Lacustrine environmental archives

Modules EA1 and EA2

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Lacustrine environmental archives

EA1 - Theory – 9 ECTS

• Lecture
• Exercise

Gain basic knowledge about lakes as paleoenvironmental archives in earth history

Transfer this knowledge to an existing, published set of data

EA2 - Practice – 6 ECTS

• Field course
• Lab course

Apply the knowledge in a practical, small project in the field and in the lab

Lakes and lacustrine sediments

EA1-1 Lecture
3 ECTS
Tuesdays, 10^{15} h to 12^{00} h
Room FVG-M 2010
Oral exam

**Gain** theoretical knowledge about:
- Physical, chemical and biological processes in the water column and in the sediments
- Processes of sediment formation
- Proxies in lake sediments

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Methods in Limnogeology

**EA1-2 Excercise/Lecture**

6 ECTS

Tuesdays, 14:15 h to 16:00 h

Room FVG-M 2010

Presentation (oral + poster)

*Conference day*

**Transfer** theoretical knowledge by:

- Collecting information from the scientific literature about one particular lake in the framework of a case study
  - *Visualisation, processing and analysis of existing datasets*
  - *Interpretation, discussion and presentation of results*

Field course in Limnogeology

EA2-1  Exercise
3 ECTS
5 days in Apr. or May 2019
(date will be announced in EA1-1)
Lake Stechlin  (Brandenburg, Germany)
Term paper + oral presentation
Conference day together with EA2-2

Apply knowledge by:
• Collecting data and samples in the field in the framework of a small project on lake Stechlin
  • Hydro- and geoacoustic field techniques
  • Water and sediment sampling techniques

Lab course in Limnogeology

Apply knowledge by:
• Processing field data and measuring samples using sedimentological, geochemical and physical methods in the lab
  • Geoacoustic data processing techniques
  • Sediment analyses, basic techniques
  • Visualisation and analysis of datasets
  • Interpretation, discussion and presentation of results

EA2-2 Exercise
3 ECTS
Blocked appointments (after field course)
Laboratories of Geopolar (FVG-M)
Term paper + oral presentation
Conference day together with EA2-1
Additional information

You would benefit from basic knowledge in:

• Physical geography, Quaternary geology and paleoclimatology
• Laboratory work
• Reading and summarizing of scientific literature
• Presentation of scientific results

Safety instructions and fire drill is **obligatory** for MSc Physical Geography: Environmental History students

• Without participating in one of the courses, it will be not possible to attend a laboratory course!
• Students who attended such a course during their Bachelor studies at the University of Bremen do not need to attend this course.

**Next courses:**

**German:** Friday, 12.10.2018, 08:00 - 11:00h, NW1 H1 H0020

**English:** Tuesday, 23.10.2018, 08:00 - 11:00h, HS 2010
“Lakes are model oceans, where "experiments" have been carried out by nature”