

Undergraduate modules in English for Incoming Engineering Students

Spring Semester 2025

Status on
17 December,
subject
to change



Introduction

University

Lucerne University of Applied Sciences and Arts, encompassing its Schools of Engineering and Architecture, Business, Computer Science, Social Work, Art, Film and Design, and Music, offers a world-class academic and practice-oriented learning environment. Designed to help students achieve their career aspirations, the university provides cutting-edge facilities set in the breathtaking region of Lucerne.

Campus

The School of Engineering and Architecture, located in Horw, serves as the primary hub for specializations in construction and engineering. Its nine institutes create the perfect conditions for interdisciplinary learning, research, and innovation, enabling students and researchers to drive forward solution-focused advancements for the future.

Bachelor's degree programmes

Our school offers eleven applied Bachelor's degree programs in Engineering, Architecture, and Construction. This vibrant academic setting fosters interdisciplinary collaboration, equipping students with the skills and perspectives needed to thrive in their respective fields.

Undergraduate modules in English for Incoming Engineering Students

International exchange students can customize their timetables by selecting from a wide range of modules, tailored to meet both their academic needs and the requirements of their home university. Modules are available from our Bachelor's degree programs in:

- Business Engineering | Innovation
- Digital Engineering | Robotics and Big Data
- Electrical Engineering and Information Technology
- Energy and Environmental Systems Engineering
- Mechanical Engineering
- Medical Engineering | Life Sciences

Additionally, students may complement their studies with modules offered by:

- The Institute for Natural Sciences and Humanities
- The Language Center
- The School of Computer Science and Information Technology

Timetable Presentation

All modules are organized in timetables detailing the specific days and times. Each module listing includes the associated Bachelor's program, internal code, type, level, credit value, and a brief description, ensuring students have all the information needed to plan their semester effectively.

Credit Requirements

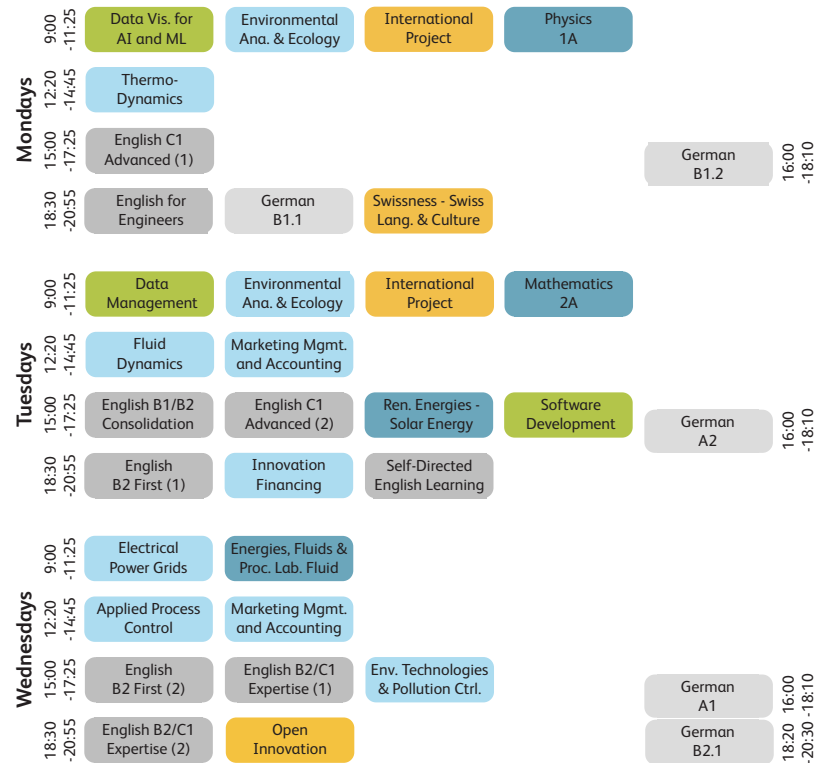
Exchange students can create a personalized timetable comprising up to 30 ECTS credits per semester, subject to approval via a learning agreement signed by the head of the study program and facilitated by exchange coordinators. A minimum of 15 ECTS credits per semester must be completed by all international exchange students.

