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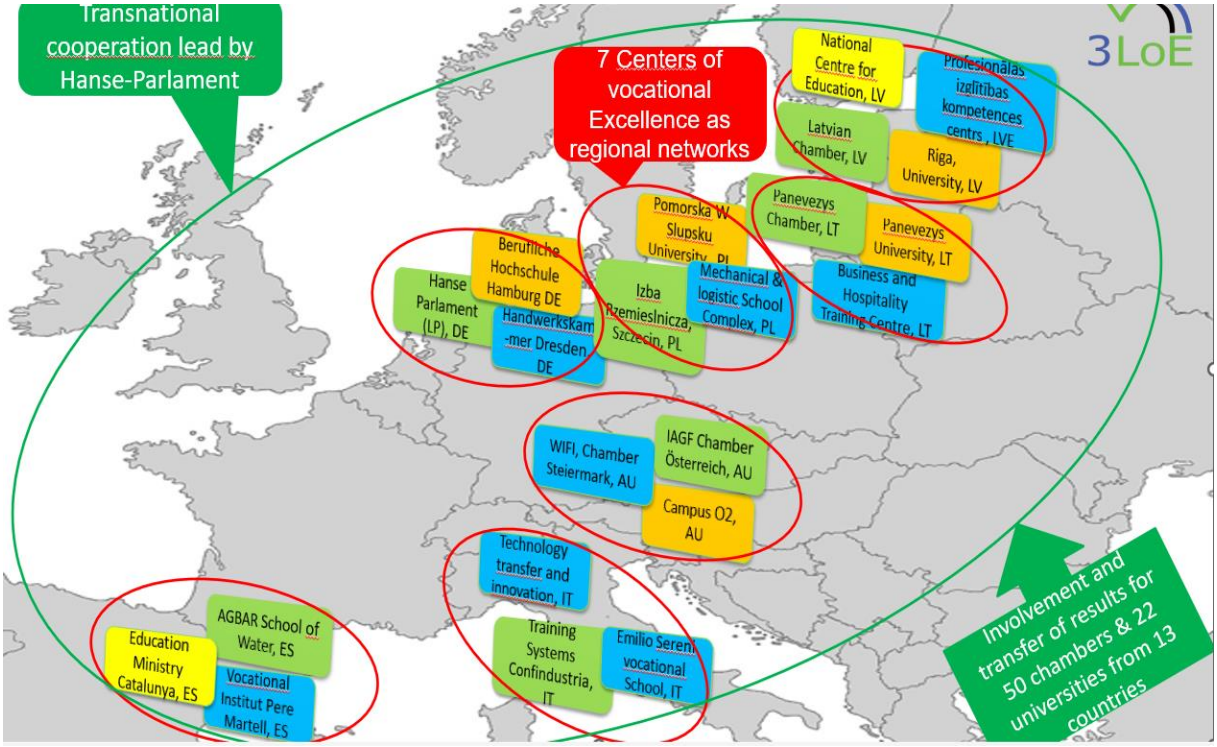
Result 5.8

Tutorial and dual Bachelor Program “Sustainable management Climate neutrality for companies”

Partner



Language

English

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Summary of the Project and Introduction

1. About the 3LOE project

Around 99% of all EU businesses are SMEs, creating up to 70% of all jobs. In general, SMEs have good growth prospects for the future and are particularly well equipped to solve environmental problems and to enhance the green economy. However, in most of the project countries, SMEs are confronted with a shortage of skilled workers and young entrepreneurs. This shortage of skilled workers is even more alarming taking into account that due to aging of current entrepreneurs, a large and growing number of companies will have to be handed over to the next generation. Furthermore, young specialists and entrepreneurs often lack the qualifications and skills needed in order to respond to contemporary developments in the fields of energy, climate and environmental protection. The following problems have been identified in SMEs working in the fields of green economy, energy and environmental protection:

- Blatant and growing shortage of skilled workers.
- Large qualification deficits, especially in the Green Economy.
- Loss of attractiveness and low qualification of school-based VET.
- Low rates of further training and insufficient orientation of offers to SME needs.
- Ageing of entrepreneurs and increasing shortage of young people (demographic change).
- Failure of business transfers and low rates of business start-ups.
- Low innovation rates and insufficient productivity.
- Not enough cooperation between universities and SMEs and a lack of teaching geared to SME needs.
- Comparably low internationalization of SMEs and vocational training providers.
- Lack of national level support for SMEs”.

To meet these challenges, work-based learning and new paths in vocational training must be provided through cooperation between educational institutions, economic chambers and SMEs. University graduates are often well-qualified in theory, but lack practical knowledge, skills and abilities that are crucial for SMEs. For this reason, VET reforms must also involve higher education, and should implement dual bachelor's degree programs that combine a bachelor's degree with vocational training and on-sight work in companies.

In the 3LOE project, an innovative and complex project structure with 22 project partners from 7 countries as well as 60 associated partners from 13 countries was designed. In each country, centers of vocational excellence (COVEs) in Green Economy will be established, managed and their permanent continuation ensured. A transnational cooperation of the centers will be developed, extended to 60 education stakeholders from 13 countries and operated permanently in an institutionalized form. The centers will offer a wide range of dual education measures in vocational training, further education and higher education, that are being developed, tested and evaluated in the project. These educational measures on EQF levels 3-7 focus on Green Economy, Digitalization and Entrepreneurship. Furthermore, vocational and educational

consulting and innovation support for SMEs will be developed and implemented. In total, seven Train-the-Trainer programs will be developed and implemented permanently by the project partners. All results will be transferred to the 60 associated partners together with implementation advice.

The objectives and aimed outcomes of the 3LOE project can be summarized as following:

1. Foundation of a three-level Center in each project country

1.1 Building the "Green Economy" skills alliance for qualifications in SMEs with educational and economic actors from the 7 project countries; development of information and cooperation tools.
1.2 Expansion of the skills alliance to the 60 associated partners from 13 countries, comprising chambers of commerce, SME associations, as well as universities of applied sciences/colleges.
1.3 Development, testing and evaluation of a curriculum and teaching materials for Train the Trainer courses for personnel and center management (vocational schoolteachers, trainers in SMEs and lecturers in further and higher education institutions).
1.4 Evaluation of the construction and operation of the seven centers of Excellence and of the transnational cooperation.
1.5 Development of business and financing plans and ensuring the long-term continuation of the seven centres and transnational cooperation.
1.6 Development, consulting and introduction of political strategy program.

2. Implementation and realization vocational training

2.1 Development and implementation of a tool for vocational and qualification counselling as well as a training for consultants and teachers to use the tool.
2.2 Implementation of the dual system, so that work-based learning is put into practice in the project countries.
Preparation and transfer of curricula and examination regulations for dual vocational training for different professions and implementations in Poland, Lithuania, Latvia and Spain.
Development, test and implementation Trainings for teachers to conduct dual vocational training as well as Training of trainers in SMEs.
2.3 Development political concept for the training and integration of young people with learning difficulties for young people with learning difficulties (EQF level 3).
Development, test and implementation of a dual vocational training "Specialist for Building Insulation".
2.4 Development, testing and evaluation of education programme, teaching materials and examination regulations for the provision of sector-specific qualifications already during the initial vocational training for stronger learners. Implementation in the dual system, so that work-based learning is put into practice in the project countries.
2.5 Development and implementation five-year technician training „Ecologic Solutions in Logistics".

3. Implementation and realization of further vocational training

3.1 Development and implementation of concepts and instruments for the management of continuing vocational training.
3.2 Development, test and implementation of a Train-the-Trainer program for teachers to conduct further training.
3.3 Development and implementation of a concept "SME-fair digitalization" as well as development, test and implementation of two train the trainer programs "Basic and advanced digital skills".
3.4 Transfer and implementation of four further trainings Energy Saving and Renewable Energies.
3.5 Preparation, transfer and implementation of six further trainings in the Green Economy.
3.6 Development, testing and evaluation of different training programs and teaching material for owners, managers and qualified workers of SMEs (EQF level 5 and 6). The trainings are specifically tailored to SME needs and different qualification levels and combine the transfer of technical, professional and management know-how.
- Training Enterprise and Entrepreneurship in Green Economy
- Training Energy Service Manager
- Trainings vocational Master Carpenter and Electric
- Training Construction Technician
- Training Service Technician
- Training Sustainability in foodservice industry

3.7 Development of regulations for new continuing education occupational profiles with a focus on the green economy.
3.8 Development of an integration programme for the unemployed (EQF level 4) in order to be able to place the unemployed in permanent jobs through further training seminars and a further training qualification.

4. Implementation and realization of higher education

4.1 Preparation and transfer of curricula, evaluation and examination regulations for two existing dual Bachelor degree programmes "Management of Renewable Building Energy Technology" and "Business Administration for SMEs".
4.2 Development and beginning of implementation of new dual Bachelor degree programs
- Business Administration & Sustainable Management of SMEs
- Entrepreneurship and Innovation in Green Economy
- Logistics - Green Supply Chains
- Service technician
- Tutorial "Sustainable management Climate neutrality for companies"

4.3 Development, test and implementation of four study modules (EQF level 6) on SME management in the Green Economy sector, which will be carried out in the dual study system and integrated into existing Bachelor degree programmes.

4.4 Development and implementation of concept for innovation promotion Solutions for manageable R&D tasks of SMEs and conducting manageable R&D projects for SMEs-
4.5 Development, testing and implementation of Training program for university lecturers and SME advisors.

5. Dissemination, transfer and use of the project results

5.1 Development of a concept and summary evaluation of the dissemination results of all partners
5.2Transfer of all educational measures to 60 educational institutions in 13 countries and needs-oriented implementation consultations as well as realization of a bundle of measures for further dissemination of the project results.
5.3 Further dissemination activities such as presentations online, at third-party events, press releases and conferences.
5.4 Book with all results of the project and distribution via book trade.

For each of the three levels of educational measures there will be:

- Target-group-specific educational programs.
- Curricula, teaching materials, etc. developed in a leading role by the educational institutions of the respective level, whereby the educational institutions of the other levels (in particular universities) participate in an advisory and supportive manner.
- Representatives of the participant target groups involved in the development work.

All educational measures will be tested with the respective target groups under different national conditions in the countries, evaluated and completed on the basis of the evaluation results with application notes.

2. About the Curricula “Sustainable management Climate neutrality for companies”

During the first six months of the project, all partners of the seven COVEs discussed and agreed in detail that:
a) dual Bachelor's degree programmes should be developed and implemented.
b) the following existing dual Bachelor's degree programmes should be developed and transferred to all seven COVEs
- Management of Renewable Building Energy Technology
- Business Administration for SMEs
- Four study modules "Green Economy"
c) a new dual Bachelor's degree programme "Business Administration & Sustainable Management of SMEs" is to be developed.

This work was carried out, implementation was advised, and realisation began in all COVEs during the project period.

After the seven COVEs had started their work, they were confronted with urgent needs and requests for the development and implementation of further dual study

programmes from public administrations, colleges, universities and companies in the countries that had not yet implemented dual study programmes from the second year of the project. In order to meet these priority needs in the regions; the development and implementation of the following dual study programmes was also included in the work of the 3LOE project:

- COVE Latvia: Entrepreneurship & Innovation in Green Economy
- Cove Poland: Logistics - Green Supply Chains
- COVE Austria: Sustainable Building System Technology
- COVE Austria: Sustainable management Climate neutrality for companies
- COVE Austria: Tutorial “Sustainable management Climate neutrality for companies”

As the work could only begin in the second year of the project and the development work and necessary accreditations were very labour-intensive and time-consuming, it was only possible to begin with the first implementations during the project period. However, the further implementation of all four additional study programmes is guaranteed after the end of the project period. In addition, all documents relating to the four additional degree programmes were transferred to all other COVEs during the project period and implementation was discussed and prepared here.

In view of the very extensive development and implementation work in higher education, "only" the development of a framework for the study programme was planned for COVE Austria on Sustainable management Climate neutrality for companies. The creation of a complete curriculum, accreditation and implementation after the end of the project period are assured.

The results achieved by COVE Austria for the dual Bachelor Program and for the tutorial “Sustainable management Climate neutrality for companies” during the project period are presented below.

Tutorial "Sustainable management Climate neutrality for companies"[1]

Short description

Sustainability in practice is not just the law, but an indispensable part of our future. The requirements for corporate sustainability work from the law, customers and all other stakeholders can no longer be met by a single position in the company. This university course provides a compact overview of this broad topic area - from what the law requires to the opportunities for entrepreneurial sustainability.

Main content areas

After completing this university course, participants will know the relevant requirements for corporate sustainability work and gain an insight into corporate sustainability management.

- Requirements for sustainability work in the company (law, national level as well as EU, banks, employees, society and other stakeholders)
- Sustainability framework (Agenda 2030 & 2050, SDGs)
- Gradual introduction of the guidelines by 2028
- Implementation of sustainability in the organization (from task definition to process thinking; minimum requirements: when granting loans, contribution to competitiveness, relevant documents and documents for auditing)
- Opportunities for companies from sustainability work
- Career prospects in the area of sustainability
- Best practices

Target group

- All people in the company who want to deal with sustainability
- Designated Sustainability Managers
- Management assistants
- All people in companies who are entrusted with management tasks
- People who will take on management responsibility in the foreseeable future

Entry requirements

A professional qualification (final apprenticeship examination or vocational maturity examination or high school diploma) plus one year of professional experience after graduation or a relevant completed degree.

Skills and opportunities taught

Participants receive a generalist overview of the relevant requirements for corporate sustainability work from different department-specific perspectives and know the requirements for sustainability work in the company. By completing this university

[1] Prepared by Campus 02, Graz

course, graduates lay the foundation for their development into corporate sustainability experts and expand their professional network with other course participants.

Modular training structure

The university course “Sustainability Management - Compact” is part of several modular continuing education programs. It is possible to complete additional, more in-depth university courses and certificate courses in the broad field of corporate sustainability work. Individual university courses can be collected into three different certificate degrees and/or several university courses and certificate courses up to the completion of the academic course “Sustainability Management”.

