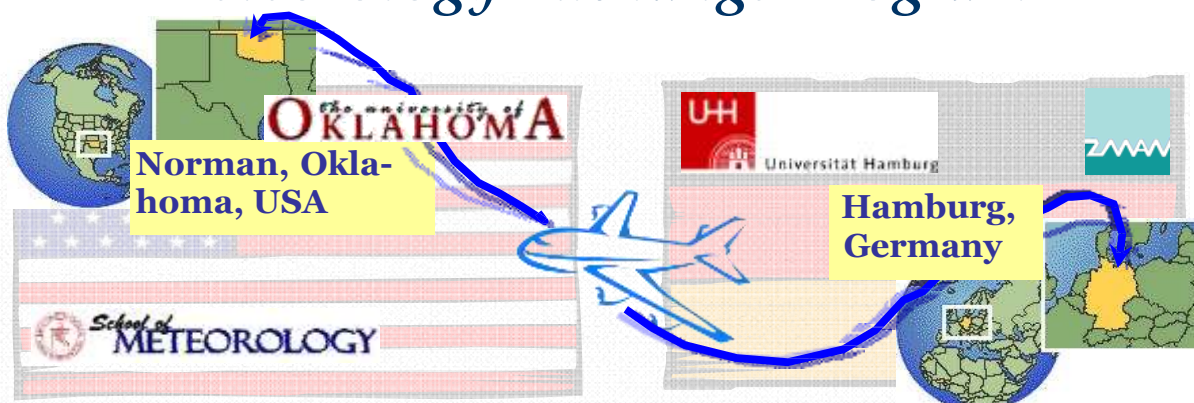


# Meteorology Exchange Program



## 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 2004 an exchange program between the University of Oklahoma, USA and 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 the University of Oklahoma and University of Hamburg are leading institutions in the field of meteorology in their respective regions. The 6-month exchange typically takes place in the junior year for OU students and 3<sup>rd</sup> year for 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 a member of the Center for Marine and Climate Research (ZMAW), and closely linked to the Max Planck Institute for Meteorology. Together with the German Computer Center for Climate Research (with which we share the building), the Institute is equipped with 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 experiences.

**The University of Oklahoma** is located in Norman, Oklahoma, close to Oklahoma City. It has one of the top comprehensive meteorology programs in the United States, with both an undergraduate degree leading to careers in meteorology and a large graduate research program. The School of Meteorology (SoM) has numerous alliances with some of the leading research institutions in the American meteorological community. The University hosts the Center for Analysis and Prediction of Storms (CAPS), the Co-operative Institute for Mesoscale Meteorological Studies (CIMMS) and the Oklahoma Climate Survey (OCS), whose faculty also teach in the School of Meteorology. These research centers and the OU SoM are all housed in the National Weather Center (NWC), along with the government meteorology organizations based in Norman, including the National Severe Storms Laboratory (NSSL), the Storm Prediction Center (SPC) and several National Weather Service groups. The NWC gives the SoM and its students the maximum benefits of having an extensive local base of some of the best meteorological groups in the country

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## *Approved Exchange Courses*

The OU School of Meteorology and the Meteorological Institute, University of Hamburg, have agreed on the following subjects and courses as a basis for exchanges of their students:

### **Oklahoma Year-3 Undergraduates at Hamburg**

Due to the differences in the academic calendar in Hamburg and at OU, OU students are advised to visit Hamburg during the German Spring/Summer (roughly 04/01-07/15) term. They should choose at least 4 subjects\* from the following list.

