

## SYLLABUS

Subject	Science Category	Faculty	Department
<b>Advanced Economic Theory</b>	Economics S 004	Faculty of Economics and Business Administration	Center for Economic Expertise

Number of ECTS credits allocated	Student's workload (total)	Contact hours	Individual work
10	270	48	222

### Annotation

**The course consists of two parts:**

Part I: Microeconomics

Part II: Macroeconomics

**Part I: Microeconomics (24 contact hours)**

The aim of this part of the course is to cover a number of important topics in microeconomic theory as well as to acquaint students with how theoretical microeconomic models are used in academic research papers. While students may find some of the topics familiar from intermediate microeconomics classes, the topics covered in this course are approached with more mathematical rigour than in intermediate courses.

Outline:

1. Consumer theory (5 hours, Dr Justina Klimavičiūtė)
2. Choice under uncertainty (3 hours, Dr Justina Klimavičiūtė)
3. A critical view of standard consumer theory: some insights from Behavioural Economics (2 hours, Dr Justina Klimavičiūtė)
4. Markets under perfect and imperfect competition (3 hours, Dr Robertas Zubrickas)
5. Information, incentives, and behaviour (7 hours, Dr Robertas Zubrickas)
6. Student presentations of academic papers which cover some of the topics and/or use some of the modeling techniques studied in the previous sessions (4 hours)

*Learning outcomes:* In this part of the course students will deepen their knowledge of microeconomic theory and gain or improve their analytical skills needed for microeconomic modeling. Moreover, they will be acquainted with how microeconomic models are employed in academic papers and will have an opportunity to analyze some of such papers in detail. Finally, students will improve their skills of presenting academic research.

**Part II: Macroeconomics (24 contact hours)**

The aim of this part is to provide an overview of the workhorse models of modern macroeconomics and their role in understanding macroeconomic data. To that end, this part starts with invoking the key facts about economic growth and business cycles and proceeds by relating key models to these facts. Some relevant tools and applications follow.

This course could be viewed as the first in the sequence of PhD macroeconomics courses as it focuses on the foundational models in modern macroeconomics with a representative agent and

a representative firm, the only exception being heterogeneous firms in the New Keynesian model. Frictions in financial and labor markets are also left for other courses. Nevertheless, supplementary readings and the discussion during the course link the discussed models to their more sophisticated peers. Finally, this part reflects on the remaining challenges and the criticism of macroeconomic models that became in particular strong after the financial crisis of 2007.

Also, this course is too short to give equal attention to all key models. To that end, two models receive higher emphasis: the neoclassical growth model and the real business cycles model. In this way, mathematical rigour and the need for presenting applications is balanced with providing a helicopter view of modern macroeconomics.

#### Outline:

1. Facts of economic growth and business cycles (2 hours, Dr Eglė Jakučionytė)
2. Tools: dynamic optimization in discrete time (2 hours, Dr Eglė Jakučionytė)
3. Theories of economic growth (9 hours, Dr Eglė Jakučionytė)
  - 3.1. Pareto optimal allocations, competitive equilibrium, welfare theorems
  - 3.2. Neoclassical growth model
  - 3.3. Endogenous growth model
  - 3.4. Application in Matlab/Octave
4. Models of business cycles (11 hours, Dr Eglė Jakučionytė)
  - 4.1. Real Business Cycles model
  - 4.2. New Keynesian model
  - 4.3. Application in Dynare
  - 4.4. Criticism to modern macroeconomic models

*Learning outcomes:* Students will deepen their understanding of the core structure of modern macroeconomic models. Most importantly, students will be able to provide key intuition of model results. Students will learn how to write a code for a couple of basic model examples, improving their skills in Matlab/Octave and Dynare. After taking this course, students will also be able to follow more specialized courses in macroeconomics with less difficulty, get better understanding of academic papers on modern macroeconomics and obtain basic skills to start modelling themselves.

#### Evaluation:

Final Grade = Grade of Part I \* 0.5 + Grade of Part II \* 0.5

The **Grade of Part I** will consist of two parts: a written **exam** (60%) and a **presentation** of a research paper (40%).

The exam will cover all the material of Part I.

