# STUDIJŲ DALYKO APRAŠAS

Dalyko kodas	Dalyko apimtis	Institucija	Fakultetas	Katedra/Mokslo	
	kreditais			padalinys	
ECO8001	6	ISM		Ekonomikos	
Pavadinimas		·			
ŠIUOLAIKINĖ	ES EKONOMIKOS T	<b>FEORIJOS IR M</b>	AKROEKONOMINI	Ė ANALIZĖ	
Pavadinimas ang	glų kalba				
<b>MODERN ECO</b>	<b>DNOMIC THEORY</b>	AND MACROE	CONOMIC ANALYS	IS	
Studijų būdas	Kreditų ska	Kreditų skaičius			
Paskaitos	32				
Konsultacijos	10				

### Dalyko anotacija lietuvių kalba (iki 500 simbolių)

4

116

Seminarai

Individualus darbas

Šiame kurse bus analizuojami kai kurie svarbiausi makroekonominio mąstymo etapai, pradedant Solow modeliu, kuriame aptariamas realaus verslo ciklo modelis, ir baigiant dinaminiais bendrosios pusiausvyros modeliais (DSGE). Kursas bus sutelktas tiek į apžvelgtų teorijų konceptualų vystymąsi, tiek į esminius matematinius pagrindus. Be kitų teorijų, kurios bus aptartos kurso metu, studentai pagilins savo žinias Solow augimo modelio (uždaros ir atviros ekonomikos versijos, endogeninis augimas), keinso modelių, naudojamų suprasti augimą, pinigų ir fiskalinę politiką, klausimais ir baigs konkuruojančių teorijų apžvalga (post-Keynesian, Pinigų gamybos teorija, Austrijos mokykla, elgesio makroekonomika, sudėtingumo ekonomika). Studentai turės apžvelgti aktualią literatūrą, spręsti analitiškai paprastus modelius, taip pat skaitiniu būdu ištirti pasirinktų modelių savybes (skaitinis modeliavimas naudojant Excel ir/ar Matlab). Bus akcentuojamas tirtų teorijų empirinis pagrįstumas, siekiant suprasti pagrindines prielaidas, naudojamas kuriant modelius ir jų numanomus apribojimus bei silpnybes.

### Dalyko anotacija anglų kalba (iki 500 simbolių)

The current class will highlight some of the major milestones in macroeconomic thinking starting with the Solow model discussing the Real Business Cycle Model and concluding with Dynamic General Equilibrium Models (DSGE). The course will focus both on the conceptual development of the overviewed theories as well as on the underlying mathematical underpinnings. Among the schools of thought overviewed, students will start building knowledge from Solows's Growth Model (closed and open economy versions, endogeneous growth), Keynesian models used in understanding growth, monetary and fiscal policy and conclude with an overview of competing theories (post-Keynesian, Monetary Theory of Production, Austrian School, Behavioral Macroeconomics, Complexity Economics). Students will be expected to overview relevant literature, solve analytically simple models as well as numerically investigate properties of selected models (numerical simulations using Excel and/or Matlab). Empirical validity of the studied theories will be emphasized in order to understand the major assumptions used in developing the models and their implied limitations and weaknesses.

#### Dalyko poreikis ir aktualumas

The course is aimed to study deeper the evolution and development of macroeconomic thought and theory. It represents the necessity for PhD students to analyze the recent developments of economic though and so to understand better where macroeconomic theory is moving to and what are its latest findigs. The way the course is constructed it gives a fexibility for teachers and students to concentrate on the issues that are on topic today or more relevant for students' research.

#### Dalyko tikslas

The course highlights the evolution and development of economic macroeconomic thought and theory up to the latest developments. Course participants will survey authors and theories and will gain working knowledge of selected theories and models of the 20 and 21st century.

## Dalyko turinys, temos ir studijų metodai

The course is taught in English and is designed to achieve its aims through a combination of lectures and seminars, including calculation exercises of problems, self-study, case study analysis and discussions. Lectures and seminars are designed to encourage active participation, co-operative and creative work, interactive communication and critical thinking.

