

UNIVERSITY OF NATIONAL AND WORLD ECONOMY

PROGRAM

for a State exam in Economics for the majors in
“Economics”
Bachelor Degree

Sofia – 1700
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ANOTATION

This program is for students with major in Macroeconomics and Economy – Bachelor degree, and who graduate with state exam. The scope and the structure of the study material is oriented towards the courses of Microeconomics and Macroeconomics. The formulation and the substance of the list of topics supposes knowledge of the main categories and the main objective laws in the economic theory and in the real business. The program gives an opportunity to bound the knowledge from the fundamental and the specialized disciplines and the exam is seen as a final stage in the overall education process in the field. The problems are structured in four parts:

- I.** Introduction and basic principle of Economics
- II.** Microeconomics
- III.** Macroeconomics
- IV.** World Economy

The first part is focused on the fundamental objective laws and problems to be solved by the different economic systems. The fundamental concepts for scarcity, choice and the opportunity cost are bounded with the economic thinking and the rational choice. Here we explain the foundations and the functioning mechanisms of the market economy, the motives and the objectives of the market subjects, and the qualitative and quantitative characteristics of their market behavior.

The second part covers an analysis of the objective laws which determine the behavior of the microeconomic units – households and companies. The analysis investigates their interaction on the product market and on the market for the factors of production under different market structures. Further, this analysis explains the conditions for individual and market equilibrium. In this part, we explain the functional and the social failures of the market and the necessity for state intervention at a microeconomic level.

The Macroeconomics part examines the aggregate behavior of the different business subjects and their interactions in the national economy. Subjects of analyses are different aspects of the economic instability, as well as the principles and the instruments of the macroeconomic policy.

The fourth part examines the problems and the potential for development of an open economy. The analysis covers foreign trade, foreign exchange mechanism, integration, globalization, economic growth and sustainable development. The analysis of these problems is based on the contemporary business practice and the specifics of the Bulgarian economy.

Part I

Introduction and main principles of Economics

1. Subject, scope and methods of Economics. Fundamental problems of the economic system.

Object and subject of Economics. Development stages of the contemporary economic theory, basic schools. Main divisions (sectors) of Economics. Functions, methodology and research instruments. Positive and Normative economic theory. Economic theory and Economic policy.

Fundamental problems of the economic system. Scarcity of resources, choice and opportunity cost. Fundamental principles of the economic thinking and the rational behavior.

Frontier and production possibilities curve. Law of the increasing opportunity cost. Law for the diminishing return. Division of labor. Absolute and comparative advantage.

Types of economic systems – comparative analysis of the efficiency. Economic functions of the contemporary state.

2. Market and market mechanism

Market and market subjects. Types of markets and market mechanism. Market structure – types, and criteria for classification. Perfect and imperfect competition.

Individual and market demand. Law of demand and demand curve. Law of supply and supply curve. Determinants of the supply.

Market equilibrium – definition and dynamics. Market surplus and market deficit. Effects of the violation and recovery of the market equilibrium. Spiral of the market reaction.

Free market and price control. Effects of the introduction of minimum and maximum prices.

3. Elasticity of demand and supply

Definition of elasticity. Elasticity of demand. Price elasticity of demand. Measurement of the elasticity – point and catenary elasticity. Geometric interpretation of the relationship between the elasticity of demand and the price. Determining factors of the price elasticity of demand. Price elasticity of demand and aggregate income for the producer.

Income elasticity of demand. Normal, inferior and superior goods. Cross elasticity of demand. Substitute and complementary goods.

Elasticity of supply. Geometric interpretation of the elasticity in the relationship between the supply and the price. Determining factors of the elasticity of supply. Elasticity of supply in the long, average and short-term. Elasticity of supply and market equilibrium.

Elasticity of supply and distribution of tax burden.

PART II

Microeconomics

4. Consumer behavior on the market for final goods

Motivation and determinants of the consumer behavior. Needs, welfare and utility. Measurement and alteration of the utility. Cardinal and ordinal benefit. Total, average and marginal utility. Law of the diminishing utility. Consumer surplus. Weighted marginal utility and consumer's equilibrium.

