

## Policy evaluation lab (60h - 9CFU)

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### Course learning objectives and skill acquisition

The course aims at providing students with first exposure to some of the most relevant quantitative methods for economic policy analysis.

The objective is to engage students in an active, team-based process of learning about computable general equilibrium (CGE) models and their use in applied economic policy analysis. The course emphasizes an intuitive and graphical treatment of economic theory in the CGE model and provides structured experiences in running the RunGTAP software environment. RunGTAP is an intuitive, menu-driven CGE model interface that minimizes technological hurdles and allows students to quickly begin to focus on their economic thinking and experimentation. At the end of the course, participants will be entry-level modellers and more informed consumers of CGE-based analyses.

During the course, students will:

- review core economic theories from micro, macro, trade, and public finance and observe how they are operationalized in an applied general equilibrium model
- learn to recognize, control, and interpret the theoretically consistent behavior of consumers and producers
- observe the aggregated, macroeconomic impacts of microeconomic behavior
- define model experiments that represent real-world issues
- learn to interpret general equilibrium model results by integrating their knowledge of multiple fields of economic study

### Course general schedule

Week 1 - Getting Started

Students download and familiarize themselves with the course website, material, and software

Week 2 - Database of a CGE Model (Social Accounting Matrix - SAM)

Introduction to the GTAP SAM and RunGTAP Model

Week 3 - Demand

Introduction to Final Demand and Import Demand in the Model

Change Closures and Elasticities

Week 4 - Supply and Factor Markets

Introduction to Production in the Model

Week 5 - Trade and Welfare

Introduction to Taxes and Welfare in the Model

### Week 6 - Group Research Project

Hands-on opportunity to carry out a model experiment and analyze its economy-wide effects: trade in value added, regional trade agreements, multilateral liberalization, preferential policies, climate change policies

### Week 7 - Wrap-Up

Final discussions about Reporting and interpreting the results

### Assessment

The course assessment will be based on a written exam.

Students attending the class will have the possibility to substitute the final exam with an oral discussion of the Group Research Project

### Teaching material

Lecture slides and other teaching material will be downloadable from the course website. Students are expected to use personal PCs during the lectures.

### Textbooks required

- Burfisher, M. (2021). Introduction to Computable General Equilibrium Models. Cambridge: Cambridge University Press.
- Corong, E., Hertel, T., McDougall, R., Tsigas, M., van der Mensbrugghe, D. (2017). The Standard GTAP Model, Version 7, Journal of Global Economic Analysis, 2(1), 1-119 (<https://www.jgea.org/ojs/index.php/jgea/article/view/47/30> )
- Hertel T. W. (2012). Global Applied General Equilibrium Analysis using the GTAP Framework. GTAP Working Paper No. 66 ([https://www.gtap.agecon.purdue.edu/resources/res\\_display.asp?RecordID=3751](https://www.gtap.agecon.purdue.edu/resources/res_display.asp?RecordID=3751) )