



## ETRI2M - Introduction

### Introduction

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#### Introduction

Organised in collaboration with the UNamur and the KU Leuven and equivalent to the MPhil programmes of foreign universities (UK, Netherlands, for example), the master in economic sciences, econometrics orientation is designed for students who envisage continuing their training with a third cycle (doctorate) and wish to receive in two years a training in research that will enable them to pursue a doctoral thesis project under ideal conditions. The courses are given in English by researchers who propose advanced questions in topics of pure economics.

THIS PROGRAMME IS GIVEN AND EVALUATED ENTIRELY IN ENGLISH.

#### Your profile

- You have good skills in mathematics and statistics and wish to contribute to the analysis of the most recent economic and social questions;
- you wish to do research and envisage continuing your education with a doctorate;
- you are interested in pure economics and wish to acquire an analytical expertise on economic matters.

#### Your future job

Our graduates will orient themselves both towards the private sector and towards the public or institutional sector, where they will hold analytical positions and participate in decision-making of all kinds: economic policy decisions or strategic corporate decisions.

#### Your programme

The master offers you

- the possibility of composing your programme à la carte to acquire expertise in a specialised area, as a function of your field of research;
- advanced training in the methodological tools of the economist; many personal works and research seminars on specialised issues;
- a preparation for writing scientific articles in your area of specialisation;
- an integration into international research teams for doing your thesis.

POSSIBILITY TO PARTICIPATE IN THE OUTSTANDING ERASMUS MUNDUS PROGRAMME

**The QEM Models and Methods of Quantitative Economics** is an Erasmus Mundus Joint Master Degree (**EMJMD**) that has been running since 2006. The newest edition called **QEM2018** is offered by the [Université Paris 1 Panthéon-Sorbonne](#) (France), the coordinating institution, [Université catholique de Louvain](#) (Belgium), [Universitat Autònoma de Barcelona](#) (Spain), [Università Ca' Foscari Venezia](#) (Italy), and [Warsaw School of Economics](#) (Poland).

## ETRI2M - Teaching profile

### Learning outcomes

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**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.

- 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.

PLEASE NOTE THAT THIS PROGRAMME IS BOTH GIVEN AND ASSESSED Programme 2024-2025

Year

1 2

⌘ LECON2602

Advanced Econometrics II - Microeconometrics

Ernesto San Martin  
Gutiérrez (compensates  
William Parienté)

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

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**RESEARCH FOCUS [30.0]**

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- 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, ...)

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

Year

**1 2****o Content:**

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**o Foundations in economics (25 credits)**

○ LECON2111

## OPTIONS [15.0]

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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 I](#) [ en-prog-2024-etri2m-letri220o ]

> [Advanced Economics II](#) [ en-prog-2024-etri2m-letri210o ]

## ADVANCED ECONOMICS I

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- Mandatory
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Year

1 2

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LECON2622

Advanced Intern Monetary Eco - KU Leuven

5 [5 Credits]

## ADVANCED ECONOMICS II

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- 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]

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## Alternatives

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### 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**





## Course prerequisites

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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

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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](https://uclouvain.be/prog-etri2m-cond_adm)

#### University Bachelors

Diploma	Special Requirements	Access	Remarks
<b>UCLouvain Bachelors</b>			
		Direct access	
#		<a href="#">Access based on application</a>	
<b>Others Bachelors of the French speaking Community of Belgium</b>			
		<a href="#">Access based on application</a>	
<b>Bachelors of the Dutch speaking Community of Belgium</b>			
		Direct access	
"		<a href="#">Access based on application</a>	
<b>Foreign Bachelors</b>			
		<a href="#">Access based on application</a>	

#### Non university Bachelors

> Find out more about [links](#) to the university

#### Holders of a 2nd cycle University degree

Diploma	Special Requirements	Access	Remarks
<b>"Licenciés"</b>			
		<a href="#">Access based on application</a>	
<b>Masters</b>			
		<a href="#">Access based on application</a>	

## Access based on validation of professional experience





Academic supervisor: [François Maniquet](#)

Jury

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

Useful Contact(s)

- Responsable administrative: [Géraldine Carette](#)

