CONTEMPORARY ECONOMICS

Syllabus 2017-2018

Instructors (lectures and class teachers):

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COURSE DESCRIPTION

The course is designed for non-majors and introduces graduates to the subject matter and methods of contemporary micro- and macroeconomics. This two module course in economics pursues interdisciplinary approach and is largely shaped by the political science.

The first module covers selective topics in microeconomic theory, behavioral and institutional economics and social choice. By focusing on collective decision-making this module paves the way for graduates to integrate analytical techniques into social sciences. In particular, microeconomic foundations of collective choice and collective welfare will be discussed, as well as various methods of aggregating preferences. The module also covers the most common concepts of group decision making and conflict resolution mechanisms with applications to coalition formation, power distribution in corporate BoD elections, etc.

The second module starts with the long-run macroeconomics problems of economic growth, income inequality and comparative development. The macroeconomic topics in the short- and medium-run include political economy of monetary policy, strategic debt accumulation and other fiscal issues, as well as redistributive policies in an open economy context. The module briefly tackles the output-inflation trade-off, the role of trust and credibility in policy-making. At the instrumental level it provides students with the analytical tools that are directly applicable to the integrated study of political and economic issues.

COURSE OBJECTIVES

The purpose of the course is to develop the model-based way of 'aggregate thinking' and make students ready to apply relevant microeconomics and macroeconomics tools in their further studies. Specifically, the course aims at:
o introducing students to the main factors affecting individual and collective economic behaviour;
o integrating contemporary methods of modern economic theory to the study politically constrained economic agents;
o developing political economy approach to the study of basic economic problems;
o enabling students to conduct individual research and participate in debates on macroeconomic and political matters.

INTENDED LEARNING OUTCOMES

Having completed the essential reading and learning activities, successful students are expected to be able to:
o ILO 1: define the main economic concepts like individual and market demand, firm's and industry supply, individual and social preferences, equilibrium and coordination failures, GDP, inflation, unemployment, balance of payments, monetary, fiscal, and exchange rate policy;

o ILO 2: describe the models and methods used in the micro- macroeconomic analysis and reproduce their main findings;

o ILO 3: apply proper analytical models to illustrate micro- and macroeconomic problems and evaluate the potential and limitations of these models and other methods used in economic analysis;

o ILO 4: explain and justify positive policy propositions both in written and oral communications and evaluate the impact of political factors using relevant economic models through applying good individual research skills and group working practices.

PLACE OF THE COURSE IN THE STRUCTURE OF THE EDUCATIONAL PROGRAMME

Students are required to have taken an adaptive course in Economics and have basic skills in calculus. The course itself is a pro-requisite for Theory and Methodology of Political Science and Economics, and can be considered as an asset for Comparative Political Economy.

COURSE SCHEDULE (DISTRIBUTION OF HOURS)

#	Topic	Total hours	Contact Hours		Self-study
			Lectures	Seminars	
	Part 1. Microeconomics and modelling of the social-economic behavior	**60**	**14**	**14**	32
1	Open questions in microeconomics: introduction	6	2		4
2	Preferences and behavior	8		2	4
3	Game theory	14	2	6	6
4	Evolutional social science	6	2		4
5	Distribution: bargaining and rent-seeking	6	2		4
6	Social Choice theory	20	6	6	8
	Part 2. Macroeconomics and macroeconomic policies	**92**	**20**	**20**	52
1	Contemporary macroeconomics	2		2	0
2	Neoclassical theory of economic growth	6	2		4
3	New growth theory	6	2		4
4	Finite horizons and heterogeneous society	6		2	4
5	Intergenerational transfers, pensions and growth	6	2		4
6	Inequality and economic growth	6	2		4
7	Political institutions and economic growth	6		2	4
8	Business cycles and government intervention	8		4	4
9	Unemployment and the AD-AS model	8	2	2	4
10	Inflation and the Phillips curve	8	2	2	4
11	Political economy of monetary policy	8	2	2	4
12	Political economy of fiscal policy	8	2	2	4
13	Open economy macroeconomics	14	4	2	8
	Total:	**152**	**34**	**34**	**84**

COURSE CONTENT

Part 1. Microeconomics and modelling of the social-economic behavior

1. Open questions in microeconomics: introduction (2 hours)

Examples of problems which are studied in microeconomics.