If all sustainability management programs are completed by October 2027 at the latest, the title of “Academic Sustainability Manager” will be awarded.

Academic training model: Part-time

Duration:
2 days in attendance and 2 half days online
24 teaching units –of which 35% are online lessons

Class times:
Face-to-face lessons are generally from 9:00 a.m. to 5:00 p.m
Online lessons generally from 4:00 p.m. to 8:00 p.m

Time schedule of the first course held:

2.04.2024, presence at CAMPUS 02 University of Applied Sciences
24.04.2024, online
30.04.2024, online
07.05.2024, presence at CAMPUS 02 University of Applied Sciences

Diploma: Certificate of participation for the university course “Sustainability Management - Compact”

Minimum number of participants: 5 people

ECTS: 3 ECTS credits

Costs: Euro 490,-

Registration: Registration via FH CAMPUS 02 online portal – Academic Continuing Education

Program responsibility: Maria Lipp, BSc, MSc, +43 316 6002 8907, maria.lipp@campus02.at

Continuing education university course at course level

Sustainability Management – Compact
General data

Lecture code:	Part-time: RC_WB_NH	Full-time: RC_WB_NH
Scope (ECTS Credits; SWS):	Part-time: 3 ECTS Credits; 1,75 credit hours	Full-time: 3 ECTS Credits; 1,75 credit hours
Position in the curriculum:	Kick-off event (1. Sem.)	
Compulsory/elective course:	Further training	
Course type:	Integrated course	
Language of instruction:	German	

Teaching content and learning objectives

Teaching content	**Learning objectives** After successful completion of the course, students are able to ...
Development and importance of sustainability	... critically reflect on the meaning of sustainability. ... explain the pillars of sustainability. ... describe the development of sustainability and the requirements for sustainability work in the company at a glance. ... explain the history of sustainability at a glance. ... describe the framework conditions of sustainability.
Sustainable Development Goals (SDGs)	... describe the interactions between the 17 SDG targets. ... implement the SDGs in the company organization. ... identify the challenges and opportunities of the SDGs for your own company. ... evaluate and measure the progress made in your own company with regard to the SDGs.
Teaching content	**Learning objectives** After successful completion of the course, students are able to ...

Sustainability from the auditor's perspective	... describe the requirements for sustainability work in the company. ... describe sustainability approaches and models (zero waste economy, circular economy, CO2 neutrality and compensation). ... implement sustainability in the corporate strategy. ... implement sustainability in the company organisation. ... moderate the corporate sustainability process. ... moderate the corporate sustainability process. ... describe the most relevant management systems and certifications at a glance. ... describe the GRI framework.
Sustainability from a reporting perspective	... describe the European sustainability policy at a glance. ... explain the instruments and tools in relation to reporting. ... describe the gradual introduction of directives and regulations in an overview. ... apply the principles of reporting compliance to their own organisation.

Specialist literature* and other learning materials

Basic literature:	Freiberg, J., Lanfermann, G.: ESRS Kommentar; Haufe Publishing house. Mayer, K.: Nachhaltigkeit, 111 Fragen und Antworten, Springer Gabler Publishing house. Schaltegger, St., Müller, M.: CSR zwischen unternehmerischer Vergangenheitsbewältigung und Zukunftsgestaltung; oekom Publishing house Habisch, A. u.a. inHabisch, A.;Schmidpeter, R.; Neureiter, M.: Handbuch CorporateCitizenship, Springer Publishing house. Vision 2050–Die neue Agenda für Unternehmen, World Business Council for Sustainable Development

Continuing literature:	Documents SDGs: - SDG brochure and examples for companies (DE): https://www.nachhaltigkeit.steiermark.at/cms/beitrag/12817817/162450290/ - SDG brochure for the community (DE): https://www.nachhaltigkeit.steiermark.at/cms/beitrag/12765623/155813878 - SDG workbook for communities (DE):https://www.nachhaltigkeit.steiermark.at/cms/beitrag/12765622/155813029 - SDG indicators for communities (DE): https://www.nachhaltigkeit.steiermark.at/cms/beitrag/12846027/166158442 - 3 webinars on the SDGs in communities (DE): https://www.nachhaltigkeit.steiermark.at/cms/ziel/169162600/DE/ Guidelines Taxonomy Ordinance: - EU-Taxonomie Verordnung (VO) (EU) 2020/852 - Delegierter Offenlegungsrechtsakt (EU) 2021/2178 Delegierter Rechtsakt (Klimaziele) (EU) 2021/2139 Delegierter Rechtsakt (Umwelt, Taxo4) (EU) 2023/3851 Delegierter Klimarechtsakt zu Kernenergie

	und Gas (EU) 2022/1214 Erweiterung des delegierten Rechtsaktes (Klimaziele) (EU) 2023/3850 CSRD: https://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A52021PC0189 CSDDD: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022PC0071
Other learning materials:	Slides and documents from the lecturers

*in the respective valid version

Performance assessment

The performance assessment of the course is final.

Part-time

Partial performance of the 1st examination start			
Methods of performance assessment		**Weighting**	**Minimum success for positive completion**
Presentation	Classroom teaching	100,00 %	
Total		**100,00 %**	**> 50,00 %**
Information on the 1st examination start:	There will be a presentation on the last day of the course. The presentation must be made available to the lecturers in advance. The presentation time is set at 5-7 minutes.		
Information on the 2nd examination start:	Another presentation date will be offered with the criteria of the 1st presentation.		
Information on the 3rd examination start:	The 3rd attempt will be judged by commission, otherwise the same conditions apply for the 3rd attempt as for the 2nd attempt.		

Full-time

Partial performance of the 1st examination start			
Methods of performance assessment		**Weighting**	**Minimum success for positive completion**
Presentation	Classroom teaching	100,00 %	
Total		**100,00 %**	**> 50,00 %**
Information on the 1st examination start:	There will be a presentation on the last day of the course. The presentation must be made available to the lecturers in advance. The presentation time is set at 5-7 minutes.		
Information on the 2nd examination start:	Another presentation date will be offered with the criteria of the 1st presentation.		
Information on the 3rd examination start:	The 3rd attempt will be judged by commission, otherwise the same conditions apply for the 3rd attempt as for the 2nd attempt.		

Learning/teaching methods and learning organisation

Part-time

Classroom teaching		14,00 Teaching units	10,50 Hours
Learning/teaching methods:	Discussion, question/conversation lessons, practical/case study, lecture		
Sozialformen:	Individual work, partner work, group work		
Synchronised e-learning		11,00 Teaching units	8,25 Hours
Learning/teaching methods:	Discussion, question/conversation lessons, practical/case study		
Social forms:	Individual work, partner work		
Self-directed learning			56,25 Hours
Learning/teaching methods:	Literature study, independent repetition		
Total	**1,75 Credit hours**	**42,00 Teaching units**	**75,00 Hours**

Full-time

Classroom teaching	14,00 Teaching units	10,50 Hours

Learning/teaching methods:	Discussion, question/conversation lessons, practical/case study, lecture		
Social forms:	Individual work, partner work, group work		
Synchronised e-learning		11,00 Teaching units	8,25 Hours
Learning/teaching methods:	Discussion, question/conversation lessons, practical/case study		
Social forms:	Individual work, partner work		
Self-directed learning			56,25 Hours
Learning/teaching methods:	Literature study, independent repetition		
Total	**1,75 Credit hours**	**42,00 Teaching units**	**75,00 Hours**

Dual Bachelor Program "Sustainable management Climate neutrality for companies"[2]

1. Introduction

1.1 Project Background:

Around 99 % of all EU businesses are SMEs, creating up to 70 % of all jobs. In general, SMEs have good growth prospects for the future and are particularly well equipped to solve environmental problems and to enhance the green economy. However, in most of the project countries, SMEs are confronted with a shortage of skilled workers and young entrepreneurs. This shortage of skilled workers is even more alarming considering that due to aging of current entrepreneurs, a large and growing number of companies will have to be handed over to the next generation. Furthermore, young specialists and entrepreneurs often lack the qualifications and skills needed to respond to contemporary developments in the fields of energy, climate, and environmental protection. The following problems have been identified in SMEs working in the fields of green economy, energy, and environmental protection:

- Blatant and growing shortage of skilled workers.
- Large qualification deficits, especially in the Green Economy.
- Loss of attractiveness and low qualification of school-based VET.
- Low rates of further training and insufficient orientation of offers to SME needs.
- Ageing of entrepreneurs and increasing shortage of young people (demographic change).
- Failure of business transfers and low rates of business start-ups.
- Low innovation rates and insufficient productivity.
- Not enough cooperation between universities and SMEs and a lack of teaching geared to SME needs.
- Comparably low internationalization of SMEs and vocational training providers.

To meet these challenges, work-based learning and new paths in vocational and further training must be provided through cooperation between educational institutions, economic chambers, and SMEs. University graduates are often well-qualified in theory, but lack practical knowledge, skills and abilities that are crucial for SMEs. For this reason, VET reforms must also involve higher education, and should implement dual bachelor's degree programs that combine a bachelor's degree with vocational training and on-sight work in companies.

In the 3LoE project, an innovative and complex project structure with 22 project partners from 7 countries as well as 60 associated partners from 13 countries was designed. In each country, centers of professional excellence (COEs) in Green Economy are established, managed and their permanent continuation ensured. A transnational cooperation of the centers will be developed, extended to 60 education stakeholders, and operated permanently in an institutionalized form. The centers offer a wide range of dual education measures in vocational training, further education, and higher education, that are being developed, tested, and evaluated in the project.

[2] Prepared by Wirtschaftsförderungsinstitut (WIFI) Steiermark

These educational measures on EQF levels 3-6 focus on Green Economy, Digitalization and Entrepreneurship. Furthermore, vocational, and educational consulting and innovation support for SMEs will be developed and implemented. In total, seven Train-the-Trainer programs will be developed and implemented permanently by the project partners. All results will be transferred to the 60 associated partners together with implementation advice.

This curriculum presents a complete novelty in the educational sphere of vocational education and training in Austria. An amendment to the Universities Act passed in 2021 which reorganizes continuing education studies in Austria. Through the amendment the standardization, permeability and equivalence of continuing education studies was increased. For future students, this means that there will be even greater flexibility and more options in the future.

The reform standardizes the framework conditions for continuing education studies in Austria and integrates them into the Bologna structure, which is defined as Bachelor, followed by Master, followed by PhD studies. The reform makes it among others possible, to achieve a Bachelor's degrees in continuing education. The reform enables permeability between regular and continuing education studies. The completion of a bachelor's degree in continuing education entitles the holder to pursue a master's degree in continuing education as well as a (regular) master's degree at another university. This makes it possible to also enroll in a doctoral study program. The degrees from continuing education programs receive the abbreviation for continuing education studies in cooperation with non-university educational institutions conclude with a "Bachelor Professional" (BPr) or "Master Professional" (MPr).

This curriculum is designed as a “Bachelor Professional” (BPr) between a non-university educational institution (WIFI Styria) as well as a university of applied sciences. The first year is conducted by WIFI Styria, while the second and third year will be conducted by the university of applied sciences. One of the main novelties is that participants of the Bachelor Professional do not require a general university entrance qualification (which is called Matura in Austria). It is possible to start the Bachelor Professional with relevant professional qualification or several years of a relevant professional experience while the general university entrance qualification is not mandatory. As this is a new study program the higher educational institute evaluates whether the admission requirements are fulfilled. The professional and non-professional qualifications can be recognized after validation of the learning outcomes for academic achievements.

Up to 60 ECTS can be recognized for already completed examinations either at a university or at the non-university institution. Furthermore, up to 60 ECTS can be recognized for the professional or non-professional qualification after validation of the learning outcomes. It is possible to recognize up to a maximum of 90 ECTS. Regulations and standards on the procedure for validation of learning outcomes must be laid down in the statutes of the educational institutions. Supplementary examinations may also be prescribed to compensate for significant subject-specific differences. The decisions lie with the respective educational providers.

Thus, this curriculum was developed to carry out a Bachelor Professional education on EQF level 6 called “Sustainable Management - Climate Neutrality for

Organizations". It demonstrates the required modules and courses which need to be completed to finish the education. This education in Austria is intended for participants, who fulfill the requirements of a Bachelor Professional. This curriculum is intended to provide a holistic education relevant for climate neutrality, thus topics around energy, sustainability, management, etc. will be integrated. The education is designed in a way that people with different backgrounds can participate. The first year is designed in a way that people who have professional experience in a business management related field, such as accountants, office clerks, retail trade, administrative assistants, commercial assistants, industrial clerks etc. Furthermore, people who finished the general higher education entrance qualification, are able to participate in this education.

It must be noted that legislation differs within EU countries on the entrance qualifications as well as the implementation of this curriculum. Thus, if the modules or this program is used outside of Austria certain amendments might have to take place according to national legislations.

It is however possible to use individual modules or courses and adapt then to other educations on different EQF levels.

Furthermore, this curriculum is designed to be implemented after the runtime of the 3LoE project, thus changes within the individual modules and courses may apply. It is intended to incorporate this program within the Austrian Center of Excellence.

Decision-making basis for the establishment and contents:

This curriculum aims to provide people, who have already gained professional experience in a business-related field - especially in small and medium-sized enterprises (SMEs) - with further knowledge, qualifications and skills in relevant topics required to support organizations and especially SMEs in tackling climate related challenges and to pave the way for achieving climate neutrality. This can be done by persons with professional experience, skilled workers, people who finished a secondary education, finished apprentices, etc. in a non-technical field of application.

The aim of this education is to provide the participants with a theoretically sound basis for the work that is required to support organizations in realizing sustainable strategies and implementing environmental legislation. They will gain and deepen knowledge and expand it as well as gain skills required to work as a qualified expert in sustainable management.

