

# Msc in Geo-information Science and Earth Observation for Environmental Modelling and Management

ERASMUS MUNDUS JOINT MASTER'S PROGRAMME

- Master's programme in Geo-information Science and Earth Observation for Environmental Modelling and Management
- 2 years, full-time, 120 ECTS credits
- Erasmus Mundus Joint Masters Degree Programme
- Lund University or University of Tartu, with specialisation years at University of Twente or UCLouvain University
- Application deadline: See [www.gem-msc.eu](http://www.gem-msc.eu)
- Programme start: See [www.gem-msc.eu](http://www.gem-msc.eu)

## PROGRAMME OVERVIEW

This unique Master's programme gives you the opportunity to weave together an interest in natural resources and sustainable societal development, while studying in at least two European countries. With a focus on environmental management and geo-information technologies, such as remote sensing and GIS, this Master's programme can result in a double degree from two European universities.

The programme is an Erasmus Mundus Master's programme in a collaboration between Lund University, the University of Tartu, the University of Twente and the Catholic University of Louvain.

You choose the track of the Master's programme from four options; Urban-Rural Interactions, Land-use Systems, Ecosystems and Natural Resources, or Food Security. The first track deals with how to meet the natural resources demands of a rapidly urbanising world in a sustainable way. The second track focuses on planning and assessing the impact of land-use change in a changing climate. In the third track, you learn to manage and evaluate natural resources to enhance the resilience of society. The fourth track covers food security in the context of climate change.

The overall aim of the programme is to provide you with expertise and networks for managing socio-ecological systems for sustainable and equitable development.

## PROGRAMME MODULES/COURSES

The programme structure is depending on your choice of education theme. Track 1: Urban-Rural interactions, and track 2: Land-Use systems, both start at University of Tartu with the second year at University of Twente or UC Louvain. Please

see external website [www.gem-msc.eu](http://www.gem-msc.eu) for details of track 1 and 2.

Track 3: Ecosystems and Natural Resources, and track 4: Food security, start with one year at Lund University. First-year courses: Geographical Information Systems basic course (15 credits), Geographical Information Systems advanced course (15 credits), Ecosystem modelling (15 credits) and Satellite remote sensing (15 credits).

Studies are continued the second year with specialisations. For the Ecosystems and Natural Resources (track 3) at University of Twente, studies include MSc research proposal and thesis writing (45 credits), Internship (10 credits) and elective courses (5 credits).

For the Food security (track 4) at UCLouvain, studies include Elements of Agroecology (3 credits), Economics of rural development (3 credits), Smart technologies for environmental engineering (3 credits), Master thesis (27 credits), Land monitoring by advanced Earth Observation (3 credits), Soil erosion and conservation (4 credits), Master thesis' accompanying seminar (3 credits), Internship (10 credits) and elective courses (3 credits).

## CAREER PROSPECTS

As a GEM graduate, you will be skilled to work within the fields of geospatial sciences applied to social and environmental issues. Previous students of the GEM programme have had high employability. GEM alumni work today globally in governmental organizations, NGOs, academia, private sector or with entrepreneurship.

## ENTRY REQUIREMENTS AND HOW TO APPLY

### Entry requirements

Applicants should have a first or upper second class (2.1) BSc honours degree, or equivalent, from a recognised university in a discipline related to the course, preferably combined with work experience in a relevant field.

Proficiency in the English language is a prerequisite; applicants whose first language is not English are required to demonstrate an acceptable standard by means of an approved English language test.



### How to apply

See <https://www.gem-msc.eu/application-procedure/> for detailed application instructions, application forms and deadlines.

### Programme-specific supporting documents

- Copies of your degree certificate/diploma
- Course record/academic transcript
- Proof of identity (copy of passport)
- Proof of English language ability
- A motivation statement explaining why you wish to follow this course
- Curriculum Vitae (resumé)
- Recommendation letter/reference letter
- A short (max. 1000 words) provisional description of your proposed research topic.

### Tuition fees

Non-EU students (self-funding): tuition fee whole course 24 months € 18,000.00

EU students (self-funding): Tuition fee whole course 24 months € 18,000.00

Approximately 15 Erasmus Mundus Joint Master Degree (EM-JMD) Scholarships are offered each year. EMJMD scholarships will offer funding for the duration of a maximum of 24 months.

For more information about finances, please visit: [www.gem-msc.eu/application-procedure/scholarships-and-finances/](http://www.gem-msc.eu/application-procedure/scholarships-and-finances/)

Information for self-funding students: [www.gem-msc.eu/application-procedure/finances-for-self-funded-students/](http://www.gem-msc.eu/application-procedure/finances-for-self-funded-students/)

### Selection criteria/additional info

This programme has joint application, eligibility, selection and admission criteria for student selection and hence scholarships attribution. These procedures and rules are designed and agreed upon by all members of the consortium.

Please find more detailed information at [www.gem-msc.eu](http://www.gem-msc.eu)

### ABOUT LUND

Lund University was founded in 1666 and is repeatedly ranked among the world's top universities. The University has around 45 000 students and more than 8 000 staff based in Lund, Helsingborg and Malmö. We are united in our efforts to understand, explain and improve our world and the human condition.

### CONTACT

Programme webpage

[www.gem-msc.eu](http://www.gem-msc.eu)

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Learn more at [www.lunduniversity.lu.se](http://www.lunduniversity.lu.se)



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