Required reading:
Bowles S., Microeconomics: behavior, institutions and evolution. (Ch.1)
Additional readings:
Simon, Herbert (1955), A Behavioral Model of Rational Choice." Quarterly Journal of Economics, Vol. 69, pp. 99–118.
Thaler, Richard. 2001. "Anomalies." Journal of Economic Perspectives, 15:1, pp. 219.

2. Preferences and behavior (4 hours)

Different approaches to describe relationship between behavior and preferences. Context-dependent preferences. Social preferences. Altruism. Cross-cultural experiments. Decision theory.
Required reading:
Bowles S., Microeconomics: behavior, institutions and evolution. (Ch. 3)
Additional readings:
Fehr, Ernst, and Urs Fischbacher. 2001 "Why Social Preferences Matter." Stockholm, Nobel Symposium on Behavioral and Experimetal Economics.
Bowles, Samuel. 1998. "Endogenous Preferences: The Cultural Consequences of Markets and Other Economic Institutions." Journal of Economic Literature, 36. pp.175–111.

3. Game theory (8 hours)

Different approaches to describe collective actions. Nash equilibrium. Cooperative and noncooperative contracts. Problems with classical game theory. Coordination failures and institutions. Tragedy of fishers: examples and ways to deal with this problem. Collective production.
Required reading:
Bowles S., Microeconomics: behavior, institutions and evolution. (Ch. 1,4).
Additional readings:
Weibull J.W. The 'as if' approach to game theory: Three positive results and four obstacles. European Economic Review, 1994, v.38 (3-4), pp. 868-881.
Ostrom, Elinor. 1999. "Coping with Tragedies of the Commons." Annual Review of Political Science, 2, pp. 493–535.

4. Evolutional social science (2 hours)

Evolutional social science as an alternative to neoclassical economics
Required reading:
Bowles S., Microeconomics: behavior, institutions and evolution. (Ch. 14)
Additional readings:
Sen, Amartya K. 1977. "Rational Fools: A Critique of the Behavioral Foundations of Economic Theory." Philosophy and Public Affairs, 6:4, pp. 317–44.
Kahneman, Daniel. 1994. "New Challenges to the Rationality Assumption." Journal of Institutional and Theoretical Economics, 150:1, pp. 18–36.

5. Distribution: bargaining and rent-seeking. (2 hours)

Bargaining problem. Nash and Rubinstein bargaining. Problem of inefficiency and rent-seeking.
Required reading:
Bowles S., Microeconomics: behavior, institutions and evolution. (Ch. 5)

6. Social Choice theory (10 hours)

Voting theory. Arrow impossibility theorem. Manipulability. Coalitions. Voting power. Judgment aggregation. Fair division. Mechanism design.
Required readings:
Gaertner W. (2006). A Primer in a Social Choice Theory. Oxford University Press.
Maskin, E. and A. Sen. (2014). The Arrow Impossibility Theorem. Columbia University Press.

Moulin, H. (2003). Fair Division and Collective Welfare. MIT Press.

Part 2. Macroeconomics and macroeconomic policies

1. Contemporary macroeconomics (2 hours)

The main macroeconomic aggregates: output, inflation, unemployment. The long-run, the medium-run and the short-rum. The problem with aggregation: representative agent model and its limits. Heterogeneous societies and income inequalities. The main sources for macroeconomic data. Macroeconometrics and the identification problems.

Required readings:
Gilles S. (2000) "The "New Political Economy": Recent Books by Allen Drazen and by Torsten Persson and Guido Tabellini" *Journal of Economic Literature*, Vol. 38, No. 4, pp. 915-925.