1.2 Executive Summary

This curriculum was designed during the runtime of the 3LoE project to offer comprehensive, specialized factual and theoretical knowledge for a completely new type of bachelor's degree in Austria as a new professional further education in the field of sustainable management, with a focus on climate neutrality for organizations - especially for small and medium sized enterprises.

The education is classified as European and National Qualification Framework level 6.

The participants must fulfill the prerequisites to participate in this course. The prerequisites are relevant professional qualification or several years of a relevant professional experience in a business management related field. Whether the prerequisites are fulfilled is evaluated by the higher educational institution together with the non-university educational institution on an individual basis. The curriculum is designed that formally

specialized and non-formally specialized persons can participate and complete the education. However, it is generally aimed at people with a professional experience in a business management related filed with a high interest in sustainability and environmental management for organizations.
The individual modules, which are listed further below, were developed in line with required knowledge, skills and qualification based on the professional and theoretical contents and the requirements of an education on EQF/NQF level 6.
The education “Sustainable Management” is a program for people who aim to become new professional experts in relevant area of sustainable management and climate neutrality on NQF level 6 as well as people outside of the field who wish to educate themselves and to deepen their knowledge on these topics. This course is specifically designed for people who want to support organisations in achieving climate neutrality.
This education consists of six modules:

- Module I – “Business Practices”
- Module II – “Advanced Business Practices and Entrepreneurship”
- Module III – “Introduction to Sustainability and the Environment”
- Module IV – “Climate Leadership through Climate Neutrality”
- Module V – “Scientific and Project Work in Applied Sustainability”
- Module VI – “Recap, Research and Thesis”

Completion of all courses in all modules results in obtaining a “Bachelor Professional (Bpr.)” in “Sustainable Management - Climate Neutrality for Organizations” on NQF Level 6.

1.3 Course Details

Bachelor Professional (BPr) “Sustainable Management – Climate Neutrality for Organizations”

Contact Details

WIFI Steiermark Körblergasse 111-113 A-8010 Graz Tel.: +43 306 602 1234 Fax: +43 316 602 301 E-Mail: info@stmk.wifi.at Web: https://www.stmk.wifi.at

Type of the course

Bachelor's degree on EQF and NQF Level 6

Type of Degree

Bachelor Professional degree - BPr

Duration of the study

The total amount of the study programme is 180 ECTS. This translates to 30 ECTS consisting of 200 to 450 teaching units (45 minutes each) per semester. This excludes self-study time and preparations and research for presentations and examinations. The normal duration of the study programme is six semesters or three years. Depending on the professional experience and already completed courses, the 180 ECTS can be reduced to 90 ECTS. In certain cases, the possibility of entering the course in the third semester exists.

Provider

Wirtschaftsförderungsinstitut der Wirtschaftskammer Österreich (WIFI) Steiermark

Economic Development Institute of the Austrian Economic Chamber (WIFI) Styria

2. Demand and Acceptance

The main aim of this curriculum is to provide a higher educational opportunity for beginners as well as professionals, with a background in business management related areas, in the field of sustainable management to support the realization of national and international climate targets (such as the EU Green Deal, Agenda 2030, National Climate Plan, etc.), by supporting organizations in reaching climate neutrality. The main organizations addressed are SMEs. However, other types of organizations are not excluded.

The objective is to impart knowledge in the field of sustainable management on a relatively new educational offer on NQF Level 6. This curriculum is part of a permeable training programme that makes the transition of experts from EQF levels below 6 possible to EQF level 6 possible. Furthermore, it provides the opportunity that after completion the continuation of academic education on EQF level 7 is possible.

3. Field of activity and qualification profile

3.1 Main Activities and Typical Functions

The main activities a person who completed a Bachelor Professional Education in the field of Sustainable Management – Climate Neutrality in Organizations are very extensive as well as diverse. As sustainable management is considered a cross-sectional subject matter which incorporates interdisciplinary aspects, participants can engage in and pursue a variety of different carriers, roles, and activities across most industry sectors.

The opportunities very from being employed in small and medium-sized enterprises as sustainability manager or coordinator that specialize in implementation of measures to reach set climate targets to sustainability consultant, supply chain analyst and many more. Employment opportunities range from governmental, non-governmental, private, freelancing and NGO work.

The typical activities depend on the chosen function. A list, demonstrating typical functions with typical activities is provided below. Please note, that this is not a comprehensive list of all possible functions and activities.

Excerpt of typical functions and activities:

- **Sustainability Manager**

  - Development, implementation, and monitoring of sustainability strategies.
  - Sustainability reporting and compliance with regulations.
  - Coordination of internal and external sustainability initiatives.
  - Implementation of integrated management systems (e.g. ISO 14001)
- **Corporate Social Responsibility (CSR) Manager**
  - Management of internal and external CSR programs and initiatives.
  - Stakeholder engagement on social, environmental, and economic issues.
  - CSR reporting.
- **Environmental Manager**
  - Consultation and support improvement of environmental performances.
  - Execution of environmental impact assessments and audits.
  - Development of short-, medium-, and long-term sustainability plans and policies.
- **Environmental and Climate Policy Analyst**
  - Analyze and develop environmental policies.
  - Advocate for sustainable practices and regulations.
  - Collaborate with governmental and non-governmental organizations.
  - Research and analyze climate change data and trends.
  - Develop strategies to mitigate climate impact.
  - Advocate for climate action at local, national, or international levels.
- **Environmental and Sustainability Trainer**
  - Teaching of environmental and sustainability principles and practices.
  - Development of educational materials, courses, and programs.
  - Conducting of workshops and speaking at conferences.

3.2 Typical Organizations

Persons that completed this educational program are not limited in the type of organization. As new legislative regulations are emerging on national and international basis the range of possible organizations across various sectors is extensive. An education in Sustainable Management can be applied in the following types of organizations:

- Small and medium Enterprises (SMEs)
- Large Corporations
- Consultancy Companies and Bank institutions
- Government Agencies and Departments
- Municipalities and Communities
- International Organizations
- Non-Profit and Non-Governmental Organizations
- Research and Development Institutions
- Educational Organizations

3.3 Typical Industries

As mentioned above sustainable management and climate neutrality are considered a cross-sectional subject matter which incorporates interdisciplinary aspects. Thus, participants can engage in and pursue a variety of different carriers, roles, and activities across most industry sectors.

3.4 Qualifications and Competences

All learning outcomes of this education program correspond to the competence level of EQF 6. EQF level 6 typically corresponds to the first cycle of tertiary education, such as a bachelor's degree or an equivalent education, depending on the country.
The GreenComp: the European sustainability competence framework of the European Commission has been considered while creating this curriculum.
Participants who complete the Bachelor Professional “Sustainable Management – Climate Neutrality in Organizations” achieve following Qualifications, Competences, Knowledge, and Skills.

Qualifications

A Bachelor Professional’s degree in “Sustainable Management – Climate Neutrality in Organizations” involves contents and provides qualifications in environmental science and policy, economics, social sciences, system dynamics, sustainable business management, climate science and neutrality, renewable energy, and national and international certifications.

Competences

The Bachelor Professional “Sustainable Management – Climate Neutrality in Organizations” shall provide participants with various competences which are essential for their professional work. After participation the participants have the competence to manage complex professional sustainable activities or projects, taking responsibility for decision-making and should be able to self-reflect on their activities. When taking on a supervisory role within their environments they are competent in initiating and collaborating in innovative contributions to climate neutrality related actions. They should show high competence in leading internal and external change processes towards climate neutrality, engaging and motivating stakeholders, and fostering a culture of knowledge transfer and knowledge utilization. They will be able to identify, analyze, and solve complex system related challenges related to climate change mitigation and the proper adaptation within organizational contexts to minimize negative environmental impacts. Skills in collaborating with various stakeholders, including government agencies, NGOs, businesses, community, but also other related and sometimes overlooked stakeholders such as the “silent environment” and people along the supply chain to achieve climate goals is one of the aimed at competences. So is the capacity to implement technologies and practices that contribute to reducing GHG emissions and to develop sustainability strategies and policies within an organization. Finally, the capacity of participants to make decisions considering the long-term impacts on the environment, economy, society, and ethical aspects.

Knowledge

The participant has a comprehensive, specialized theoretical and factual knowledge and awareness of the limitations of that knowledge of Sustainable Management and Climate Issues.

1) A comprehensive understanding and knowledge about the three dimensions of sustainability and sustainable management principles, including the environmental, economic, and social dimensions.
2) A comprehensive knowledge of theoretical foundations including the critical understanding of theories and principles related to sustainable development, environmental science, resource management, and corporate social responsibility.
3) Knowledge of international and national regulatory and policy frameworks, including the relevant laws, regulations, and policies governing environmental and sustainability practices at local, national, and international levels. Knowledge of the Paris Agreement, the Sustainable Development Goals of the Agenda 2030, national climate action plans.
4) Advanced understanding of the science of (anthropogenic) climate change, including its causes, impacts, and mitigation strategies. Furthermore, an understanding of driving forces, pressures, states, impacts and responses of environmental burdens and environmental protection measures.
5) An in-depth knowledge of sustainable practices, management tools and technologies that contribute to climate neutrality (e.g. renewable energy, energy efficiency, carbon sequestration, mitigation strategies, substitution, etc.).
6) Understanding of corporate sustainability principles, including corporate social responsibility (CSR), environmental, social, and governance (ESG) criteria, and sustainable business models.

Skills

The participant can demonstrate advanced skills, required to solve complex and unpredictable problems regarding issues related to sustainable management and climate neutrality. The participant can critically analyze, evaluate, and synthesize new and complex ideas in these fields and can solve complex problems that require abstract thinking and specialized knowledge.

1) The participant can develop, implement, and monitor strategic plans for achieving climate neutrality, including setting targets, designing action plans, and monitoring progress.
2) The participant can proficiently collect, analyze, and interpreting data related to greenhouse gas (GHG) emissions, energy usage, and other sustainability metrics.
3) The participant gained skills in project management aimed at reducing carbon, water, and environmental footprints, implementing renewable energy solutions, and enhancing energy efficiency.
4) The participant has effective communication skills to advocate for climate action within an organization and for conveying complex sustainability concepts,

including writing related reports, delivering presentations, and engaging relevant stakeholders.

5) The participant can conduct cost-benefit analyses of climate neutrality initiatives, including the understanding of financial incentives, funding opportunities, and return on investment.
6) The participant can critically analyze complex sustainability issues, evaluate potential solutions, and synthesize information from various sources.
7) The participant can lead projects, including its planning, execution, and management in the field of sustainability, and is able to relevant tools and methodologies.
8) The participant is able to conduct research related to sustainability and climate, including data collection, new findings, analysis, and interpretation.

4. Description of the Curriculum

The modules of the curriculum …

Module I	“Business Practices”
Module II	“Advanced Business Practices and Entrepreneurship”
Module III	“Introduction to Sustainability and the Environment”
Module IV	“Climate Leadership through Climate Neutrality”
Module V	“Scientific and Project Work in Applied Sustainability”
Module VI	“Recap, Research and Thesis”

…are defined and standardized. Participation (of at least 75 %) in all courses is required to be eligible to take the examinations. All modules are characterized by theoretical lecture contents and independent self-study work.
Which assessment methods apply is depended on the course. The usual method of assessment consists of coursework, assignments, presentations, and examinations. Attendance and participation might contribute to the course grade.
The examinations take place via a written examination in each course of each module. The module grades are then calculated via the average course scores of the courses within the respective module. All modules taken together result in a final grade.
The curriculum is structured in a way that the Modules consist of courses and contents that are applicable for crediting from previous experience, courses etc. Module III to VI are mandatory for every participant. The applicability of previous experience is done individually on a case-to-case basis.

4.1 Module I "Business Practices"

Module title: "Business Practices"	
Module Number: 1	**Scope**: ECTS Credits: 30
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	First Semester
Subject area:	Business Management Fields
Allocated courses:	I Introduction to Business Practices II Fundamentals of Marketing III Fundamentals of Accounting IV Fundamentals of Logistics V Professional Practice
Prerequisites:	-
Guiding idea and competences acquisition:	The module "Business Practices" is designed to provide participants with a comprehensive introduction to the fundamental concepts and practices that underpin the world of business. This module aims to build a strong foundation in key areas such as business operations, marketing, accounting, logistics, and professional conduct. The guiding ideas focus on the integration of theoretical knowledge with practical skills, fostering an understanding of how different business functions interact and contribute to organizational success. By completing this module, participants will acquire a range of competencies across several domains: Competences - Knowledge: Understanding basic business concepts and terminology. Awareness of various types of business structures and models. Understanding key marketing concepts such as market segmentation, targeting, and positioning. Awareness of marketing strategies and tactics. Understanding fundamental accounting concepts such as double-entry bookkeeping, accrual accounting, and the accounting cycle. Awareness of financial statements and their components (balance sheet, income statement, cash flow statement). Understanding core logistics concepts and terminology. Awareness of the logistics and supply chain processes and their importance in business efficiency. - Skills: Analytical skills to assess business environments and market conditions. Communication skills for articulating business ideas and concepts. Ability to develop basic marketing plans and strategies. Competence in market research and data analysis. Ability to record financial transactions and prepare basic financial statements. Analytical skills for interpreting financial data and assessing financial performance. Ability to analyze and optimize logistics processes. Competence in logistics planning and management. Teamwork and collaboration skills for working effectively in diverse teams.

	Leadership skills to motivate and guide others. - Attitudes: Appreciation for ethical business practices and corporate social responsibility. Adaptability and openness to diverse business contexts and practices. Customer-centric mindset and appreciation for the value of customer relationships. Creativity and innovation in marketing approaches. Attention to detail and accuracy in financial reporting. Integrity and ethical behavior in accounting practices. Appreciation for the importance of efficient logistics in business success. Problem-solving mindset to address logistics challenges. Professionalism and accountability in business conduct.
Assessment methods and criteria:	The module will be completed with an overall assessment of the module. The performance assessment is based the written examinations and presentations of the individual courses within the module. Performance assessment is 100% by the grades achieved in the individual courses. Special features of the 2nd and 3rd attempt: The criteria of the 2nd attempt correspond to those of the 1st attempt. The 3rd attempt is to be completed as a board written exam with the criteria of the 2nd attempt.

