ESSReS-PeP-POLMAR, an international and interdisciplinary postgraduate education concept on Earth and Environmental Sciences

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The joint ESSReS-PeP-POLMAR team: Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research, Bremerhaven, Germany; Institute for Environmental Physics, University of Bremen, Germany; Jacobs University Bremen, Germany.

Postgraduate Programme

Environmental Physics (PEP)

PEP is an international two years master programme offered by the Institute of Environmental Physics (IUP) at the University of Bremen in cooperation with the Alfred Wegener Institute (AWI) in Bremerhaven.

Profile

Expert scientists and staff provide knowledge via lectures, exercises and in experimental methods in the areas of
- Atmospheric Sciences,
- Physics of the Ocean and Ice,
- Polar Research,
- Remote Sensing,
- and Soil Physics.

PEP-Curriculum

The lectures, exercises and practices are organized in thematic modules:

- 2. Basic Environmental Sciences
- 3. Theoretical Basics
- 4. Experimental Techniques
- 5. Advanced Environmental Physics
- 6. Project Work
- 7. Master Thesis

Master Degree

Added values of a postgraduate education

- Guidelines for supervision
- Sustainable structure for early career scientists
- Reliable contact persons
- Unified quality standards
- Member of a broader network

Education programme:
- Monthly seminars
- Basic and expert courses taught by internationally high-rated research groups and international guest scientists
- Student-to-Student lectures

Supervision concept:
- Regular PhD committee meetings
- PhD proposal after 6 month
- Progress Assessment Form
- Conference attendance, presentations
- Research stay abroad
- Clearly structured research and education plan

ESSReS is an international and interdisciplinary research school for 23 PhD students at the Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI) and their partner universities: University of Bremen and Jacobs University Bremen. ESSReS combines observations, modelling, and data analysis in order to decipher the Earth’s complex climate system. Structured training and supervision support interdisciplinary research at an early stage of the scientific career.

Transferable skill training:

Courses in cooperation with the Imperial College London organized by the Helmholtz Association.
- Research skill development training
- Communication and presentation skills
- Career development and leadership

Support and grants:

- Provides competitive grants for conference attendance - collaborative research with international partners
- Personal training, coaching, child care, etc.

ESSReS and POLMAR are preparing PhDs for their professional career!

Career Paths in Climate and Environments

The modular concept of the courses is attractive. (PhD Students at the AWI)

For the Institution

- Support in career planning
- Access to funding
- Close exchange with peers
- “I believe the work-related soft skill courses are essential for a good working relationship with colleagues” (PhD Students at the AWI)

For the participant

- “I use my elected to interdisciplinary thinking” (PhD Students at the AWI)
- “The certificate will give me an advantage for my future career” (PhD Students at the AWI)
- “I would like to encourage everyone to participate” (PhD Students at the AWI)

Concept and research topics of the first ESSReS class

22nd May 2014, 9:00 to 17:00

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