Additional readings:
Agénor P.-R. (2000) Economics of Adjustment and Growth, Academic Press., Ch.10.
Alesina A., Di Tella R., and MacCulloch R. (2001) Inequality and Happiness: Are Europeans and Americans Different?

2. Neoclassical theory of economic growth (2 hours)

Kaldor and 'new' stylized facts of economic growth. Aggregate production function and its properties. The Solow model. The Golden Rule of capital accumulation. Absolute and conditional convergence. The Solow residual.

Required readings:
Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. Ch.10-12

Additional readings:
Agénor P.-R. (2000) Economics of Adjustment and Growth, Academic Press., Ch.11.
Agénor P.-R., Montiel P. (1999) Development Macroeconomics, 2nd ed., Ch.17.
Barro R., Sala-i-Martin X. (1995) Economic Growth. Ch.1
Temple J. (1999) The New Growth Evidence, Journal of Economic Literature 37(1), pp. 112-156.
Barro R. (1997). Determinants of economic growth: A cross-country empirical study. Cambridge, MA: MIT Press, Ch. 1-3.
Charles I. Jones & Paul M. Romer (2010) "The New Kaldor Facts: Ideas, Institutions, Population, and Human Capital," American Economic Journal: Macroeconomics, American Economic Association, vol. 2(1), pages 224-45, January.

3. New growth theory (2 hours)

Decreasing returns and steady state. Endogenous growth models. Poverty traps. The role of human capital in the short-run and in the long-run. Knowledge vs. education: public vs. private good debate. R&D and endogenous technological progress. Learning-by-doing, knowledge spillovers and returns to scale.

Required readings:
Romer D. (2012) Advanced Macroeconomics. 4th ed., Ch. 3.8-3.11.

Additional readings:
Agénor P.-R. (2000) Economics of Adjustment and Growth, Academic Press., Ch.12.
Agénor P.-R., Montiel P. (1999) Development Macroeconomics, 2nd ed., Ch.17.
Barro R., Sala-i-Martin X. (1995) Economic Growth. Ch.5.
Drazen, A. (2000) Political Economy in Macroeconomics. Princeton University Press, Ch.11.

Mankiw G., Romer D., Weil P. (1992). "A Contribution to the Empirics of Economic Growth" //Quarterly Journal of Economics, Vol. 107 (2), pp. 407-437.

4. Finite horizons and heterogeneous society (2 hours)

Life-cycle and individualism in a decentralized economy. Intertemporal choice, private vs. public savings. Capital accumulation and multiple equilibria. Dynamic efficiency and benevolent central planner. Command optimum and modified Golden Rule.

Required readings:
Romer D. (2012) Advanced Macroeconomics. 4th ed., Ch. 2.8-2.12.

5. Intergenerational transfers, pensions and growth (2 hours)

One-sided vs. two-sided altruism and dynamic efficiency. Bequest motives and 'joy of giving'. Pay-as-you-go and fully funded pension systems and their impact on economic growth.

Required readings:
Romer D. (2012) Advanced Macroeconomics. 4th ed., Ch. 2.8-2.12.

Additional readings:
Agénor P.-R., Montiel P. (1999) Development Macroeconomics, 2nd ed., Ch.17.
Barro R., Sala-i-Martin X. (1995) Economic Growth. Ch.3.
Drazen, A. (2000) Political Economy in Macroeconomics. Princeton University Press, Ch.2.4.

6. Inequality and economic growth (2 hours)

Income distribution (within) and global (between) inequality. Historical and cultural factors of the demand for redistribution policies. Political economy of poverty reduction. Income inequality vs. economic growth: the causality problem. Skill-biased technological progress, globalization and institutional innovations.

Required readings:
Drazen, A. (2000) Political Economy in Macroeconomics. Princeton University Press, Ch.11.
Persson T., Tabellini G. (2000) Political economics: explaining economic policy. MIT Press, Ch.14.