Course I.I "Introduction to Business Practices"

Course title: "Introduction to Business Practices"	
Course unit code: 1.1	**Scope**: 5 ECTS - 80 Teaching Units: 60 hours - Assignments, essays, and presentations: approx. 30 hours - Self-studying and exam preparation: approx. 40 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	1st Semester
Type of course unit (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Management & management tools - Fundamentals of Management - Tasks, goals, and competences of effective management - Modern management dimensions - Strategic and operational management tools - Vision, mission, and goals of organizations - Application of management know-how Strategy & Innovation - Strategic thinking - Innovation management - Corporate strategies - Market positioning

	- Strategic models - Design and implementation of corporate strategies Marketing & Sales - Fundamentals of market orientation and marketing - Market analysis and segmentation - Design and implementation of marketing concepts - Sales strategies - Sales management Controlling & business plans - Development and implementation of business plans - Reading and understanding balance sheets - Fundamentals of investment, financing, and liquidity - Accounting systems - Optimization of controlling Human resources management & leadership - Leadership and leadership styles - Communication and conflict behavior - Employee management - Employee recruitment and selection - Personnel development
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand management methods and tools. …understand, follow, and set organizational goals. … initiate projects. …recognize the most important core tasks in organizations. …understand business management on a fundamental level.
Recommended literature	Ferrell O.C., Hirt G., Ferrell L.: "Business: A Changing World" Nickels W., McHugh J., McHugh S.: "Understanding Business" Hill C.W.L., McShane S.: "Principles of Management"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study and Essay - Presentation - Independent repetition
Assessment Methods and Criteria	Written final examination.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course I.II “Introduction to Marketing”

Course title: “Fundamentals of Marketing”	
Course unit code: 1.2	**Scope**: 5 ECTS - 120 Teaching Units: 90 hours - Assignments, essays, and presentations: approx. 15 hours - Self-studying and exam preparation: approx. 30 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	1st Semester

Type of course unit (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Basics of marketing Buyer behavior - Basics of buyer behavior - The digital customer - Influencing factors and types of purchase decisions - Buying behavior and customer relationships - Touchpoints, customer journey and customer experience Marketing mix - The 7 Ps and the 4 Cs - 7 P: Product, Price, Place, Promotion, Personnel, Process, Physical Evidence - 4 Cs: Consumer, Cost, Convenience, Communication Strategic marketing - Fundamentals of digital marketing - Operational and strategic planning - Strategic analysis of the company situation - Marketing concept - The (digital) marketing strategy - Market-oriented corporate management - Strategic lead generation Market research - Instruments - Secondary market research - Primary market research - Customer needs, customer feedback and customer surveys - Customer satisfaction - Evaluation of data Operational marketing - Traditional marketing - Digital Marketing - Planning and implementation - Projects and the management of service providers
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …know the competitive mechanisms of the market and the success levers for successful positioning on the market. …know the classic and digital instruments of contemporary marketing and can assess their benefits and limitations with regard to business requirements and circumstances. …independently and responsibly design and improve cross-divisional marketing processes. …conceptualize marketing objectives and tasks with relevant partners such as agencies and manage corresponding projects. …analyze market conditions, competitors, and customer behavior to plan the appropriate marketing of products, services, or brands.

	…create strategies and concepts for the organization and implementation of various marketing activities. …plan, implement, control, and optimize cross-channel communication and marketing campaigns.
Recommended literature	Armstrong G., Kotler P.: "Marketing: An Introduction"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study and Essay - Presentation - Independent repetition
Assessment Methods and Criteria	Written final examination.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course I.III “Introduction to Accounting”

Course title: “Introduction to Accounting”	
Course unit code: 1.3	**Scope**: 5 ECTS - 120 Teaching Units: 90 hours - Assignments, essays, and presentations: approx. 15 hours - Self-studying and exam preparation: approx. 30 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	1st Semester
Type of course unit (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	- Theory and basic concepts - Gross-net accounting - Legal and organizational framework conditions - Current business transactions - Special business transactions - Introduction to sales tax - Preparing monthly financial statements - Posting of current and special business transactions - Accounting notifications from the tax office - All monthly tax and payment deadlines - Value added tax - intra-community deliveries/acquisitions - Basics of income and expenditure accounting - Opening entries at the beginning of a financial year - Revenue and expenditure account - Cash register transactions - Incoming and outgoing invoices - Bank postings - Advance sales tax return
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … understand the system of double-entry bookkeeping.

	… can carry out day-to-day business and daily closing in the accounting department. … post current and selected business transactions and prepare monthly financial statements. … recognize any problems that arise and know when to seek support.
Recommended literature	Libby R., Libby P., Hodge F.: "Financial Accounting" Weygandt J.J., Kimmel P.D., Kieso D.E.: "Accounting Principles" Horngren C.T., Sundem G.L.: "Introduction to Financial Accounting"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Application of theory - Independent repetition
Assessment Methods and Criteria	Written final examination and practical test.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course I.IV "Fundamentals of Logistics"

Course title: "Fundamentals of Logistics"	
Course unit code: 1.4	**Scope**: 5 ECTS - 120 Teaching Units: 90 hours - Assignments, essays, and presentations: approx. 15 hours - Self-studying and exam preparation: approx. 30 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	1st Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	<u>Logistics service & logistics costs</u> - Corporate logistics as a modern performance system - Tasks and objectives of corporate logistics - Material, information and value flow (SCM) - Logistics processes and logistics costs - Potential analysis of corporate logistics <u>Materials management</u> - Fundamentals of strategic purchasing - Purchasing processing - Differentiation between strategic purchasing and materials management - Analysis methods - Basics of value stream analysis <u>Sales & Distribution</u> - Basics of sales and distribution - Commercial/legal introduction to distribution systems

	- Logistical span of control in distribution - Portfolio analysis and application in practice - Distribution channels and distribution levels - Development of distribution systems in an international context <u>Forwarding & Transportation</u> - Fundamentals of freight forwarding - Basics of the transportation industry - Choice and comparison of means of transport - Freight transportation routes and hub & spoke systems - Transportation and insurance costs - Truck calculation - Comparison of means of transport in terms of performance - Transport part values and transport part values <u>Warehouse logistics</u> - Introduction to modern warehouse logistics - Goods receipt and incoming goods inspection - Putaway area and internal transportation to the warehouse - Storage of goods in industry, trade and commerce - Disposal problems and disposal solutions - Warehouse technology and warehouse equipment - Warehouse planning and warehouse layout - Layout and process systems in modern warehouses <u>Logistics controlling</u> - Introduction to modern logistics controlling - Controlling systems and logistics key figures - Logistics performance values and logistics controlling - Logistics costs and logistics controlling - Control instruments in modern logistics controlling <u>Case Studies</u> - Comprehensive case studies for group work - Workshops and case studies - Practical relevance of case studies for logistics training - Training and discussion - Practical problems and solutions
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …describe the fundamental concepts of logistics and its significance in the supply chain. …explain the interrelationships between logistics functions and other business operations. …identify the different types of logistics services and their role in enhancing business efficiency. … understand the components and drivers of logistics costs. …analyze and evaluate logistics service levels and their impact on overall business performance. …develop strategies for optimizing logistics services while controlling costs. …explain the principles of materials management and its importance in logistics. …implement inventory management techniques to balance supply and demand. …apply methods for efficient procurement, storage, and handling of materials.

Recommended literature	-
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study - Independent repetition
Assessment Methods and Criteria	Written final examination.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course I.V "Professional Experience"

Course title: "Professional Experience"	
Course unit code: 1.5	**Scope**: 10 ECTS This amounts to approximately 250 hours of relevant practical experience.
Level of course unit:	-
Semester when the course unit is delivered:	2nd Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Practical experience
Language	German
Required previous courses	-
Course Contents	In this module and as part of the Professional Bachelor's degree program, participants can complete a relevant internship or work experience of 10 ECTS credits to test and apply the acquired knowledge and skills of modules I and II (business related contents) in practice. Furthermore, it is possible to credit previous professional work experience or currently undergoing professional work experience or relevant qualifications for 10 ECTS. 10 ECTS correspond to approx. 250 working hours. Whether or not previous or current professional experience or an internship can be credited is evaluated on an individual basis. Following requirements apply: When applying, the relevance to the subject or the relationship to the above-mentioned modules must be described. If the participants do not have relevant experience, the provider of this programme supports the participants in finding a relevant internship according to the requirements.
Learning outcomes of the Course Unit	Practical Experience
Recommended literature	n.a.
Planned learning activities and teaching methods	n.a.
Assessment Methods and Criteria	For the assessment of this course a professional certificate by the employer is required.

Note:	This course can be credited as completed with appropriate professional experience.

4.2 Module II "Advanced Business Practices and Entrepreneurship"

Module title: "Advanced Business Practices and Entrepreneurship"	
Module Number: 2	**Scope**: ECTS Credits: 20
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	Second Semester
Subject area:	Business Management Fields
Allocated courses:	I Entrepreneur and Start-up Training II Supply Chain Management III Advanced Accounting IV Procurement Management V Professional Experience
Prerequisites:	Module I
Guiding idea and competences acquisition:	The "Advanced Business Practices and Entrepreneurship" module is designed to build on foundational business knowledge and introduce students to more specialized and advanced topics. The guiding ideas focus on developing an entrepreneurial mindset, advanced managerial and accounting skills, and practical experience in business settings. This module aims to prepare students for the complexities of modern business environments, emphasizing innovation, strategic decision-making, and professional competence. By completing this module, participants will acquire a range of competencies across several domains: <u>Knowledge</u> - Understanding the process of creating and developing a start-up. - Awareness of business models, funding sources, and growth strategies. - Understanding advanced supply chain concepts such as demand forecasting, inventory management, and logistics optimization. - Awareness of global supply chain trends and challenges. - Understanding advanced accounting topics such as managerial accounting, cost accounting, and financial analysis. - Awareness of regulatory frameworks and compliance issues. - Understanding strategic procurement concepts such as supplier selection, contract management, and procurement performance measurement. - Awareness of global sourcing strategies and supply risk management. <u>Skills</u> - Ability to develop business plans and pitch ideas to potential investors. - Skills in market research, opportunity recognition, and risk management. - Ability to design and manage complex supply chains. - Competence in using supply chain management software and tools.

	- Ability to prepare and analyze complex financial statements and reports. - Skills in budgeting, forecasting, and financial planning. - Ability to develop and implement effective procurement strategies. - Competence in negotiating contracts and managing supplier relationships. Attitudes - Entrepreneurial mindset with a focus on creativity and resilience. - Willingness to take calculated risks and learn from failures. - Strategic thinking to optimize supply chain performance. - Appreciation for sustainable and ethical supply chain practices. - Precision and attention to detail in financial reporting. - Ethical behavior and integrity in accounting practices. - Strategic and analytical thinking in procurement decisions. - Commitment to sustainable and ethical procurement practices.
Assessment methods and criteria:	The module will be completed with an overall assessment of the module. The performance assessment is based the written examinations and presentations of the individual courses within the module. Performance assessment is 100% by the grades achieved in the individual courses. Special features of the 2nd and 3rd attempt: The criteria of the 2nd attempt correspond to those of the 1st attempt. The 3rd attempt is to be completed as a board written exam with the criteria of the 2nd attempt.

Course II.I “Entrepreneur and Start-up Training”

Course title: “Entrepreneur and Start-up Training”	
Course unit code: 2.1	**Scope**: 5 ECTS - 80 Teaching Units: 60 hours - Assignments, essays, and presentations: approx. 30 hours - Self-studying and exam preparation: approx. 40 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	2nd Semester
Type of course unit (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Entrepreneurship - Personnel management - Communication & Behavior - Marketing - Labor and social security law - Organization in the company - Corporate law/civil law - Cost accounting

	- Bookkeeping Start-Up Training - Strategies for being independent - Formulation of business ideas - Market position clarification - Customer acquisition - Sales prices calculation - Trade regulations - Securing financing
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand the fundamentals of entrepreneurship. …define entrepreneurship and its role in economic development. …describe the characteristics and mindset of successful entrepreneurs. …explain the various types of entrepreneurships (e.g., social, corporate, technological). …develop and evaluate business ideas. …identify opportunities for new ventures through market research and analysis. …develop creative and innovative business ideas. …evaluate the feasibility of business ideas using various tools and frameworks. …create comprehensive business plans. …understand the components of a business plan, including executive summary, market analysis, organizational structure, product/service line, marketing, and financial projections. …develop detailed business plans that outline strategies for starting and growing a business. …present and defend business plans to potential stakeholders and investors. …acquire knowledge on Start-up processes. …understand the legal and regulatory requirements for starting a business. …learn about different business structures (e.g., sole proprietorship, partnership, corporation) and their implications. …navigate the steps to register a business, secure permits, and comply with local regulations. …develop financial literacy for Start-ups. …create and interpret basic financial statements (income statement, balance sheet, cash flow statement). …develop skills in budgeting, financial forecasting, and managing start-up finances. …understand funding options for start-ups, including bootstrapping, venture capital, angel investors, and crowdfunding. …manage Start-up operations. …understand the principles of effective start-up management. …develop skills in project management, time management, and resource allocation. …learn about building and managing a start-up team, including hiring, training, and leadership.

