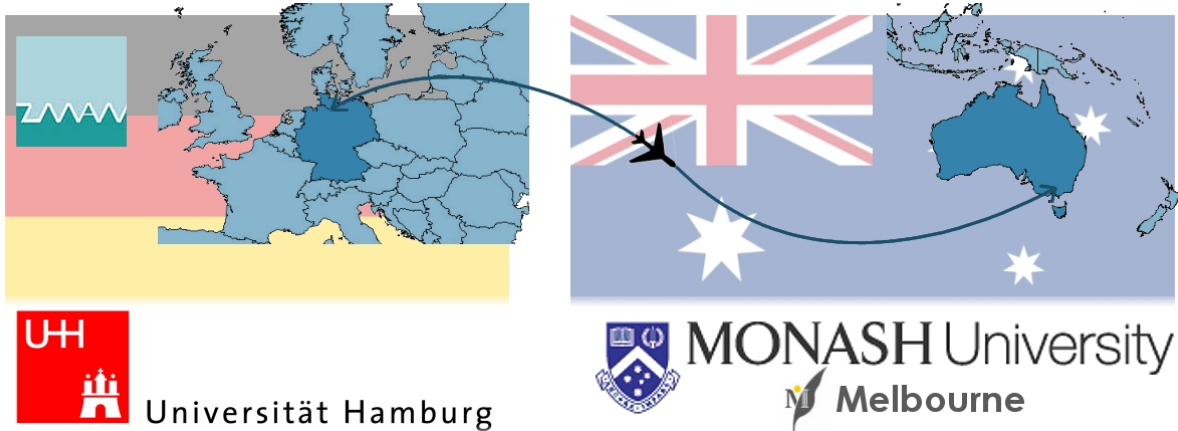


Meteorology Exchange Program



About the Exchange Program

It is important for meteorologists to have an understanding not only of their regional weather and climatic conditions, but also of these conditions around the world. This increased knowledge results in further understanding of meteorological principles and the ability to apply them in different conditions. To help achieve this goal, in 2006 an exchange program between Monash University, Australia, and the University of Hamburg, Germany, was created in an effort to give students

first-hand experience of meteorology in another country, and the possibility to study a foreign language. Both Monash University and the University of Hamburg are leading institutions in the field of meteorology in their respective regions. The 6-month exchange typically takes place in the 3rd year for Monash and Hamburg students. Exchanges during the Master-Phase or PhD-Phase are also envisaged. They require individual arrangements.

About the Universities

The University of Hamburg is located in the centre of Hamburg, the second largest city of Germany with 1.7 million inhabitants. Hamburg University has identified atmospheric science as one of the university's priority research areas. The Meteorological Institute at the University of Hamburg is one of the largest academic units for meteorology in Germany. It is member of the Centre for Marine and Climate Research (ZMAW), and closely linked to the Max Planck Institute for Meteorology. Together with the German Computer Centre for Climate Research (with which we share the building), the Institute is equipped with most up-to-date computers ranging from a NEC Super Computer to ordinary PCs. As the only meteorological institute in Germany, a laboratory with several boundary layer wind tunnels equipped with advanced instrumentation is operated. Hamburg University has a comprehensive atmospheric science program, and offers a wide range of subjects in meteorology and climatology. Courses teach essential meteorological theory and may have an experimental component that gives students practical experience.

Monash University is located in suburban Melbourne, Australia. The University is a member of the Group of Eight, a coalition of Australia's eight leading research universities. While there is no specific department of meteorology at any university in Australia, Monash has a comprehensive meteorology (atmospheric science) program, run jointly by two departments, the School of Mathematical Sciences and the School of Geography and Environmental Science. This offers a wide range of courses/units in meteorology and climatology that teach essential meteorological theory and have a laboratory component that gives students practical meteorological experience. One 2nd year subject also has a weekend field trip that gives students practical experience in the field. Monash has identified atmospheric science as one of the university's priority research areas. Monash has close ties with the Australian national weather service, the Bureau of Meteorology, and the largest national research agency, CSIRO Marine and Atmospheric Research, both of which are located in Melbourne.

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Approved Exchange Courses

The Monash University Atmospheric Science program and the Meteorological Institute, University of Hamburg, have agreed on the following subjects and courses as a basis for exchanges of their students:

Monash Year-3 Undergraduates at Hamburg

Monash students should choose at least 4 subjects* from the following list for the chosen semester of study.

Hamburg Spring/Summer Semester (April- mid July)

- 15.504 - Hydrodynamics (Lectures)
- 15.505 - Hydrodynamics (Exercises)
- 15.507 - Theoretical Meteorology I (Lectures)
- 15.508 - Theoretical Meteorology I (Exercises)
- 15.509 - Atmospheric Radiation
- 15.510 - Cloud Physics
- 15.511 - Exercises to 15.509+15.510
- 15.514 - Numerical Methods (Practical exercises)

Some possible electives

- 15.515+15.516 - Seminar and excursion "Atmospheric Boundary Layer". The excursion is in summer to the island "Fehmarn" off the German Baltic Coast.
- 15.517 - Seminar "Environmental Meteorology".
- 15.520 - Aerosol physics
- 15.521 - Environmental Fluid Mechanics
- 15.524 - PUMA Workshop. Students will get hands-on experience with a global model.
- 15.528 - Environmental change and management

Remark:

Exchange students at undergraduate level should understand German since most courses are taught in German. However, English serves as a second language. Staff and students in Hamburg are more or less fluent in English. Most textbooks are in English, exams can be taken and reports can be written in English. It is suggested that Australian students arrive in Hamburg in January and attend an intensive language course before they take on the meteorological lectures in April.

Hamburg Year 3 Students at Monash University

Hamburg students should choose at least 4 subjects* from the following list for the chosen semester of study.

Monash Semester 2: July-November

- ATM 2030 – Clouds, Weather and Forecasting
- ATM 3370 – Applied Environmental Climatology
- MTH 2032 – Differential Equations with Modelling
- ATM 3040 – Physical and Dynamical Processes in Meteorology
- ATM 2250 – Climate Change and Variability

Monash Semester 1: March-June

- ATM 2211 – Climates of the Earth Boundary Layer
- ATM 2020 – Large Scale Weather and Climate
- MTH 2051 – Introduction to Computational Mathematics
- MTH 3360 – Introduction to Fluid Dynamics
- ATM 3261 – Earth System Interactions

Some possible electives

- EDF 3609 – Experiencing the Australian Landscape (either semester)
- MTH 3230 – Time Series and Random Processes in Linear Systems
- GES 2210 - Environmental Hydrology (Semester 2 only)

**Subject choices should be discussed with liaisons and advisors to assure suitability*

Additional Information

For additional information on subjects and the universities, contact the student liaisons or go to:

<http://www.mi.uni-hamburg.de> for information on the University of Hamburg's and on

<http://www.meteorology.monash.edu.au> for information on Monash University's meteorology program.