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Vibrant campus of the
School of Engineering and Architecture

Spring semester 2025 Overview

Start of contact studies: Monday, 17 February 2025
 End of contact studies: Saturday, 31 May 2025
 Easter break: Thursday, 17 April - Wednesday, 23 April 2025
 Exams: Monday, 16 June - Saturday, 5 July 2025
 Intensive weeks: Monday, 3 February - Saturday, 15 February 2025
 Monday, 1 September - Saturday, 13 September 2025



Eligibility

- Disciplinary module for all Engineering students
- Disciplinary module for specific Engineering students
- Interdisciplinary module for all students
- Module from School of Computer Science and Information Technology, to be confirmed by mid-December
- English language module for all students
- German language module from Language Center for all students

Bachelor programme / Host

- BE Business Engineering I Innovation
- BT Building Technology
- EE Energy and Environmental Systems Engineering
- DE Digital Engineering
- ET Electrical Engineering and Information Technology
- ME Mechanical Engineering
- MT Medical Engineering
- NS Natural Sciences and Humanities
- CS School of Computer Science and IT, Campus Rotkreuz
- LC Language Center, Campus Lucerne

Module type

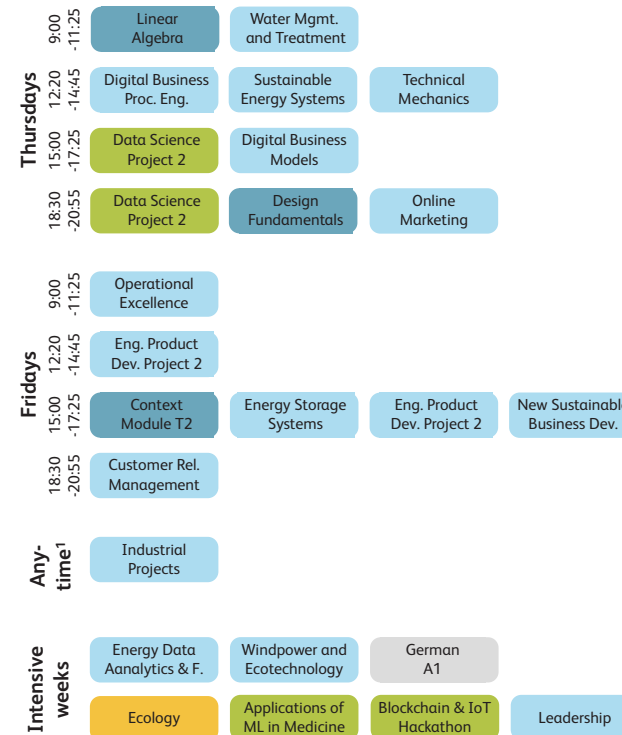
- B Block (Intensive weeks)
- C Core (Mandatory in host study programme)
- P Project
- R Related (Elective in host study programme)

Module level

- b basic (First year)
- i intermediate (Second year, some prerequisites)
- a advanced (Final year, prerequisites)

Module credits (One semester = 30 ECTS)

