Joint Master’s Program in Environmental Engineering

Department of Process and Environmental Engineering & Thule Institute
Master’s Program in Environmental Engineering

- The program follows the principles of the Bologna process
- Teaching language will be English
- Master’s Program is to be launched in autumn 2009
Partners:
• University of Oulu
• Arkangelsk State Technical University
• Murmansk State Technical University
• Narvik University College
• Luleå University of Technology

Leader of the academic group
Prof. Riitta Keiski
Process and Environmental Engineering, University of Oulu
Mutual aims

• The graduates will have **scientific approach into environmental protection and management of natural resources**

• The graduates will have skills and knowledge to do scientific and applied work both in industry and academia

• Number of students will be **25 students per year**

• For joint degrees **courses** are to be fully recognized by partner universities as part of the degree
Orientations in the Program

(As of fall 2007)

- Clean production engineering
- Water and geoenvironmental engineering
- Sustainable energy
Structure of the curriculum

M.Sc. level

- Advanced module 1: 10 p (elective)
- Advanced module 2: 10 p (elective)
- Advanced module 3: 10 p (elective)
- Individual work: 30 p
- Theory module: 30 p (joint)
- Preparatory module: 10 p (joint)
- Special basic module: 20 p (elective)

Foundation in B.Sc. level
Activities

• The curriculum is under preparation
• The curriculum will include joint courses for the whole group
• Preliminary benchmarking of the courses has been carried out
• At the University of Oulu, the planning and development of the courses is on-going in the Department of Process and Environmental Engineering
Course contents

• Main attention is to be given to provide knowledge to manage environmental issues within industry and companies by application of proper methods, tools and technologies

• The Master’s program is mostly based on existing courses but new, forward looking ideas are incorporated when designing the program and its courses

• Apart of the “hard values”, such as technologies, processes, and management skills, it is also important to address the “soft values”, to raise awareness and improve attitudes
  – The role of teachers and researchers is extremely important
Students

- Basic studies required: **B.Sc. in process, chemical or civil engineering or comparable knowledge and skills** (three years of studies in chemistry, biology + additional engineering studies/complementary studies)
- All students have to complete at least one semester of their studies (30 to 60 ECTS) in a foreign partner university
- **Student and teacher mobility** is vital in the program
- Support is given to the students by the host university (advising, tutoring, finding accommodation, etc.)
Next steps

Common ways of operation to be agreed on and adopted
- **The contents and forms of education** to be agreed on
- **Recognition of the studies** in each country to be ensured
- **Student selection** planned and implemented in mutual understanding and co-operation
- **Support to the students** by the host university (finding accommodation, advising, tutoring etc.)
- Ways of implementing **student and teacher exchanges** to be established
- **Additional funding** to be applied