	…apply entrepreneurial skills in real-world contexts. …gain practical experience through case studies, simulations, and real-world projects. …engage in entrepreneurial activities such as pitch competitions, business plan presentations, and networking events. …reflect on personal entrepreneurial goals and career paths.
Recommended literature	Thiel P., Masters B.: "Zero to One: Notes on Startups, or How to Build the Future" Blank S., Dorf B.: "The Startup Owner's Manual: The Step-by-Step Guide for Building a Great Company" Sinek S.: "Start with Why: How Great Leaders Inspire Everyone to Take Action"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Workshops - Case study - Group projects - Independent repetition
Assessment Methods and Criteria	Written final examination.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course II.II “Supply Chain Management”

Course title: “Supply Chain Management”	
Course unit code: 2.2	**Scope**: 5 ECTS - 120 Teaching Units: 90 hours - Assignments, essays, and presentations: approx. 15 hours - Self-studying and exam preparation: approx. 30 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	2nd Semester
Type of course unit (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Introduction to Supply Chain Management (SCM) - What is new about SCM? - Value-added thinking and acting - Realignment and strategies - Tools and direct application in SCM - New markets and market opportunities through SCM Procurement marketing & SCM sourcing - Active processing of the procurement market - Modern developments in global sourcing - Supplier development - E-procurement and e-purchasing - BMI, VMI and C-parts management

	Dynamic scheduling and SCM cockpit - From static to dynamic scheduling - IT-supported scheduling simulator - Analytics and simulations for production companies - IT-supported simulations for retail companies - Leveraging savings potential for industry and retail Value stream analysis and value stream design (VSA & VSD) - Introduction to Value Stream Analysis (VSA) - The new value stream view for your company - Tools of value stream design - Toyota Production System - TPS applications - Simulation game in the context of value stream design Sales management in the context of SCM - New markets and market opportunities through SCM - Cash costs and alternative costs in sales - Added value of a supply chain in sales - Contract logistics for sales managers - Legal aspects of sales management in SCM
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … understand the fundamentals of supply chain management. …explain the basic concepts and principles of supply chain management. …describe the components and functions of a supply chain. …understand the strategic importance of SCM in business operations and competitiveness. …analyze and implement procurement marketing and sourcing strategies. …understand the role of procurement in the supply chain. …develop strategies for effective procurement and supplier selection. …apply procurement marketing techniques to enhance sourcing efficiency. …evaluate the impact of sourcing decisions on the overall supply chain performance. …apply dynamic scheduling and utilize cockpit tools. …understand the principles of dynamic scheduling in SCM. …use SCM cockpit tools for monitoring and managing supply chain activities. …analyze and interpret data from SCM cockpit tools to make informed decisions. …conduct value stream analysis and design value streams. …integrate sales management with supply chain management. …understand the relationship between sales management and supply chain management. …develop strategies for aligning sales and supply chain operations to meet customer demand. …implement collaborative practices between sales and SCM teams to enhance overall efficiency.
Recommended literature	Chopra S., Meindl P.: "Supply Chain Management: Strategy, Planning, and Operation"

	Christopher M.: "Logistics & Supply Chain Management" Sollish F., Semanik J.: "The Procurement and Supply Manager's Desk Reference"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Workshops - Case study - Independent repetition
Assessment Methods and Criteria	Written final examination.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course II.III "Advanced Accounting"

Course title: "Advanced Accounting"	
Course unit code: 2.3	**Scope**: 5 ECTS - 120 Teaching Units: 90 hours - Assignments, essays, and presentations: approx. 15 hours - Self-studying and exam preparation: approx. 30 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	2nd Semester
Type of course unit (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	Course I.III
Course Contents	<u>Accounting</u> Accounting theory - Basics of income and expenditure accounting - Organizational forms of double-entry bookkeeping (paperless bookkeeping, EDP bookkeeping) - Document management - Accounting and recording obligations under commercial and tax law - Formal and material correctness of bookkeeping - Inventory procedures - Partial value determination Accounting practice - Accounting for all taxes - Recording the purchase and sale of goods - Determination and posting of cost of sales, material usage and inventory changes -Accounting for returned goods, rebates, discounts - Posting of payment transactions - Posting wages and salaries - Additions to and disposals from fixed assets - Determination and posting of investment allowances in accordance with current tax law - Foreign currency accounting

	- Accruals and deferrals, in particular the posting of provisions and reserves Tax law - Value added tax - Basic concepts of income tax law with special consideration of the determination of taxable profit Basic concepts of cost accounting Civil law and corporate law - Contract law - Property law - Principles of commercial law
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … prepare a balance sheet for sole traders and partnerships until it is ready to be declared.
Recommended literature	n.a.
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Workshops - Case study - Independent repetition
Assessment Methods and Criteria	Written final examination.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course II.IV “Procurement Management”

Course title: “Procurement Management”	
Course unit code: 2.4	**Scope**: 5 ECTS - 120 Teaching Units: 90 hours - Assignments, essays, and presentations: approx. 15 hours - Self-studying and exam preparation: approx. 30 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	2nd Semester
Type of course unit (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Negotiation management - Suppliers: Opponent or partner? - Preparation of negotiations - Negotiation topics price, delivery time and quality - Opening, arguing, and dealing with objections Strategic procurement - Corporate goals and procurement - Strategic objectives in procurement - Cost reduction and securing supply - Purchasing organization and supply chain management

	Digitalization in purchasing - The digital age - Systematically implementing digitalization - Digitalization solutions from practice Purchasing controlling - Forecasting, planning, target/actual comparisons - Price analysis, price development - Benchmarking and other analysis techniques - Top key figures for purchasing managers and performance information systems Global sourcing - Purchasing on the global market - Intercultural competence - Developing strategies for dealing with cultural differences - Most important rules for international purchasing Project purchasing - Process thinking and project management - Critical success factors - Procuring services - Purchasing control of projects Purchasing in retail - Purchasing planning in retail - Planning process - Product policy - Big data and retail analytics Supplier management - Assessing the performance of first and regular suppliers - Utilizing the potential of regular suppliers - Interaction between purchasing & development - Annual planning and supplier development
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …recognize the environmental factors for an organization that have a significant influence on purchasing. …align the strategic work in purchasing. …remain controllable in the long term. …update purchasing knowledge. …align purchasing in the long term. …acquire important management skills for purchasing. …develop social skills in dealing with employees and suppliers. …benefit from exchanging experiences with colleagues from other industries
Recommended literature	n.a.
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Workshops - Case study - Independent repetition
Assessment Methods and Criteria	Written final examination.
Note:	This course can be credited as completed with appropriate professional experience or through previously completed courses with similar or the same content.

Course IV.V "Professional Experience"

Course title: "Professional Experience"	
Course unit code: 2.5	**Scope**: 10 ECTS This amounts to approximately 300 hours of relevant practical experience.
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	2nd Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Practical experience
Language	German
Required previous courses	-
Course Contents	In this module and as part of the Professional Bachelor's degree program, participants can complete a relevant internship or work experience of 10 ECTS credits to test and apply the acquired knowledge and skills of modules I and II (business related contents) in practice. Furthermore, it is possible to credit previous professional work experience or currently undergoing professional work experience or relevant qualifications for 10 ECTS. 10 ECTS correspond to approx. 250 working hours. Whether or not previous or current professional experience or an internship can be credited is evaluated on an individual basis. Following requirements apply: When applying, the relevance to the subject or the relationship to the above-mentioned modules must be described. If the participants do not have relevant experience, the provider of this programme supports the participants in finding a relevant internship according to the requirements.
Learning outcomes of the Course Unit	Practical Experience
Recommended literature	n.a.
Planned learning activities and teaching methods	n.a.
Assessment Methods and Criteria	For the assessment of this course a professional certificate by the employer is required.
Note:	This course can be credited as completed with appropriate professional experience.

4.3 Module III "Introduction to Sustainability and the Environment"

Module title: "Introduction to Sustainability and the Environment"	
Module Number: 3	**Scope**: ECTS Credits: 30
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	Third Semester
Venue of the lectures:	University / University of applied sciences
Subject area:	Sustainability and Environment
Allocated courses:	I Basics of Sustainability II Causes and Impact of Environmental Change

	III Environmental Policy and Governance IV Sustainable Practices and Technologies V Environmental Economics
Prerequisites:	None
Guiding ideas and competences acquisition:	The guiding ideas of this module are to provide participants with a holistic understanding of sustainability and environmental challenges, equipping them with the knowledge, skills, and competencies necessary to analyze, address, and propose solutions for complex environmental issues. The module aims to integrate scientific, economic, social, and policy perspectives, fostering a multidisciplinary approach to sustainability. The focus is on critical thinking, systems thinking, and practical application, preparing students to become effective change agents in promoting sustainable development. By completing this module, participants will acquire a range of competencies across several domains: <u>Cognitive Competences</u> - Understanding of Key Concepts: Participants will grasp fundamental concepts in sustainability, environmental science, policy, and economics. - Critical Thinking: Participants will develop the ability to critically analyze environmental issues and assess the effectiveness of various sustainability strategies. - Systems Thinking: Participants will learn to understand and analyze complex systems and the interconnections between different components of sustainability. <u>Technical Competences</u> - Research and Data Analysis: Participants will gain skills in conducting research, analyzing environmental data, and using tools such as life cycle assessment and cost-benefit analysis. - Policy Analysis: Participants will learn to evaluate environmental policies and governance structures, understanding their impacts and effectiveness. - Technological Proficiency: Participants will become familiar with sustainable technologies and practices in various sectors. <u>Practical Competences</u> - Problem-Solving: Through project-based learning, participants will develop practical solutions to real-world sustainability challenges. - Project Management: Participants will gain experience in planning, executing, and managing sustainability projects. - Communication Skills: Participants will improve their ability to communicate complex ideas clearly and effectively to diverse audiences. <u>Social and Ethical Competences</u> - Collaboration: Participants will enhance their ability to work effectively in teams, appreciating diverse perspectives and skills. - Ethical Awareness: Participants will develop a sense of ethical responsibility towards the environment and society, understanding the importance of social justice and equity in sustainability.

Assessment methods and criteria:	The module will be completed with an overall assessment of the module. The performance assessment is based the written examinations and presentations of the individual courses within the module. Performance assessment is 100% by the grades achieved in the individual courses. Special features of the 2nd and 3rd attempt: The criteria of the 2nd attempt correspond to those of the 1st attempt. The 3rd attempt is to be completed as a board written exam with the criteria of the 2nd attempt.

Course III.I "Basics of Sustainability"

Course title: "Basics of Sustainability"	
Course unit code: 3.1	**Scope**: 6 ECTS - 50 Teaching Units: 37,5 hours - Assignments, essays, and presentations: approx. 60 hours - Self-studying and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	3rd Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Key Course Contents	Introduction of Sustainability - Definition and History of Sustainability - Key Concepts (Sustainable Development, Triple Bottom Line Framework) - Global Challenges and Trends - Sustainable Development Goals (SDGs) Environmental Sustainability - Ecosystem, Biodiversity, Services - Natural Resource Management (water, soil, air) - Pollution and Waste Management - Climate Change and its Impacts - Renewable vs. Non-Renewable Resources Social Sustainability - Social Equity and Justice - Human Rights and Labor - Community Development and Engagement - Education and Sustainability Literacy - Health and Well-Being Economic Sustainability - Sustainable Economic Growth - Green Economy and Green Jobs - Corporate Social Responsibility (CSR) - Sustainable Business Practices - Circular Economy Principles
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to…

	…understand and explain key concepts and principles of sustainability. …analyze environmental, social, and economic aspects of sustainability. …apply sustainability principles to real-world problems and case studies. …develop informed opinions on sustainability issues and articulate them effectively.
Recommended literature	- Theis, T., Tomkin, J.: Sustainability: A Comprehensive Foundation, in the current version - Harris, J.M. and Roach, B.: (2014) Environmental and Natural Resource Economics: A Contemporary Approach, in the current version - Carson, R.: Silent Spring - Wilkinson R. Pickett K.: The Spirit Level: Why More Equal Societies Almost Always Do Better, in the current version - Hawken P., Lovins A., Lovins L.H.: "Natural Capitalism: Creating the Next Industrial Revolution", in the current version - Current Papers of relevant Journals: “Sustainability”; "Ecological Economics"; "Environment, Development and Sustainability"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Presentation - Independent Studying - Assignments
Assessment Method	Written final examination

Course III.II “Causes and Impact of Environmental Change”

Course title: “Causes and Impact of Environmental Change”	
Course unit code: 3.2	**Scope**: 6 ECTS - 50 Teaching Units: 37,5 hours - Assignments, essays, and presentations: approx. 60 hours - Self-studying and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	3rd Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Key Course Contents	Introduction to Environmental Change - Definition and scope of environmental change - Historical context of environmental changes - Key concepts: climate change, biodiversity loss, deforestation, pollution Natural Causes of Environmental Change - Geological processes (volcanism, tectonic movements)

	- Natural climate variability (El Niño, La Niña, Milankovitch cycles) - Natural disasters (earthquakes, tsunamis, hurricanes) <u>Anthropogenic Causes of Environmental Change</u> - Industrialization and urbanization - Agriculture and deforestation - Pollution (air, water, soil) - Greenhouse gas emissions and fossil fuels - Overexploitation of natural resources <u>Climate Change</u> - Science of climate change - Evidence of climate change (temperature records, ice cores, sea level rise) - Greenhouse effect and feedback mechanisms - Human contributions to climate change <u>Consequences of Environmental Change on Natural Systems</u> - Impacts on ecosystems and biodiversity - Habitat loss and species extinction - Ocean acidification and coral bleaching - Changes in weather patterns and extreme events <u>Consequences of Environmental Change on Human Systems</u> - Impact on agriculture and food security - Water resources and availability - Human health and disease - Economic impacts and livelihoods - Migration and displacement
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … understand the natural and anthropogenic causes of environmental change. …analyze the consequences of environmental change on ecosystems and human societies. …evaluate the broader impacts of environmental changes on global systems. …develop and assess strategies for mitigating and adapting to environmental change. …critically engage with case studies and current research on environmental change.
Recommended literature	- Wallace-Wells D.: "The Uninhabitable Earth: Life After Warming", in the current version - Kolbert E.: "The Sixth Extinction: An Unnatural History", in the current version - Room J.: "Climate Change: What Everyone Needs to Know", in the current version - World Commission on Environment and Development: "Our Common Future" (The Brundtland Report) - Klein N.: "This Changes Everything: Capitalism vs. The Climate", in the current version
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Presentations - Assignments - Independent repetition

