SEED
-
a partner for ESD initiatives

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Institutionen för Hållbar utveckling, Miljövetenskap och Teknik

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SEED - Department of Sustainable development, Environmental Sciences and Engineering

Three divisions:

- Environmental Strategies Research (FMS)
- Industrial ecology (IE)
- Land and Water Resources Engineering (LWR)

School of Architecture and the Built Environment (ABE)
All with focus on or content related to sustainable development

Now some EXAMPLES
EESD @ Industrial Ecology/SEED

• MSc Sustainable Technology (TSUTM)

• Industrial Ecology – Course package for Science Without Boarders – Brazil (6 students!)

• Energy and Environment – track in Master of Science in Engineering and in Education (CLGYM)

• MSc Energy for Smart Cities – own by EES School + IE, double degree programme together with KU Leuven, UPC and Grenoble
MSc Sustainable Technology

Based on the concept of Industrial Ecology with focus on the understanding of interactions between technical, economic, social and ecological systems and processes.

Training in critical thinking and system analysis

Problem based studies – cooperation with companies in projects and thesis work
Sustainable Technology
Development of SD curricula and study programs in Eastern Europe and Central Asia

Establishing Modern Master-level Studies in Industrial Ecology

Higher engineering training for environmentally sustainable industrial development
Capacity building in SD for local authorities in the Western Balkans

Training courses in sustainable infrastructure development for public services in Western Balkans (SDTRAIN)

Municipal Environmental Infrastructure - Postgraduate Specialist Study in Bosnia and Herzegovina

www.sdtrain.info
Global Network for Sustainable Development

Key EU collaborators
- Royal Institute of Technology, KTH/IE, Sweden (Coordinator)
- Technische Universiteit Delft, TU Delft, Netherlands
- Universitat Politècnica de Catalunya, UPC, Spain
- University of Passo Fundo, RS, Brazil
- Shandong University, Jinan, P.R. China
- Sekem Development Foundation, SEKEM, Egypt
- Addis Ababa University, AAU, Ethiopia
- Universiti Sains Malaysia, USM, Malaysia
- Anton de Kom Universiteit, UVS, Suriname
- University of Sharjah, UOS, United Arab Emirates
- Kiev Polytechnic Institute, KPI, Ukraine

www.sdpmo.info
Master programme in Environmental Engineering and Sustainable Infrastructure (EESI)

EESI Competence Profiles

- Env. Systems Analysis
- Sustainable Infrastructure
- Water and Wastewater Engineering
- Sustainable Societies
- Env. Geotechnology
- Water Technology
- Env. Management and Information

Degree Progr.

- Civil Engineering or Energy and Environment

Track

- Soil and Water Technology

Åk 1-2

Åk 3

Åk 4-5

Master programme
Environmental Engineering and Sustainable Infrastructure
ENVIRONMENTAL ENGINEERING AND SUSTAINABLE INFRASTRUCTURE

The courses comprises....

Climate – effects, adaptation
Reuse of material and resources
Infrastructure and its impact
Coastal engineering solutions

Water supply of Sweden and the world
Recover nutrients – filter techniques
Waste water treatment
Ecosystems services

Swedish 16 environmental goals
Energy-hydropower-geothermal
Students can specialize towards:
Soil
Water
Decision support
Water, waste, energy
Infrastructure

Soils and resources
Water and wastewater
Environmental impact assessment tools
Energy

ENVIRONMENTAL ENGINEERING AND SUSTAINABLE INFRASTRUCTURE
Courses comprise various analyses tools and models, sometimes developed by our researchers.

- Field investigations
- Laboratory analyses
- Remote sensing
- GIS
- Modeling
- Plans
- MKB
- SEA

200 m
Master's programme in Sustainable Urban Planning and Design

Students of architecture, planning, civil engineering, natural and social sciences who want to develop expertise for analysing, synthesising and co-ordinating complex planning and design tasks.

The program offers three options for specialization:
1. Environment and Planning (EP)
2. Urban and Regional Planning (URP)
3. Urban Planning and Design (UPD)

The three options for specialization represent different professional competences that are involved in urban planning and design. However, during the programme students will interact in courses and projects to foster a mutual exchange of knowledge and ideas.
Sustainable Urban Planning and Design

- The programme brings together students of architecture, planning, civil engineering, natural and social sciences, who want to develop expertise for analysing, synthesising and coordinating complex planning and design tasks. Students will be equipped with professional tools that will allow them to serve as critical links - bringing different perspectives together in the process of planning and design for sustainable urban environments worldwide.

- The programme is given by the Division of Environmental Strategies Research (fms), Department of Sustainable development, Environmental science and Engineering together with the Division of Urban and Regional Studies, Department of Urban Planning and Environment and the School of Architecture.
Courses in the program; the example of the Environment & Planning specialization (EP)

INDIVIDUAL STUDY PLAN 2013-2015

YEAR 1, TERM 1. PROJECT 1 + YEAR 1, TERM 1. PRO 2 = 30 hp
YEAR 1, TERM 2. PRO 1 + YEAR 1, TERM 2. PRO 2 = 30 hp
YEAR 2, TERM 1 30 hp
YEAR 2, DEGREE PROJECT 30 hp
Main message:

A lot of teaching all with focus and content related to sustainable development