

ETRI2M - Teaching profile

Learning outcomes

Become an expert actor in economic life, capable of rigorously and critically analyzing contemporary socio-economic issues as well as specific questions with an analytical expertise perspective rooted in quantitative economics, and capable of undertaking high-level research projects or holding key strategic positions in the private, public, or institutional sectors.

These are the challenges that students of the Master [120] in Economics: Econometrics (jointly offered by UCLouvain-UNamur) are prepared to meet.

As with any second-cycle program offered by the School of Economics at UCLouvain, this master aims to train university economists capable of understanding and analyzing concrete economic and social issues of their time with clear and rigorous analytical reasoning, capable of explaining and communicating their analyses to diverse audiences, and capable of integrating their analyses into broader contexts.

The more specific objective of the Master [120] in Economics: Econometrics, is to train university economists who:

- Master specialized knowledge in quantitative economics subjects,
- Master advanced methodological tools and strong analytical skills,
- Have developed expertise in a specific domain,
- Are capable of thinking about, understanding, and analyzing complex and specific economic and social issues as well as advanced questions in quantitative economics:
 - By developing clear and rigorous economic reasoning, highly conceptual, and demonstrating analytical expertise rooted in quantitative economics,
 - With a global approach, at the local, national, European, and global levels,
- Are capable of discussing and debating specific questions with researchers/experts/specialists,
- Are capable of writing scientific articles in their chosen field of specialization.

Aware of the responsibility inherent to their profession, graduates will have integrated a critical university actor attitude, capable of making autonomous decisions and taking responsibilities for them. Versatile in their expertise, especially on the methodological and conceptual level, they are capable of **questioning, enriching, and evolving the contents, processes, and purposes of professional practices, critically examining innovations from research and mobilizing them to inform professional practices**. They will have integrated a continuous development logic that allows them to be professionals demonstrating expertise, versatility, and the ability to adapt and evolve positively in their social and professional environment.

- 3.1. Master and critically mobilize specialized and advanced knowledge, tools, and skills in microeconomics.
- 3.2. Master and critically mobilize specialized and advanced knowledge, tools, and skills in macroeconomics.
- 3.3. Master and critically mobilize specialized and advanced knowledge, tools, and skills in econometrics.
- 3.4. Master and critically mobilize specialized and advanced knowledge, tools, and skills in quantitative methods and applied mathematics in economics.

4. Develop a high-level personal scientific research project

Design and develop a high-level personal scientific research project (thesis), implementing a rigorous methodological approach to delve into an open research question in quantitative economics, demonstrating a level of expertise that qualifies them to join a leading research team in quantitative economics.

- 4.1. Effectively use basic and specialized tools for research in quantitative economics.
- 4.2. Understand, synthesize, and discuss high-level scientific articles within the framework of research seminars.
- 4.3. Formulate an open research question in quantitative economics.
- 4.4. Report on the state of knowledge regarding this question by utilizing high-level scientific articles.
- 4.5. Conduct an in-depth personal scientific study on this research question following a rigorous methodological approach, demonstrating original scientific content (produced by the student) that meets the required level for a scientific publication in an international economics journal.
- 4.6. Write high-level scientific articles that meet the standards of a scientific article published in a recognized international economics journal.

5. Communication and Interpersonal Skills

Communicate in French and English professionally and in accordance with the requirements of scientific communication, both orally and in writing, adapting to the audience and context.

Collaborate respectfully and constructively with the various stakeholders involved in a given situation, particularly in the context of high-level research or consultancy.

- 5.1. Communicate in writing clearly and structured according to the specific communication standards of the context, adapting both content and form to the intended audience and objectives, especially for a specialist audience.
- 5.2. Communicate orally clearly and structured according to the specific communication standards of the context, adapting both content and form to the intended audience and objectives, especially for a specialist audience.
- 5.3. Present arguments effectively using technical language, tailored to the intended audience.
- 5.4. Present arguments effectively using simplified language, tailored to the intended audience.
- 5.5. Integrate and collaborate effectively within a team and with various stakeholders involved in a given situation, especially with peers on current research issues.
- 5.6. Communicate clearly, coherently, argumentatively, nuanced, and precisely in English, both orally and in writing, with ease on general topics or those related to the field of economics, adapting to the audience and context, especially in the context of high-level research or consultancy.
- 5.7. Debate and participate in reflective discussions on advanced economic issues with researchers/experts/specialists.

6. Act in an International Professional Environment

Act in an international professional environment as an academic economist, with a scientifically based approach rooted in quantitative economics, as a critical and responsible actor, having embraced a logic of continuous development.

- 6.1. Adapt to diverse and complex contexts and situations and act appropriately in a demanding and ever-changing professional world.
- 6.2. Operate in an international and multicultural environment where English is the common language.
- 6.3. Utilize your skills as an economist (specialized in quantitative economics) to engage, decide, and act autonomously and responsibly, whether pursuing a Ph.D. in a leading research team in quantitative economics or holding key strategic positions in the private, public, or institutional sectors.
- 6.4. Engage in professional practice with a theoretically and methodologically grounded academic approach, characterized by critical distance and a genuine capacity to influence the development of your environment.
- 6.5. Incorporate a logic of self-evaluation, learning, and continuous development essential for positive growth in your professional environment.