Assessment Method	Written final examination

Course III.III "Environmental Policy and Governance"

Course title: "Environmental Policy and Governance"	
Course unit code: 3.3	**Scope**: 6 ECTS - 50 Teaching Units: 37,5 hours - Assignments, essays, and presentations: approx. 60 hours - Self-studying and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	3rd Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Key Course Contents	Introduction to Environmental Policy and Governance - Definitions and scope of environmental policy and governance - Historical development of environmental policies - Key concepts: sustainability, precautionary principle, polluter pays principle - Overview of global environmental challenges Theoretical Foundations of Environmental Policy - Environmental ethics and philosophy - Theories of policy-making and governance - Public choice theory and environmental decision-making - Institutional analysis and development framework Policy-Making Processes - Stages of policy-making: agenda setting, policy formulation, decision-making, implementation, evaluation - Role of stakeholders in environmental policy-making (government, NGOs, businesses, public) - Tools and instruments of environmental policy (regulations, market-based instruments, voluntary agreements) Environmental Legislation and Regulation - Overview of key environmental laws and regulations at national and international levels - The role of legislation in environmental protection and management - Case studies of significant environmental laws (e.g., Clean Air Act, Clean Water Act, Endangered Species Act) - Compliance and enforcement mechanisms International Environmental Agreements and Institutions - Key international environmental agreements (e.g., Paris Agreement, Kyoto Protocol, Convention on Biological Diversity) - Role of international organizations (e.g., United Nations Environment Programme, Intergovernmental Panel on Climate Change) - Mechanisms for international cooperation and compliance

	- Challenges in international environmental governance
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand and explain the key principles and concepts of environmental policy and governance. …analyze the processes and structures involved in policy-making and implementation. …critically assess case studies and real-world examples of environmental policies. …develop informed opinions and propose solutions for current and future environmental governance challenges.
Recommended literature	Kraft M.E.: "Environmental Policy and Politics" Ostrom E.: "Governing the Commons: The Evolution of Institutions for Collective Action" Kütting G., Lipschutz R.: "Environmental Governance: Power and Knowledge in a Local-Global World" Layzer J.A., Rinfret S.R.: "The Environmental Case: Translating Values into Policy" Journals: “Journal of Environmental Policy & Planning" "Environmental Politics" "Global Environmental Politics"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study and Essay - Presentation - Independent repetition
Assessment Method	Written final examination

Course III.IV “Sustainable Practices and Technologies”

Course title: “Sustainable Practices and Technologies”	
Course unit code: 3.4	**Scope**: 6 ECTS - 50 Teaching Units: 37,5 hours - Assignments, essays, and presentations: approx. 60 hours - Self-studying and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	3rd Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, exercises, self-study)
Language	German
Required previous courses	-
Key Course Contents	Fundamentals of Sustainable Practices and Technologies - Definitions and scope of sustainable practices and technologies - Historical development and evolution of sustainability in various sectors - Key concepts: sustainability, circular economy, life cycle assessment Renewable Energy Technologies

	- Overview of renewable energy sources: solar, wind, hydro, biomass, geothermal - Technology principles and applications - Energy storage solutions and smart grid technologies - Case studies of successful renewable energy projects Sustainable Agriculture and Food Systems - Principles of sustainable agriculture: organic farming, agroecology, permaculture - Technological innovations in agriculture: precision farming, - - GMOs, vertical farming - Sustainable food supply chains and food security - Case studies of sustainable agricultural practices Green Building and Sustainable Architecture - Principles of green building and sustainable design - Sustainable materials and construction techniques - Energy-efficient building technologies: passive solar design, green roofs, smart home systems - Case studies of sustainable buildings and eco-cities Sustainable Water Management - Principles of sustainable water management - Technologies for water conservation, purification, and recycling - Integrated water resource management (IWRM) - Case studies of sustainable water management practices Waste Management and Circular Economy - Principles of waste management and circular economy - Technologies for waste reduction, recycling, and recovery - Industrial ecology and zero-waste systems - Case studies of circular economy initiatives
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand and explain key sustainable practices and technologies across various sectors. …analyze the effectiveness and potential of different sustainable technologies. …apply principles of sustainability to real-world challenges and case studies. …evaluate the environmental, economic, and social impacts of sustainable practices. …develop strategies for implementing sustainable technologies in various contexts.
Recommended literature	Robertson M.: "Sustainability Principles and Practice" McDonough W., Braungart M.: "Cradle to Cradle: Remaking the Way We Make Things" Webster K.: "The Circular Economy: A Wealth of Flows" Boyle G.: "Renewable Energy: Power for a Sustainable Future" Frick T.: "Designing for Sustainability: A Guide to Building Greener Digital Products and Services"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case studies - Independent repetition - Practical examples
Assessment Method	Written final examination

Course III.V "Environmental Economics"

Course title: "Environmental Economics"	
Course unit code: 3.5	**Scope**: 6 ECTS - 50 Teaching Units: 37,5 hours - Assignments, essays, and presentations: approx. 60 hours - Self-studying and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	3rd Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, exercises, self-study)
Language	German
Required previous courses	-
Key Course Contents	Introduction to Environmental Economics - Definition and scope of environmental economics - Historical development and key contributors - The relationship between the economy and the environment - Basic economic concepts relevant to environmental issues Market Failures and Environmental Problems - Types of market failures: externalities, public goods, and common resources - The tragedy of the commons - Negative and positive externalities - Case studies of environmental market failures Economic Valuation of the Environment - The importance of valuing environmental goods and services - Methods of valuation: contingent valuation, hedonic pricing, travel cost method, and benefit transfer - Cost-benefit analysis in environmental decision-making - Valuation of ecosystem services and natural capital Policy Instruments for Environmental Protection - Command-and-control regulation - Market-based instruments: taxes, subsidies, and tradable permits - Cap-and-trade systems and carbon pricing - Voluntary approaches and information-based policies - Evaluation of policy instruments: efficiency, equity, and effectiveness Economics of Pollution Control - Types and sources of pollution: air, water, soil - Economic analysis of pollution control strategies - Optimal pollution levels and the concept of marginal abatement cost - Case studies of successful pollution control policies Natural Resource Economics - Principles of natural resource management - Renewable vs. non-renewable resources - Economics of resource extraction and sustainability - Conservation strategies and policies for sustainable resource use

	- Case studies on fisheries, forests, and mineral resources
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand and apply economic principles to analyze environmental issues. - evaluate the effectiveness of different policy instruments in addressing environmental problems. - conduct economic valuations of environmental goods and services. - analyze the economic impacts of environmental policies and regulations. - develop informed opinions on sustainable development.
Recommended literature	Tietenberg T., Lewis L.: "Environmental and Natural Resource Economics" Field B.C., Field M.K.: "Environmental Economics: An Introduction" Berck P., Helfand G.: "The Economics of the Environment" Cato M. S.: "Green Economics: An Introduction to Theory, Policy, and Practice"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case studies - independent repetition - practical examples
Assessment Method	Written final examination

4.4 Module IV “Climate Leadership through Climate Neutrality”

Module title: “Climate Leadership through Climate Neutrality”	
Module Number: 4	**Scope**: ECTS Credits: 30
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	Fourth Semester
Venue of the lectures:	University / University of applied sciences
Subject area:	System sciences, Change, Mitigation, Adaption, Strategies
Allocated courses:	I Climate Neutrality and Corporate Sustainability II Environmental Footprinting and Lifecycle Assessment III Sustainable Supply Chain Management IV Sustainability Strategies and Innovation in Organizations V Environmental Management Systems and Standards
Prerequisites:	Module III
Guiding ideas and competences acquisition:	The guiding principles of this module are based on the integration of sustainability into the core operations of businesses and organizations, aiming for climate neutrality. The focus is on understanding and applying systemic approaches to reduce environmental impacts, innovate in sustainability, manage environmental performance, and ensure compliance with international standards. The courses are designed to equip participants with the knowledge and skills needed to drive sustainable transformation within organizations. By completing this module, participants will acquire a range of competencies across several domains: Knowledge

	- Understanding of the principles, drivers, and frameworks for achieving climate neutrality and integrating sustainability into business strategies. - Knowledge of methodologies for measuring and analyzing the environmental impacts of business activities, products, and services throughout their lifecycle. - Insight into sustainable practices in sourcing, production, logistics, and waste management to minimize environmental impact. - Understanding of how to develop and implement sustainability strategies and drive innovation for sustainable business models. - Familiarity with EMS principles, components, international standards (e.g., ISO 14001) for managing environmental performance. Skills - Ability to conduct environmental footprinting, lifecycle assessments, and sustainability audits. - Skills to develop and implement effective sustainability strategies and innovations. - Competence in managing sustainability projects, including planning, execution, and evaluation. - Capacity to identify sustainability challenges and devise practical, innovative solutions. - Proficiency in communicating sustainability initiatives and engaging with stakeholders effectively. Attitudes Sustainability Mindset: Commitment to integrating sustainability into personal and professional practices. Ethical Responsibility: Recognition of the ethical implications of business and organizational decisions on the environment and society. Collaborative Approach: Willingness to work collaboratively with diverse stakeholders to achieve common sustainability goals. Continuous Improvement: Dedication to continuously improving sustainability performance and staying updated with emerging trends and best practices.
Assessment methods and criteria:	The module will be completed with an overall assessment of the module. The performance assessment is based the written examinations and presentations of the individual courses within the module. Performance assessment is 100% by the grades achieved in the individual courses. Special features of the 2nd and 3rd attempt: The criteria of the 2nd attempt correspond to those of the 1st attempt. The 3rd attempt is to be completed as a board written exam with the criteria of the 2nd attempt.

Course IV.I “Climate Neutrality and Corporate Sustainability”

Course title: “Climate Neutrality and Corporate Sustainability”	
Course unit code: 4.1	**Scope**: 6 ECTS - 50 Teaching Units: 37,5 hours - Assignments, essays, and presentations: approx. 60 hours - Self-studying and exam preparation: approx. 60 hours

Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	4th Semester
Type of course unit	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	Module III
Key Course Contents	Understanding Climate Neutrality and Corporate Sustainability - Definition and significance of climate neutrality and corporate sustainability. - Historical context and evolution of corporate sustainability. - The business case for sustainability: risks, opportunities, and competitive advantages. Drivers and Barriers to Climate Neutrality - Regulatory and policy frameworks. - Market forces and consumer expectations. - Technological advancements and innovation. - Financial considerations and investment in sustainability. - Organizational culture and leadership. Strategies for Reducing Environmental Footprints - Energy efficiency and renewable energy adoption. - Carbon offsetting and sequestration. - Sustainable transportation and logistics. - Green buildings and infrastructure. - Circular economy principles and practices. Sustainability Frameworks and Reporting - Global Reporting Initiative (GRI) standards. - Sustainability Accounting Standards Board (SASB) standards. - Task Force on Climate-related Financial Disclosures (TCFD) recommendations. - Integrating sustainability into corporate governance. Case Studies of Corporate Sustainability - Analysis of successful sustainability initiatives from leading organizations across various industries. - Lessons learned and best practices. - Challenges and solutions in implementing sustainability strategies.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …articulate the importance and benefits of achieving climate neutrality and corporate sustainability. …identify and analyze the drivers and barriers to corporate sustainability. …measure and manage corporate environmental footprints using standard methodologies and tools. …develop and implement effective strategies for reducing emissions. …apply lessons and best practices from case studies to design and execute sustainability plans within organizations.
Recommended literature	Mathez E.A., Smerdon J.E.: "Climate Change: The Science of Global Warming and Our Energy Future"

	McDonough W., Braungart M.: "Cradle to Cradle: Remaking the Way We Make Things" Esty D.C., Winston A.S.: "Green to Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study and Essay - Presentation - Independent repetition
Assessment Methods and Criteria	Written final examination.

Course IV.II "Environmental Footprinting and Lifecycle Assessment"

Course title: "Environmental Footprinting and Lifecycle Assessment"	
Course unit code: 4.2	**Scope**: 6 ECTS - 120 Teaching Units: 90 hours - Assignments, essays, and presentations: approx. 30 hours - Self-studying and exam preparation: approx. 40 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	2nd Semester
Type of course unit	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	Module I
Key Course Contents	Environmental Footprinting - Definitions and importance of environmental footprinting. - Types of environmental footprints: carbon, water, ecological, and more. - Overview of footprinting methodologies and standards. Fundamentals of Lifecycle Assessment (LCA) - Definition and significance of LCA. - History and development of LCA methodologies. - The International Organization for Standardization (ISO) standards for LCA (ISO 14040 and ISO 14044). LCA Methodology: Phases and Steps - Goal and Scope Definition: Defining the purpose and scope of the LCA study. Establishing system boundaries and functional units. - Life Cycle Inventory (LCI) Analysis: Data collection and inventory analysis. Compiling inputs and outputs for each lifecycle stage. - Life Cycle Impact Assessment (LCIA): Impact categories and indicators. Characterization, normalization, and weighting of impacts. Interpretation: - Analyzing and interpreting LCA results. Identifying hotspots and improvement opportunities. Tools and Software for LCA

	- Introduction to popular LCA software (e.g., SimaPro, GaBi, OpenLCA). - Data sources and databases (e.g., Ecoinvent, GaBi databases). - Practical exercises in using LCA software for assessments. <u>Carbon, Water, Ecological Footprinting</u> - Methodologies for calculating carbon footprints (GHG Protocol, PAS 2050). - Scope 1, Scope 2, and Scope 3 emissions. - Concepts and methods for assessing water footprints. - Water footprint assessment tools and databases. - Principles and calculation methods for ecological footprints. - Using ecological footprint results to support sustainability planning. - Case studies of carbon footprinting, of water footprinting and water management strategies and of ecological footprinting in various industries and organizations Case studies in organizations. <u>Applications of LCA in Industry</u> - LCA in product design and development. - Sustainable supply chain management using LCA. - Environmental product declarations (EPDs) and eco-labeling. - Case studies of LCA applications in different sectors (e.g., manufacturing, agriculture, services). <u>Interpretation and Communication of LCA Results</u> - Analyzing and interpreting LCA results for decision-making. - Communicating LCA findings to stakeholders. - Reporting and transparency in LCA studies. - Challenges and limitations of LCA.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand the principles and methodologies of environmental footprints and lifecycle assessment. …conduct lifecycle assessments using standard methodologies and tools and apply it to organizational examples. … measure and analyze environmental impacts across the lifecycle of products and services. …interpret LCA results to identify sustainability opportunities and inform decision-making. …communicate LCA findings effectively to support sustainability initiatives in various industries.
Recommended literature	Jolliet O., Saadé M., Crettaz S., Shili P.: "Environmental Life Cycle Assessment" Curran M.A.: "Life Cycle Assessment Handbook: A Guide for Environmentally Sustainable Products" Murray J., Wood R.: "The Sustainability Practitioner's Guide to Input-Output Analysis" Muthu S.S.: "Carbon Footprinting: Approaches and Methodologies"

	Hoekstra A.Y., Chapagain A.K., Aldaya M.M., Mekonnen M.M.: "Water Footprint Assessment: Manual for Water Footprint Assessment"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study - Assignment - Practical application - Independent repetition
Assessment Methods and Criteria	Written final examination.