Additional readings:
Aghion, P., Caroli, E. and García Peñalosa. (1997) "Inequality and Economic Growth: The Perspectives of the New Growth Theories". Journal of Economic Literature, December
Persson, Tabilini (1994) "Is Inequality Harmful for Growth? American Economic Review 84(3), pp. 600-621.
Sala-i-Martin X. (2002) "The Disturbing "Rise" of Global Income Inequality" //NBER Working Paper 8904

7. Political institutions and economic growth (2 hours)

Political factors and their impact on economic growth: the endogeneity problem. Empirical studies of the role of social infrastructure on the long-run dynamics. The size of the government, state interventions and government expenditures. Corruption and economic growth. Political short-sightedness and its long-run consequences.

Required readings:
Drazen, A. (2000) Political Economy in Macroeconomics. Princeton University Press, Ch.11.
Persson T., Tabellini G. (2000) Political economics: explaining economic policy. MIT Press, Ch.14.

Additional readings:

Agénor P.-R., Montiel P. (1999) Development Macroeconomics, 2nd ed., Ch.17.

Aghion, P., Caroli, E. and García Peñalosa. (1997) "Inequality and Economic Growth: The Perspectives of the New Growth Theories". Journal of Economic Literature, December

Alesina A., Perotti A.(1995) The Political Economy of Budget Deficits.// IMF Staff Papers. Vol. 42. No. 1. P. 1-31.

Alesina A., Roubini N., Cohen G. (1997) Political Cycles and the Macroeconomy, MIT Press

Alesina A., Ardagna S.(2009) Large changes in fiscal policy: taxes versus spending. NBER Working Paper 15438/- http://www.nber.org/papers/w15438

Persson, Tabilini (1994) "Is Inequality Harmful for Growth? American Economic Review 84(3), pp. 600-621.

Sala-i-Martin X. (2002) "The Disturbing "Rise" of Global Income Inequality" //NBER Working Paper 8904

8. Business cycles and government intervention. (4 hours)

The Great Recession and reincarnation of Keynesian economics. Structure of public finances. Conventional sources of revenues and expenditure. Forms of taxation: lump-sum, regressive, progressive. Effective tax rate. Profit tax and capital income tax. Government vs. private redistribution polices: taxes, subsidies, dividends, donations. Fiscal and redistribution policies in the IS-LM model.

Monetary policy in the short-run. Functions of money. The transactions and speculative demand. The modern quantity theory of money. The monetary base and the money supply. The money multiplier model. Control of the central bank over the money supply. Monetary policy: targets and instruments. The IS-MP model.

Required readings:
Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. Ch.3-5.

Additional readings:
Romer D., Keynesian Economics without the LM curve, Journal of Economic Perspectives 14, pp.149-169, 2000.

Hoshi T., A.K.Kashyap, Japan's Financial Crisis and Economic Stagnation, Journal of Economic Perspectives, 18 (1), 2004, pp. 3-26.

Ludvigson S.C., Consumer Confidence and Consumer Spending, Journal of Economic Perspectives, 18 (2), 2004, pp.29-50.

Baumol W., The transaction demand for cash: an inventory theoretic approach, Quarterly Journal of Economics, 66, pp.545-556, 1952.

Friedman M. (1968) "The Role of Monetary Policy". American Economic Review, 58, pp. 1-17.

Tobin J., Liquidity preference as a behaviour towards risk, Review of Economic Studies, 25, pp.65-86, 1958.

9. Unemployment and the AD-AS model (4 hours)

Labour market: key concepts (labour force, unemployment rate, participation rate).

The types and causes of unemployment: frictional, structural and classical (or real wage) unemployment. Hysteresis.

The AD curve. Explanations of the AD slope. Pigou effect. Demand management policy. Liquidity trap and the kinked AD curve. Quantitative easing. Negative interest rates. Expectations and the AD curve.

The aggregate supply (AS) curve. The long run aggregate supply curve (LRAS) and the medium-run AS curve. Explanations of upward sloping short run aggregate supply curve. Sticky wages (Keynesian) model. Classical worker misperception model, new Keynesian sticky price model, new classical imperfect information model. Expectations and the AS curve. Surprise-supply relation.

