fiscal Policy. Planning Restrictive Fiscal Policy. National Debt. Monetary Policy: Definitions and Role. Which Monetary Target? Monetary Base Control. Narrow Effects of Money. Instruments of Monetary Policy. Issues and Trends in Monetary Policy. The Relative Effectiveness of Monetary and Fiscal Policy Exercises	Handouts	Journal
2	Seminar 13: The Open Economy (Theme 7) Aims – formulate knowledge about definition and role of international trade, structure of exchange market, peculiarities of BOP accounting Key questions: Reasons for Engaging in International Trade. Gains from Trade. Advantages of Specialization. Law of Comparative Cost. Comparative advantage. Qualifications to Trade Theory. Terms of Trade Index. Protectionism and Free Trade Policy. Liberalization of Trade. Importance of the Current Balance. The Balancing Item. Balance of Payments Equilibrium and Payments Deficit.	Handouts	Journal

	Definition and Importance of the Exchange Rates. Increases and Decreases in the Exchange Rates Exercises		
2	Seminar 14: The Open Economy (Theme 7) Aims – formulate knowledge about definition and role of international trade, structure of exchange market, peculiarities of BOP accounting Key questions: Models of the Open Economy: the Keynesian Model and the Neoclassical Model. The <i>IS-LM-BP</i> Model (<i>Mundell-Fleming</i> model). Exercises	Handouts	Journal
2	Seminar 15: The Open Economy (Theme 7) Aims – formulate knowledge about definition and role of international trade, structure of exchange market, peculiarities of BOP accounting Key questions: Determinations of the Exchange Rate. Effect on Import and Export Prices of Changes in the Exchange Rates. Purchasing Power Parity Theory. Characteristics of Floating Exchange Rates. Flexible-Exchange-Rate and Fixed-Exchange-Rate Regimes. Devaluation and Revaluation. The <i>Marshall-Lerner</i> Conditions. The <i>J</i> -Curve. Depreciation and Appreciation. Government Intervention in the Foreign Exchange Market and Exchange Rate Targets BOP accountings End course	Handouts	Journal

6. INDEPENDENT WORK OF STUDENTS

10 variants and 2 tasks.

Task 1. Built open economy model and find all indicators.

Варіанти / Varianten / Variants	Показники / Kennziffer / Indicators										
	Y^b	D	Y^n	C	S	P^b	P^n	X	M	$Z_i \rightarrow a$	$Z_a \rightarrow i$
1	80			50	20			20	10	25	20
2		10	80	60				15	5	25	20
3	100	10		70				20	10	10	5
4		10	100	80				15	10	15	10
5	160	15		100				25	10	10	5

6		15	135	105				20	15	15	10
7		20		120	60			20	5	25	10
8		15	180	130				25	10	15	20
9	180	20		140				20	10	10	5
10	230		210	170				20	5	20	15

	Deutsch	English	Українська
C	volkswirtschaftlicher Konsum	Consumption	споживання домогосподарств
D	Abschreibungen	Depreciation	амортизаційні відрахування
J^b	Bruttokapitalanlagen	brute Invests	валові інвестиції
Jⁿ	reale Investitionen	net Invests	чисті інвестиції
M	Einfuhr	Import	імпорт
X	Ausfuhr	Export	експорт
S	Ersparnisse	Savings	заощадження
Y^b	Bruttonationaleinkommen in Marktpreisen	Gross Domestic Product	валовий суспільний продукт в ринкових цінах
Yⁿ	Nettonationaleinkommen in Marktpreisen	Net Domestic Product	чистий суспільний продукт в ринкових цінах
Zi→a	das einkommen ins Ausland	Transfers send abroad	трансферти, відправлені за кордон
Za→i	das einkommen aus Ausland	Transfers received from abroad	трансферти, отримані з-за кордону

Task 2. Calculate GDP using all methods.

Варіанти / Varianten / Variants	1	2	3	4	5	6	7	8	9	10
1. Der Wert der Warenherstellung / Вартість виготовленої продукції / Cost of manufactured products	180	200	220	240	260	280	300	320	340	360
2. Der Rohstoffwert / Вартість сировини і матеріалів / Cost of row materials	100	100	120	120	150	140	160	160	180	190
3. Die Abschreibungen / Амортизація / Depreciations	5	6	6	7	7	7	7	8	8	8
4. Der Lohn / Оплата праці / Remuneration	45	50	55	60	65	70	75	80	85	90
5. Das Natureinkommen der Bevölkerung / Натуральний дохід населення / Natural income of households	15	15	15	15	15	15	15	10	10	10
6. Die Konsumausgaben / Витрати на споживання / Consumption	50	55	60	65	70	75	80	85	90	95
7. Die Dienstleistungbezahlung / Оплата послуг / Service payments	5	5	5	6	6	6	6	8	7	8