Programme structure

Structure

The 120 credit Master in Economic Sciences with Econometrics is centred on the research focus. The core subjects of the econometrics component is the same as the research focus of the general course. The 30 credits are therefore common to both the general course and the course with econometrics. In addition, the option "Advanced Economics I" is also common to these two orientations.

The 120 credit Master with econometrics comprises :

- core subjects of 75 credits ;
- a focus of 30 credits ;
- three courses to choose indifferently in the option "Advanced Economic I" or / and in the option "Advanced Economic II" (15 credits)

PLEASE NOTE THAT THIS PROGRAMME IS BOTH GIVEN AND ASSESSED IN ENGLISH

ETRI2M Programme

Detailed programme by subject

CORE COURSES [75.0]

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊙ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫 Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

Year
1 2

● Essay paper and Thesis (40 credits)

● LETRI2900	Thesis		EN [q1 or q2] [] [20 Credits] 🌐		x
● LETRI2800	Essay paper		EN [q1 or q2] [] [15 Credits] 🌐		x
● LETRI2910	Tutorial		EN [q1 or q2] [0h+6h] [5 Credits] 🌐		x

● Advanced Courses in Economics (15 credits)

3 courses out of the following will be offered every year. The student who wants to replace one of these courses by another one from the list Advanced Economic Analysis II will introduce a motivated request.

⊗ LECON2701	Advanced course in economics I	William Parienté	EN [q1] [15h] [5 Credits] 🌐		x
⊗ LECON2702	Advanced course in economics II	Amma Panin	EN [q1] [15h] [5 Credits] 🌐		x
⊗ LECON2703	Advanced course in economics III	Francesca Monti	EN [q1] [15h] [5 Credits] 🌐		x
⊗ LECON2704	Advanced Course in Economics IV	Amma Panin	EN [q2] [15h] [5 Credits] 🌐		x
⊗ LECON2705	Advanced Course in Economics V		EN [q2] [15h] [5 Credits] 🌐		x

● Seminar (5 credits)

1 among :

⊗ LECON2163	Seminar : Econometrics		FR [q1+q2] [] [5 Credits] 🌐		x
⊗ LECON2165	Seminar : Economic Theory		FR [q1+q2] [] [5 Credits] 🌐		x
⊗ LECON2167	Séminaire économique de Louvain		FR [q1 or q2] [] [5 Credits] 🌐		x

● Quantitative Methods (10 credits)

● LECON2600	Dynamical Methods in Economics	Rigas Oikonomou	EN [q1] [30h] [5 Credits] 🌐		x
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Year

1 2

LECON2602

Advanced Econometrics II - Microeconometrics

William Parienté

EN [q2] [30h] [5 Credits]

x

RESEARCH FOCUS [30.0]

- Mandatory
- ✘ Optional
- △ Not offered in 2024-2025
- ⊙ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫 Not open to incoming exchange students
- [FR] Teaching language (FR, EN, ES, NL, DE, ...)

[Click on the course title to see detailed informations \(objectives, methods, evaluation...\)](#)

Year

1 2**o Content:**

o Foundations in economics (25 credits)

○ LECON2111

OPTIONS [15.0]

The student chooses three courses (15 credits) among the list Advanced Economic I or among the list Advanced Economic II or among the two lists indifferently. In the first cases, the option will be specifically mentioned in the diploma supplement issued, with the three courses chosen; in the latter case, the three chosen courses will also be repeated, but without an option title.

ADVANCED ECONOMICS II

- Mandatory
- ⊗ Optional
- △ Not offered in 2024-2025
- ⊖ Not offered in 2024-2025 but offered the following year
- ⊕ Offered in 2024-2025 but not the following year
- △ ⊕ Not offered in 2024-2025 or the following year
- Activity with requisites
- 🌐 Open to incoming exchange students
- 🚫 Not open to incoming exchange students
- (FR) Teaching language (FR, EN, ES, NL, DE, ...)

Click on the course title to see detailed informations (objectives, methods, evaluation...)

The student chooses three courses (15 credits) among the list Advanced Economic I or among the list Advanced Economic II or among the two lists indifferently.

Year

1 2

o Content:**⊗ Advanced Courses in Economics at UCLouvain**

⊗ LECON2701	Advanced course in economics I	William Parienté	EN [q1] [15h] [5 Credits] 🌐	X	X
⊗ LECON2702	Advanced course in economics II	Amma Panin	EN [q1] [15h] [5 Credits] 🌐	X	X
⊗ LECON2703	Advanced course in economics III	Francesca Monti	EN [q1] [15h] [5 Credits] 🌐	X	X
⊗ LECON2704	Advanced Course in Economics IV	Amma Panin	EN [q2] [15h] [5 Credits] 🌐	X	X
⊗ LECON2705	Advanced Course in Economics V		EN [q2] [15h] [5 Credits] 🌐	X	X

⊗ Advanced Courses in Economics at UNamur**⊗ Advanced Courses in Economics at KU Leuven****⊗ Advanced Courses in Economics at USL-B (Bruxelles)****⊗ Advanced Courses in Economics at other Universities**

Alternatives

Erasmus Mundus Joint Master Degree QEM (EMJMD): Models and Methods of Quantitative Economics

The **QEM Models and Methods of Quantitative Economics** is a Master's programme

- with a duration of **two academic years** (120 ECTS credits).
- It is expected that the student carries out their entire course work **attending at least two universities of the QEM Consortium**: Université catholique de Louvain - Université Paris 1 Panthéon-Sorbonne - Universitat Autònoma de Barcelona - Università Ca'Foscari Venezia - SGH Warsaw School of Economics

Note: The mobility track and a joint curriculum are defined and fixed for each accepted candidate during the admission process.

