Master in Economics : Econometrics

Programme mnemonic
MA-ECOE
- Focus Research in Economics : M-ECOER
- Focus Research in Economics and statistics : M-ECOES

Studies level
Master 120 credits

Learning language
english

Schedule
office hours

Studies category / subcategory
Economics and business management / Economics

Campus
Solbosch

Programme objectives
The research-oriented Masters in Economics and in Economics and Statistics provide students with the theoretical and statistical tools required to pursue advanced analysis and research in economics.

This programme is offered in two versions:
- The research-oriented Master in Economics provides general training in all areas of economics
- The research-oriented Master in Economics and Statistics offers students the possibility to specialise in topics at the intersection between economics and statistics.

Programme's added value
The Solvay Brussels School assets
- A tradition of rigorous and demanding curricula based on solid multidisciplinary and analytical training, promoting critical thinking and problem-solving skills.
- A diversity of teaching methods that are constantly revised to ensure teaching effectiveness.
- A diverse and international student body (up to 80% in some Master programmes).
- A comprehensive educational offering covering economics and business from the bachelor to in-company training.
- Accreditation from EQUIS (European Foundation for Management Development) and AMBA (Association of Masters of Business Administration). AACSB (Association to Advance Collegiate Schools of Business) accreditation is underway.

Teaching methods
Teaching methods are based on a demanding system that combines theoretical and quantitative training content. The first-year of the programme is preceded by a ‘Maths Camp’ whose purpose is to bring all future students of the Master to the same high level of mathematical skills required for advanced coursework in economics. Students can then follow advanced courses in economics (macroeconomics, microeconomics, and econometrics), supplemented by a rich array of field courses covering virtually all the main branches of economics.

Succeed in your studies
Choose
The information and guidance counsellors at the InfOR-études service will help you choose your studies throughout the year.

Succeed
Take part in preparatory courses or get help to succeed, before or during your studies.

Get help
Apply for financial aid, look for accommodation or a student job, get support for your specific needs.
Job opportunities

Most graduates of the research-oriented Master programmes start a PhD in economics, either at ECARES (European Centre for Advanced Research in Economics and Statistics) or abroad. The highly stimulating and demanding doctoral programme at ECARES leads to a variety of job opportunities, including:

- Researcher or assistant professor in a research institute or a university (London School of Economics, Boston University, Oxford University, Central European University, etc.)
- Economist in international institutions (OECD, European Commission, World Bank, European Central Bank, etc.)
- Specialised consultant (Compass-Lexecon, Charles River Associates, OXERA, etc.)
- Finance professional

Notable alumni include:

- Marianne Bertrand, Professor of Economics, University of Chicago, Booth School of Business
- Natalie Chen, Professor of Economics, University of Warwick
- Elisabetta Cornago, Environmental Economist, OECD - PhD candidate in Economics at ECARES, ULB
- Pénélope Papandropoulos, Coordinator State Aid in Chief Economist Team of DG Competition – European Commission
- Christophe Soil, CEO, Brussels Planning Bureau

Contacts

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+32 2 650 39 10
http://www.solvay.edu/bachelors-masters

Jury President
Mathieu PARENTI

Jury Secretary
Gani ALDASHEV
Both variants of the Master consist of a common core of required courses, and a series of elective courses; they also both require the writing of a master's thesis.

The research-oriented Master in Economics offers two specialisation tracks:

› Advanced Methods
› Topics in Economics

The research-oriented Master in Economics and Statistics offers two specialisation tracks:

› Economics
› Statistics

## Bloc 1 | M-ECOER | MA-ECOE

### Cours Obligatoires

**ECON-S427**  
Graduate macroeconomics I | Ansgar Rannenberg (Coordinator)  
 Deposits | 10 credits [lecture: 24h, tutorial classes: 24h]  
 Term | first term  
 Language | English

**ECON-S428**  
Graduate econometrics I | Germain VAN BEVER (Coordinator)  
 Deposits | 10 credits [lecture: 24h, tutorial classes: 24h]  
 Term | first term  
 Language | English