8. Die Ersparnisse / Заощадження / Savings	0	2	3	5	7	5	6	5	5	10
9. Sozialversicherung / Соціальне страхування / Social insurance	10	10	11	10	10	12	10	15	15	20
10. Pensionsfonds / Пенсійний фонд / Pension Fund	1	1	1	1	2	2	2	4	3	3
11. Das Betriebseinkommen / Прибуток підприємств / Income of firms	15	12	15	17	15	15	15	20	19	20
12. Der Gewinn aus Eigentum / Прибуток від власності / Property profit	10	9	10	8	10	5	5	5	5	7
13. Dividende / Дивіденти / Dividends	5	5	5	5	5	5	5	7	7	7
14. Indirekten Steuer / Прямі податки / Indirect taxes	20	21	22	23	24	25	26	28	30	32
15. Die Subvention / Субвенції / Subventions	14	12	12	10	12	10	10	10	10	10
16. Die Investition / Інвестиції / Invests	2	3	3	3	3	3	3	3	3	3
17. Die Ausgaben der Staatseinrichtungen / Витрати державних установ / Public institutions expenditures	14	15	14	16	16	16	18	17	18	20
18. Erhöhung der Produktions vorräte / Збільшення виробничих запасів / Increase in inventory	3	4	4	4	4	3	3	3	3	3
19. Das Kaufen der Betriebsanlage / Придбання устаткування і обладнання / Purchase of equipment and machinery	6	8	8	8	8	5	5	4	5	5
20. Ausfuhr / Експорт / Export	4	4	4	5	4	4	6	6	6	6
21. Einfuhr / Імпорт / Import	2	2	2	2	2	4	4	4	4	4
22. Das Einkommen aus Ausland / Доходи, отримані з-за кордону / Income received from abroad	18	20	22	24	26	28	30	32	34	36
23. Das Einkommen ins Ausland / Доходи, відправлені за кордон / Income send abroad	6	12	18	24	30	36	42	40	38	36

7. TRAINING ON COURSE “MACROECONOMICS”

The aim of fulfillment of training is successful mastering of course studying that demands the meaning-fullness of studied phenomena and the independent self-preparation to skill mastering under teacher management. For its achievement the next tasks are

resolved:

- further acquirement of logical thinking skill and independent exposition of material;
- fixing students theoretical knowledge about economic subjects behavior in market conditions;
- acquirement of methods of optimal economic decision-making in the concrete situation.
- forming of independent work skill.

The choice of individual work topic is determined by teacher. The term of demise and defense of individual work is conditioned in accordance with working program. The mark is the part of result exam module.

The process of studying provides conducting of lectures and seminar lessons, self-studying of students, fulfillment of individual-research task under teacher guidance and independently. The language of teaching – English.

Teaching methods to be used:

- lectures – discourses given before the students upon a given subject, usually for the purpose of instruction;
- tutorials – individual instructions given by a tutor to students;
- classroom workshops – meetings for discussion, study, experiment;
- discussions – disquisitions in which a subject is treated from different sides, arguments with a view to elicit truth or establish a point;
- team work – work done by persons working as a team, that is, associated in some joint action;
- group projects – exercises in which students are required to study a topic, in co-operation on the basis of observations, books etc., for a period of one or two weeks;
- students' presentations – actions offering something for acceptance;
- directed study – the one comprehensive learning pack will include various activities that students must work through individually or in groups;
- in-class and out-of-class written assignments – exercises which are to be done in classroom or at home.

In the studying process, the following methods of marking students' work are used: current inquiry; final testing on content module; marking of individual scientific-research task; written rector test work; written exam work.

TOPICS (Part 1)

1. Government Influence on Economic Growth and Economic Development
2. Technological Progress and Economic Growth
3. Globalization and National Economy
4. Technological Progress and Unemployment
5. National Bank and Monetary Policy

6. Role of Government in a Mixed Economy
7. Connections between Budget Deficit and Public Debt
8. Fiscal policy and Tax system.
9. Real sector: definition, main players, objectives.
10. National income and Product accounts (NIPA).
11. GDP and GNI. Income approach to measure GDP.
12. GDP and GNI. Expenditure approach to measure GDP.
13. GDP and GNI. Product (value added) approach to measure GDP.
14. Measuring domestic output. Real and nominal GDP. GDP-deflator.
15. Inflation: definition, types and problems of regulation. CPI and GDP-deflator.
16. Unemployment: definition, types and problems of regulation. Phillips Curve and Okun's Law.
17. Private consumption and private investment.
18. External sector: definition, objectives. Inter-temporal and intra-temporal decisions.
19. BOP accounting: principles, types of transactions.
20. The current account. Primary and secondary income.
21. The financial account. Direct and portfolio investments.
22. IP accounting: structure and changes.
23. Balances and their interpretations: trade balance, current account balance, overall balance.
24. Debt indicators: stock of external debt, implicit interest rate, roll-over rate, average maturity.
25. Exchange rate and trade balance.
26. Government sector: definition, objectives. GFS accountings.
27. Structure of public sector. Main government operations.
28. Fiscal balances and indicators of the fiscal position.
29. Monetary and financial sector: definition, objectives. Monetary statistics.
30. Role and functions of Central Bank.
31. Role and functions of Commercial, Merchant and Cooperative banks.
32. Money supply. Effects of money multiplier.
33. Money demand. Functions of money. Monetary aggregates.
34. Seigniorage and inflation tax.
35. Interrelations among macroeconomic accounts.

Research (Part 2)

1. Based of NBU balance of payments, macroeconomic, monetary and banking statistics (www.bank.gov.ua) and data of Ministry of Finance of Ukraine (www.minfin.gov.ua) make assess imbalances in the budget sector of Ukraine and determine ways to overcome them. All results you should arrange and serve as an analytical note.
2. Based of NBU data (www.bank.gov.ua) on monetary and banking statistics make retrospective analysis of the inflation process in Ukraine during 2000-2024 and justify

the choice of optimal monetary regime in Ukraine. All results you should arrange and serve as an analytical note.

8. ASSESSMENT TOOLS AND METHODS FOR DEMONSTRATING THE RESULTS OF STUDY

In the process of studying the discipline “Macroeconomics” the following methods of evaluation of students’ work are used:

- standard tests;
- current poll;
- modular testing and poll;
- scoring unit testing and interviews;
- evaluation of the performance of the integrated practical individual task;
- presentations of results of students’ research;
- final exam;
- other.

9.CRITERIA, FORMS OF ONGOING AND FINAL CONTROL

The final score (on a 100-point scale) the discipline “Macroeconomics” is defined as a weighted average, depending on the proportion of each component of test credit.

Module 1		Module 2		Module 3	Module 4	Module 5
10 %	10 %	10 %	10 %	5 %	15 %	40 %
Current assessment	Modular control 1	Current assessment	Modular control 2	Training	Independent work of students	Exam
The grade for the current assessment is defined as the arithmetic average of the grades received during classes (3 topics - from 3 to 4 grades)	The grade for Modular control 1 is given on the basis of the completion of modular work on topics 1–3 (testing, theoretical questions, tasks)	The grade for the current assessment is defined as the arithmetic average of the grades received during classes (4 topics - from 4 to 5 grades)	The grade for Modular control 2 is assigned based on the completion of modular work on topics 4–7 (testing, theoretical questions, tasks)	The grade for the training is defined as the arithmetic average of the grades received for completing the tasks during the training	Evaluation of the task of independent work of students	2 theoretical questions and 1 task

Modules 1 & 2

1. Ongoing Assessment

The grade is calculated as the arithmetic average of scores received during practical sessions.

Assessment Criteria for Ongoing Evaluation:

90–100 points: The student demonstrates deep knowledge of the topics. Responses are comprehensive and meet all requirements. Preparation goes beyond lecture materials. The student actively participates in discussions, supplements peers' answers, and uses examples to clarify concepts. Combines theory and practice effectively and solves problems with well-reasoned results.

75–89 points: The student knows the full course material and prepares on time. Answers meet requirements but may lack practical examples or contain minor misinterpretations. Problem-solving skills are present but may include calculation or reasoning errors.

60–74 points: The student understands the main topic but provides general responses based mostly on lectures. There are gaps in related topics and difficulties in solving problems or interpreting results.

1–59 points: The student lacks understanding of the material, does not participate, and cannot answer questions or solve problems.

2. Module Control

The grade is given as the arithmetic average of the grades for each task of the modular work, which involves completing tasks (testing, theoretical questions, problems) on topics defined within the relevant credit modules.

Assessment criteria

2.1. Testing:

20 test tasks - 5 points for each correct answer.

10 test tasks - 10 points for each correct answer.

Theoretical Question:

90–100 points: The answer is correct, thorough, well-argued, and includes analysis and critical evaluation. The student uses specialized terminology and demonstrates deep understanding with causal reasoning.

75–89 points: The answer includes key concepts, is complete, and logically structured. The student provides relevant examples.

60–74 points: The answer is superficial and misses some aspects. General knowledge is evident but includes minor inaccuracies.

1–59 points: The answer is incomplete or illogical. The student knows only basic definitions and makes significant errors or cannot respond.

Problem-Solving:

90–100 points: The problem is solved correctly with a full explanation. The answer is justified, and the results are analyzed.

75–89 points: The correct algorithm is chosen, most calculations are accurate and explained.