Indifference curves – features and marginal rate of substitution of the goods. Market environment for the consumer and budget limitations. Consumer's equilibrium and optimal choice. Changes of the budget limitations and in the equilibrium. "Income – consumption" curve and Engel Curve. "price-consumption Curve and building the demand curve. Income effect and substitution effect for normal, inferior goods and "Giffen's goods".

5. Organization of the Business

Forms of the organization of business. The firm as a main form of business organization. Functions and aims. Classification and characteristic of the companies based on their size and ownership. Institutional forms of the business: single proprietorship, partnership companies, and stock holding companies. Characteristics of the contemporary corporation. Separation of the ownership from the capital. Theory of the managerial revolution.

6. Production and technological choice of the firm

Production, factors of production and outcomes. Production function. Division into periods in correspondence with the criteria of A. Marshall. Company's current and long term oriented aims and decisions. Production function in the short-term. Total, average and marginal product – essence, graphical interpretation and dependencies. Law of the diminishing productivity of the variable factor. Weighted marginal productivity and producer's equilibrium.

Production function in the long-term. Isoquant curves and marginal rate of technical substitution. Budget limitation and isoquant. Producer's equilibrium. Conditions for an equilibrium change and selection of optimal techno-economic combinations of production factors. Company's "path of development" curve. Technological innovation. Economies of scale return – types and graphical analysis.

7. Cost, revenues and profit of the firm

Cost of production. Explicit, implicit, economic and accounting cost. Cost of production in the short-term. Total, constant and variable cost – essence, graphical interpretation and dependences. Average and marginal cost – essence, graphical interpretation and dependences.

Firm's cost in the long-term. Curve of the average cost in the long-term and economies of scale return. Firm's income. Total, average and marginal income. Income dynamics under perfect and non-perfect competition.

Profit of the firm. Normal, accounting and economic profit. Total, average and marginal profit of the firm. Conditions for profit maximization.

8. Firm's supply under perfectly competitive market

Firm and market structure. Characteristic of the perfect competition. Company's supply and behavior in the short-term under perfect competition. Demand of the firm's product, dynamics of the cost and income. Profit maximization. Loss minimization. Company's equilibrium in the short-term and short-term supply curve. Supply curve – individual, sector and market level.

Company's behavior in the long-term. Branch supply at fixed, increasing and decreasing average cost. Perfect competition and economic efficiency.

9. Monopolistic markets

Characteristic of the monopolistic markets. Preconditions for establishment and variety of the monopoly. Behavior of the pure (absolute) monopoly. Demand for the monopolistic product and dynamics of the total and the marginal income. Marginal income and elasticity of demand. Maximization of the monopoly's profit in the short-term and in the long-term.

Monopoly power – essence and measurement. Price discrimination – preconditions and outcomes. Strategies of the monopoly. Monopoly and perfect competition – comparative analysis. Economic and social burden of the monopoly. Regulation of the monopoly.

10. Oligopoly and monopolistic competition

Oligopoly – essence and models. Cartel agreements as an attempt for profit maximization. Model of A. Curno. Model of the "kinked demand curve – profit maximization Leadership in price-

making. Price-making based on average cost plus extras. Oligopoly and economic efficiency. Branch concentration. Horizontal, vertical and conglomerate mergers.

Monopolistic competition. Product differentiation, innovation and advertisement. Equilibrium of the monopolistic company in the short-term and in the long-term. Monopolistic competition and economic efficiency.

11. Factor markets

General characteristic and structure of the market for production factors. Firm's demand of a single variable factor. Dynamics of the marginal income of the product's variable factor. Demand of the variable factor. Rule of the firm's profit maximization

Firm's behavior when using two or more variable factors of production. Rule of the profit maximization. Substitution effect and production effect. Elasticity of the demand of the factors of production. Supply of production factors. Income generated by the production factors. Elasticity of supply and income structure – economic rent and transfer compensation.