The lecturer assures a variety of teaching and learning methods, interim knowledge assessment, supply of learning material to students and discussions of individual and group work in class during and after the course.

### **Topic #1: Selected Math Elements for Modern Economics**

Difference Equations and their use in the Solow Growth model. In the first lecture we will cover the basic mathematical and numerical methods required to analyze subsequent macroeconomic models. After covering some theory on difference equations, their stability and how to compute equilibrium values, we will focus on understanding and interpreting the basic economic processes modeled using difference equations.

## **Topic #2: Demographics and Technology**

Extending the Solow Model. The second lecture focuses on the sources of growth as explained by the standard deterministic Solow growth model. We will extend the model introduced in Topic #1 to account for several integrated economic and demographic processes (technology, population growth, etc). Hands on application will allow students to explore model predictions and policy implications.

## Topic #3: Real Business Cycles and DSGE

Selected applications. The second lecture focuses on the sources of growth as explained by the standard deterministic Solow growth model. We will extend the model introduced in Topic #1 to account for several integrated economic and demographic processes (technology, population growth, etc). Hands on application will allow students to explore model predictions and policy implications.

### **Topic #4: International Economics**

Trade, productivity and relative prices. Here we will consider some aspects related to trade (import, exports), productivity and macroeconomic stability. Recent improvements in gathering data related to import and export and cross-border capital flows have enabled researchers to uncover important relations of trade variables with both short-term and medium-term growth.

# Midterm Final Delivery Topics 1-4

### **Topic #5: Money in the economy**

The heritage of monetary economics. General equilibrium analysis.

### **Topic #6: Demand for money**

Transactions demand for money. Speculative demand for money.Precautionary demand for money. Demand function for money.

# **Topic #7: Monetary policy and banking**

Money supply and central banking

### **Topic #8: Monetary policy and macroeconomics**

Determination of aggregate demand. Classical paradigm of macroeconomy. Keynesian paradigm of macroeconomy.

### Final exam. On Topics 5-8

## Studijų pasiekimų vertinimas

<u>Midterm and Final Exams</u>. The mid-term examination counts for 25% and the final examination counts for 50% of the final grade. The exams will consist of problems, multiple-choice or open answer questions that are based on the material presented in the class and required extra readings assigned by the lecturer. The exams will cover all theoretical issues presented in this syllabus and discussed or presented during the seminars.

<u>Case-study</u>: a numerical analysis of a simple macroeconomic model; uses and abuses in policy and it counts for **25%**.

**<u>Re-take of the exam.</u>** Students who receive a failing final grade shall have the right to re-take the exam during the re-sit week, which will comprise 100% of the final grade. It will cover all topics (from topic 1 to topic 8 inclusive). The group assignments cannot be resubmitted at a later time. Evaluation received for group project will not be annulled.

Case-study is compulsory. Failure to deliver it invalidates the possibility to take the midterm or final exam.

### Literatūra

De Vroey, M. (2016). A History of Macroeconomics from Keynes to Lucas and Beyond, Cambridge Press

Torres L.J. (2014). Introduction to Dynamic Macroeconomic General Equilibirum Models. Vernon Press.

Miao J. (2014). Economic Dynamics in Discrete Time. MIT Press

Dejong D., Dave C. (2011). Structural Macroeconometrics. Princeton University

Godley, W. and Lavoie, M. (2007). Monetary Economics, Palgrave Macmillan

Jagdish Handa (2009). Monetary Economics, Routledge, New York.

Robbins, L. (2007). The Evolution of Modern Economic Theory: and Other Papers on the History of Economic Thought, Aldine Transaction

Sorensen, P. (2010). Introducing Advanced Macroeconomics: Growth and Bussiness Cycles. New York: McGraw-Hill Higher Education.

http://www.econlib.org/library/Browse/classicsdtPre1800.html

### Dalyko programos rengėjas/jai

	moksio laipsnis	
Aras Zirgulis ISM	Doc. dr	aras.zirgulis@ism.lt