- 3 Lessons once a week or one intensive week
- 6 Lessons twice a week



Spring semester 2025 Mondays

Module Name	Start	End	Module Code	Host	Type	Level	ECTS
Data Visualisazion for AI and ML	09.00 h	11.25 h	I.BA_DVIZ	CS	R	i	3
Environmental Analysis & Ecology	09.00 h	11.25 h	TA.BA_EE_ECO	EE	C	i	6
International Project	09.00 h	11.25 h	TA.BA_INTPRO	BE	P	a	6
Physics 1A	09.00 h	11.25 h	TA.BA_PHYSIK1A	NS	C	b	3
Thermodynamics	12.20 h	14.45 h	TA.BA_THDYN	ME	R	i	3
English C1 Advanced (1)	15.00 h	17.25 h	TA.BA_CAE_SZ.01	NS	R	i	3
German B1.2	16.00 h	18.10 h	W.SZ_DEUFF_B1_2	LC	R	i	3
English for Engineers	18.30 h	20.55 h	TA.BA_EENG	NS	R	b	3
German B1.1	18.30 h	20.40 h	W.SZ_DEUFF_B1_1	LC	R	i	3
Swissness - Swiss Language and Culture	18.30 h	20.55 h	TA.BA_SWISS	NS	R	b	3

Physics 1A
Sigrun KÖSTER

Teaching the basics of mechanics. Dynamics of the center of mass on the basis of Newton's laws, work, energy, momentum and their law's of conservation. Statics and motion of fluids: hydrostatic pressure, buoyancy, continuity equation, Bernoulli equation, flow resistance.

Thermodynamics
Prof. Dr. Ludger FISCHER

In-depth treatment of the conservation laws in thermodynamics, treatment of state changes and their effects in practical applications, irreversibility and the second law of thermodynamics, extended introduction to heat transfer, clockwise and counterclockwise thermodynamic cycles.

English C1 Advanced
Tina BRØDSGAARD

Expand vocabulary and grammar skills and improve listening and reading comprehension at English C1 level. In addition, oral and written expression is refined. Strategies for mastering the standardised Cambridge English C1 Advanced task types are also acquired.

English for Engineers
Petruschka MEYER

Expand your own specialised English vocabulary and linguistic tools for interdisciplinary communication in English. Analysing graphics and texts from the field of technology. Professional presentation of processes and current technical topics.

German B1.1 / B1.2
Dr. Isanna MENDE

The programme is aimed at non-German-speaking students with German language skills of at least level A2. Students who successfully complete the module can understand factual texts on concrete and abstract topics, write coherent texts on topics of general interest and from their own field of interest, hold a relatively fluent conversation on familiar topics without preparation. The pronunciation is easy to understand.

Swissness - Swiss Lang. & Culture
Dr. Nina ZIMNIK

This class is rich with interactive learning experiences that allow students to "understand" Switzerland, navigate the local cultures (there are 4!) and develop intercultural skills. The class' intercultural teaching approach allows students to experience a foreign culture, exchange cross-cultural notions and link new knowledge with their own diverse backgrounds. It is offered as a general education class and transcends narrow disciplinary boundaries because of the wide ...

Data Visualisazion for AI and ML
Dr. Teresa Maria KUBACKA

The students get to know concepts and software solutions for data visualisations, can apply them sensibly and implement them in an interactive prototype. The entire process from data acquisition, storage and processing to various forms of interactive visualisation is methodically demonstrated, practically applied and critically reflected.

Environmental Analysis & Ecology
Prof. Dr. Claas WAGNER

Introduction to fundamental concepts of environmental analysis and ecology, including sustainability, ecosystems, biodiversity and climate system; environmental impact assessment; implications of CO2 emissions and other pollutants on natural systems and human mankind; application of analytical and economic tools for evaluating environmental impacts and causes of environmental problems.

International Project
Prof. Dr. Christine GRIMM

Ready to rethink design in an international team? This project-based course immerses you in Design Thinking, where you'll create innovative ideas and turn them into working prototypes alongside diverse, interdisciplinary peers. You'll explore concepts such as the Circular Economy and learn to rethink the future through the power of user-centered design. Plus, you'll have the opportunity to earn a Junior Coach Certificate for Design Thinking. Let's reshape the future!

