



ETRI2M

2023 - 2024

## 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](https://uclouvain.be/en/) (<https://uclouvain.be/en/>) (Belgium), [Universitat Autònoma de Barcelona](#) (Spain), [Università Ca' Foscari Venezia](#) (Italy), and [Warsaw School of Economics](#) (Poland).

## ETRI2M - Teaching profile

### Learning outcomes

The second cycle training available at the Department of Economic Science is designed to train academics to understand and analyse the practical economic and social issues of their time, explain and communicate their analyses to a wide range of audiences, put their analyses in wider contexts and go on to work with specialists from other disciplines.

The precise objective of the 120 credit Master in economic sciences with econometrics is to provide the economist with advanced methodological tools and strong analytical skills. It is therefore centred on the research focus and designed for students who intend to move on to a doctorate. This two year programme will provide them with research skills so that they are as well equipped as possible to do a doctoral dissertation.

This programme corresponds to the MPhil of foreign universities (for example the UK and the Netherlands) which offers a two year second cycle research-led programme leading on to a doctorate.

**From the outset, this programme requires a good level in mathematics and statistics for economists.**

On successful completion of this programme, each student is able to :

#### 1. Compétences analytiques

Dans le cadre de l'analyse économique de questions concrètes et souvent complexes, l'étudiant sera capable de

- 1.1. identifier la ou les questions pertinentes, synthétiser avec discernement les éléments essentiels à leur compréhension,
- 1.2. identifier ce qui rend un modèle utile et dans quel contexte l'utiliser, notamment en identifiant le rôle des hypothèses,
- 1.3. Identifier, au-delà des spécificités et de la diversité de problèmes concrets, les méthodes d'analyse pertinentes,
- 1.4. mener un raisonnement analytique clair et rigoureux,
- 1.5. identifier les méthodes empiriques pertinentes pour évaluer des questions théoriques et/ou pratiques,
- 1.6. collecter et sélectionner les données pertinentes, en apprécier les limites, mener une analyse statistique appropriée,
- 1.7. interpréter les résultats de l'analyse statistique et expliquer les problèmes et limites statistiques sous-jacents.

#### 2. Autonomie intellectuelle et méthodologique

Dans le cadre de l'analyse économique de questions concrètes et souvent complexes, l'étudiant sera capable de

- 2.1. prendre conscience des interactions entre les analyses économiques et les analyses d'autres sciences humaines et sociales; y exercer un regard critique,
- 2.2. distinguer les aspects positifs et normatifs de l'économie,
- 2.3. proposer une manière originale, ancrée dans le raisonnement économique, de penser et solutionner un problème économique et social,
- 2.4. faire preuve d'une capacité à utiliser les outils de l'économie de manière innovante.

#### 3. Connaissance approfondie dans au moins trois domaines de l'économie

- 3.1. L'étudiant approfondira ses connaissances dans au moins trois domaines de l'économie: macroéconomie, finance, économie du développement, économie internationale, économie du travail, économie sociale, économie industrielle, économie publique....
- 3.2. En finalité approfondie, l'étudiant sera formé à devenir un chercheur universitaire.

#### 4. Compétences communicationnelles et relationnelle.

L'étudiant sera capable de

- 4.1. exprimer par écrit dans un style scientifique le fruit de son analyse économique,
- 4.2. exprimer le résultat de ses travaux oralement à un public de spécialistes,
- 4.3. faire valoir ses arguments dans un langage technique,
- 4.4. faire valoir ses arguments dans un langage vulgarisé,
- 4.5. collaborer avec ses pairs sur des questions de recherche actuelles.

#### 5. Agir dans un environnement professionnel et international

L'étudiant, au terme de sa formation, sera

- 5.1. apte à s'adapter et agir dans un monde professionnel exigeant et mouvant,
- 5.2. capable de s'intégrer dans une équipe de recherche de pointe en économie quantitative.

#### 6. Agir dans un environnement professionnel international

Agir dans un environnement professionnel international en tant qu'économiste universitaire, selon une approche scientifiquement fondée et ancré dans l'économie quantitative, en acteur critique et responsable et en ayant intégré une logique de développement continu.