Required readings:
Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. Ch.6-8.

Additional readings:
Ball L., N.G.Mankiw, The NAIRU in theory and practice, Journal of Economic Perspectives, 16(4) pp.115-136, 2002.
Blanchard O., European unemployment: The evolution of facts and ideas, NBER Working Paper, N11750, 2005.
Davis S.J., R.J.Faberman, J. Haltiwanger, The flow approach to labour markets: new data sources and micro-macro links, Journal of Economic Perspectives 20 (3), pp.3-26, 2006.
Yellen J., Efficiency wage models of unemployment, American Economic Review, 74, May, 1984.
Lucas R., Understanding business cycles, in Estrin S., A. Marin, Essential Readings in Economics, Chapter 16, MacMillan Press 1995.
Zarnowitz V., Theory and history behind business cycle: Are the 1990s the onset of the golden age? Journal of Economic Perspectives, 13(2), pp.69-90, 1999.

10. Inflation and the Phillips curve (4 hours)

The Phillips curve as a statistical regularity. Stagflation and the long-run Phillips curve. AD-AS model in the long run. Inflation in the long run.
Inflation in the short run. Inflationary expectations: static, myopic, naïve, adaptive, rational. The links between the Phillips curve, Okun's law, and the SRAS relation. The costs and benefits of inflation. The quantity theory of money, and its long-run implications for monetary policy. The cost of disinflation policy. Rational expectations and Lucas critique.

Required readings:
Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. Ch.9.

Additional readings:
Barsky R.B., L.Kilian, Oil and macroeconomy since the 1970s, Journal of Economic Perspectives, 18 (4), pp.115-134, 2004.
Svensson L.E., Escaping from a liquidity trap and deflation: The foolproof way and others, Journal of Economic Perspectives, 17 (4), pp.145-166, 2003.
Tobin J., Inflation and unemployment, American Economic Review, 62 (1), pp.1-18, 1972.

11. Political economy of monetary policy (4 hours)

Dynamic inconsistency of macroeconomic policy. (Kydland and Prescott. 1977). Demand management and the role of rational expectations. Social welfare and sub-optimality of discretionary monetary policy. Credibility problem. The model of reputation (Barro and Gordon, (1983), Barro (1986), Backus and Driffill, (1985)) and the model of delegation (Rogoff, 1985). Central bank independence and inflation targeting.

Required readings:
Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. Ch. 22.1-22.2, 24.

Additional readings:
Backus, D., J. Driffill (1985) "Inflation and Reputation". American Economic Review, 75, pp. 530-538.
Barro R. J. (1986) "Reputation in a Model of Monetary Policy with Incomplete Information". Journal of Monetary Economics, 17, pp. 3-20.
Barro R. J., Gordon D. B. (1983a) "Rules, Discretion and Reputation in a Model of Monetary Policy". Journal of Monetary Economics, 12, pp. 101-121.

Kydland, F.E., Prescott, E.C. (1977) "Rules Rather Than Discretion: The Inconsistency of Optimal Plans". Journal of Political Economy, 87 (June), pp. 473-492.

McCallum B. T. (1993) "Discretion versus Policy Rules in Practice: Two Critical Points. A Comment". Cornegie-Rochester Conference Series on Public Policy, 39, pp.215-220.

McCallum B. T. (1995) "Two Fallacies Concerning Central Bank Independence". NBER Working Paper No. 5075.

McCallum B. T. (1996) "Crucial Issues Concerning Central Bank Independence". NBER Working Paper No. 5597.

Rogoff, K. (1985) "The Optimal Degree of Commitment to an Intermediate Monetary Target". Quarterly Journal of Economics, 14, pp. 199-217.

Svensson L. E. O. (1997) "Optimal Inflation Targets, "Conservative" Central Banks, and Linear Inflation Contracts". The American Economic Review, 87(1), pp. 98-114.

