Introduction to Macroeconomics
Syllabus 2024–2025

Luc Hens

Contact

Instructor: Luc Hens (luc.hens@vub.be). Pleinlaan 5, 5th floor, room 515 (PL5 515). If you mail me or the teaching assistant concerning this course, write in the subject line: Introduction to Macroeconomics Yourgivenname YOUR-FAMILYNAME what-this-mail-is-about.

Learning platform: On the Canvas learning platform you can find materials related to this course: the course syllabus, a link to the on-line course of Marginal Revolution University that is based on the textbook, a list of errors in the textbook, and more.

Teaching assistants: Margarita Coosemans (margarita.coosemans@vub.be, room PL5 511); Pieter Koens (pieter.koens@vub.be, room PL5 521);

Learning platform: The Canvas page for this course contains the syllabus, a link to the on-line course materials, a list of errors in the textbook, and more.

Office hours: Fridays 14:00–16:45. By appointment only (`calendly.com/luc-hens`). If you need help about this course, first talk to me or to the teaching assistant during the break or after class.

Class: Tuesdays, 11:00-13:00, room to be announced

Tutorials: Check your schedule. In the schedule, tutorials are indicated by their Dutch abbreviation (WPO: *Werkcolleges, Practica, Oefeningen*).

Course description

Introduction to Macroeconomics explains the circular flow, the determination of a country's output and income, economic growth, employment and unemployment, the interest rate, and the inflation rate. Discusses monetary and fiscal policy and the macroeconomics of open economies. Introduces the fundamental models of macroeconomics and illustrates the principles using real-world cases. Comparative and European perspective throughout.

This course counts for 6 ECTS credits. In the European Credit Transfer and Accumulation System (ECTS), one credit represents 25 to 30 hours of work, so

the workload for a 6-credit course is 150 to 180 hours, or —spread over 15 weeks— 11 hours per week. This includes the class meetings (two hours per week of lecture time and two hours of tutorials), so I expect you to work for this course about seven hours per week outside class.

Course prerequisites

I strongly recommend that you take Introduction to Microeconomics before taking this course. You have to know the following microeconomic concepts: supply and demand, the difference between a movement along a curve and a shift of a curve (Mankiw and Taylor (2024, chapter 3) or (Cowen and Tabarrok, 2024, chapters 3 and 4)); the labor market (Mankiw and Taylor (2024, pp. 317–324) or (Cowen and Tabarrok, 2024, Chapter 18)); and the production function (Mankiw and Taylor (2024, pp. 109–110) or (Cowen and Tabarrok, 2024, chapter 18, problem 22)). Math prerequisites do not go beyond the elementary algebra covered in Jacques (2009, Chapter 1: Linear Equations, pp. 13–92): graphs of linear equations (section 1.1); algebra (section 1.4); transposition of formulae (section 1.5) (available on Canvas).

Learning objectives

The student develops the first four competences described in Hansen (2001):

1. The student can track down economic data and data sources (on-line and in print). The student can find information about the generation, construction, and meaning of macroeconomic data.

2. The student can explain key economic concepts and describe how these concepts can be used. The student can summarize in a two-minute monologue or in a 500-word written statement what is known about the current condition of the economy and its outlook. The student can summarize the principal ideas of an eminent economist. The student can elaborate a recent controversy in the economics literature. The student can state the dimensions of a current economic policy issue.

3. The student can explain and evaluate what economic concepts and principles are used in economic analyses published in daily newspapers and weekly news magazines (or nontechnical analyses written by economists for general purpose publications). The student can describe how these concepts aid in understanding these analyses.

4. The student can interpret and manipulate economic data: explain how to understand and interpret numerical data found in published tables, for instance by the OECD or the World Bank. The student can convert nominal variables to real variables; compute growth rates and percentage growth rates; convert variables to another exchange rate. The student can construct tables from already available data to illustrate an economic issue. The student can describe the relationship among three different variables (e.g., unemployment, prices, and GDP).

Course materials

Textbook   The required textbook is Cowen and Tabarrok (2024) (6th edition, International Edition: ISBN 978-1-319-54433-1). Available from the Standaard Student Shop (B building, ground floor); online (`https://www.amazon.de/-/en/Modern-Principles-Economics-International-Tyler/dp/1319544339/` or `https://www.standaardboekhandel.be/p/modern-principles-of-economics-9781319544331`). If you use an older edition, it is your responsibility to check any differences with Cowen and Tabarrok (2024). Marginal Revolution University (`https://mru.org`) has an on-line course based on Cowen and Tabarrok (2024), with video clips, interactive problem sets. multiple choice questions and more. I posted a list of errors in Cowen and Tabarrok (2024) on the learning platform; download the document and use a pencil to correct the mistakes in the textbook.

Calculator   For the tutorials and the exam you need a scientific calculator with the natural logarithm ln and the exponential function y^x. A simple scientific calculator such as the Casio fx-92 Collège or TI-30Xa suffices. The TI-84 CE-T Plus required for Statistics for Business and Economics I is of course also fine.

News   I expect you to follow the economic news by regularly reading a quality newspaper such as *The Financial Times* or the *The Economist*. Both are available (on paper) in the VUB library (the call number of *The Economist* is `330 E TEMI`; of the *Financial Times* `07 E FINT`). `4uCampus.be` offers subscriptions at considerable discounts. (If you read Dutch: The Belga.press database offers on-line access to Belgian newspapers in Dutch with a two-day delay. Access Belga.press from the VUB library site: go to `https://www.vub.be/en`, scroll down to Library > VUB Libraries > databases > B, and scroll to Belga.press.) Keep a **newspaper clippings file**. Organize your clippings by course module. From time to time I will post newspaper articles on Canvas. I expect you to read the articles and link them to what you have learned in the course. Bring your newspaper clippings file to the tutorials.

Additional Materials

Salvatore and Diulio (2012) (not required, available in the library with call number 330 G SALV 2012) has hundreds of additional solved problems with solutions.

Preparation for class

This course uses a mix of lectures and in-class problems solved during the tutorials. Class attendance is crucial: economics is a difficult and sequential subject, and students missing several classes or tutorials rarely pass this course. During the tutorials, concepts are reviewed, you can ask questions, and you get to practice problems with immediate feedback. Attendance and active participation in the tutorials is compulsory. Consult the learning platform regularly (at least

once a week). Carefully read the materials indicated in the course schedule before coming to class. Keep up with the material as we go along and regularly review concepts. During tutorials I expect you to actively work the problems and be prepared to briefly present the results of your work to the other students. **Bring to class**: a mechanical pencil (with soft leads: HB no. 2); an eraser; a ruler with a centimeter scale; and A4-sized paper with 5 mm squares (notebooks of the *Atoma* brand allow you to easily add, remove, and re-organize pages; 5 mm squared A4-sized paper and a ruler with a cm scale are needed to make graphs on scale). You are not allowed to use laptops, tablets, or smartphones in class: researchers have shown that they hinder classroom learning for both users and nearby peers (Sana et al., 2013). Take notes during the lectures, on paper. To the **tutorials** you should bring the above, plus: the textbook (because we'll work end-of-chapter exercises); a scientific calculator; (for tutorials where you'll work "Dicovering Data" problems) your laptop.

Course assessment

The course is assessed with a written exam that consists partially or wholly of multiple-choice questions. We correct for guessing using a higher cut-off; that means that, for an exam consisting of 20 multiple choice questions with four answer options, you have to answer at least 12 questions correctly to get a passing grade.

As for multiple-choice questions, remember that to find the right answer you often need to explicitly write out your work in long form like we taught you to do in the tutorials. The exam booklet has sufficient space to do so on the back of the previous page. Start by writing down the givens. Then write down what is asked. Then write down your work, step-by-step, with brief declarative sentences explaining key steps. You do this for yourself (not for us: we won't read it), but it's essential to find the right answer and review your work at the end of the exam.

Bring the following things to the examination: your student ID, a mechanical pencil (soft lead: HB no. 2), an eraser, a blue or black ballpoint pen, some colored pencils (not red), a ruler with a centimeter scale, and scientific calculator. Make sure the batteries of the calculator are charged or bring spare batteries. Put everything in a 1 liter transparent plastic resealable (*Ziploc*) bag. You can take a small bottle of water if you remove the label (a re-usable bottle is better). **No** pencil case, smartphone, smartwatch, paper, or food. Switch off your smartphone and put it in your bag before the exam: you are not allowed to take a smartphone or smartwatch to your desk. Walk in silence to the seat that is assigned to you by one of the proctors, store your bag and coat below your seat and out of reach. Wait until everyone is seated before starting the exam.

Don't mail or call us to inquire about your grade—we don't communicate grades by e-mail or by telephone. The administration communicates the grades.

Academic Honesty

Academic dishonesty is not tolerated. I will communicate every case of cheating, plagiarism, or other forms of academic dishonesty cases to the Dean. If you refer to other work (someone else's or your own), provide appropriate references and citations.

Course schedule

Consult the learning platform before every class meeting for announcements, additional materials, and possible schedule changes. Review the chapters that we already covered before coming to class. Work the listed exercises after we covered the chapter. Bring your laptop computer to tutorials where I scheduled "Discovering Data" problems.

Week 22 (starts on Monday 10 February 2025)

How the course is organized. Read: "Appendix A — Reading Graphs and Making Graphs" (Cowen and Tabarrok, 2024, pp. A-1–A-12); the document on percentages posted on the learning platform; Joseph Stromberg (2014, August 21). Why you should take notes by hand—not on a laptop. *Vox* (`http://www.vox.com/2014/6/4/5776804/note-taking-by-hand-versus-laptop`); Cindi May (2017, 11 July). Students are better off without a laptop in the classroom. *Scientific American* (`https://www.scientificamerican.com/article/students-are-better-off-without-a-laptop-in-the-classroom/`).

Module 1: Wat is economics? What is macroeconomics? (Cowen and Tabarrok, 2024, chapter 1; problems 9, 10, 11, 13, 15, 16). (Big Ideas 1 through 5 were coverd in Introduction to Microeconomics; this course os about Big Ideas 6 through 10.)

Module 2: Gross Domestic Product and the Measurement of Progress. Cowen and Tabarrok (2024, Chapter 26).

Tutorial: There is no tutorial in the first week of class; take a first look at Cowen and Tabarrok (2024, Chapter 26: problems 5, 6, 7, 19, 11, 13, 20).

Week 23 (starts on Monday 17 February 2025)

Module 3: The Wealth of Nations and Economic Growth. Cowen and Tabarrok (2024, Chapter 27).

Tutorial: Working with growth rates, percentages, units, and indexes (print the document posted on the learning platform and bring it to class); Cowen and Tabarrok (2024, Chapter 26: problems 5, 6, 7, 19, 11, 13, 20); Cowen and Tabarrok (2024, Chapter 27: problems 1, 2, 3, 4, 7, 8, 12, 13, 20, 31)

Week 24 (starts on Monday 24 February 2025)

Module 4: Saving, Investment, and the Financial System.   Cowen and Tabarrok (2024, Chapter 29).

Tutorial: Cowen and Tabarrok (2024, Chapter 29: problems 3, 5, 7, 10, 14, 18, 19).

Week 25 (starts on Monday 3 March 2025)

Module 4: Saving, Investment, and the Financial System (continued). Cowen and Tabarrok (2024, Chapter 29).

Tutorial: Cowen and Tabarrok (2024, Chapter 29: problems 3, 5, 7, 10, 14, 18, 19).

Week 26 (starts on Monday 10 March 2025)

Module 5: Unemployment and Labor Force Participation.   Cowen and Tabarrok (2024, Chapter 30).

Tutorial: Cowen and Tabarrok (2024, Chapter 30: problems 1, 4, 5, 10, 13, 15, 16, 23).

Week 27 (starts on Monday 17 March 2025)

Module 6: Inflation and the Quantity Theory of Money.   Cowen and Tabarrok (2024, Chapter 31).

Tutorial: Cowen and Tabarrok (2024, Chapter 31: problems 1, 4, 5, 10, 11, 12, 14, 21, 22).

Week 28 (starts on Monday 24 March 2025)

Module 6: Inflation and the Quantity Theory of Money (continued). Cowen and Tabarrok (2024, Chapter 31).

Tutorial: Cowen and Tabarrok (2024, Chapter 31: problems 1, 4, 5, 10, 11, 12, 14, 21, 22).

Week 29 (starts on Monday 31 March 2025)

Module 7: Business Fluctuations: Aggregate Demand and Supply. Cowen and Tabarrok (2024, Chapter 32).

Week 30 (starts on Monday 7 April 2025)

Spring break — no class.

Week 31 (starts on Monday 14 April 2025)

Spring break — no class.

Week 32 (starts on Monday 21 April 2025)

Monday 21 April 2025 is a public holiday. No class.

Module 7: Business Fluctuations: Aggregate Demand and Supply (continued). Cowen and Tabarrok (2024, Chapter 32).

Tutorial: Cowen and Tabarrok (2024, Chapter 32: problems 1, 5, 6, 8, 10, 15, 18, 23, 28).

Week 33 (starts on Monday 28 April 2025)

Thursday 1 May 2025 is a public holiday. No class.

Module 8: The Central Bank and the Money Supply. Cowen and Tabarrok (2024, Chapter 34).

Tutorial: Cowen and Tabarrok (2024, Chapter 34: problems 4, 7, 11, 17 (skip d)).

Week 34 (starts on Monday 5 May 2025)

Module 9: Monetary Policy. Cowen and Tabarrok (2024, Chapter 35).

Tutorial: Cowen and Tabarrok (2024, Chapter 35: problems 1, 2, 3, 5, 13, 19, 28).

Week 35 (starts on Monday 12 May 2025)

Module 10: Fiscal Policy. Cowen and Tabarrok (2024, Chapter 37).

Tutorial: Cowen and Tabarrok (2024, Chapter 37: problems 1, 2, 4, 7, 14, 15).

Week 36 (starts on Monday 19 May 2025)

Module 11: The Open Economy. Cowen and Tabarrok (2024, Chapter 38). The section "What Are the IMF and the World Bank?" (pp. 846-848) is read-only (not exam material).

Tutorial: Cowen and Tabarrok (2024, Chapter 38: problems 3, 5, 6, 7, 9, 10, 16, 18, 27).

Week 37 (starts on Monday 26 May 2024)

Study week.

Weeks 38–41: final examinations

Written examination (date and room to be announced). See the instructions for the examination in the *Course assessment* section above.

References

Cowen, T. and Tabarrok, A. (2024). *Modern Principles of Economics*. Worth, 6th edition.

Hansen, W. L. (2001). Expected proficiencies for undergraduate economics majors. *Journal of Economic Education*, 32(3):231–242.

Jacques, I. (2009). *Mathematics for Economics and Business*. Financial Times/Prentice Hall, London, 6th edition.

Mankiw, N. G. and Taylor, M. P. (2024). *Economics*. Cengage Learning, Andover, 6th edition.

Salvatore, D. and Diulio, E. (2012). *Schaum's Outline of Principles of Economics*. Schaum's Outline Series. McGraw-Hill, New York, 2nd edition.

Sana, F., Weston, T., and Cepeda, N. J. (2013). Laptop multitasking hinders classroom learning for both users and nearby peers. *Computers & Education*, 62:24–31.