bio-CEED – Centre of Excellence in Biology Education

Over the past decades we have seen a rapid development in the roles and responsibilities of biology - and biologists - in society. Today, evolutionary thinking is important not only in the biology sciences, but also in medicine, information technology, management, humanities and social sciences. The practical skills of biologists, from genetic engineering to ecosystem assessment and analysis, are increasingly in demand in research, industry, and governance. The global challenges related to food production, environment and climate also requires biological solutions. The role of biologists in society can be seen as a (growing) triangle in the tension between theory, practice and society:

![Triangle Diagram]

The vision behind bio-CEED is that the rapid developments in the role of biology and biologists in society place new demands, not only to the content of biology education, but also to how we educate tomorrow's biologists. bio-CEED will (among other things)

- **Make use of the entire biological 'triangle' in education** - give students experience with theoretical knowledge, practical skills, and socially relevant tasks throughout their studies. This will be achieved in part by:
  - continued focus on 'field and lab'
  - provide internships in research, management and industry
- **change from a culture of ‘teaching’ to one of ‘learning’**
  - engage students actively in their own learning
  - develop and test new teaching methods across the 'triangle'
  - share experiences through web forums, workshops 'lessons stay' and conferences
- **bring the best from the research culture into our teaching culture**
  - shared responsibility, continuous development, 'peer-review 'and recognition
  - create room for discussion, exchange of experiences, learning and development
  - document and disseminate knowledge and experience with biology teaching

The goal is that our programs will develop basic academic skills and attitudes of students, while preparing them to solve important problems in science, industry, and society.

bio-CEED is a collaboration between biology programs at UIB (run by BIO, with contributions from many collaborators at UIB and externally) and Svalbard (Arctic Biology), science education (Higher Education Research Unit, UIB) and practical training (represented by The Institute for Marine Research, but including a range of private and public research, industry, and environmental management institutions), as well as our partners at home and abroad.