GREEN TRANSITION

GREEN TRANSITION ENGINEERING

BACHELOR | FULL-TIME

Location: Campus Villach
Europastraße 4, 9524 Villach

Duration: 6 semesters

Schedule:
Tue until Fri between 8:30am and 8pm,
Occasionally Sat 8:30am - 4pm
Partly Distance learning.

Academic degree:
Bachelor of Science in Engineering (BSc)

ECTS credits: 180

Language: English

Study places per year: 30

Are you ready to pave the way for a greener future? At Green Transition Engineering, we believe that achieving the goals of the green transformation requires efficient and well-informed decision-making. That's why we emphasize the power of data in our approach. Data holds the key to understanding the current state of affairs and identifying effective sustainability measures.
With expertise in data engineering and understanding of global connections across ecological, economic, and social realms, graduates are uniquely positioned to shape the future of sustainable development.

STUDY CONTENTS

The Bachelor Degree Program "Green Transition Engineering" comprises lectures in natural sciences, social transformation, scientific and technological competencies, as well as fundamentals from legal, economic and sociological directions, which are necessary for the efficient and evidence-based implementation and support of transition processes and sustainability developments in differently oriented companies and organizations.

In the 4th and 5th semester students work in groups on interdisciplinary topics in order to apply competences that have been acquired in the first semesters to real world cases.
In Semester 5 elective lectures allow students to specialize more deeply in topics of their interests.

The last semester is dedicated to writing up the thesis and to the internship at a company to gain even more practical experience.

JOB & CAREER

Graduates of the "Green Transition Engineering" program will find employment in all economic sectors and industries. There is no area in the economy, politics and society that does not have to deal with sustainable development and digitalization now or in the near future. Sustainable development will become relevant for all areas of life and work in order to be able to achieve the agreed sustainability goals of the United Nations.

The graduates of the "Green Transition Engineering" program are well prepared for the future due to their broad education in topics of green transformation as well as their competences in data engineering and digitalisation.

CURRICULUM

Semester 1	ECTS
Orientation and Outdoor Project	5
Tree of Life: Biology and Biodiversity	5
Applied Mathematics	5
Introduction to Programming and Computer Sciences	5
Enivronmental Data Sources and Data Integration	5
Concepts and Principles of Sustainability	2,5
Climate Zones, Climate Types and Climate Change	2,5
Total	30

Semester 2	ECTS
Fundamentals of Natural Sciences	5
Introduction to Statistics and Empirical Social Research	5
Databases and Data Structures	5
Introduction to Digital Modelling of the Environment	5
Environmental Ethics	2,5
Science Communication	2,5
Landscapes and Ecosystems of the Earth	2,5
Ecosystem Energy and Material Flows and Cycles	2,5
Total	30

Semester 3	ECTS
Data Acquisition Tools and Methods	5
Data Intelligence	5
Energy Transition	5
International Policies, Environmental Law and EU Green Deal	5
Ecosystem Services and Life Cycle Assessment	5
Project Management	2,5
Integrative Alpine Excursion	2,5
Total	30

Semester 4	ECTS
Introduction to Regional Planning and Land Use Planning	5
Digital Environmental Data Analysis and Visualization	5
Sustainable and Smart Mobility	5
Markets, Financial Systems and Principles of Circular Economy	5
Participation Processes, Conflict Management, Communication and Public Relations	2,5
Transition Concepts, Climate Mitigation and Adaptation Approaches	2,5
Interdisciplinary Project 1	5
Total	30

Semester 5	ECTS
Smart City	5
Interdisciplinary Project 2	5
Electives (4 to choose from):	
Conservation Measures and Planning Tools for Nature Conservation	5
Citizen Science	5
Introduction to Microeconomics and Sustainable Business	5
Eco-Design and Sustainable Manufacturing	5
Decision Support Systems	5
Risk Management of Natural Hazards	5
Sensor Networks for Environmental Monitoring and Impact Verification	5
Green IT and Digitalization	5
Digital Accessability and User Experience	5
Total	30

Semester 6	ECTS
Professional Internship	18
Internship accompanying Seminar	1
Trends in Green Transition	1
Bachelor Thesis Seminar	8
Bachelor Examination	2
Total	30

SCHEDULE

Start: October 2024

Information Events: all dates at www.fh-kaernten.at/fhday

€ COSTS

Tuition fees: € 363.36 per semester

ÖH (Austrian Student Union) fee: € 22.70

Study guidance:
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CONTACT

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