**ECON-S429**  
Graduate econometrics II | Mattia Nardotto (Coordinator) and Paula Eugenia GOBBI  
 Deposits | 5 credits [lecture: 24h, tutorial classes: 24h]  
 Term | second term  
 Language | English

**ECON-S430**  
Graduate macroeconomics II | Robert KOLLMANN (Coordinator)  
 Deposits | 5 credits [lecture: 24h, tutorial classes: 24h]  
 Term | second term  
 Language | English

**ECON-S431**  
Graduate microeconomics II | Patrick LEGROS (Coordinator) and Zsolt UDVAR  
 Deposits | 5 credits [lecture: 24h, tutorial classes: 24h]  
 Term | second term  
 Language | English

**ECON-S510**  
Graduate microeconomics I | Georg KIRCHSTEIGER (Coordinator)  
 Deposits | 10 credits [lecture: 24h, tutorial classes: 24h]  
 Term | first term  
 Language | English

**ECON-S517**  
Research topics | Philip VERWIMP (Coordinator), Gani ALDASHEV and Mathieu PARENTI  
 Deposits | 5 credits [lecture: 24h]  
 Term | second term  
 Language | English

**MATH-S400**  
Mathematics and economic modelling | Thomas DEMUYNCK (Coordinator), Bram DE ROCK and Luca Paolo Merlino  
 Deposits | 5 credits [lecture: 24h, tutorial classes: 24h]  
 Term | first term  
 Language | English

**MATH-S401**  
Dynamic optimization | Thomas DEMUYNCK (Coordinator), Bram DE ROCK and Luca Paolo Merlino  
 Deposits | 5 credits [lecture: 24h, tutorial classes: 24h]  
 Term | second term  
 Language | English
Master in Economics : Econometrics
Focus Research in Economics

Bloc 2 | M-ECOER | MA-ECOE

Cours Obligatoires

**ECON-S504**
Research methods and research communication  | Philip VERWIMP (Coordinator)
- 5 credits [lecture: 36h]
- first term
- English

**MEMO-S522**
Research seminar and master Thesis
- 25 credits
- first and second terms
- English

Cours Optionnels

Choisir parmi les 2 filières proposées (15 crédits dans chaque filière)

*A total of 30 credits chosen from the following*

**Advanced methods**

*A total of 15 credits chosen from the following*

**ECON-S460** (optional)
Advanced topics in microeconomics  | Micael CASTANHEIRA DE MOURA (Coordinator)
- 5 credits [lecture: 24h]
- second term
- English

**ECON-S461** (optional)
Advanced topics in macroeconomics  | Heiko HESSE (Coordinator)
- 5 credits [lecture: 24h]
- second term
- English

**ECON-S513** (optional)
Behavioral economics  | Georg KIRCHSTEIGER (Coordinator)
- 5 credits [lecture: 24h]
- second term
- English

**ECON-S519** (optional)
Graduate microeconomics III  | Georg KIRCHSTEIGER (Coordinator), Oyvind AAS and Patrick LEGROS
- 5 credits [lecture: 24h]
- first term
- English

**ECON-S520** (optional)
Graduate macroeconomics III  | Filipp Ushchev (Coordinator) and Mathieu PARENTI
- 5 credits [lecture: 36h]
- second term
- English

**ECON-S521** (optional)
Graduate econometrics III  | David PREINERSTORFER (Coordinator)
- 5 credits [lecture: 24h]
- second term
- English

*One course chosen from the following*

**HULB-0000** (optional)
Cours externe à l'Université
- 5 credits
- academic year

**HULB-0000** (optional)
Cours externe à l'Université
- 10 credits
- academic year

**STAT-F404** (optional)
Graduate statistics  | Thomas VERDEBOUT (Coordinator) and Davy PAINDAVEINE
- 5 credits [lecture: 36h]
- first term
- English
### Topics in economics

