4-year Phd Course in Polar Sciences
cycles 35th – 38th

PhD overview

In partnership with:

Educational aims

The objective of the PhD programme in Polar Sciences is to prepare students with in-depth scientific competences and original and innovative research activities for becoming experts on topics related to recent and past environmental and climate changes of the polar regions and of the glaciated areas of high altitude/low latitudes sites.

The state of the art of the scientific knowledge will be made available for the students for building a robust scientific understanding of the processes regulating the climate changes occurring in the polar regions with an interdisciplinary approach.

Associated partners are:

- National Research Council of Italy
- University of Milano-Bicocca
- University of Pisa

- Insubria University
- National Institute for Geophysics and Vulcanology

The programme is taught entirely in **English**.
Duration: **4 years**

Research themes

- Glaciology
- Ice core sciences
- Ice sheet Modeling
- Polar Biology
- Polar Oceanography
- Paleoclimate
- Paleoceanography
- Polar Climate
- Remote Sensing
- Polar Geography and Geopolitics
- Spectral Methods for Climatic Time Series
- Data Mining

Professional profiles

The PhD programme in Polar Sciences will form a new generation of scientists, experts and professionals with a holistic view of the polar environments and climate. They will be able to cover leadership roles in the academia, in national and international research centres for dealing with the great challenges imposed by Global Climate Changes in these highly vulnerable areas.

Programme

The PhD programme in Polar Sciences is a joint initiative of **Ca' Foscari University of Venice**, the **Consiglio Nazionale delle Ricerche (CNR)** and the **University of Milano-Bicocca**.

Key research themes of the PhD programme include:

- Glaciology
- Ice core sciences
- Ice sheet Modeling
- Polar Biology
- Polar Oceanography
- Paleoclimate
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Programme content

1st year

The programme comprises **12 core course**s of 6 ECTS each, from a range of subject areas. Students benefit from a balance between teaching and learning through a mix of lectures, seminars, external speakers, discussion group exercises, and case studies. Credits are acquired by attending the **courses** and by passing a **final exam**. **Attendance** is **mandatory**. Seminars, guest lectures, and elective thematic courses are organized through out the year in order to facilitate interaction among students from different cycles and different programmes, as well as with invited guests from important research centers and universities. All PhD students are required to attend at least **50%** of the **seminars** and **educational activities** organized by the PhD programme to be admitted to the subsequent year.

2nd and 3rd year

Research at foreing institutions

During the second or the third years, PhD students must spend a research period in a foreign institution. The choice of the institution will be discussed with the **tutor** and the **PhD Board**, based on students' research topics.

Thesis writing

In the fourth year, PhD candidates are mainly involved in the preparation of their thesis under the **supervision** of their **advisors**. The preliminary thesis presentation and the pre-defense will be scheduled during the fourth year. All theses will be **externally reviewed** by international referees.

Faculty

Coordinator

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Teaching Committee

- **Carlo Barbante**, Ca' Foscari University of Venice
- **Carlo Baroni**, University of Pisa
- **Patrizia Ferretti**, Ca' Foscari University of Venice
- **Fausto Ferraccioli**, National Institute of Oceanography and Applied Geophysics
- **Fabio Florindo**, National Institute for Geophysics and Vulcanology
- **Leonardo Langone**, National Research Council of Italy
- **Giovanni Macelloni**, National Research Council of Italy
- **Valter Maggi**, University of Milano Bicocca
- **Salvatore Orlando**, Ca' Foscari University of Venice
- **Massimo Pompilio**, National Institute for Geophysics and Vulcanology
- **Fabio Pranovi**, Ca' Foscari University of Venice
- **Alessio Rovere**, Ca' Foscari University of Venice
- **Barbara Stenni**, Ca' Foscari University of Venice
- **Cristiano Varin**, Ca' Foscari University of Venice