- 6.1. S'adapter à des contextes et situations divers et complexes et d'y agir avec pertinence, dans un monde professionnel exigeant et mouvant.
- 6.2. Evoluer dans un environnement international et multiculturel, dont l'anglais est la langue véhiculaire.
- 6.3. Mobiliser ses compétences d'économiste (spécialisé en économie quantitative) et s'engager, décider et agir de manière autonome et responsable pour entreprendre un projet de doctorat dans une équipe de recherche de pointe en économie quantitative ou d'assurer des postes stratégiques clés dans le secteur privé, public ou institutionnel.





## RESEARCH FOCUS [30.0]

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- Mandatory
  - ✘ Optional
  - △ Not offered in 2023-2024
  - ⊙ Not offered in 2023-2024 but offered the following year
  - ⊕ Offered in 2023-2024 but not the following year
  - △ ⊕ Not offered in 2023-2024 or the following year
  - Activity with requisites
  - 🌐 Open to incoming exchange students
  - 🚫🌐 Not open to incoming exchange students
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- [FR]

**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 I](#) [ en-prog-2023-etri2m-letri220o ]
- > [Advanced Economics II](#) [ en-prog-2023-etri2m-letri210o ]

**ADVANCED ECONOMICS I**

- Mandatory
- ⌘ Optional
- △ Not offered in 2023-2024
- ⊙ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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

**Content:**

⌘ LECON2603	<a href="#">RS I: Econometrics Workshop</a>	Ernesto San Martin Gutiérrez	EN [q2] [30h] [5 Credits] 🌐	X	X
⌘ LECON2601	<a href="#">Advanced Econometrics II - Time Series Econometrics</a>	Sébastien Van Bellegem	EN [q2] [30h] [5 Credits] 🌐	X	X
⌘ LECON2602	<a href="#">Advanced Econometrics II - Microeconometrics</a>	William Parienté	EN [q2] [30h] [5 Credits] 🌐	X	X





## ADVANCED ECONOMICS II

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- Mandatory
- ✂ Optional
- △ Not offered in 2023-2024
- ⊖ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 \(objectives, methods, evaluation...\)](#)

*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

## 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

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## MASTER [120] IN ECONOMICS: ECONOMETRICS [ERASMUS MUNDUS JOINT MASTER DEGREE QEM]

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- Mandatory
- ✘ Optional
- △ Not offered in 2023-2024
- ⊙ Not offered in 2023-2024 but offered the following year
- ⊕ Offered in 2023-2024 but not the following year
- △ ⊕ Not offered in 2023-2024 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 Liste au choix de finalités ETRI2M

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#### o Research Focus (30 credits)

##### o Content:

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## Supplementary classes

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**To access this Master, students must have a good command of certain subjects. If this is not the case, students must take supplementary classes chosen by the faculty to satisfy course prerequisites.**

- Mandatory
  - ✘ Optional
  - △ Not offered in 2023-2024
  - ⊙ Not offered in 2023-2024 but offered the following year
  - ⊕ Offered in 2023-2024 but not the following year
  - △ ⊕ Not offered in 2023-2024 or the following year
  - Activity with requisites
  - 🌐 Open to incoming exchange students
  - 🚫 Not open to incoming exchange students
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## 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
UCLouvain Bachelors		Direct access	

## Access based on validation of professional experience

> It is possible, under certain conditions, to use one's personal and professional experience to enter a university course without having the required qualifications. However, validation of prior experience does not automatically apply to all courses. Find out more about [Validation of priori experience](#).

Entry to all Masters (with the exception of Advanced Masters) can be gained through the special procedure for accrediting prior learning and experience known as VAE (validation des acquis de l'expérience).

## Access based on application

Access based on application : access may be granted either directly or on the condition of completing additional courses of a maximum of 60 ECTS credits, or refused.

## Admission and Enrolment Procedures for general registration

## Teaching method

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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

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***The evaluation methods comply with the regulations concerning studies and exams (<https://uclouvain.be/fr/decouvrir/rgee.html>). 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

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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

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

## Certificates

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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

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Curriculumrog481.890991 0 | 481.890991 1 | 0.50 48b m cm 0kS Q 0.27415.o320,s intyT q 1 0 0 1 481.89



Academic supervisor: François Maniquet

