POSTGRADUATE STUDIES IN WEATHER AND CLIMATE MODELING

37 ECTS CREDITS - LANGUAGE: ENGLISH

FACULTY OF SCIENCES

2025-26

WHAT

The study of weather and climate is intrinsically linked. Climate on the one hand can be considered as average weather, and on the other hand, if the climate changes, the impact will be primarily felt through extreme weather cases. Scientific progress in these fields heavily depends on the development and the use of numerical atmospheric models. Additionally, the focus in climate science is shifting from global climate change to the study of regional climate impact, which demands the development of high-resolution numerical models. The same type of modeling techniques are used to develop models for climate studies as the ones for weather applications. The aim of this postgraduate programme is to prepare scientists in the most efficient way to become active as a researcher in the modern discipline of atmospheric modeling for weather and climate applications. The content of the program is deeply rooted in the current scientific challenges encountered within the international ACCORD consortiUM. This consortium develops and maintains the European ALADIN system that is used for making numerical weather predictions and climate studies. This postgraduate is organised in cooperation with the RMI (Royal Meteorological Institute). To be in touch with the current research, the courses are given by (international) specialists working at the RMI, Belgocontrol, VITO, BIRA, SCK-CEN and other national meteorological institutes ...

STRUCTURE

In the first semester the programme provides the necessary basic training in meteorology, climatology and numerical analysis, that forms the basis for the atmospheric sciences. In the second semester, the postgraduate builds further on this basis to introduce the students to atmospheric modeling, data assimilation, predictability, remote sensing and chemical air pollution models. The weekly course sessions are concentrated on Monday and Tuesday.

LABOUR MARKET

The Postgraduate Studies in Weather and Climate Modeling offers the essential courses needed to start research in meteorology, climatology and atmospheric modelling. Graduates are prepared for research in an international context at universities, other research institutions (RMI, VITO, etc.) and companies.

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ADMISSION REQUIREMENTS FOR INTERNATIONAL DEGREE STUDENTS

The postgraduate course requires a solid physical and mathematical background from the students. A scientific degree on bachelor or master level is recommended. Send a motivated request to Steven Caluwaerts. When your diplomas and background are judged positively, an admission letter will be written for you.
Information on admission requirements and the administrative procedure for admission on the basis of a diploma obtained abroad, can be found on the following page: www.ugent.be/prospect/en/administration/enrolment-or-registration.

LANGUAGE REQUIREMENTS

Language requirements	Dutch: no language requirements English: CEFR level B2

PRACTICAL INFORMATION

Study programme

studiekiezer.ugent.be/postgraduate-studies-in-weather-and-climate-modeling-CYWECM-en/programma

Information sessions

Graduation Fair
afstudeerbeurs.gent/en/students/further-studies

Enrolling institution

Information on enrolment at Ghent University.

Application Deadline (for International degree students)

Before the application can be started up, you need to be pre-academically selected by the programme coordinator.

Tuition fee

More information is to be found on: www.ugent.be/tuitionfee

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GHENT UNIVERSITY

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