A total of 15 credits chosen from the following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Coordinator(s)</th>
<th>Credits</th>
<th>Term</th>
<th>Language</th>
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<tbody>
<tr>
<td>ECON-S320</td>
<td>Advanced topics in international economics</td>
<td>Mathieu PARENTI</td>
<td>5</td>
<td>second</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S432</td>
<td>Advanced international trade</td>
<td>Paola CONCONI and Mathieu PARENTI</td>
<td>5</td>
<td>second</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S451</td>
<td>Advanced industrial organization</td>
<td>Patrick LEGROS and Axel Gautier</td>
<td>5</td>
<td>second</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S453</td>
<td>Impact analysis</td>
<td>Philip VERWIMP and Olivier Sterck</td>
<td>5</td>
<td>first</td>
<td>English</td>
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<tr>
<td>ECON-S529</td>
<td>Development economics</td>
<td>Philip VERWIMP and Yasmine BEKKOUCHE</td>
<td>5</td>
<td>second</td>
<td>English</td>
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</table>

One course chosen from the following

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<tbody>
<tr>
<td>HULB-0000</td>
<td>Cours externe à l'Université</td>
<td>5</td>
<td>academic</td>
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<tr>
<td>HULB-0000</td>
<td>Cours externe à l'Université</td>
<td>10</td>
<td>academic</td>
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Master in Economics: Econometrics
Focus: Research in Economics and statistics

Both variants of the Master consist of a common core of required courses, and a series of elective courses; they also both require the writing of a master’s thesis.

The research-oriented Master in Economics offers two specialisation tracks:

> Advanced Methods
> Topics in Economics

The research-oriented Master in Economics and Statistics offers two specialisation tracks:

> Economics
> Statistics

**Bloc 1 | M-ECOES | MA-ECOE**

**Cours obligatoires**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Coordinator(s)</th>
<th>Credits</th>
<th>Lecture Hours</th>
<th>Tutorial Classes</th>
<th>Language</th>
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<tr>
<td>ECON-S427</td>
<td>Graduate macroeconomics I</td>
<td>Ansgar Rannenberg (Coordinator)</td>
<td>10</td>
<td>24h</td>
<td>24h</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S428</td>
<td>Graduate econometrics I</td>
<td>Germain VAN BEVER (Coordinator)</td>
<td>10</td>
<td>24h</td>
<td>24h</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S429</td>
<td>Graduate econometrics II</td>
<td>Mattia Nardotto (Coordinator) and Paula Eugenia GOBBI</td>
<td>5</td>
<td>24h</td>
<td>12h</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S430</td>
<td>Graduate macroeconomics II</td>
<td>Robert KOLLMANN (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td>24h</td>
<td>English</td>
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<td>ECON-S431</td>
<td>Graduate microeconomics II</td>
<td>Patrick LEGROS (Coordinator) and Zsolt UDVAR</td>
<td>5</td>
<td>24h</td>
<td>12h</td>
<td>English</td>
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<td>ECON-S510</td>
<td>Graduate microeconomics I</td>
<td>Georg KIRCHSTEIGER (Coordinator)</td>
<td>10</td>
<td>24h</td>
<td>24h</td>
<td>English</td>
</tr>
<tr>
<td>STAT-F404</td>
<td>Graduate statistics</td>
<td>Thomas VERDEBOUT (Coordinator) and Davy PAINDAVEINE</td>
<td>5</td>
<td>36h</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>STAT-F405</td>
<td>Time series analysis</td>
<td>Yves-Caoimhin SWAN (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td>12h</td>
<td>English</td>
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<tr>
<td>STAT-F407</td>
<td>Stochastic models</td>
<td>Jennifer ALONSO GARCIA (Coordinator) and Maarten JANSEN</td>
<td>5</td>
<td>36h</td>
<td>12h</td>
<td>English</td>
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</tbody>
</table>
Master in Economics : Econometrics
Focus Research in Economics and statistics

Bloc 2 | M-ECOES | MA-ECOE

Cours obligatoires

**ECON-S504**  
Research methods and research communication  | Philip VERWIMP (Coordinator)  
5 credits [lecture: 36h]  | first term  | English