Presentations of research papers will take place in the last session of Part I. Students will have to present a paper chosen from the list proposed by the lecturers. Depending on the number of students enrolled in the course, presentations will be made either individually or in groups. The length of each presentation will also be determined depending on the number of students in the course. Students will be required to have a good understanding of the model used in the paper

and to be ready to answer questions on that, but in their presentations they will also be expected to find the right balance between the mathematical rigour and the intuition behind the equations (more guidelines will be given during the course).

The **Grade of Part II** will consist of two parts: a written **exam** (70%) and a take-home **assignment** (30%).

The exam will cover all the material of Part II.

The assignment will require to make small modifications in the application code and interpret the results using the discussed macroeconomic theory.

#### Required reading

##### Part I:

Mas-Colell, Andreu, Michael D. Whinston, and Jerry R. Green. *Microeconomic Theory*. Oxford University Press, 1995.

Some additional references and the list of papers for presentations will be given when relevant during the course.

##### Part II:

Jones, C. I. (2016). The facts of economic growth. In *Handbook of macroeconomics* (Vol. 2, pp. 3-69). Elsevier.

Krueger, D. (2012). Macroeconomic theory. *Lecture Notes*. Ch. 2, 3, 5. Available at <https://users.ssc.wisc.edu/~aseshadr/econ714/MacroTheory.pdf>

Krusell, P. (2014). Real macroeconomic theory. *Lecture notes*. Ch. 10. Available at <http://hassler-j.iies.su.se/courses/macroII/Notes/Perbook2010.pdf>

Galí, J. (2015). *Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework and Its Applications*. Princeton University Press. Ch. 3

Additional references and suggested readings will be specified during the course.

Consulting Professors	Degree	Key publications during the last 5 years
Justina Klimavičiūtė	Dr.	<p>Klimaviciute, J., Pestieau, P. (2023) “The economics of long-term care. An overview”, <i>Journal of Economic Surveys</i>, 37(4), 1192-1213, <a href="https://doi.org/10.1111/joes.12538">https://doi.org/10.1111/joes.12538</a></p> <p>Cremer, H., Klimaviciute, J., Pestieau, P. (2021) “A political economy of loose means-testing in targeted social programs”, <i>Economics Letters</i>, 202, 109810, <a href="https://doi.org/10.1016/j.econlet.2021.109810">https://doi.org/10.1016/j.econlet.2021.109810</a></p> <p>Klimaviciute, J. (2020) “Long-term care and myopic couples”, <i>International Tax and Public Finance</i>, 27(1), 77-102, <a href="https://doi.org/10.1007/s10797-019-09552-x">https://doi.org/10.1007/s10797-019-09552-x</a></p>