#### *Hamburg Spring/Summer Semester*

63-515 – Atmospheric Thermodynamics (Lectures) 63-515a – Atmospheric Thermodynamics (Exercises) 63-506 – Turbulence and Boundary Layer (Lectures) 63-506a – Turbulence and Boundary Layer (Exercises) 63-523 – Optics, Radiation, Remote Sensing (Lectures) 63-523a – Optics, Radiation, Remote Sensing (Exercises) 63-522 – Theoretical Meteorology (Lectures) 63-522a – Theoretical Meteorology (Exercises)

#### *Some possible electives*

63-562 - Seminar and Excursion "Atmospheric Boundary Layer". The excursion is in summer to the island of "Fehmarn" off the German Baltic Coast.  
63-510 – Synoptics (Exercises)  
63.566 – Planet Simulator Workshop. Students will get hands-on experience with a global model.  
63.555 - Introduction to Mesoscale Modeling  
63.564 – Urban Climatology

\* **Subject choices should be discussed with liaisons and advisors to assure suitability.** Exchange students visiting the University of Hamburg should have basic knowledge in German since most courses at undergraduate level 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, and exams can be taken and reports can be written in English

### **Hamburg Year 3 Students at OU**

Due to the differences in the academic calendar in Hamburg and at OU, University of Hamburg students are advised to visit Norman during the Fall (roughly 08/20-12/20) term. They should choose at least 4 subjects\* from the following list.

#### *OU Fall Semester: August-December*

METR 3213 - Physical Meteorology I: Thermodynamics  
METR 3613 - Meteorological Measurement Systems  
MATH 3113 - Introduction to Ordinary Differential Equations  
METR 4133 - Atmospheric Dynamics III  
METR 4303 - Statistical Meteorology  
METR 4233 - Physical Meteorology III: Radiation & Climate  
METR 4424 - Synoptic Meteorology Laboratory  
METR 4330 – Info. Technology Skills  
METR 4911/4922 - Senior Seminar

#### *Some possible graduate-level courses:*

METR 5113 - Advanced Atmospheric Dynamics I  
METR 5233 - Cloud Physics  
METR 5243 - Atmospheric Electrodynamics (every 2. years)  
METR 5803 – Special Topics

## *Additional Information*

Contact the student liaisons or go to <http://www.mi.uni-hamburg.de> for information on the University of Hamburg's and <http://weather.ou.edu> for information on the University of Oklahoma's meteorology program.

### *Recent University of Oklahoma/Hamburg University Student Exchanges*

August – Dec. 2004: Irina Ebbers, Kathrin Riemann and Björn Fock spend one Semester at OU.  
August – Dec. 2005: Peter Hoffmann, Anja Ludwig, Kerstin Schmidt and Nadine Schneider spend one Semester at OU.  
January - July 2006: Troy Christensen spends one semester at Hamburg.  
August – Dec. 2006: Kristin Mielke, Anna-Lisa Schmager, Michael Sujatta and Jeremy Sack spend one Semester at OU.  
August – Dec. 2007: Eileen Dahms, Denise Hertwig, David Bröhan and Andreas Miller spend one Semester at OU.  
August – Dec. 2008: Stefanie Grünwald and Amelie Tetzlaff spend one Semester at OU.  
August – Dec. 2009: Dagmar Popke, Martin Dörenkämper and Richard Schmitt spend one Semester at OU.  
January - July 2010: Chase Rhoades spends one semester at Hamburg.  
August – Dec. 2010: Anne Philipp, Heiner-Matthias Brück spend one Semester at OU.  
January - July 2011: Genna Langum, Natalye Lahart spend one semester at Hamburg.  
August – Dec. 2011: Tobias Becker, Thilo Janssen, Jobst Müsse, Friedrich Richter spend one Semester at OU.  
January - July 2012: Nicole Ramsey, Kaitlyn Smolero, Daniela Spade @ UHH  
August – Dec. 2012: Mareike Burba, Astrid Eichhorn, Philipp Henckes, Jonas Lauer, Gerrit Wörner @ OU.  
August - Dec. 2013: Renko Buhr, Felix Erdmann, Sebastian Kirsch and Jobst Müsse @ OU  
January - July 2014: Brandon M. Taylor and Lawrence W. Hanft @ UHH  
January - June 2014: Meike Hellweg and Lucas Reimann @ OU