Spring semester 2025 Tuesdays

Module Name	Start	End	Module Code	Host	Type	Level	ECTS
Data Management	09.00 h	11.25 h	I.BA_DAMGT	CS	R	b	3
Environmental Analysis & Ecology (continued)	09.00 h	11.25 h	T.A.BA_EE_ECO	EE	C	i	6
International Project (continued)	09.00 h	11.25 h	T.A.BA_INTPRO	BE	P	a	6
Mathematics 2A	09.00 h	11.25 h	T.A.BA_MATH2A	NS	C	b	3
Fluid Dynamics	12.20 h	14.45 h	T.A.BA_FLDYN	ME	R	i	3
Marketing Management and Accounting	12.20 h	14.45 h	T.A.BA_MM+RW	BE	C	b	6
English B1/B2 Consolidation	15.00 h	17.25 h	T.A.BA_ECONS	NS	R	b	3
English C1 Advanced (2)	15.00 h	17.25 h	T.A.BA_CAE_SZ.02	NS	R	i	3
Renewable Energies - Solar Energy	15.00 h	17.25 h	T.A.BA_EE+SOL	ME	C	a	3
Software Development	15.00 h	17.25 h	I.BA_BUSOD	CS	R	b	3
German A2	16.00 h	18.10 h	W.SZ_DEUFF_A2	LC	R	b	3
English B2 First (1)	18.30 h	20.55 h	T.A.BA_FCE_SZ.01	NS	R	i	3
Innovation Financing	18.30 h	20.55 h	T.A.BA_INNO_FN	BE	R	i	3
Self-Directed English Language Learning	18.30 h	20.55 h	T.A.BA_SELL	NS	R	i	3

Marketing Mgmt. and Accounting

Prof. Dr. Michael BLANKENAGEL

Fundamentals of marketing, knowledge and application of the methods of marketing research, conception, implementation and controlling, use of financial reporting and its analysis as well as cost accounting (cost accounting, contribution margin accounting and costing as instruments for decision-making, applied in a business game throughout the semester.

English B1/B2 Consolidation

Yaël BORNSTEIN

By deepening grammar and expanding general vocabulary, in conversations, discussions, reading texts and listening comprehension, but also by writing texts, you will gain more confidence and enjoyment in the English language.

Renewable Energies - Solar Energy

Prof. Dr. Thomas NUSSBAUMER

Imparting of physical fundamentals and technologies regarding the usage of solar energy. Along with solar heat in buildings also photovoltaics and concentrated solar thermal processes to generate electricity are discussed. Furthermore, planning fundamentals and commercial planning software as well as costs and profitability are part of the module.

Software Development

Aakanksha TIWARI

The module covers the most important components of business software. The students deepen their knowledge of code quality and refactoring. In a next step, students develop graphical user interfaces. File handling and network concepts are central components of business applications and are therefore also taught. The implementation of client-server architectures rounds off this module.

German A2

Dr. Isanna MENDE

The course is aimed at non-German-speaking students with German language skills of at least level A1. Students who successfully complete the module understand and use sentences and frequently used expressions. Students will be able to communicate in simple situations involving a direct exchange of information. They can describe their own background, education and immediate environment in context.

English B2 First

Anna CHRISTEN

Expand vocabulary to around 3000 words in order to formulate thoughts in a situation-appropriate, comprehensible and varied way; improve listening and reading comprehension; acquire strategies for mastering the standardised B2 First task types in preparation for the internationally recognised 'Cambridge First B2' exam.

Data Management

Prof. Dr. Alexander DENZLER

Data is the new oil - it is the fuel of our modern, technology-based society. Against this background, it is particularly important to understand what data actually is, how it can be converted into information and what types of data exist. In a first step, the modelling, structure and querying of relational databases is taught. The second step then deals with so-called NoSQL databases. The focus here is on graph databases.

Mathematics 2A

Prof. Dr. Jung Kyu CANCI

Complex numbers: normal and polar forms, Euler's formula. First order differential equations: basic definitions, Euler's method, method of separation of variables and method of variation of the constant. Second order differential equation: Different types of linear equations in particular homogeneous and inhomogeneous. Several applications to real word problems, in particular to harmonic oscillations.