Course IV.III "Sustainable Supply Chain Management"

Course title: "Sustainable Supply Chain Management"	
Course unit code: 4.3	**Scope:** 6 ECTS - 50 Teaching Units (37,5 hours) - Assignments, essays, and presentations: approx. 60 hours - Self-studying, practice and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	4th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	Module III
Course Contents	<u>Basics of Sustainable Supply Chain Management</u> - Definition and scope of sustainable supply chain management (SSCM). - Importance and benefits of SSCM for businesses and society. - Key drivers of SSCM: regulatory, market, and stakeholder pressures. - Overview and revision of the triple bottom line (TBL) approach: environmental, social, and economic sustainability. <u>Environmental Sustainability in Supply Chains</u> - Reducing carbon footprints in supply chain operations. - Sustainable sourcing and procurement practices. - Green logistics and transportation: strategies for reducing emissions and energy consumption. - Waste management and circular economy principles. - Case studies of companies implementing environmentally sustainable practices. <u>Social Sustainability in Supply Chains</u> - Labor rights and fair-trade practices. - Health and safety in the supply chain. - Community engagement and development. - Ethical sourcing and supplier relationships. - Social impact assessments and reporting.

	- Case studies of organizations promoting social responsibility in their supply chains. Economic Sustainability in Supply Chains - Cost-benefit analysis of sustainable supply chain initiatives. - Balancing and evaluating sustainability and profitability. - Risk management and resilience in sustainable supply chains. - Innovation and technology for sustainable supply chains. - Creating value through sustainable supply chain practices. Sustainable Supply Chain Strategy and Design - Developing a sustainability vision and strategy for supply chains. - Designing sustainable supply chain networks and operations. - Lifecycle assessment (LCA) in supply chain decision-making. - Sustainable product design and packaging. - Metrics and KPIs for measuring supply chain sustainability performance. Sustainable Sourcing and Procurement - Principles and practices of sustainable sourcing. - Supplier selection and evaluation for sustainability. - Building sustainable supplier relationships and partnerships. - Supplier codes of conduct and compliance. - Tools and frameworks for sustainable procurement. Green Logistics and Transportation - Strategies for sustainable transportation and logistics. - Efficient route planning and load optimization. - Adoption of low-emission vehicles and alternative fuels. - Collaboration and sharing in logistics (e.g., freight pooling). - Case studies of green logistics initiatives.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand the principles and importance of sustainable supply chain management. …analyze and assess the environmental, social, and economic impacts of supply chain activities. …develop and implement strategies for integrating sustainability into supply chain operations. …evaluate and manage sustainability performance across the supply chain. …apply best practices and innovative solutions for sustainable supply chain management.
Recommended literature	Sarkis J.: "Greening the Supply Chain: A Guide for Supply Chain Managers". Sarkis J.: "Handbook of Sustainable Supply Chain Management". Boone T., Jayaraman V.: "Sustainable Supply Chains: A Research-Based Textbook on Operations and Strategy". Webster K.: "The Circular Economy: A Wealth of Flows". Grant D.B., Trautrims A., Wong C.Y.: "Sustainable Logistics and Supply Chain Management".

Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study - Independent repetition
Assessment Methods and Criteria	Written final examination.

Course IV.IV "Sustainability Strategies and Innovation in Organizations"

Course title: "Sustainability Strategies and Innovation in Organizations"	
Course unit code: 4.4	**Scope:** 6 ECTS - 50 Teaching Units (37,5 hours) - Assignments, essays, and presentations: approx. 60 hours - Self-studying, practice and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	4th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Strategic Planning for Sustainability - Developing a sustainability vision and mission. - Frameworks for sustainability strategy - Aligning sustainability with business strategy and objectives. - Setting sustainability goals and targets. Sustainability Assessment and Reporting - Tools for sustainability assessment - Sustainability reporting standards and guidelines. - Developing sustainability reports and communicating performance. - Using sustainability metrics to drive improvement. Innovation for Sustainability - The role of innovation in achieving sustainability goals. - Types of sustainability innovations: product, process, and business model innovation. - Fostering a culture of innovation within organizations. - Case studies of successful sustainability innovations. Sustainable Business Models - Exploring different sustainable business models (e.g., circular economy, sharing economy). - Designing business models that create social, environmental, and economic value. - Transitioning from traditional to sustainable business models. - Case studies of companies with successful sustainable business models. Sustainable Product and Service Development - Principles of sustainable design and development.

	- Eco-design and the life cycle thinking approach. - Developing green products and services: characteristics and market trends. - Integrating sustainability into the product development process. <u>Sustainable Operations and Supply Chain Management</u> - Integrating sustainability into operations management. - Sustainable sourcing and procurement practices. - Managing environmental and social impacts in the supply chain. - Tools and techniques for sustainable supply chain management. <u>Corporate Governance and Sustainability Leadership</u> - Role of corporate governance in promoting sustainability. - Governance structures and processes for sustainability oversight. - Ethical leadership and corporate accountability. - Building and leading sustainability teams. - Evaluating the financial performance of sustainability projects. <u>Stakeholder Engagement and Collaboration</u> - Identifying and prioritizing stakeholders. - Strategies for effective stakeholder engagement and collaboration. - Communicating sustainability efforts and achievements. - Building partnerships for sustainable development. <u>Policy and Regulation for Sustainability</u> - Understanding the regulatory landscape for corporate sustainability. - Compliance with environmental and social regulations. - The role of public policy in promoting corporate sustainability. - Navigating international sustainability standards and regulations. <u>Challenges and Future Trends in Sustainability and Innovation</u> - Current challenges in implementing sustainability strategies. - Emerging trends and future directions in sustainability and innovation. - The role of technology in advancing sustainability. - Preparing for the future of sustainable business.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand the corporate sustainability. …define and explain the concepts of sustainability, corporate social responsibility (CSR), and sustainable development goals (SDGs). …articulate the importance of sustainability in business and its impact on economic, environmental, and social dimensions. …develop and implement sustainability strategies. …apply strategic planning frameworks to create comprehensive sustainability strategies.

	…align sustainability initiatives with corporate vision, mission, and overall business strategy. …utilize sustainability metrics to monitor and improve organizational performance. …drive innovation for sustainability. …identify opportunities for innovation that promote sustainability within organizations. …develop and implement sustainable product, process, and business model innovations. …foster a culture of innovation that supports continuous improvement and sustainable practices. …explore and apply different sustainable business models, such as the circular economy and sharing economy. …transition traditional business models to sustainable ones. …analyze case studies of successful sustainable business models to understand best practices. …integrate sustainability into operations and supply chains. …implement sustainable operations management practices. …develop sustainable sourcing and procurement strategies. …manage environmental and social impacts across the supply chain using appropriate tools and techniques. …build and lead effective sustainability teams within organizations. …engage and collaborate with relevant stakeholders. …build partnerships and collaborate with various stakeholders for sustainable development. …address challenges and embrace future trends. …identify current challenges in implementing sustainability strategies. …anticipate and respond to emerging trends and future directions in sustainability and innovation. …leverage technology to advance sustainability goals.
Recommended literature	Weybrecht, G.: "The Sustainable MBA: A Business Guide to Sustainability"
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Workshops - Case study - Independent repetition
Assessment Methods and Criteria	Written final examination.

Course IV.V “Environmental Management Systems and Standards”

Course title: “Environmental Management Systems and Standards”	
Course unit code: 4.5	**Scope:** 6 ECTS - 50 Teaching Units (37,5 hours) - Assignments, essays, and presentations: approx. 60 hours - Self-studying, practice and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	4th Semester
Type of course unit –	Compulsory Course

(compulsory/optional)	
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Introduction to Environmental Management Systems (EMS) - Definition and scope of EMS. - Importance of EMS in organizational sustainability. - Key components and structure of an EMS. - Overview of the Plan-Do-Check-Act (PDCA) cycle. International Standards for EMS - Introduction to ISO 14000 family of standards. - Detailed study of ISO 14001: requirements and implementation. - Other relevant standards: EMAS, ISO 50001, and ISO 26000 - Comparison of different EMS standards. Designing and Implementing an EMS - Steps in designing an EMS: context, scope, and boundaries. - Identifying environmental aspects and impacts. - Setting environmental objectives and targets. - Developing and implementing environmental policies and procedures. Environmental Impact Assessment (EIA) - Principles and methods of EIA. - Conducting an EIA: baseline studies, impact prediction, and mitigation measures. - Role of EIA in EMS. Compliance and Regulatory Framework - Overview of environmental laws and regulations. - Compliance requirements and obligations. - Monitoring and reporting compliance. - Role of regulators and external audits. Environmental Performance Measurement and Reporting - Key performance indicators (KPIs) for environmental management. - Tools and techniques for environmental performance measurement. - Environmental reporting: content and structure. - Sustainability reporting standards and frameworks (e.g., GRI, CDP). Internal Audits and Continuous Improvement - Planning and conducting internal audits. - Identifying non-conformities and corrective actions. - Strategies for continuous improvement in environmental performance. Environmental Risk Management - Identifying and assessing environmental risks. - Risk management strategies and tools. - Integrating risk management into EMS. - Case studies on environmental risk management. Communication - Communicating environmental policies and performance.

	- Role of public participation in environmental management. - Best practices in environmental management. - Lessons learned from EMS failures and challenges. - Innovations and emerging trends in EMS.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … define and explain the key components and structure of Environmental Management Systems (EMS) and their importance in promoting organizational sustainability. …demonstrate knowledge of ISO 14001 and other relevant EMS standards, understanding their requirements and implementation processes. …develop and implement an effective EMS, including setting environmental objectives, policies, and procedures based on the Plan-Do-Check-Act (PDCA) cycle. …perform Environmental Impact Assessments to identify and mitigate environmental impacts, integrating EIA findings into the EMS. …navigate and comply with environmental laws and regulations, ensuring organizational adherence to legal requirements through effective monitoring and reporting. …use key performance indicators (KPIs) and tools for measuring environmental performance and produce comprehensive sustainability reports in line with recognized standards. …plan and conduct internal EMS audits, identify non-conformities, implement corrective actions, and promote continuous improvement in environmental performance. …identify, assess, and manage environmental risks, integrating risk management strategies into the EMS to mitigate potential adverse impacts. …develop strategies for effective stakeholder engagement and communication, ensuring transparent and inclusive dialogue about environmental policies and performance. …analyze case studies of successful EMS implementations, identify best practices, and apply lessons learned to real-world scenarios to enhance EMS effectiveness and innovation.
Recommended literature	ISO - International Organization for Standardization.: „ISO 14001“
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Presentations - Assignments - Independent repetition
Assessment Methods and Criteria	Written final examination.

4.5 Module V “Scientific and Project Work in Applied Sustainability”

Module title: “Scientific and Project Work in Applied Sustainability”	
Module Number: 5	**Scope**: ECTS Credits: 30
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	Fifth Semester

Subject area:	Applied Sustainability and Scientific Methods
Allocated courses:	I Applied Research Methods in Sustainability II Sustainability Project Management IV Applied Project V Academic Writing
Prerequisites:	Module I, Module II, Module III, Module IV
Guiding idea and competences acquisition:	This module aims to equip students with the necessary skills and knowledge to conduct scientific research and manage projects in applied sustainability within organizations, while also preparing them for writing and designing their bachelor thesis. The courses are designed to provide a comprehensive understanding of research methodologies, project management, data analysis, and academic writing, ensuring students. After the completion of the module the participants will have knowledge in: - Qualitative and quantitative research methods. - Designing research projects. - Data collection and analysis techniques. - Writing research proposals and literature reviews. - Principles of project management applied to projects. - Risk management. - Environmental data types and sources. - Data analysis techniques. - Use of software tools for data analysis. - Interpreting and presenting data for decision-making - Structuring and designing a bachelor thesis. - Developing a research question and hypothesis. - Conducting a literature review. - Writing and presenting research findings. - Academic writing style and citation guidelines.
Assessment methods and criteria:	The module will be completed with an overall assessment of the module. The performance assessment is based the written examinations and presentations of the individual courses within the module. Performance assessment is 100% by the grades achieved in the individual courses. Special features of the 2nd and 3rd attempt: The criteria of the 2nd attempt correspond to those of the 1st attempt. The 3rd attempt is to be completed as a board written exam with the criteria of the 2nd attempt.

Course V.I “Applied Research Methods in Sustainability”

Course title: “Applied Research Methods in Sustainability”	
Course unit code: 5.1	**Scope**: 8 ECTS - 80 Teaching Units: 60 hours - Assignments, essays, and presentations: approx. 50 hours - Self-studying and exam preparation: approx. 50 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	5th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)

Language	German
Required previous courses	-
Course Contents	Sustainability and Research Methods - Overview of sustainability concepts - Importance of research in sustainability - Types of research methods: qualitative, quantitative, and mixed methods - Research ethics and sustainability Literature Review - Conducting a comprehensive literature review - Identifying research gaps - Sources of sustainability literature - Synthesizing findings Research Design - Formulating research questions and hypotheses - Designing a research study - Selecting appropriate research methods for sustainability studies Data Collection Methods - Surveys and questionnaires - Interviews and focus groups - Observational methods - Use of secondary data (e.g., databases, reports) - Participatory research methods Data Analysis Techniques - Quantitative data analysis: statistical tools and software - Qualitative data analysis: coding, thematic analysis, software - Mixed methods data analysis Fieldwork in Sustainability Research - Planning and conducting fieldwork - Ethical considerations in field research - Practical challenges and solutions - Measuring sustainability: indicators and metrics - Developing and using sustainability indicators - Methods for evaluating sustainability policies Project Work - Applying research methods to a real-world sustainability problem - Developing a research proposal - Conducting research and analyzing data - Presenting findings and recommendations
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … comprehensively understand research methods. … demonstrate a thorough understanding of various research methodologies (qualitative, quantitative, and mixed methods) and their application in sustainability studies. …select and justify appropriate research methods for different research questions and design robust research studies. …proficiently design and implement data collection strategies, as well as analyze and interpret data using appropriate tools and techniques.

	…use statistical software for quantitative analysis, and qualitative software for thematic analysis. …conduct research that adheres to ethical standards and demonstrates methodological rigor, particularly within the context of sustainability and climate neutrality challenges. …understanding and apply ethical principles in research, including informed consent, confidentiality, and integrity in data reporting. …effectively communicate their research findings to diverse audiences, including academic peers, policymakers, and the public. …write clear and concise research reports, prepare engaging presentations, and utilize digital tools for disseminating research outcomes. …apply research skills to investigate and propose solutions to real-world sustainability problems, demonstrating the practical relevance of their research.
Recommended literature	To be announced by the trainer.
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case study - independent repetition
Assessment Methods and Criteria	Written or oral final examination.

Course V.II “Sustainability Project Management”

Course title: “Sustainability Project Management”	
Course unit code: 5.2	**Scope**: 8 ECTS - 80 Teaching Units: 60 hours - Assignments and group work: approx. 60 hours - Project preparation: approx. 50 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	5th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Project Planning and Initiation - Identifying and defining sustainability project objectives - Stakeholder analysis and engagement - Defining project scope and requirements - Project charter development Project Design and Development - Developing a project plan with sustainability considerations - Resource allocation and budgeting for sustainable projects - Risk management in sustainability projects - Setting sustainability metrics and KPIs (Key Performance Indicators) Tools and Techniques for Sustainable Project Management

	Implementation and Execution - Execution strategies for sustainability projects - Monitoring and controlling project progress with a sustainability focus - Quality assurance in sustainable projects - Adaptive management and iterative improvement - Evaluation and Reporting - Project evaluation techniques - Preparing and presenting project reports Designing a Sustainability Project in Your Organization - Identifying a sustainability challenge or opportunity within your organization - Conducting a needs assessment and feasibility study - Developing a detailed project proposal including objectives, scope, timeline, and budget - Engaging with internal stakeholders and securing buy-in
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… …understand sustainability concepts, including environmental, social, and economic dimensions. They know how these principles can be integrated into project management to create sustainable outcomes. ….design and plan a sustainability project tailored to their own organization's context. This includes conducting needs assessments, defining project objectives, scope, and deliverables, as well as creating a detailed project plan with timelines, resources, and budgets. …identify and engage with various stakeholders, including employees, management, customers, and the local community. …develop skills in effective communication and collaboration to ensure stakeholder buy-in and support for the sustainability project. …implement their sustainability projects effectively, including managing project teams, coordinating activities, and ensuring adherence to the project plan. …monitor and evaluate the project's progress using appropriate metrics and tools to measure sustainability outcomes and impact. …enhance their critical thinking and problem-solving skills by addressing challenges and obstacles that arise during the project lifecycle. …apply creative solutions and adaptive management strategies to ensure the successful completion and sustainability of their projects.
Recommended literature	Will be provided by the lecturer.
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Presentations - Assignment of a theoretical project - Independent repetition
Assessment Methods and Criteria	Assessment of theoretical project.

Course V.III "Applied Climate Neutrality Project"

Course title: "Applied Climate Neutrality Project"	
Course unit code: 5.3	**Scope**: 8 ECTS - 80 Teaching Units: 60 hours - Assignments and Project design: approx. 60 hours - Project preparation and presentation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	5th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	- Analysis of the participants situation. - Examination of climate change impacts and the role of organizations in mitigating these effects. - Contribution to International Agreements. - Related National and Local Regulations - Sustainable Business Models: Integrating sustainability into core business strategies. - Economic Impacts: Analysis of the economic benefits and challenges of adopting climate neutrality. - Application of the Project Lifecycle: Stages of planning, implementation, monitoring, and evaluation - Decision of Tools and Techniques: Use of project management tools for the project - Technological Solutions: Latest technologies aiding climate neutrality (e.g., AI, IoT, blockchain). - Innovation Management: Encouraging innovation within organizations to support sustainability. - Cost-Benefit Analysis: Financial implications of climate projects. - Organizational Culture: Fostering a culture of sustainability within organizations. - Behavioral Change: Techniques to encourage sustainable behaviors among employees and stakeholders. <u>Practical Application</u> Project Work: Hands-on project where participants develop and propose climate neutrality plans for their or hypothetical organizations. Practical Implementation: Participants work on a capstone project that involves designing a comprehensive climate neutrality plan for an organization, including all the aspects covered in the course.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … conduct, design, manage and evaluate climate neutrality projects in organizations.
Recommended literature	Will be provided by the trainer.
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Case studies - Independent repetition

	- Project work
Assessment Methods and Criteria	Project work

Course V.IV "Academic Writing"

Course title: "Academic Writing"	
Course unit code: 5.4	**Scope:** 6 ECTS - 80 Teaching Units: 60 hours - Assignments: approx. 30 hours - Self-studying, practice and exam preparation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	5th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Introduction to Academic Writing - Understanding the purpose of academic writing and identifying the target audience. - Differentiating between essays, research papers, reviews, reports, and other academic documents. - Maintaining formal tone, objectivity, and precision in academic writing. Understanding and Analyzing Academic Texts - Techniques for reading academic texts critically. - Effective methods for annotating and taking notes. - Skills for accurately summarizing and paraphrasing academic sources. Research Skills - Formulating clear and researchable questions and hypotheses. - Conducting comprehensive literature reviews to contextualize research. - Assessing the credibility and relevance of sources. Planning and Organizing Academic Papers - Crafting strong and clear thesis statements. - Creating detailed outlines to organize ideas logically. - Understanding the standard structure of academic papers Writing Process - Techniques for writing first drafts. - Strategies for revising and refining drafts. - Effective proofreading techniques to eliminate errors. Academic Argumentation - Constructing coherent and persuasive arguments. - Using evidence effectively to support arguments. - Addressing counterarguments and refuting them logically. Style and Clarity - Writing clearly and concisely without unnecessary jargon.

	- Expanding and correctly using academic vocabulary. - Using varied sentence structures for better readability. Citation and Referencing - Understanding and applying different citation styles (APA, MLA, Chicago, etc.). - Properly incorporating in-text citations. - Compiling accurate reference lists and bibliographies. Avoiding Plagiarism - Recognizing different forms of plagiarism. - Correctly paraphrasing and quoting sources to avoid plagiarism. - Familiarity with tools and software to check for plagiarism. Writing Different Types of Academic Papers - Structure and components of research papers. - Writing persuasive, analytical, and argumentative essays. - Crafting lab reports, book reviews, and article reviews. Visual Aids and Data Presentation - Including and formatting tables, graphs, and figures. - Effective presentation of data to support arguments. Peer Review and Feedback - Conducting and participating in peer reviews. - Giving and receiving constructive feedback. Writing for Different Disciplines - Recognizing and adhering to writing conventions in different academic disciplines. - Approaching writing projects that span multiple disciplines. - Developing a research proposal on a topic of choice.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … write a scientific paper and thesis.
Recommended literature	Will be provided by the trainer.
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Assignments - Independent repetition
Assessment Methods and Criteria	Written or oral final examination.

4.6 Module VI “Recap, Research and Thesis”

Module title: “Recap, Research and Thesis”	
Module Number: 6	**Scope**: ECTS Credits: 30
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	Sixth Semester
Subject area:	Sustainable Management - Climate Neutrality for Organizations
Allocated courses:	I Recap of Business Practices II Recap of Sustainability and Climate Neutrality III Research Project IV Thesis
Prerequisites:	Module I, Module II, Module III, Module IV, Module V
Guiding idea, methods, and competences acquisition:	The participants are guided through the theory they have learned in the previous modules. They will write their

	bachelor thesis in this module. After the positive completion of the module the course participants will have completed their bachelor's degree.
Assessment methods and criteria:	The module will be completed with an overall assessment of the module. The performance assessment is based on a written examination (module examination) and the Bachelor thesis. Performance assessment is 80 % by written examination paper and 20 % by the Bachelor thesis.

Course VI.I "Recap of Business Practices"

Course title: "Recap of Business Practices"	
Course unit code: 6.1	**Scope**: 8 ECTS - 80 Teaching Units: 60 hours - Assignments, essays, and presentations: approx. 50 hours - Self-studying and exam preparation: approx. 50 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	6th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Recap of the contents of Module I "Business Practices" Recap of the contents of Module II "Advanced Business Practices and Entrepreneurship"
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … comprehensively understand and apply the contents of Module I and Module II.
Recommended literature	To be announced by the trainer.
Planned learning activities and teaching methods	Didactic and methodological design: - Lecture and discussion - Assignments - Case studies - Independent repetition
Assessment Methods and Criteria	Written or oral final examination.

Course VI.II "Recap of Sustainability and Climate Neutrality"

Course title: "Recap of Sustainability and Climate Neutrality"	
Course unit code: 6.2	**Scope**: 8 ECTS - 80 Teaching Units: 60 hours - Assignments and group work: approx. 60 hours - Project preparation: approx. 50 hours
Level of course unit:	**NQF 6**

Semester when the course unit is delivered:	6th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Recap of the contents of Module III "Introduction to Sustain-ability and the Environment" Recap of the contents of Module VI "Climate Leadership through Climate Neutrality"
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … comprehensively understand and apply the contents of Module III and Module VI.
Recommended literature	To be announced by the trainer.
Planned learning activi-ties and teaching meth-ods	Didactic and methodological design: - Lecture and discussion - Assignments - Case studies - Independent repetition
Assessment Methods and Criteria	Written or oral final examination.

Course VI.III "Research Project"

Course title: "Research Project"	
Course unit code: 6.3	**Scope**: 8 ECTS - 80 Teaching Units: 60 hours - Assignments and Project design: approx. 60 hours - Project preparation and presentation: approx. 60 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	6th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Together with a mentor a research project is designed that will be the basis for the Bachelor thesis.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… … conduct, design, manage and evaluate climate neutrality projects.
Recommended literature	Will be provided by the trainer.
Planned learning activi-ties and teaching meth-ods	Didactic and methodological design: - Lecture and discussion - Independent work - Targeted Research

	- Project work
Assessment Methods and Criteria	Project work

Course V.IV "Bachelor Thesis"

Course title: "Bachelor Thesis"	
Course unit code: 6.4	**Scope:** 6 ECTS - Mentoring: approx. 15 hours - Writing of Thesis: approx. 120 hours
Level of course unit:	**NQF 6**
Semester when the course unit is delivered:	6th Semester
Type of course unit – (compulsory/optional)	Compulsory Course
Mode of Delivery	Integrated Course (lecture, case studies, exercises, self-study)
Language	German
Required previous courses	-
Course Contents	Writing of the Bachelor thesis.
Learning outcomes of the Course Unit	Upon positive completion of the course, participants will be able to… -
Recommended literature	Will be provided by the mentor.
Planned learning activities and teaching methods	-
Assessment Methods and Criteria	Assessment of the Bachelor Thesis.

Evaluation Concept[3]

EVALUATION FORM FOR UNIVERSITY COURSES
IN ACADEMIC CONTINUING EDUCATION

Academic course title: _____

The course content meets my expectations.

I agree ○—○—○—○—○ I do not agree ○ No answer/ not applicable

The lecturer can illustrate the extent to which the content of the course is or can be relevant to practice.

I agree ○—○—○—○—○ I do not agree ○ No answer/ not applicable

I am of the opinion that my (previous) knowledge is sufficient to follow the course well.

I agree ○—○—○—○—○ I do not agree ○ No answer/ not applicable

Commentary

Teaching methods and teaching materials:

The teaching methods used support me in achieving the learning objectives. (e.g. lecture, group work, presentations, case studies, homework).

I agree ○—○—○—○—○ I do not agree ○ No answer/ not applicable

The media used support me in achieving the learning objectives. (e.g. slides, books, scripts, handouts, models, videos, software)

I agree ○—○—○—○—○ I do not agree ○ No answer/ not applicable

Commentary

[3] Prepared by Campus 02, Graz

Teaching staff:

The lecturer seems professionally competent to me.

I agree — I do not agree

No answer/ not applicable

The teacher treats us with respect.

I agree — I do not agree

No answer/ not applicable

The teacher expresses himself clearly.

I agree — I do not agree

No answer/ not applicable

Commentary

Personal reflection and comments:

I will be able to achieve the learning objectives by the end of the course or have achieved the learning objectives.

I agree — I do not agree

No answer/ not applicable

That's what I particularly liked about the course:

I would do it differently: