

Master's Degree Programme in Environmental Health and Technology (ENHET), Kuopio

Master's Degree Programme in Environmental Health and Technology (ENHET; main subject environmental science) is a highly multidisciplinary and research oriented programme, aiming at combining comprehensive understanding of human exposure and health effects with technological solutions to reduce the effects. Focus is on environmental agents such as air pollutants, ionizing and non-ionizing radiation and chemicals as well as methods needed to produce meaningful risk assessment from such information. Students may specifically focus on e.g. air pollutants, sustainable water quality, occupational hygiene, or radiation protection. Environmental informatics provides basis for analyzing big data typical for environmental health and technology research. Master's Degree Programme in Environmental Health and Technology gives superb competence to work in research positions in universities and research institutions, in environmental health control and occupational hygiene related jobs in companies and administrative agencies both nationally and internationally.

General Courses on Environmental Health and Technology cover core courses on wide range of environmental health related topics including exposure assessment, environmental risk assessment, advanced occupational hygiene and green chemistry. In addition to the general courses, we offer several study modules for advanced knowledge on the following topics:

- Air Pollutants, Aerosols and Health module provides advanced knowledge in indoor and outdoor air pollutants, especially fine and nanoparticles, their sources, emission control technologies, health outcomes and risk assessment. This module is ideal if you wish to pursue a career in environmental administration, environmental regulatory agencies, private sector or research.
- Radiation module includes courses on biological effects and health risks of radiation, including both ionising and non-ionising radiation. All approaches of environmental health research are used, including in vitro studies, animal studies, epidemiology and exposure assessment. This kind of combination of courses and research provides a unique possibility to become a radiation biology specialist.
- Water module specializes on water quality and technology topics including water hygiene and microbial risk assessment, conventional and most up-to-date purification technologies, prevention of water pollution and recovery of the valuable resources. The study environment includes a unique water laboratory which offers excellent facilities for the simulation of even pilot-scale purification processes. This study package is suitable for students who wish to pursue a career in water monitoring, regulatory agencies and companies dealing with water treatment or research.
- Environmental Informatics module is a new and growing area in the modern environmental sciences. It is based on applying information technology to environmental issues. The size and complexity of environmental related data lead to a need for an advanced computational approach, which helps to integrate information from various sources. With environmental informatics, new solutions to environmental problems can be found more effectively, and end users can be offered a higher level of information.