**MEMO-S522**  
Research seminar and master Thesis  
25 credits  | first and second terms  | English

Cours optionnels

Parmi les 2 filières proposées,

*A total of 25 credits chosen from the following*

**Economics**

*2 to 4 courses chosen from the following*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Coordinator(s)</th>
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<th>Lecture Hours</th>
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<td>ECON-S320</td>
<td>Advanced topics in international economics</td>
<td>Mathieu PARENTI</td>
<td>5</td>
<td>24h</td>
<td>second term</td>
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<td>ECON-S432</td>
<td>Advanced international trade</td>
<td>Paola CONCONI (Coordinator) and Mathieu PARENTI</td>
<td>5 credits [lecture: 24h]</td>
<td>second term</td>
<td>English</td>
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<td>ECON-S451</td>
<td>Advanced industrial organization</td>
<td>Patrick LEGROS (Coordinator) and Axel Gautier</td>
<td>5 credits [lecture: 24h, tutorial classes: 24h]</td>
<td>second term</td>
<td>English</td>
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<tr>
<td>ECON-S453</td>
<td>Impact analysis</td>
<td>Philip VERWIMP (Coordinator) and Olivier Sterck</td>
<td>5 credits [lecture: 12h, tutorial classes: 12h]</td>
<td>first term</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>ECON-S460</td>
<td>Advanced topics in microeconomics</td>
<td>Micael CASTANHEIRA DE MOURA (Coordinator)</td>
<td>5 credits [lecture: 24h]</td>
<td>second term</td>
<td>English</td>
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</tr>
<tr>
<td>ECON-S461</td>
<td>Advanced topics in macroeconomics</td>
<td>Heiko HESSE (Coordinator)</td>
<td>5 credits [lecture: 24h]</td>
<td>second term</td>
<td>English</td>
<td></td>
</tr>
<tr>
<td>ECON-S513</td>
<td>Behavioral economics</td>
<td>Georg KIRCHSTEIGER (Coordinator)</td>
<td>5 credits [lecture: 24h]</td>
<td>second term</td>
<td>English</td>
<td></td>
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<tr>
<td>ECON-S519</td>
<td>Graduate microeconomics III</td>
<td>Georg KIRCHSTEIGER (Coordinator), Oyvind AAS and Patrick LEGROS</td>
<td>5 credits [lecture: 24h]</td>
<td>first term</td>
<td>English</td>
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<tr>
<td>ECON-S520</td>
<td>Graduate macroeconomics III</td>
<td>Filipp Ushchev (Coordinator) and Mathieu PARENTI</td>
<td>5 credits [lecture: 36h]</td>
<td>second term</td>
<td>English</td>
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<tr>
<td>ECON-S521</td>
<td>Graduate econometrics III</td>
<td>David PREINERSTORFER (Coordinator)</td>
<td>5 credits [lecture: 24h]</td>
<td>second term</td>
<td>English</td>
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</tbody>
</table>

**Statistics**

*2 to 4 courses chosen from the following*
HULB-0000
(optional)
Cours externe à l'Université
☐ 5 credits ☐ academic year

INFO-F422
(optional)
Statistical foundations of machine learning | Gianluca BONTEMPI (Coordinator)
☐ 5 credits [lecture: 24h, tutorial classes: 12h, practical work: 12h] ☐ second term ☐ English

STAT-F408
(optional)
Computational statistics | Maarten JANSEN (Coordinator)
☐ 5 credits [lecture: 24h, tutorial classes: 12h] ☐ second term ☐ English

STAT-F418
(optional)
Topics in nonparametric smoothing | Maarten JANSEN (Coordinator)
☐ 5 credits [lecture: 24h, tutorial classes: 12h] ☐ first term ☐ English
Ce cours n'est pas donné en 2022-23, 2024-25 etc.

STAT-F420
(optional)
Topics in mathematical statistics | Thomas VERDEBOUT (Coordinator)
☐ 5 credits [lecture: 24h, tutorial classes: 12h] ☐ first term ☐ English
Ce cours n'est pas donné en 2023-24, 2025-26, etc.

STAT-F421
(optional)
Topics in probability theory | Yves-Caoimhin SWAN (Coordinator)
☐ 5 credits [lecture: 24h, tutorial classes: 12h] ☐ second term ☐ English
Ce cours est donné un an sur deux.

STAT-F507
(optional)
Sequential analysis
☐ 5 credits [lecture: 24h] ☐ second term ☐ English

TEMP-0000
(optional)
Cours extérieurs au programme
☐ 5 credits ☐ academic year ☐ French