Economics

Code: MK3GAZ1M4SX17-EN

ECTS Credit Points: 4

Evaluation: exam

Year, Semester: 1st year, 2nd semester

Its prerequisite(s): -

Further courses are built on it: Yes/No

Number of teaching hours/week (lecture + practice): 1+3

Topics:

This course aims to make students familiar with the basic concepts of microeconomic and macroeconomic analysis. In particular, the course will be focused on the analysis of how economic actors, consumers and firms choose between different alternatives. By the end of the course, the student should be able to use the basic tools and models of microeconomics and macroeconomics, and apply them in solving problems. The course focuses on the theory and application of the following: Microeconomic processes, The basics of supply and demand. Market equilibrium. Elasticity of demand (supply). Consumer behaviour - Households' choices (Marginal utility theory). Firm's production (factors), costs of production, profit-maximizing behaviour. Market structures (perfect competition, imperfect competition: monopoly). Profit maximizing under perfect competition, and monopoly. Cost-benefit and Break-even analysis. Measuring macroeconomic output (real vs. nominal Gross Domestic Product, Gross output). Consumption and Investment. Household and firm sector. Investment multiplier. Economic role of government (externalities). Fiscal policy and output determination. The role of money in the economy, the evolution of money, central bank, commercial banking, the supply and the demand for money. Monetary policy. Aggregate demand and supply. Labour market. Unemployment and inflation.

Literature:

Required literature:

- Mankiw, Gregory (2009): Principles of Economics. Fifth Edition. South-Western, Mason, USA, 2009. ISBN:9780324589979.
- Mankiw, Gregory (2015): Principles of Economics. Study Guide. Seventh Edition. Cengage Learning, ISBN-13:978-1-285-86421-1.
- Judit T. Kiss (2014): Introduction to Macroeconomics for Engineers and Technical Managers. Debrecen University Press. ISBN: 978-963-318-416-5.
- Judit T. Kiss (2015): Introduction to Microeconomics for Engineers and Technical Managers. Debrecen University Press. ISBN: 978-963-318-469-1.

Recommended literature:

- K. E. Case – R. C. Fair – S. M. Oster (2012): Principles of Macroeconomics, Tenth Edition. Prentice Hall, ISBN 13: 978-0-13-139140-6.
- Samuelson P.A., Nordhaus W.D. (2006): Economics, 18th edition, Academic Internet Publishers Inc., 2006. ISBN: 0072872055
- Parkin, M., Powell, M. & Matthews, K. (2008) Economics. 7th ed. Harlow: Addison Wesley. ISBN-13: 9780132041225
- Besanko, David – Breautigam, Ronald R. (2014): Microeconomics. Fifth Edition (International Student version). John Wiley and Sons, Inc., New York. ISBN: 978-1-11871638-0
- Besanko, David – Breautigam, Ronald R. (2008): Microeconomics. Study Guide. Third Edition. John Wiley and Sons, Inc., New York, 2008.

Schedule

1st week Registration week	
2nd week: Lecture: *Basic concepts of Economics and Microeconomics* Introduction to Microeconomics and Macroeconomics, models in Economics. Key analytical tools (Comparative statics, Equilibrium analysis, Constrained optimization). Efficiency and use of resources. Practice: Calculation/team problems: Main economic problems. Case study examination.	3rd week: Lecture: The components of the Macroeconomics. The circular flow Diagram. Market sectors – commodity, money and labour market. Practice: Calculation/team problems: Circular flow of income. Case study examination.
4th week: Lecture: *Measuring Macroeconomic Output* Circular flow – market sectors. Output and Income. Price level, Consumer price index. Measuring macroeconomic output (Gross Output, Gross Domestic Product, calculating GDP, real versus nominal GDP, the components of the GDP, GDP deflator and Produce price index). Practice: Calculation/team problems: measuring macroeconomic income and output. The difference between nominal and real GDP. GDP deflator and Produce price index.	5th week: Lecture: *The Keynesian Theory – Aggregate demand* Consumption function, marginal propensity to consume. Saving function, marginal propensity to saving. Economic role of investment, Mathematical and geometrical derivation of the equilibrium output. Investment multiplier, main influencing factors of investment. Derivation of investment – saving curve. Practice: Calculation/team problems: consumption and saving function, Investment multiplier. Investment-saving function.
6th week: Lecture: *Government in the economy* Government expenditures and revenues. Types of taxes, disposable income, government budget, determination of equilibrium output, fiscal policy, the government spending multiplier, the tax multiplier. Average tax rate, tax wedge, and marginal tax rate. Practice: Calculation/team problems: The role of the government in the economy. Tax burden and tax multiplier. Market equilibrium analysis.	7th week: Lecture: *Demand and supply* Demand curves, Supply curves; Market equilibrium. Calculation problems: equilibrium price and quantity; market demand and individual demand; shifts versus movements along the demand curve (supply curve); shifts versus movements along the supply curve. *Types of elasticity of demand* Price elasticity of demand, cross price elasticity of demand, income elasticity of demand. The elasticity of supply. Total revenue and the price elasticity of demand. Increase in total revenue. Taxes and elasticity. Practice: Midterm Test I.
8th week: 1st drawing week	

