# INTERNSHIP

AP DEGREE IN ENVIRONMENTAL TECHNOLOGY



# **ABOUT THE PROGRAMME**

The Environmental Technology study programme is a 2-year, higher education, Academy Profession (AP) degree programme that provides qualifications for working with environmental technology and communication issues, e.g. as an environmental officer in a public or private enterprise.

The study programme gives a broad introduction to the subject of environment, from how pollution affects natural systems, to the practical tools that municipalities

and businesses currently use for reducing environmental impacts, e.g. resource efficiency, waste prevention, reduced use of hazardous chemicals, reducing of the impacts of climate change, and techniques for effluent treatment and purification.



#### FRAMEWORK CONDITIONS

After the 3rd semester of the Environmental Technology study programme, the student is required to go on an internship.

This internship is to be carried out at a company for approximately 3 months, full-time.

The internship is eligible under The Danish State Educational Grant and Loan Scheme (SU), meaning that the student is state-supported financially and therefore the company is not required to provide a salary. The internship may be carried out in one or more private or public companies. During a company internship, the student must work on company assignments, hereby fulfilling the learning objectives.

# INTERNSHIP REQUIREMENTS

The internship must be set up so that the intern will be working within one or more of the study programme's educational content elements: Understanding of nature and the environment, environmental chemistry and microbiology, environmental testing and measurement, laboratory analysis, treatment methods and processes, solid waste, environmental performance improvements and corporate environmental management (internal/external).

Furthermore, the Internship must be set up so that the student is able to fullfil the following learning objectives:

#### Knowledge

To gain knowledge about professional tasks related to the environmental technology subject area.

To be able to understand the application of methods and tools within the environmental technology subject area.

#### Skills

To assess, solve and communicate relevant practical environmental issues contained within the education agreement with the internship company.

To be able to describe the communication culture of the internship company.

To be able to communicate with employees in different functional areas of the organization on environmental issues

# **Competencies**

To cooperate with others across the profession and organization with respect to solving environmental issues.

To be able to manage relevant situations and issues within the environmental technology subject area in a professional manner.

# **INTERNSHIP TASKS**

The following are examples of tasks that the intern could participate in:

- Public environmental oversight
- Compliance with chemical legislation
- Environmental testing and measurement
- Optimization of wastewater treatment plant operations
- Optimization of biogas plants
- Energy savings and optimization
- Handling and remediation of contaminated soil
- Waste sorting and recycling
- Environmental and occupational health and safety management in accordance with ISO 14001 and OHSAS 18001





# THE INTERNSHIP PROJECT

The intern must complete the study programme with a final project based on a practical problem. Most interns write their final project for the company they interned with, in extension of the internship period. The final project is a good opportunity for the company to, for example, shed light on a particular problem, have an environmental analysis carried out, or receive extra resources for a current project.

# **DIVISION OF RESPONSIBILITIES**

The internship hosting organization is to appoint a contact person for the student during the internship period. This contact person must prepare an education agreement, together with the student, stating which tasks the student is to be assigned during the internship period. The education agreement should be prepared well in advance of the internship.

The tasks must meet the learning objectives for the internship, following which the educational institution approves the assignments.

The student must prepare a written report of the internship period stating how the learning objectives for the internship were met. Cphbusiness will appoint a supervisor for the internship, who will also serve as the examiner for the written internship report. As far as possible, the supervisor will visit the internship hosting organization during the internship period.

# CONTENT AND THEMES IN THE STUDY PROGRAMME

# 1st semester:

- Natural systems and environmental impacts: Pollution in the aquatic environment, pollution field testing and laboratory analysis
- Environmental technology, management and communication: The environmental toolbox, from 'common-sense' to high-tech solutions, environmental management and administration in municipalities, environmental economics, and organizational change-oriented communication.
- Chemicals: Environmentally hazardous substances and their environmental and health characteristics, chemical legislation, environmental risk assessment, classification and hazard labelling, Material Safety Data Sheets, occupational safety and health instruction, chemicals management and chemical substitution.

#### 2nd semester:

- Resources and waste: Legislation, waste and resource policies, municipal solid waste management, circular economics, business strategies for waste management, waste prevention and resource efficiency, waste classification.
- Energy and climate change: Climate change and its causes, energy and climate change policies, calculation of a company's impacts on climate change, methods for reducing energy consumption and CO2-emissions, air quality parameters.
- Environmental testing, analysis and monitoring and soil contamination: Environmental testing and analysis of contaminated water, soil and air emissions, design of wastewater treatment plants, monitoring methods and quality standards for emissions of treated water and sludge.

#### 3rd semester:

- BAT and treatment technologies: Treatment technologies for soil, water and air emissions. Environmental permits and environmental reporting, including the use of Best Available Technologies (BAT). Case handling in the environmental permitting process.
- Environmental management, CSR and cleaner products: Indoor air climate and occupational health and safety, environmental and occupational health and safety management systems, Corporate Social Responsibility (CSR), environmental performance improvements of products and services, supply chain responsibility and green public procurement policies.
- Immersion topic: Different specialization tracks with corresponding externally sourced (company) projects, e.g. advanced environmental testing, chemicals, waste management and corporate environmental management.

# THE INTERNSHIP PROCESS

# PHASE 1

- The internship company and the student define a number of tasks for the internship period.
- The student's internship company and the tasks are registered electronically.

# PHASE 2

- Cphbusiness approves the internship tasks electronically.
- The internship company approves the internship electronically afterwards.
- The student is informed that the internship has been approved by all parties.

# PHASE 3

- The student commences the internship.
- The supervisor visits the internship company during the internship period.
- The supervisor assesses the internship report.