

Project Oriented Learning Environment

An Interdisciplinary Learning Platform  
for Students of Partner Universities  
Using Modern Information and  
Collaboration Technologies



POLE  
FRAME  
WORK

# Xframe

Program Spring/Summer Term  
End of March – End of June 2007

POLE is an initiative for innovation in learning and teaching at European and US Universities. The POLE philosophy is focusing on the following six main issues: Interdisciplinary Team Work, Internationality, Process Design, Real World Problems, Use of Modern Information and Collaboration Technologies and Industry Mentorships.

The POLE course will integrate the disciplines industrial and product design, biomedical engineering, mechanical and electrical engineering, plastics technology and material science. Students of the process management curriculum will coordinate this interdisciplinary and international project.

**THEME:**  
**Innovative Concepts for a Novel Attachment System for the Human Body**

Task: Human beings have always carried loads - women and men tie their children to the back, hunters carry the pray home, porters suffer under the weight of pianos. Also in sports weights have to be taken along, e.g. on backpacking or mountain climbing adventures. An additional field of interest is medicine and rehabilitation where support structures or artificial limbs need to be attached to the human body. Always with the intention to make the carrying process as convenient and as safe as possible.

The Xframe project targets for all these applications by asking for a novel solution to attach loads to the individual human body in an ergonomic way to make carrying comfortable and avoiding high pressure areas or long term injuries to the orthopaedic apparatus.

The multi-disciplinary teams involved in this POLE Xframe project shall have participants of the following backgrounds:

- \_ industrial and product design
- \_ biomedical engineering
- \_ mechanical engineering
- \_ electrical engineering
- \_ plastics technology and material science
- \_ process management

For further information: [www.pole-project.ch](http://www.pole-project.ch), please contact:  
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**We are looking forward to your application until February 15, 2007**

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PARTNER UNIVERSITIES



Aalborg University, Denmark



Eidgenössische Technische Hochschule Zürich  
Swiss Federal Institute of Technology Zürich

ETH Zürich, Switzerland



Stanford University, USA



Helsinki University of Technology, Finland



University of Strathclyde, UK

THE UNIVERSITY OF STRATHCLYDE