Fluid Dynamics

Prof. Dr. Ulf Christian MÜLLER

In-depth treatment of conservation theorem in fluid mechanics. Potential theory and application to frictionless flows. Importance of friction (dissipation), boundary layers and effects in practical applications. Resistance of flowing bodies. Dimensional analysis, similarities and key figures. Treatment of compressible flows (supersonic).

Innovation Financing

Dr. Matthias Daniel AEPLI

Introduction to corporate finance, approaches to innovation financing, determining risk and return of investments, understanding capital structure decisions, performing company valuation

Self-Directed English Learning

Franz HAGMANN

The focus is on maintaining English language skills, from level B2/FCE; teaching language learning techniques using the example of specialised texts with the aim of continuously and autonomously improving the individual language level.

Spring semester 2025 Wednesdays

Module Name	Start	End	Module Code	Host	Type	Level	ECTS
Electrical Power Grids	09.00 h	11.25 h	TA.BA_EPG	ET	C	a	3
Energies, Fluids & Processes Laboratory Fluid	09.00 h	11.25 h	TA.BA_EFPLAB1	ME	C	b	3
Applied Process Control	12.20 h	14.45 h	TA.BA_APC	ET	C	i	3
Marketing Management and Accounting (continued)	12.20 h	14.45 h	TA.BA_MM+RW	BE	C	b	6
English B2 First (2)	15.00 h	17.25 h	TA.BA_FCE_SZ.02	NS	R	i	3
English B2/C1 Expertise (1)	15.00 h	17.25 h	TA.BA_EEXP.01	NS	R	i	3
Environmental Technologies & Pollution Control	15.00 h	17.25 h	TA.BA_AIRCON	EE	C	a	3
German A1	16.00 h	18.10 h	W.SZ_DEUFF_A1	LC	R	b	3
German B2.1	18.20 h	20.30 h	W.SZ_DEUFF_B2_1	LC	R	i	3
English B2/C1 Expertise (2)	18.30 h	20.55 h	TA.BA_EEXP.02	NS	R	i	3
Open Innovation	18.30 h	20.55 h	TA.BA_OPEN_ISA	NS	R	i	3

English B2 First

Anna CHRISTEN

Expand vocabulary to around 3000 words in order to formulate thoughts in a situation-appropriate, comprehensible and varied way; improve listening and reading comprehension; acquire strategies for mastering the standardised B2 First task types in preparation for the internationally recognised 'Cambridge First B2' exam.

English B2/C1 Expertise

Prof. Irene DIETRICH

Discussions on current topics, reading of authentic texts and varied listening and comprehension exercises, as well as in-depth vocabulary development, combined with effective learning strategies. Communication at a sophisticated level, fluent, correct and effective written and oral; preliminary level to Cambridge Advanced Certificate.

Env. Technologies & Pollution Control

Dr. Martin STREICHER-PORTE

Introduction eco-design technologies avoiding end of life treatment e.g. design for reuse, refurbishment, or recyclability. Introduction of CO2 abatement technologies comprising direct air capturing (DAC), carbon capture and storage (CCS) and CO2 capturing and utilization technologies, e.g. fixation of CO2 by algae, biochar production for soil improvement, and technologies for synthetic fuel production.

German A1

Barbara Lima RAMPOLLA

The programme is aimed at non-German-speaking students - beginners. The learning progress in this module is considerable. The programme is therefore tailored to motivated students. Students who successfully complete the module understand and use everyday expressions and simple sentences. Students can communicate in a simple way if the person they are talking to speaks slowly and clearly and is willing to help.

German B2.1

Barbara Lima RAMPOLLA

Students who successfully complete the module understand complex texts on concrete and abstract topics. They can easily follow radio and television programmes. They communicate fluently and in a structured manner so that a normal conversation with native speakers is easily possible without major effort on either side. You express yourself clearly and in detail on general topics and explain your point of view on issues that interest you. You show a fairly good command

Open Innovation

Julie HARBOE

Learning the basic concepts of systematic ideation and purposive use of technology. Practicing methods of collaborative creativity. Discussing complex questions of partnership and intellectual property. Participating in a true innovation movement.

