Joint Master's Program in Environmental Engineering

Department of Process and Environmental Engineering
&
Thule Institute

UNIVERSITY of OULU
OULUN YLIOPISTO

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

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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

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Mutual aims

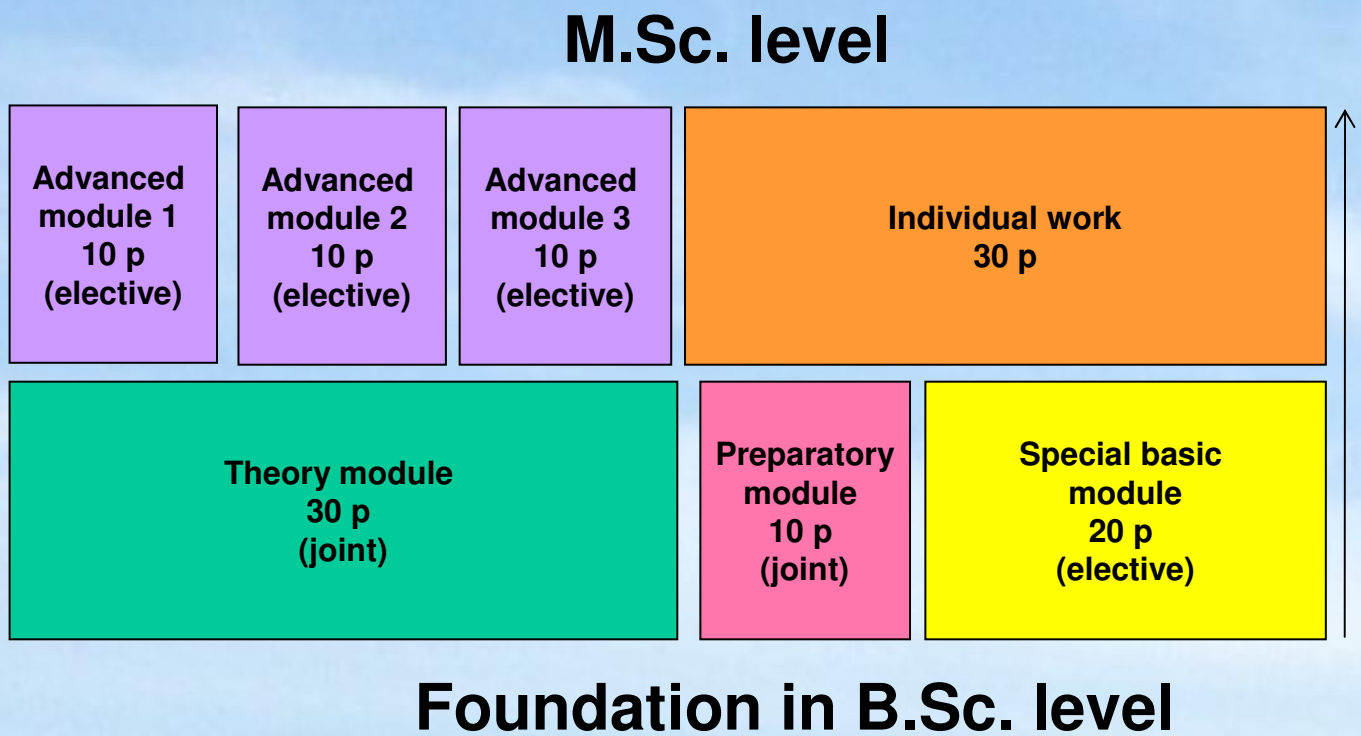
- The graduates will have **scientific approach into environmental protection and management of natural resources**
- The graduates will have skills and knowledge to do scientific and applied work both in industry and academia
- Number of students will be **25 students per year**
- For joint degrees **courses** are to be fully recognized by partner universities as part of the degree

Orientations in the Program

(As of fall 2007)

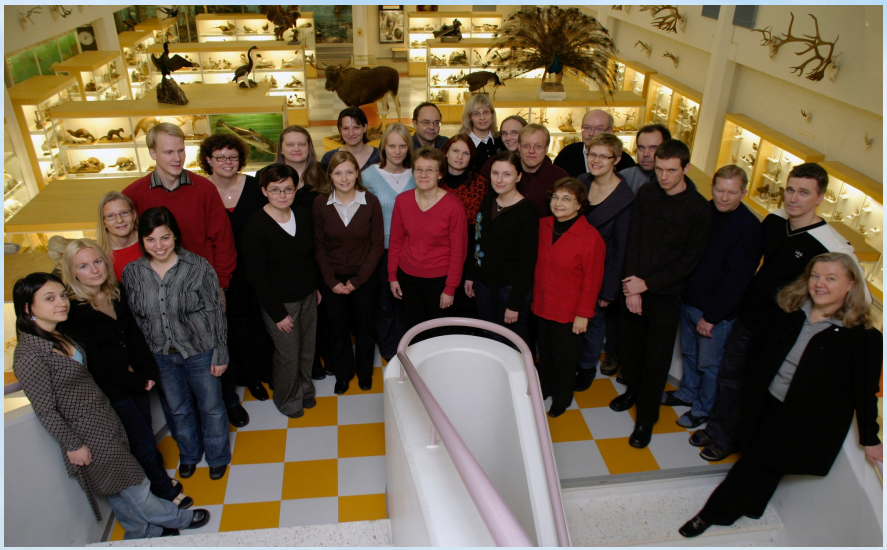
- ***Clean production engineering***
- ***Water and geoenvironmental engineering***
- ***Sustainable energy***

Structure of the curriculum



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



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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