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

PhD overview
In partnership with:

Consiglio Nazionale
delle Ricerche

UNIVERSITÀ
DEGLI STUDI
DI MILANO
BICOCCA

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
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
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Programme content

1st year

The programme comprises 12 core courses 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 throughout 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 foreign 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.
4th year

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

**Carlo Barbante**
barbante@unive.it

Deputy Coordinator

**Barbara Stenni**
barbara.stenni@unive.it

Teaching Committee

- **Carlo Barbante**, Ca' Foscari University of Venice
- **Carlo Baroni**, University of Pisa
- **Gabriele Capodaglio**, Ca' Foscari University of Venice
- **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
- **Angelo Viola**, National Research Council of Italy