Electrical Power Grids

Severin NOWAK

The following topics are covered: Transformation of primary into electrical energy. Fundamentals of the main grid components of a power system (generators, transformers, substation and transmission lines/cables). Grid analysis technics such as load-flow and short-circuit calculation. Methods of power system control. Analysis of blackouts and concepts of protection systems. Renewable generation and their integration in power grids. Smart grid technologies and modern ...

Energies, Fluids & Processes Lab Fluid

Prof. Dr. Ulf Christian MÜLLER

Introduction into basics of Energy Technology (Fluid Dynamics). System balancing (mass, energy and momentum). Different types of energy and energy conversion. Basics of fluid motion. Flow regimes and losses in fluid flows. Laboratory tests using various flow configurations (geometries), pumps and turbines.

Applied Process Control

Prof. Dr. Armin TAGHIPOUR

The concepts of systems and signals will be elucidated. They will be characterized in the time domain and the s-domain (by means of the Laplace-Transformation). Students will get familiar with feedback loops and will learn to analyze and design controllers that guarantee stability and performances. Simulink exercises, lab demonstrations, and a MAIN case study will help to consolidate the acquired knowledge.

Spring semester 2025 Thursdays

Module Name	Start	End	Module Code	Host	Type	Level	ECTS
Linear Algebra	09.00 h	11.25 h	TA.BA_LINALG	NS	C	b	3
Water Management and Treatment	09.00 h	11.25 h	TA.BA_WATER	EE	C	a	3
Digital Business Process Engineering	12.20 h	14.45 h	TA.BA_DBPE	BE	C	a	3
Sustainable Energy Systems	12.20 h	14.45 h	TA.BA_SES	EE	C	i	3
Technical Mechanics	12.20 h	14.45 h	TA.BA_TECHMECH	ME	B	b	3
Data Science Project 2	15.00 h	17.25 h	I.BA_DSPRO2	CS	P	i	6
Digital Business Models	15.00 h	17.25 h	TA.BA_DBM	BE	C	a	3
Data Science Project 2 (continued)	18.30 h	20.55 h	I.BA_DSPRO2	CS	P	i	6
Design Fundamentals	18.30 h	20.55 h	TA.BA_INDES1	BE	C	b	3
Online Marketing	18.30 h	20.55 h	TA.BA_ONMA	BE	C	a	3

Linear Algebra

Dr. Peter SCHEIBLECHNER

Basics of linear algebra including matrix algebra and its applications, in particular euclidian vector space and linear maps, eigenvalues and eigenvectors; solution of mathematical problems with algebraic and numerical methods and their graphical representation, in particular, using numerical software as e.g. MATLAB or Python.

Water Management and Treatment

Dr. Martin STREICHER-PORTE

Basics of water supply, use and wastewater treatment; overview of water supply from groundwater, lakes and rivers, springs, boreholes, climate change pressure on water supply & new technologies; wastewater treatment standards (CH/Europe) and water saving technologies; individual case studies & excursions.

Digital Business Process Engineering

Thomas SCHWANK

This module provides an introduction to the fundamentals, approaches and methods required for digital business process engineering on the basis of a cycle-based framework model (5 phases), which represents a typical management cycle. Different models, methods and techniques are applied, based on concrete practical examples. Transfer of knowledge is facilitated and active work is necessary (group exercises, case studies).

Sustainable Energy Systems

Severin NOWAK

Addressing the question of “how can we decarbonize our energy systems?”, this module provides the essential knowledge to understand decarbonization challenges and potential solutions. It investigated state-of-the-art technologies concerning energy “generation”, conversion, distribution and storage. Focus is also placed on understanding the various sectors to be decarbonized as well as important restrictions and boundary conditions (e.g. policies and economics).

Technical Mechanics

Priska BÜELER

This course enables students to calculate simple static problems within the field of mechanics to pre-evaluate the support reaction, forces, momentum, stress and strain acting inside a body to determine its strength and safety.