Pricing of the production factors under perfect competition. Imperfect competition of the factor markets. Monopsony and oligopsony. Pricing under imperfect competition.

12. Labor market

Labor market. Individual and market demand for labor. Individual supply of labor – income effect and substitution effect. Market supply of labor. Equilibrium of the competitive labor market. Wage and labor productivity. Differentiation of the labor's compensation.

Demand and supply of labor under imperfect competition. Monopsony. Equilibrium under Monopsony. Dual monopoly on the labor market. Trade unions and collective agreements. Economic and social outcome of the trade unions activity.

Theory of the human capital. Key dimensions of the human capital. Investments in human capital and capital return. Time value of money and capital flow discounting. Depreciation of the capital. Marginal capital efficiency, supply and demand of capital. Equilibrium of the capital market.

13. Capital market and land market

Credit demand. Determinants of the Interest rates. Nominal and real interest rate – determinants. Price of the profitable assets. Stock exchange and venture capital.

Land as a factor of production. Supply, demand and land market equilibrium. Specifics of the pricing of land. Land rent. Differential rent. Accumulated rent. Land use alternatives. Specifics of the land market in Bulgaria.

14. General market equilibrium and welfare economics

Partial and general market equilibrium. Analysis of the general market equilibrium – simple model. General equilibrium under the economy of exchange. Equilibrium in the production and the consumption. Competitive equilibrium. Technological efficiency and X efficiency. Distributive efficiency. V. Pareto's optimality.

Advantages and disadvantages of the market mechanism under perfect competition. Exchange between equality and efficiency. The principle of compensation. Welfare Economics – main theorems. Functions of the public welfare – alternative views. Public welfare and economic efficiency under the functional market economy in Bulgaria.

15. Market failures and the economic role of the government

Market failures – general characteristic and shapes, losses of public welfare. Economic functions of the contemporary state. Positive and negative outcomes of the government intervention. Externalities – types and graphical analysis. Internalization of the externalities – modifying taxation and modifying subsidy. Coase theorem.

Asymmetric information. Protection of the competitiveness on the goods, labor and capital markets. Antitrust regulation. Theory of the first and the second best decision. Antitrust regulation in Bulgaria. De-monopolization and its effect on the markets.

Net public welfare. Mixed welfare. Demand curve of the public welfare. P. Samuelson's model for optimal supply of public welfare. Public choice – rules and methods. Arrow's theorem for the impossibility for an efficient public choice. Groups of special interests. Monopolistic behavior of the bureaucracy on the quasi market for public goods.

16. Social defects of the market and income distribution

Market impact on income distribution. Income distribution in correspondence with the theory for the marginal productivity. Inequality of income distribution – sources (factors) and measurement. Lorenz curve. Distribution of wealth. Poverty, equality and efficiency.

Policy of income redistribution policy. Social transfers. Programs for social support in Bulgaria. Efficiency of the social policy. Taxes and social policy.

PART III: Macroeconomics

17. Introduction to macroeconomics

The scope of macroeconomics. The microeconomic foundations of macroeconomics. The main schools in macroeconomics: mercantilism, physiocracy, classical school, Keynesian school, monetarist school, new classical (rational expectations school), real business cycle theory, new Keynesian school, structuralist school. The major macroeconomic issues: economic growth, business cycle, inflation, unemployment, government budget deficit, country's international deficit. Macroeconomic objectives and macroeconomic policies.

18. Measuring macroeconomy

The circular flow diagram and basic macroeconomic relationships. Aggregate expenditures and aggregate income. The inner flow, injections and withdrawals (leakages). Gross domestic product (GDP). Three ways of measuring GDP: the expenditure approach, the income approach and the product approach. Value added and double counting. Gross national income (GNI) and net national income (NNI). Gross national disposable income (GNDI) and net national disposable income (NNDI). Gross national product (GNP). GDP, economic activity and economic well-being. Nominal GDP and real GDP. Price indices and GDP deflator.

19. Macroeconomic equilibrium of aggregate demand and aggregate supply

Aggregate demand. Aggregate demand curve. Determinants of aggregate demand. Short-run and long-run aggregate supply. Short-run aggregate supply curve. Potential GDP level and long-run aggregate supply curve. Determinants of aggregate supply. Macroeconomic equilibrium. Determination of real GDP and the price level. Macroeconomic equilibrium and full employment. Recessionary GDP gap and inflationary GDP gap. Aggregate fluctuations and aggregate demand shocks. Aggregate fluctuations and aggregate supply shocks.

20. Aggregate expenditures: consumption and saving

The components of aggregate expenditures: relative magnitudes and relative volatility. Consumption expenditures and saving. The consumption function and the saving function. Autonomous consumption and induced consumption. Dissaving. The average propensities to consume (APC) and to save (APS). The marginal propensities to consume and to save (MPC and MPS). The slopes of the consumption function and the saving function. Aggregate consumption function. Other influences on consumption expenditures and saving. Shifts of the consumption function and the saving function.

21. Aggregate expenditures: investments and net export

Investments: net investments, depreciation and gross investments. Fixed business investments, residential investments and inventory investments. Determinants of investments. Real interest rate and the investment demand function. Investment demand curve. Other influences on investments. Accelerator principle. Net exports: exports and imports. Determinants of exports, imports and net exports. Imports function and the marginal propensity to import (MPI_m). Net exports function.

22. Fiscal policy: government purchases and taxation.

Aims and tools of the fiscal policy. Government purchases. Tax system and budget revenues. Autonomous and induced taxes. Fiscal policy and aggregate demand. Expansionary and restrictive fiscal policy. Discretionary fiscal policy. Fiscal policy multipliers: government purchases multiplier, transfer payments multiplier, tax multiplier, balanced budget multiplier. Automatic stabilizers. Budget deficit and government debt. Budget deficit financing. Fiscal policy and aggregate supply. Effectiveness of the fiscal policy. Crowding out effect.

23. Expenditure Equilibrium and Multiplier

Aggregate expenditures and real GDP. Autonomous expenditures and induced expenditures. Aggregate expenditures function and aggregate expenditures curve. Slope of the aggregate expenditures curve. Marginal propensity to tax (MPT) and marginal propensity to spend (MPE). Expenditure equilibrium. Changes in autonomous expenditures: the multiplier effect. The size of the multipliers in economies with and without taxes. The size of the multipliers in closed and in open economies. Changes in the marginal propensity to spend. The paradox of thrift. Aggregate expenditures and aggregate demand. Aggregate expenditures, equilibrium GDP and the price level.

24. Money, financial markets and banking

The definition of money. The functions of money. Different forms of money. The measures of money. Financial intermediaries: commercial banks and other financial intermediaries. Services of the financial intermediaries. The balance sheet of a commercial bank. Actual and required reserves. Required reserve ratio. The deposit (simple money) multiplier and the money multipliers. The demand for money. The quantity theory of money. The motives for holding money. Money demand function and money demand curve. Money supply and money supply curve. Money market equilibrium. Changes in money market equilibrium.

25. Central bank and monetary policy

Activity and functions of the central bank. The origin and structure of Bulgarian national bank. The balance sheet of a central bank. Monetary policy. Main aims of the monetary policy. Monetary policy tools: reserve requirements, discount rate, open market operations. Types of monetary policy. Monetary policy influences on the equilibrium levels of GDP and employment. Transmission mechanisms of monetary policy. Effectiveness and time lags of monetary policy. Monetary policy under the currency board arrangement.

26. Goods and Money Markets' Equilibrium: IS-LM model

Money, interest and aggregate demand. Expenditure equilibrium and interest rate. Change in real GDP. First and second round effects of a change in the money supply. Monetary-fiscal policy mix. The keynesian-monetarist controversy. The goods market and the IS curve. The money market and the LM curve. IS-LM equilibrium and aggregate demand. The IS-LM equilibrium, and the effectiveness of monetary and fiscal policies in a closed economy. The IS-LM model for the open economy with fixed and with flexible exchange rates.

27. Inflation and unemployment

Inflation: definition and measurement. Moderate inflation, high inflation and hyperinflation. Balanced and unbalanced, expected and unexpected inflation. Causes of inflation: demand-pull inflation and cost-push inflation. Expectations and inflation. The costs of inflation. Policies to tackle inflation: demand-side policies and supply-side policies. Unemployment: definition and measures. Unemployment and the labor market: equilibrium and disequilibrium unemployment. Frictional (search), structural and cyclical (demand-deficient) unemployment. Natural rate of unemployment and full employment. Costs of unemployment. Okun's law.

PART IV:

28. International trade

Specialization as a basis for trade. The law of comparative advantage. The gains from trade based on comparative advantage. The terms of trade. Methods for restricting trade. Arguments in favor of restricting trade. Problems with protection. Preferential trading: free trade areas, customs unions, common markets. Preferential trading in practice.

29. Exchange rate and balance of payments

Nominal and real exchange rates. Alternative exchange rate regimes. Fixed exchange rates and free-floating exchange rates. Advantages and disadvantages of fixed and free-floating exchange rates. Intermediate exchange rate regimes. Exchange rate systems in practice. Balance of payments accounts. Borrowers and lenders, debtors and creditors. Current account balance. The twin deficits. Effectiveness of fiscal and monetary policy under fixed and flexible exchange rates.

30. European economic integration

Historical background of the European union. The institutions of the European union. From customs union to common market. The benefits and costs of the single market. The European monetary system (EMS). The exchange rate mechanism (ERM) of the EMS. The ERM in practice. The European monetary union (EMU). Maastricht treaty and convergence criteria. Advantages and disadvantages of single currency. Optimal currency area and asymmetric shocks.

READINGS

Mandatory:

- 1) Sloman, J., Economics, Sixth Edition., Prentice Hall, UK, 2006;
- 2) Salvatore, D., Microeconomics, 4th Edition, Oxford University Press, 2003;
- 3) Begg, D., Fischer, St., and Dornbusch, R., Economics, 7th Edition, McGraw, 2003;
- 4) Katz, M. and Rosen, H., Microeconomics, 3rd Edition, McGraw-Hill, 1998;
- 5) Parkin, M., Macroeconomics, Second Edition, Addison-Wesley Publishing Company, 1993;

Recommended:

- 6) Barro, R., Macroeconomics, Fifth Edition, John Wiley and Sons, 1997.
- 7) Blanchard, O., Macroeconomics, Second ed., Prentice Hall, 2000;
- 8) Burda, M., Ch. Wyplosz, Macroeconomics: A European text, Oxford University Press, 2001.
- 9) Dornbusch R., St. Fischer and R. Startz, Macroeconomics, Eighth Edition, Irwin McGraw-Hill, 2000;

- 10) Gartner, M., Macroeconomics, Prentice Hall, 2003.
 - 11) Griffiths, A., St. Wall, (ed.), Applied economics, Fifth Edition., Longman Group, 1993.
 - 12) Hall, R., J. Taylor, Macroeconomics: Theory, Performance and Policy, Second edition, W.W. Norton&Company, 1988;
 - 13) Hyman, D., Macroeconomics, Richard Irwin Inc, 1996.;
 - 14) Lipsey, R., An Introduction to Positive Economics, London, 1992;
 - 15) Mankiw G., Macroeconomics, Fourth Edition, New York, 2000;
 - 16) Sachs, J., F. Larrian, Macroeconomics in the Global Economy, Prentice Hall, 1993.
 - 17) Samuelson, P., W. Nordhaus, Economics, Fifteenth Edition, 1999;
- And all other available textbooks in Economics or Macroeconomics on the same level.

CHAIR OF DEP. OF ECONOMICS:

/Assos. Prof., Ph.D. M. Markov/