60–74 points: The approach is correct but contains major calculation errors. The answer is incorrect or partially justified.

1–59 points: Incorrect approach and significant errors. The answer is wrong.

Module 3: Training

The grade is the average of scores received for completed tasks.

Training Assessment Criteria:

90–100 points: Active participation, deep understanding, and practical application of theory.

75–89 points: Active participation, but answers may lack completeness or justification.

65–74 points: Partial participation, superficial responses.

60–64 points: Minimal participation, incomplete knowledge.

1–59 points: No participation or results.

Module 4: Independent Work

The grade is the average of scores received for completed tasks.

Independent Work Criteria:

90–100 points: Fully solved problem with all required elements: given data, formulas, actions, justification, graphs, tables, units, and final answer.

85–89 points: Fully solved, but some units are missing or incorrect.

75–84 points: Correct approach but logical errors in calculations or missing explanations.

65–74 points: Incomplete solution, no final answer, but close. At least half of the logical steps have been completed.

60–64 points: Similar to above, but slightly less complete.

35–59 points: The Problem started with a brief condition and some fragments.

1–34 points: Minimal attempt or no solution provided.

Module 5: Exam

The grade is determined as the arithmetic average of the grades received for completing the tasks (2 questions, 1 task). The criteria for evaluating the tasks are similar to module control 1 and 2.

Scale of marking:

the For scale of WUNU	For a national scale	For the ESCT scale
90 – 100	Excellent	A (excellent)
85 – 89	Well	B (very well)
75 – 84		C (well)
65 – 74	Satisfactory	D (satisfactory)
60 – 64		E (adequately)
35 – 59	Unsatisfactory	FX (unsatisfactory with possibility of repeated passing)
1 – 34		F (unsatisfactory without possibility of repeated passing)

10. THE LIST OF VISUAL MATERIALS AND GUIDANCE

No	Name	Theme number
1.	Basic information technology software: MS Office, telecommunications software (Opera, Google Chrome, Firefox)	1-7
2.	View Sonic PJ 7223 projector	1-7

11. RECOMMENDED LITERATURE

1. DeLong, J. B. (2022). *Slouching Towards Utopia: An Economic History of the Twentieth Century*. Basic Books. Offers a macroeconomic lens on historical development and policy evolution.
2. Giedratis, V., Sofiienko, A., Zatonaska, T., Bazhenova, O., Dluhopolskyi, O. The impact of Ukraine's external public debt on the country's key macroeconomic indicators. *Financial and credit activity: problems of theory and practice*, 2020, Vol. 3(34), 219-229.
3. Gopinath, G. (Ed.). (2021). *Handbook of International Economics* (Vol.5). Elsevier. Includes chapters on macroeconomic policy, trade, and global financial systems, edited by the IMF Chief Economist.
4. Kovtoniuk, K., Molchanova, E., Dluhopolskyi, O., Weigang, G., Piankova O. The factors' analysis of influencing the development of digital trade in the leading countries. 11th International Conference on Advanced Computer Information Technologies (September 15-17, 2021). Deggendorf, Germany, 290-293.
5. Krugman, P., Wells, R. (2021). *Macroeconomics*. 656 p.
6. Larraín F. B. (2020). *Macroeconomics*: MIT Press. 296 p.
7. Mankiw, N. G., & Taylor, M. P. (2020). *Economics* (5th ed.). Cengage Learning EMEA. A comprehensive textbook covering both micro and macroeconomic principles, widely used in academic settings.
8. Martyniuk, V., Dluhopolskyi, O., Kniaz, S., Podolchak, N., Muravska, Y., Martyniuk, B. The fiscal policy impact on indicators of the state's economic growth. 10th International Conference on Advanced Computer Information Technologies (16-18 September 2020). Deggendorf, Germany, 695-698.
9. McDonnell, C., Brue, S., Flynn, S. *Macroeconomics: Principles, Problems, and Policies*. 20th Edition. 600 p.
10. Rotemberg, J. J. (2020). *A Concise Guide to Macroeconomics: What Managers, Executives, and Students Need to Know* (2nd ed.). Harvard Business Review Press. Simplifies macroeconomic concepts for non-specialists and business professionals.
11. Roubini, N. (2022). *Megathreats: Ten Dangerous Trends That Imperil Our Future, and How to Survive Them*. Little, Brown Spark. Focuses on macroeconomic risks like inflation, debt, and climate disruption from a global perspective.
12. Zhylinska, O., Bazhenova, O., Zatonatska, T., Dluhopolskyi, O., Bedianashvili, G., Chornodid, I. Innovation processes and economic growth in the context of European integration. *Scientific Papers of the University of Pardubice, Series D: Faculty of Economics and Administration*, 2020, Vol. 28(3), 1-12.