Program structure

The QEM Master is divided into **four semesters of study**, with a mandatory mobility of at least one semester.

The **first year**

- focuses on core courses including Microeconomics, Macroeconomics, Econometrics and Mathematics (Probability, Statistics and Optimization).
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Course prerequisites

There are no prerequisites between course units (CUs) for this programme, i.e. the programme activity (course unit, CU) whose learning outcomes are to be certified and the corresponding credits awarded by the jury before registration in another CU.

The programme's courses and learning outcomes

For each UCLouvain training programme, a [reference framework of learning outcomes](#) specifies the the skills expected of every graduate on completion of the programme. Course unit descriptions specify targeted learning outcomes, as well as the unit's contribution to reference framework of learning outcomes.

ETRI2M - Information

Access Requirements

Master course admission requirements are defined by the French Community of Belgium Decree of 7 November 2013 defining the higher education landscape and the academic organisation of courses.

General and specific admission requirements for this programme must be satisfied at the time of enrolling at the university.

Unless explicitly mentioned, the bachelor's, master's and licentiate degrees listed in this table or on this page are to be understood as those issued by an institution of the French, Flemish or German-speaking Community, or by the Royal Military Academy.

In the event of the divergence between the different linguistic versions of the present conditions, the French version shall prevail.

SUMMARY

- > [General access requirements](#)
- > [Specific access requirements](#)
- > [University Bachelors](#)
- > [Non university Bachelors](#)
- > [Holders of a 2nd cycle University degree](#)
- > [Access based on validation of professional experience](#)
- > [Access based on application](#)
- > [Admission and Enrolment Procedures for general registration](#)

Specific access requirements

The current admission requirements are those described in the French version: https://uclouvain.be/prog-etri2m-cond_adm .

University Bachelors

Diploma	Special Requirements	Access	Remarks

Access based on validation of professional experience

Teaching method

The programme is mainly designed as a training course for research into economics. The teaching methods vary according to objectives. The ex cathedra courses enable students to acquire basic tools for research into economics. Depending on the subject, there may also be additional practical work or reading tasks using relevant academic articles. Students learn how to communicate the results of their research orally through the dissertation seminars. The dissertation helps students to write academic articles. Finally, through Research seminars I and II, students learn how to understand and synthesize presentations which cover new research ground.

Evaluation

The evaluation methods comply with the [regulations concerning studies and exams](#). More detailed explanation of the modalities specific to each learning unit are available on their description sheets under the heading "Learning outcomes evaluation method".

Depending on the activity, different forms of assessment are used. The assessment of work for courses will usually take the form of an examination (written or oral) and/or a piece of individual work. The assessment of participation in seminars will be on the production and oral presentation of an individual piece of work or one done by a group. Final dissertations are assessed by a board of examiners, on the basis of a written document and its oral presentation, both at the intermediary and final stages.

To obtain a student's average, the grades awarded for each course unit are weighted by their respective credits.

Mobility and/or Internationalisation outlook

This programme, entirely in English and designed as training for research, is aimed at an international audience. Louvain has a long tradition and an outstanding reputation in this field. The majority of the students doing a doctorate are non-Belgian.

Cooperation with KU Leuven makes the programme more attractive since advanced level subjects (all in English) are available in a wide variety of key fields in economics.

Possible trainings at the end of the programme

- Advanced Masters : Master in International Economics and Development (University Development Commission - Commission universitaire au développement – CUD)
- Doctoral programme training : doctorate in Economic Sciences

Certificates

Students who decide only to take a part of the proposed programme may either move to the 60 credit general Master programme or, alternatively, receive a diploma.

Contacts

Curriculum Management

Entity	
Structure entity	SSH/ESPO/ECON
Denomination	(ECON)
Faculty	Faculty of Economic, Social and Political Sciences and Communication (ESPO)
Sector	Human Sciences (SSH)
Acronym	ECON
Postal address	Place Montesquieu 3 - bte L2.06.01 1348 Louvain-la-Neuve Tel: +32 (0) 10 47 39 53 - Fax: +32 (0) 10 47 32 90
Website	http://www.uclouvain.be/econ.html

Academic supervisor: [François Maniquet](#)

Jury

- Président du Jury: [William Parienté](#)
- Secrétaire du Jury: [François Maniquet](#)

Useful Contact(s)

- Responsable administrative: [Géraldine Carette](#)