Data Science Project 2

Dr. Umberto MICHELUCCI

In this advanced course, students will embark on creating sophisticated data science and machine learning solutions. From the outset, they select a project that will be honed into a full-fledged application. The curriculum is an intricate tapestry of expert-led lectures and mentorship sessions, crafted to impart skills that meet the demands of the industry. Beyond the elementary principles of data science, the syllabus delves into intricate topics such as neural network foundations...

Digital Business Models

Prof. Dr. Shaun WEST

The Digital Business Model Innovation module explores innovative business models enabled by digital technology. Students learn key frameworks, evaluate approaches, and apply knowledge through case studies. They emerge prepared to lead digital transformation and gain competitive advantages in today's dynamic marketplace.

Design Fundamentals

Hannes FELBER

The module provides an understanding of the discipline and process of industrial design and human-centred design. Sub-areas of the design process such as perception, ergonomics, creativity, needs analysis, idea generation and prototyping are experienced in practical exercises. The ability to think innovatively is emphasised and intensively trained.

Online Marketing

Angelos APOSTOLIDIS

The module discusses the relevance and use of online marketing as part of companies' marketing measures and concepts. Current and common instruments of online marketing are critically examined and their use in an overall marketing strategy is evaluated. Common risks and opportunities as well as their measurement are also explored.

Spring semester 2025 Fridays

Module Name	Start	End	Module Code	Host	Type	Level	ECTS
Operational Excellence	09.00 h	11.25 h	T.A.BA_OAE	BE	C	a	3
Engineering Product Development Project 2	12.20 h	14.45 h	T.A.BA_PDP2	BE	P	i	6
Context Module T2	15.00 h	17.25 h	T.A.BA_KONTT2	NS	P	b	3
Energy Storage Systems	15.00 h	17.25 h	T.A.BA_STORAGE	ME	R	a	3
Engineering Product Development Project 2 (continued)	15.00 h	17.25 h	T.A.BA_PDP2	BE	P	i	6
New Sustainable Business Development	15.00 h	17.25 h	T.A.BA_NBD	BE	C	a	3
Customer Relationship Management	18.30 h	20.55 h	T.A.BA_CRM	BE	C	a	3

Energy Storage Systems

Prof. Dr. Jörg WORLITSCHEK

Principles of energy supply, focused on renewable energies. Importance, application, overview of, planning and use of energy storage. Thermal energy: Fundamentals of thermodynamics, exergy analysis and interpretation, modeling and application, thermal energy networks. Electrical energy storage: fundamentals of electrical storage, analysis and interpretation. Modeling and applications and electrical networks. Combined use.

New Sust. Business Development

Prof. Dr. Patrick LINK

This module focuses on developing new business in the area of sustainability. Companies are analyzed using known frameworks and tools in the area of product- and strategic management, sustainability, circular economy, business model innovation, corporate finance, and project management. It uses case studies and covers sustainability, agile methods, intrapreneurship, ambidextrous organization design, corporate venturing, mergers, acquisitions ...

Customer Relationship Management

Angelos APOSTOLIDIS

The module focuses on the importance of a customer-centric view and how to build a customer-centric strategy and relationship on this mindset. Therefore, the module will discuss the use of modern CRM-based concepts as well as the tools and applications that can be used operationally. The course will also discuss how to identify and classify customers and their needs.

Operational Excellence

Julia ROHRER

Deepened analysis of the Supply Chain of industrial companies, in search of Excellence, based on the principles and tools of the Toyota Production System and its evolution into Lean Management. These concepts and tools will be explained and applied in several case studies and in a final production simulation game, so that participants will „touch with their hands“ the significant difference between traditional and „lean“ approaches in Operations.