		<p>Klimaviciute, J., Pestieau, P. (2020) “Insurance with a deductible: a way out of the long term care insurance puzzle”, <i>Journal of Economics</i>, 130, 297-307, <a href="https://doi.org/10.1007/s00712-020-00700-0">https://doi.org/10.1007/s00712-020-00700-0</a></p> <p>Klimaviciute, J., Pestieau, P., Schoenmaeckers, J. (2020) “Long-term care insurance with family altruism: theory and empirics”, <i>Journal of Risk and Insurance</i>, 87(4), 895-918, <a href="https://doi.org/10.1111/jori.12284">https://doi.org/10.1111/jori.12284</a></p> <p>Klimaviciute J. (2019) “Long-term care and intrafamily moral hazard: Optimal public policy”, <i>Journal of Public Economic Theory</i>, 21(6), 1037-1055, <a href="https://doi.org/10.1111/jpet.12338">https://doi.org/10.1111/jpet.12338</a></p> <p>Klimaviciute, J., Pestieau, P., Schoenmaeckers, J. (2019) “Family altruism and long-term care insurance”, <i>The Geneva Papers on Risk and Insurance - Issues and Practice</i>, 44, 216–230, <a href="https://doi.org/10.1057/s41288-018-00117-3">https://doi.org/10.1057/s41288-018-00117-3</a></p> <p>Klimaviciute, J., Pestieau, P., Onder, H. (2019) “The inherited inequality: How demographic aging and pension reforms can change the intergenerational transmission of wealth”, <i>German Economic Review</i>, 20(4), e872–e891, <a href="https://doi.org/10.1111/geer.12193">https://doi.org/10.1111/geer.12193</a></p>
Robertas Zubrickas	Dr.	<p>Lattimer, T. R., &amp; Zubrickas, R. (2023). Refund bonuses and revenue equivalence. <i>Economics Letters</i>, 111265. <a href="https://doi.org/10.1016/j.econlet.2023.111265">https://doi.org/10.1016/j.econlet.2023.111265</a></p> <p>Zubrickas, R. (2023). The relative income effect and labor supply. <i>Journal of Economic Behavior &amp; Organization</i>, 209, 176-184. <a href="https://doi.org/10.1016/j.jebo.2023.02.025">https://doi.org/10.1016/j.jebo.2023.02.025</a></p> <p>Mergoupis, T. and Zubrickas, R. (2023). Work experience, information revelation, and study effort. <i>Oxford Economic Papers</i>, <a href="https://doi.org/10.1093/oenp/gpad015">https://doi.org/10.1093/oenp/gpad015</a></p> <p>Tarasov, A., Zubrickas, R. (2023). Optimal income taxation under monopolistic competition. <i>Economic Theory</i> 76, 495-523. <a href="https://doi.org/10.1007/s00199-022-01463-z">https://doi.org/10.1007/s00199-022-01463-z</a></p> <p>Zubrickas, R. (2022). Loss aversion, labor supply, and income taxation. <i>The Scandinavian Journal of Economics</i>, 124(2), 579-598. <a href="https://doi.org/10.1111/sjoe.12463">https://doi.org/10.1111/sjoe.12463</a></p> <p>Cason, T. N., Tabarrok, A., &amp; Zubrickas, R. (2021). Early refund bonuses increase successful crowdfunding. <i>Games and Economic Behavior</i>, 129, 78-95. <a href="https://doi.org/10.1016/j.geb.2021.05.006">https://doi.org/10.1016/j.geb.2021.05.006</a></p> <p>Kushnir, A., Tarasov, A., &amp; Zubrickas, R. (2021). On equilibrium in monopolistic competition with endogenous labor. <i>Economics Letters</i>, 201, 109774. <a href="https://doi.org/10.1016/j.econlet.2021.109774">https://doi.org/10.1016/j.econlet.2021.109774</a></p> <p>Zubrickas, R. (2020). Contingent wage subsidy. <i>Journal of Public Economic Theory</i>, 22(4), 1105-1119. <a href="https://doi.org/10.1111/jpet.12451">https://doi.org/10.1111/jpet.12451</a></p>

		<p>Cason, T. N., &amp; Zubrickas, R. (2019). Donation-based crowdfunding with refund bonuses. <i>European Economic Review</i>, 119, 452-471.  <a href="https://doi.org/10.1016/j.eurocorev.2019.08.003">https://doi.org/10.1016/j.eurocorev.2019.08.003</a></p>
Eglė Jakučionytė	Dr.	<p>Jakučionytė, E., &amp; Singh, S. (2023). Emergence of subprime lending in minority neighborhoods. <i>Real Estate Economics</i>.  <a href="https://doi.org/10.1111/1540-6229.12449">https://doi.org/10.1111/1540-6229.12449</a></p> <p>Jakučionytė, E., &amp; Singh, S. (2022). Bowling alone, buying alone: The decline of co-borrowers in the US mortgage market. <i>Journal of Housing Economics</i>, 58, 101876.  <a href="https://doi.org/10.1016/j.jhe.2022.101876">https://doi.org/10.1016/j.jhe.2022.101876</a></p> <p>Jakucionyte, E., &amp; van Wijnbergen, S. (2022). The macroeconomics of carry trade gone wrong: Corporate and consumer losses in Emerging Europe. <i>Economics of Transition and Institutional Change</i>, 30(4), 773-812.  <a href="https://doi.org/10.1111/ecot.12316">https://doi.org/10.1111/ecot.12316</a></p>
Guest lecturer (possibly, depending on availability)		Having relevant publications

Approved: