

**GEM**  
**Master of Science course in Geo-Information Science and Earth Observation  
for Environmental Modelling and Management**

**Duration:** 2 years

**Course description:**

The continuing MSc in Geo-Information and Earth Observation for Environmental Modelling and Management (GEM EMMC) is taught by five leading European universities (University of Southampton, United Kingdom; Lund University, Sweden; University of Warsaw, Poland; University of Iceland, Iceland; and University of Twente (UT), The Netherlands), and is coordinated by the Faculty of Geo-Information Science and Earth Observation (ITC) of the University of Twente.

Geo-information technology plays a central role in transparent analysis of data and information in order to generate viable policies and effective business decisions. Skills in this field continue to be in heavy demand by industry, government and NGOs. Planners, managers, policy makers and researchers need to further improve their understanding of the complexity of factors involved in environmental management, and to cooperate with professionals of diverse backgrounds. GEM graduates find relevant work bridging the economically and socially important fields of environment and information technology.

With a focus on environmental management and geo-information technologies, the objectives of the GEM EMMC fit two of the priority thematic research areas of the EU (namely "Information and communication technologies" and "Environment"). The course highlights European added value to these priority research areas. Integrated content from five leading European Universities in the field of geo-information and environmental management combines the best elements into a cohesive course. Students reside for periods in at least two EU countries, having ample opportunity to experience European cultural diversity and languages, as well as connecting to the economic and social values of these multifarious European countries. The Third-country partner, Sydney University, offers an opportunity for the EU students following the programme to visit and undertake their research field work in Australia. For the students this gives an exciting opportunity to study in a different cultural environment and landscape.

On completion of the programme, graduates will have acquired the following skills: (i) understanding of the scientific process and ability to undertake scientific research; (ii) thorough awareness of European and global environmental problems, and understanding of the complexity of factors involved; (iii) understanding of geographical information management and ability to apply GIS, remote sensing and related tools; (iv) familiarity with project and programme management; and (v) leadership-, negotiation- and communication skills.

The total duration of the course is 22 months; which corresponds to 120 ECTS. The course is organised into modules, all linked through the common geo-information and environment theme. The course is taught in English. Successful completion of the course leads to the award of a multiple degree (in the future joint degree) from the partner universities.

**Website:** [www.gem-msc.org](http://www.gem-msc.org)

**Partners:**

UNIVERSITY OF TWENTE, Netherlands (Co-ordinating Institution)  
UNIVERSITY OF ICELAND, Iceland  
UNIVERSITY OF WARSAW, Poland  
LUND UNIVERSITY, Sweden  
UNIVERSITY OF SOUTHAMPTON, United Kingdom

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**Maximum grant:**

557 760 € (30 000 € consortium + 527 760 € scholarships), 2011  
538 980 € (30 000 € consortium + 508 980 € scholarships), 2012  
492 880 € (30 000 € consortium + 462 880 € scholarships), 2013