Eng. Product Development Project 2

Prof. Dr. Simon ZÜST

Exemplary engineering learning project with processing of an interdisciplinary project task in a team. As a continuation of PDP1, partial solutions are brought together, the solution is realised and implemented, and the overall concept is tested. At the same time, presentations, visualisations and technical documentation of the results are created

Context Module T2

Petruschka MEYER

Develop English for academic and professional purposes, i.e. English communication skills, furthering presentation techniques and clear concise writing of documents considering their target audience appropriately.

Intensive Weeks

Module Name	Start	End	Module Code	Host	Type	Level	ECTS
Energy Data Analytics & Forecasting	3.02.25	7.02.25	T.A.BA_EDAF	ET	B	a	3
Windpower and Ecotechnology	3.02.25	8.02.25	T.A.BA_WIND_ECO	EE	B	b	3
German A1	3.02.25	14.02.25		LC	B	b	3
Ecology	8.09.25	12.09.25	T.A.BA_OEK	NS	B	b	3
Applications of Machine Learning in Medicine	Mid-Sep		I.BA_AMLMED_MM	CS	B	i	3
Blockchain & Security for IoT Hackathon	Mid-Sep		I.BA_IOTHACK	CS	B	i	3
Leadership	Mid-Sep		T.A.BA_LEAD	BE	B	i	3

Energy Data Analytics & Forecasting

Prof. Dr. Antonious PAPAEMMANOUIL

In this intensive week, we consider how machine learning can be used to help solve the energy forecasting problem. The participants will apply those algorithms to specific use cases regarding photovoltaics, e-mobility, storage or self-consumption optimization in order to predict load and/or production. Real-world data will be used, and practical experience will be provided by the experienced lecturers that facilitate the course. Through your project you will have practical ...

Windpower and Ecotechnology

Prof. Dr. Class WAGNER

Basics of wind power technology, from determining the potential of wind power to its use with different types of turbines and systems, including the selection of materials and components, to estimating the electrical energy produced. Based on actual installations, a stakeholder analysis and environmental analyses are carried out to estimate the impact of emissions on people and ecosystems.

German A1

Dr. Isanna MENDE

The offer is aimed at non-German speaking students - beginners. The learning progress in this module is considerable. The offer is therefore tailored to motivated students.

Ecology

Prof. Dr. Claas WAGNER

Relationships and life cycles in ecosystems, effects of greenhouse gases on the environment and environmental policies and economics.

Application of ML in Medicine

Simone LIONETTI

The module is divided into three sections linked to different datasets from the medical field. For each dataset, analyses are performed to generate understanding and machine learning tasks are formulated to identify technological potential. The focus is on problems typical of medical data, such as domain-specific feature engineering, generalisation between cohorts, annotation problems, interpretability, confidentiality and skewed, biased or unbalanced data.

Blockchain & IoT Hackathon

Prof. Dr. Tim WEINGÄRTNER

During the block week, knowledge about blockchain in combination with IoT is built up on the basis of specific use cases. The interdisciplinary teams ensure different perspectives on the technologies and use cases. The block week is organised together with business partners, who also provide coaches. The week is modelled on the setup of a hackathon. An exciting prize awaits the winning team.

Leadership

Prof. Dr. Michele KELLERHALS

Students shall understand the concept of leadership and its different aspects and success factors by looking at themselves, their teams and organizations. The training will be based on basic theoretical concepts but to make it more applicable in real life one of the key elements of the training is practicing with tools that leaders apply to be successful. One of the aims of the training is to prepare the students for their future roles as leaders: project leaders or product ...

Contact

Lucerne University of Applied Sciences and Arts
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International Relations

Head: Prof. Dr. Stephen Wittkopf
Exchange Coordinator: Janka Krasselt
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[hslu.ch/en/lucerne-school-of-engineering-architecture/
degree-programmes/international/](https://hslu.ch/en/lucerne-school-of-engineering-architecture/degree-programmes/international/)

Disclaimer

The selection of modules and timetables is subject to minor adjustments for organizational reasons. The finalized schedule will be confirmed shortly before the start of the semester.

Status on 17 December 2024, subject to change.