9th week:

Lecture: *Production*

Factors of production. Inputs, outputs and production function. Marginal product of labour and average product of labour. Law of diminishing marginal returns to labour
(capital).

Costs of production

Total, fixed and variable costs, marginal and variable cost. The relationship between marginal and average cost. Total revenue, total profit curves. Calculating problems (types of cost, relationship between cost and profit. opportunity cost).

Practice: Calculation/team problems; (average product of labour (capital), marginal product of labour (capital), relationship between marginal product and average product. Marginal cost, total, variable and fixed cost, average costs.

10th week:

Lecture: *Condition of profit maximization*

Main condition of profit maximization under competitive market. Main characteristics of the competitive market. Marginal cost, average costs of production, profit-maximizing output, shut down and breakeven point, profit and loss. The competitive firm's supply curve.

Practice: Calculation/team problems: marginal average revenue, total revenue, average and marginal profit, profitmaximizing output, marginal cost curve and supply curve. Determination of the shut down and breakeven point.

11th week:

Lecture: *Perfect and Imperfect competition*

Monopoly (the profit-maximization condition); *Money market*

The meaning of money, the functions of money, measuring the supply of money. The creation of money, required reserve ratio. The money multiplier. Fisher effect (nominal and real interest rate).

Practice: Profit maximization condition (Monopoly), consumer and producer surplus. Equilibrium analysis.

12th week:

Lecture: *Money market*

The demand for money. Supply and demand in the money market. The

equilibrium interest rate. Mathematical and geometrical derivation of the LM curve.

Practice: Calculation/team problems: The equilibrium output and price-level. Case study analysis.

13th week: Lecture: *The labour market* The demand for labour, the supply of labour. The labour force, working-age population, active and inactive population, labour participation rate. Supply curve and demand curve, equilibrium. Employed population. Practice: Calculation/team problems: Supply of labour function, and demand for labour function, equilibrium analysis.	14th week: Lecture: *Main macroeconomic problems – Unemployment and inflation* Measurement of Unemployment, the unemployment rate, the employment and activity rate. Types of unemployment (voluntarily and involuntarily unemployment; structural, frictional and cyclical unemployment), Okun law. Inflation; (Price level, inflation rate, definition and measuring of inflation, types and causes of inflation, moderate, galloping and hyperinflation, demand side and supply side inflation, The relationship between unemployment rate and inflation rate – Philips curve). Practice: Case study examination and team problems: Measurement of unemployment. Reasons for inflation, Philips curve.
15th week: 2nd drawing week	

Requirements

A, for a signature:

Attending practices is compulsory. Students must attend practice classes and may not miss more than three occasions during the semester. In case a student does so, the subject will not be signed and the student must repeat the course. Students can't take part in any practice class with another group. Attendance at practice classes will be recorded by the practice leader. Being late is equivalent with an absence. In case of further absences, a medical certification needs to be presented. Missed practice classes must be made up for at a later date, being discussed with the tutor.

During the semester there are two tests: the mid-term test on the 7th week and the end-term test on the 15th week. Students must sit for the tests.

B, for a grade (ESE):

The course ends in an examination.

The minimum requirement of the mid-term, the end-term test and the teamwork is 50% separately. Based on the score of the tests separately, the grade for the tests and the examination is given according to the following table:

The grade is given according to the following (score/grade): 0-49 % = fail (1); 50-62 % = pass (2); 63-75 % = satisfactory (3); 76-89 % = good (4); 90-100 % = excellent (5).

If the score of any test is below 50%, the student once can take a retake test of the whole semester material.

An offered grade: It may be offered for the students if the average of the mid-term test, endterm tests and the teamwork is at least good (4). The offered grade is the average of them.