Taylor J. B. (1993) "Discretion versus Policy Rules in Practice". Cornegie-Rochester Conference Series on Public Policy, 39, pp.195-214.

Walsh C. E. (1995a) "Optimal Contracts for Central Bankers". The American Economic Review, 85(1), pp. 150-167.

12. Political economy of fiscal policy (4 hours)

The simple arithmetic of the consolidated government budget constraint. Barro-Ricardo equivalence and its implications for fiscal policy. The theoretical underpinnings of fiscal policy and the debate between the active or passive use of fiscal policy. Discretionary use of fiscal policy. The determinants of seigniorage, and the links between the budget deficit and inflation. Budget deficits as a source of high inflation. Government debt, its strategic accumulation and sustainability of budget deficits.

Required readings:
Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. Ch. 23.

Additional readings:

Alesina A. (2000) The political economy of the budget surplus in the United States, Journal of Economic Perspectives, 14(3), pp.3-19.

Alesina A., Drazen A. (1991) "Why Are Stabilizations Delayed?". American Economic Review, 81(5), pp. 1170-1188.

Alesina A., Perotti R. (1995b) "The Political Economy of Budget Deficits". IMF Staff Papers, 42(1), pp. 1-31.

Chari V., J.K.Patrick, Modern macroeconomics in practice: how theory is shaping policy, Journal of Economic Perspectives, 20(4), pp.3-28, 2006.

Drazen A., Masson P. R. (1994) "Credibility of Policies Versus Credibility of Policymakers". Quarterly Journal of Economics, pp. 735-754.

Fisher S., R.Sahay, C.A.Vegh, Modern hyper- and high inflations, Journal of Economic Literature, 40(3), pp.837-880, 2002.

Nordhaus W. D. (1994) "Policy Games: Coordination and Independence in Monetary and Fiscal Policies". Brookings Papers on Economic Activity, 2, pp. 139-216.

Taylor J.B. Reassessing discretionary fiscal policy, Journal of Economic Perspectives, 14(3), pp.21-36, 2000.

13. Open economy macroeconomics (6 hours)

The IS curve in an open economy. The foreign exchange market and exchange rate terminology. The BP curve and capital mobility. Macroeconomic policy under imperfect capital mobility (comparison with perfect capital mobility and capital control). Exchange rate crisis.

Required readings:
Blanchard O., *Macroeconomics*. Seventh edition. Boston: Pearson. 2017. Ch. 17-20.

Further reading

Calvo G., F.S.Mishkin, The mirage of exchange rate regimes for emerging market countries, *Journal of Economic Perspectives* 17(4), pp.99-118, 2003.

Mann C.L., Perspectives on the US current account deficit and sustainability, *Journal of Economic Perspectives* 16(3), pp.131-152, 2002.

EDUCATION TECHNOLOGIES

The following methods and forms of study and control are used in the course:

o **Lectures (2-4 hours a week).** Attendance at lectures is optional, but it is strongly recommended. Lectures offer a verbal presentation of the material to be mastered. More importantly, they indicate the relative importance of sub-topics and offer approaches to understanding the material that a reading of the notes or textbook sometimes leaves obscure. Those who cannot attend a lecture should endeavour to discuss its content with a fellow student who did attend and to borrow and copy notes. Because of the size of the class, questions and discussion are not encouraged during lectures. If lecture material is unclear, it is best to consult the tutor, preferably during tutorials or the tutor's office hours.

o **Classes (2-4 hours a week).** Class teachers provide an opportunity to discuss lecture material at the beginning or end of their tutorials. The course emphasis is on conducting economic analysis rather than simply establishing a set of facts to be memorised. With this aim, a set of exercises (problem sets) is distributed each week and discussed in tutorials. Students are strongly encouraged to carefully prepare written answers to home assignments in advance of attending tutorials.

o **Teachers' consultations.** Unresolved questions on the lecture material can be addressed with tutors on appointment during their consultation times (office hours).

o **Self-study.** Before consulting a tutor, however, students are expected to make a serious attempt to solve the problem. Since learning for understanding can only be done by the student lecturers and tutors can do no more than offer advice as to how to go about it. Without prior effort to master a topic on the part of the student, consultation is a wasteful repeat of the lecture experience.

o **Use of online resources.** One can easily find plenty of useful materials available online for free by simply typing "interactive micro- or macroeconomics" in the search browser.

ASSESSMENT

Formative assessments

o Q&A - Questions and Answers

o Class participation

o Mock group presentations

Summative assessments

o Quizzes

o Individual research project

o Mid-term test

o Group work project

o Final exam

Students' ILOs are assessed at two broad levels:

o **Information-based knowledge** is assessed through a set of short questions that have a `True/False? Briefly explain your answer' format. Students are expected not only to provide an answer but also briefly justify it on the basis of the relevant theory. Full formal derivation of the relevant model is not expected, and often a graphic or descriptive (non-analytical) answer is sufficient.

o **Skill-based knowledge** reflects the ability to adequately use the recognised models and ability to apply the relevant theories to address actual economic issues via problem solving.

Soft skills (such that presentation, communication, organisation, task management skills) are assessed through a set of formal criteria. In particular, students' ability to share the responsibilities, delegate authorities and coordinate their activities in order to successfully participate in the debates on economic issues and communicate their ideas to professional audience is assessed via a group work.

Intermediate control. Students take a closed book mid-term test on microeconomics. The mid-term test is set in late December.

Final control. Students take a three-hour open book written examination at the end of the course.

GRADE DETERMINATION

All types of assessment (quizzes, home assignments, midterm test, group portfolio and exam) are graded on the 100-point scale.

The final grade is determined as a weighted average of the above mentioned assessment results according to the following formula:

$$G_{final} = 0.2 \times IP + 0.2 \times Mid + 0.1 \times Quizz + 0.2 \times IG + 0.3 \times Exam$$

where
o IP is the grade for individual research project on microeconomics,
o Mid is the grade for the mid-term test,
o $Quizz$ is the average grade for quizzes in the second module,
o IG is the individual grade for the group work on macroeconomics,
o $Exam$ is the grade for final exam

GRADE CONVERSION INTO 10-POINT AND 5-POINT SCALES

The following grading scale is used to convert the grades from the 100-point scale to the 10-point scale and then to the 5-point scale:

100-point scale	10-point scale	5-point scale
0	0	fail
0.01-10.00	1	
10.01-20.00	2	
20.01-30.00	3	
30.01-40.00	4	satisfactory
40.01-50.00	5	
50.01-60.00	6	good
60.01-70.00	7	
70.01-80.00	8	excellent

80.01-90.00	9	
90.01-100	10	

LEARNING AIDS

The following resources are available for students to support their learning:

o Lectures slides

o Essential reading

o Further reading

Online study resources

o Companion Website for Blanchard's *Macroeconomics*, the basic textbook for the course, offers interactive Multiple Choice Questions, Essay Topics selected for each chapter of the textbook (27 in total) http://myphlip.pearsoncmg.com/cw/mpbookhome.cfm?vbookid=388

o This site can be used to graphically analyse and explore micro- and macroeconomic theories and concepts. The lessons are interactive and each topic presents subsidiary issues that may be analysed by the student and results are illustrated with a click. Simple Keynesian Cross Model, Consumption and Savings Functions, Goods Market Equilibrium, Supply and Demand for Money, as well as Simultaneous Equilibrium in IS-LM Model are presented on http://nova.umuc.edu/~black/pageg.html

o Wolfram demonstrations project, interactive diagrams (Keynesian cross, IS-LM, Solow Model) http://demonstrations.wolfram.com/TheParadoxOfThriftInASimpleStockFlowConsistentModel/

o The following tutorial is primarily intended to serve as a pathfinder through the tools part of Macroeconomics. Emphasising graphs and animations, it explains the essentials of macroeconomics, shows how the different building blocks are related, and offers interactive numerical exercises. http://www.fgn.unisg.ch/eurmacro/macroeconomics.html