

MARUM / GLOMAR Specific Knowledge Course

The atmosphere in the climate system

Dr. Gerlinde Jung

MARUM – Center for Marine Environmental Sciences

2 – 4 (5) November 2015, MARUM, Bremen

Objectives

This course aims at giving an introduction to basic atmospheric physics and the role of the atmosphere in the global climate system. The course is aimed at students of all disciplines with a natural sciences background.

The first two days of the course will be dedicated to an overview on basic knowledge of the structure and circulation of the atmosphere. The third day will deal with interactions between the atmosphere and other components of the climate system and serve also to deepen and recapitulate the first two days. The program of the last day of the course is not fixed yet and will comprise 1-2 topics based on wishes and requirements of the participants.

The course topics will generally be presented in a paleo-climatological context, illustrated by examples from Earth's history.

Topics (Days 1-3)

- Atmospheric evolution and structure
- Radiation and energy balance
- Atmospheric motion
- Thermodynamics
- Hydrological cycle
- Feedbacks in the climate system

Additional topics of choice (Day 4 – dependent on participant's interests and requirements) might be selected from the following categories:

- Atmospheric teleconnections (e.g. NAO, ENSO,...)
- Dynamical systems (e.g. Monsoons,...)
- Climatic Zones (e.g. Tropics, Mid-latitudes,...)
- Regions (e.g. Sahel, South America,...)

➔ *Topics can be chosen upon registration*

Target group

Anyone who is interested in the topic.

Location

MARUM, University of Bremen, Leobener Str., 28359 Bremen, Germany, Room 2060

Time

09.00 – 12.30

The course is taking place in the mornings only. However, there will be **some exercises as homework that will be discussed the following morning**. The exercises will consume at maximum 1 extra hour each of the first three days.

Registration

To register for this course, please fill in the [registration form](#).

Please note that your registration will be binding.

The registration deadline for this course is **11 October 2015**.

Any enquiries regarding the course should be addressed to glomar-courses@marum.de.