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 location at the heart of Europe, within a comprehensive research university: the Université Libre de Bruxelles.
- An international faculty with a staff of high-level researchers and accomplished practitioners, who work together to ensure that the training they provide is both relevant for business and policy practice and corresponds to the state of art.
- 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 [https://www.ulb.be/en/studies-info-desk-1] service will help you choose your studies throughout the year.

Succeed

Get help
Apply for financial aid, look for accommodation or a student job, get support [https://www.ulb.be/fr/aides-services-et-accompagnement/aid-services-and-support-1] 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

- Anne-Marie.Notarianni@ulb.be
- +32 2 650 39 10
- http://www.solvay.edu/bachelors-masters

Jury President
Luca Paolo Merlino

Jury Secretary
Mattia Nardotto
Master in Economics : Econometrics
Focus Research in Economics

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

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Coordinator</th>
<th>Credits</th>
<th>Lecture Hours</th>
<th>Tutorial Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON-S427</td>
<td>Graduate macroeconomics I</td>
<td>Fabio Blasutto (Coordinator)</td>
<td>10</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>ECON-S428</td>
<td>Graduate econometrics I</td>
<td>Germain VAN BEVER (Coordinator)</td>
<td>10</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>ECON-S429</td>
<td>Graduate econometrics II</td>
<td>Paula Eugenia GOBBI (Coordinator) and Alejandra Ramos</td>
<td>5</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>ECON-S430</td>
<td>Graduate macroeconomics II</td>
<td>Robert KOLLMANN (Coordinator)</td>
<td>5</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>ECON-S431</td>
<td>Graduate microeconomics II</td>
<td>Luca Paolo Merlino (Coordinator)</td>
<td>5</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>ECON-S510</td>
<td>Graduate microeconomics I</td>
<td>Georg KIRCHSTEIGER (Coordinator)</td>
<td>10</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>ECON-S517</td>
<td>Research topics</td>
<td>Philip VERWIMP (Coordinator) and Gani ALDASHEV</td>
<td>5</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>MATH-S400</td>
<td>Mathematics and economic modelling</td>
<td>Thomas DEMUYNCK (Coordinator), Bram DE ROCK and Marjorie GASSNER</td>
<td>5</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>MATH-S401</td>
<td>Dynamic optimization</td>
<td>Thomas DEMUYNCK (Coordinator), Bram DE ROCK and Luca Paolo Merlino</td>
<td>5</td>
<td>36</td>
<td>24</td>
</tr>
</tbody>
</table>
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
  [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)
  [5 credits (lecture: 24h)]
  [First term]
  [English]

- **ECON-S520 (optional)**
  Graduate macroeconomics III
  [5 credits (lecture: 36h)]
  [First term]
  [English]

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

*Ce cours ne sera pas donné en 2022-2023.*

**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: 24h)]
  [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>
</tr>
</thead>
<tbody>
<tr>
<td>ECON-S320</td>
<td>Advanced topics in international economics</td>
<td>Mathieu Parenti</td>
<td>5</td>
<td>second term</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S432</td>
<td>Advanced international trade</td>
<td>Paola Conconi, Filippo Biondi, Mathieu Parenti</td>
<td>5</td>
<td>second term</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S451</td>
<td>Advanced industrial organization</td>
<td>Mattia Nardotto</td>
<td>5</td>
<td>second term</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S453</td>
<td>Impact analysis</td>
<td>Philip Verwimp</td>
<td>5</td>
<td>first term</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S529</td>
<td>Development economics</td>
<td>Philip Verwimp</td>
<td>5</td>
<td>second term</td>
<td>English</td>
</tr>
</tbody>
</table>

One course chosen from the following

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>HULB-0000</td>
<td>Cours externe à l'Université</td>
<td>5</td>
<td>academic year</td>
</tr>
<tr>
<td>HULB-0000</td>
<td>Cours externe à l'Université</td>
<td>10</td>
<td>academic year</td>
</tr>
</tbody>
</table>
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 Hours</th>
<th>Term</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON-S427</td>
<td>Graduate macroeconomics I</td>
<td>Fabio Blasutto (Coordinator)</td>
<td>10</td>
<td>24h</td>
<td>24h</td>
<td>first</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>first</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S429</td>
<td>Graduate econometrics II</td>
<td>Paula Eugenia GOBBI (Coordinator) and Alejandra Ramos</td>
<td>5</td>
<td>24h</td>
<td>24h</td>
<td>second</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>second</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S431</td>
<td>Graduate microeconomics II</td>
<td>Luca Paolo Merlino (Coordinator)</td>
<td>5</td>
<td>24h</td>
<td>24h</td>
<td>second</td>
<td>English</td>
</tr>
<tr>
<td>ECON-S510</td>
<td>Graduate microeconomics I</td>
<td>Georg KIRCHSTEIGER (Coordinator)</td>
<td>10</td>
<td>24h</td>
<td>24h</td>
<td>first</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>24h</td>
<td></td>
<td>first</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>first</td>
<td>English</td>
</tr>
<tr>
<td>STAT-F407</td>
<td>Stochastic models</td>
<td>Maarten JANSEN (Coordinator) and Jennifer ALONSO GARCIA</td>
<td>5</td>
<td>36h</td>
<td>12h</td>
<td>first</td>
<td>English</td>
</tr>
</tbody>
</table>
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

ECON-S320  Advanced topics in international economics  | Mathieu PARENTI (Coordinator)
  5 credits [lecture: 24h]  | second term  | English

ECON-S432  Advanced international trade  | Paola CONCONI (Coordinator), Filippo Biondi and Mathieu PARENTI

ECON-S451  Advanced industrial organization  | Mattia Nardotto (Coordinator)

ECON-S453  Impact analysis  | Philip VERWIMP (Coordinator)
  5 credits [lecture: 12h, tutorial classes: 24h]  | first term  | English

ECON-S460  Advanced topics in microeconomics  | Micael CASTANHEIRA DE MOURA (Coordinator)

ECON-S461  Advanced topics in macroeconomics

ECON-S513  Behavioral economics  | Georg KIRCHSTEIGER (Coordinator)

ECON-S519  Graduate microeconomics III  | Georg KIRCHSTEIGER (Coordinator)
  5 credits [lecture: 24h]  | first term  | English

ECON-S520  Graduate macroeconomics III

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

Ce cours ne sera pas donné en 2022-2023.
**Statistics**

**2 to 4 courses chosen from the following**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Coordinator</th>
<th>Credits</th>
<th>Term</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>HULB-0000</td>
<td>Cours externe à l'Université</td>
<td></td>
<td>5</td>
<td></td>
<td>academic year</td>
</tr>
<tr>
<td>INFO-F422</td>
<td>Statistical foundations of machine learning</td>
<td>Gianluca BONTEMPI (Coordinator)</td>
<td>5</td>
<td></td>
<td>English</td>
</tr>
<tr>
<td>STAT-F408</td>
<td>Computational statistics</td>
<td>Maarten JANSEN (Coordinator)</td>
<td>5</td>
<td>second term</td>
<td>English</td>
</tr>
<tr>
<td>STAT-F418</td>
<td>Topics in nonparametric smoothing</td>
<td>Maarten JANSEN (Coordinator)</td>
<td>5</td>
<td>first term</td>
<td>English</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAT-F420</td>
<td>Topics in mathematical statistics</td>
<td>Thomas VERDEBOUT (Coordinator)</td>
<td>5</td>
<td>first term</td>
<td>English</td>
</tr>
<tr>
<td>STAT-F421</td>
<td>Topics in probability theory</td>
<td>Yves-Caoimhin SWAN (Coordinator)</td>
<td>5</td>
<td>second term</td>
<td>English</td>
</tr>
<tr>
<td>STAT-F507</td>
<td>Sequential analysis</td>
<td></td>
<td>5</td>
<td>second term</td>
<td>English</td>
</tr>
<tr>
<td>TEMP-0000</td>
<td>Cours extérieurs au programme</td>
<td></td>
<td>5</td>
<td>academic year</td>
<td>French</td>
</tr>
</tbody>
</table>