



Zurich University of Applied Sciences

School of Engineering

Fall semester



The ZHAW - School of Engineering offers numerous English taught modules for Incoming Exchange Students - some remarks for clarification:

- **For Bachelor Exchange students**, in this document the modules open for the fall semester are listed.
- Marked in blue, is a suggested set of modules you do not encounter any conflicts in schedule
- This list is subject to changes.
- The exchange students can choose modules out of all programs.
- Students who have German language skills level B2, can of course attend all modules.
<https://www.zhaw.ch/de/engineering/studium/bachelorstudium/>
- **For Master Exchange students**, the program is entirely taught in English. ZHAW School of Engineering offers the following eleven master profiles: Aviation, Business Engineering, Civil Engineering, Computer Science, Data Science, Electrical Engineering, Energy and Environment, Mechanical Engineering, Mechatronics and Automation, Medical Engineering, Photonics.
- Detailed information is available under <https://www.zhaw.ch/en/engineering/study/masters-degree-programme/profiles/>

If you need any further information, please feel free to contact:
ZHAW School of Engineering Exchange exchange.engineering@zhaw.ch



Aviation

Modules in English for Bachelor Exchange Students Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Aircraft Systems - Structure and Mechanical Systems	t.BA.AV.ACSYS-SM-EN.19HS	4	Fall	3. semester
Human Factors	t.BA.AV.HF-EN.19HS	4	Fall	3. semester
Physics 3: Atmospheric Physics and Applied Meteorology	t.BA.AVP.PHYMET-EN.19HS	4	Fall	3. semester
Maintenance, Airworthiness Management, Regulations and Operator Organisation	t.BA.WV.MARO-EN.20HS	4	Fall	5. semester
Numerical and Experimental Aerodynamics	t.BA.WV.NEA-EN.19HS	4	Fall	5. semester
Project Thesis: Aviation	t.BA.AV.PA-EN.19HS	6	Fall	5. semester
Systems Reliability, Availability, Maintainability and Safety	t.BA.WV.RAMS-EN.19HS	4	Fall	5. semester
Aircraft Systems - Control Systems	t.BA.WV.ACSYS-CS-EN.19HS	4	Fall	5. semester
Advanced Mechanics	t.BA.WV.ADV-MECH-EN.19HS	4	Fall	5. semester
Flight Operations	t.BA.WV.FL-OPS-EN.19HS	4	Fall	5. semester
<i>Total Credits</i>		42		

Summer Schools – Restricted places available. Please contact Christoph Regli (christoph.regli@zhaw.ch) to check options and requirements once accepted for the exchange semester:

ATM Summer School	t.BA.WV.ATMSS-EN.19HS	4	During the summer semester break
Flight Test Laboratory Summer School	t.BA.WV.FTL-EN.19HS	4	During the summer semester break

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XXK.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
<i>Total Context Modules</i>		8		

* availability depending on number of students

Computer Science

Modules in English for Bachelor Exchange Students Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Cloud Computing 1	t.BA.WV.CCP1-EN.19HS	4	Fall	5. semester
Software and System Security 1	t.BA.WV.SWS1-EN.19HS	4	Fall	5. semester
Artificial Intelligence 1 Starts at KW 47	t.BA.WV.AI1-EN.19HS	4	Fall	5. semester
Internet of Things 1	t.BA.WV.IOT1-EN.19HS	4	Fall	5. semester
Communication Networks and Services 1	t.BA.WV.CNS1-EN.19HS	4	Fall	5. semester
Scientific Computing	t.BA.WV.SCC-EN.19HS	4	Fall	5. semester
Project Thesis: Computer Science	t.BA.IT.PA-EN.19HS	6	Fall	5. semester
System on Chip Design	t.BA.WV.SCD-EN.19HS	4	Fall	5. semester
Serverless and Cloud Application Development	t.BA.WV.SCAD-EN.20HS	4	Fall	5. semester
Digital Image Processing 1	t.BA.WV.DIP-EN.19HS	4	Fall	5. semester
<i>Total Credits</i>		42		

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XXK.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
<i>Total Context Modules</i>		8		

* availability depending on number of students

Data Science

Modules in English for Bachelor Exchange Students Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Data Products and Services	t.BA.DS.DPS-EN.20HS	4	Fall	3. semester
Project Thesis: Data Science	t.BA.DS.PA-EN.19HS	6	Fall	5. semester
<i>Total Credits</i>		<i>10</i>		

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XX.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
<i>Total Context Modules</i>		<i>8</i>		

* availability depending on number of students

Engineering and Management

Modules in English for Bachelor Exchange Students Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Financial Enterprise Modeling	t.BA.WI.FUM-EN.19HS ¹	4	Fall	3. semester
Basics of Statistics	t.BA.XX.GSTAT-EN.20HS ¹			
Physics 3: Factory Physics	t.BA.WIP.FAP-EN.19HS	4	Fall	3. semester
Advanced Regression Modelling	t.BA.WV.ARM-EN.19HS	4	Fall	5. semester
Databases	t.BA.WV.DB-EN.19HS	4	Fall	5. semester
Service Engineering Basics	t.BA.WV.SEG-EN.19HS	4	Fall	5. semester
Project Thesis: Engineering and Management	t.BA.WI.PA-EN.19HS	6	Fall	5. semester
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¹ you can choose only one of these two modules due to schedule overlaps

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XX.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
<i>Total Context Modules</i>		8		

* availability depending on number of students

Electrical Engineering

Modules in English for Bachelor Exchange Students
Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Digital Image Processing 1	t.BA.WV.DIP-EN.19HS	4	Fall	5. semester
Internet of Things 1	t.BA.WV.IOT1-EN.19HS	4	Fall	5. semester
System on Chip Design	t.BA.WV.SCD-EN.19HS	4	Fall	5. semester
Communication Networks and Services 1	t.BA.WV.CNS1-EN.19HS	4	Fall	5. semester
Project Thesis: Electrical Engineering	t.BA.ET.PA-EN.19HS	6	Fall	5. semester
Automation 1	t.BA.WV.AUT1-EN.19HS	4	Fall	5. semester
Electronics Project 1	t.BA.ET.PM3-EN.19HS	4	Fall	3. semester
Computer Engineering 1	t.BA.XX.CT1-EN.13HS	4	Fall	3. semester
Signals and Systems 1	t.BA.XX.SISY1-EN.13HS	4	Fall	3. semester
<i>Total Credits</i>		38		

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XXK.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
<i>Total Context Modules</i>		8		

* availability depending on number of students

Mechanical Engineering

Modules in English for Bachelor Exchange Students
Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Thermodynamics	t.BA.XX.FTH2-EN.19HS	4	Fall	3. semester
Mechanical Vibrations	t.BA.MT.MDYN-EN.19HS	4	Fall	5. semester
Smart Products and Production 1	t.BA.WV.SPP1-EN.19HS	4	Fall	5. semester
Systems and Automation Technology 1	t.BA.WV.SYAT1-EN.19HS	4	Fall	5. semester
Numerical and Experimental Aerodynamics	t.BA.WV.NEA-EN.19HS ¹	4	Fall	5. semester
Additive Manufacturing (3D printing)	t.BA.WV.AFV-EN.19HS ¹			
Project Thesis: Mechanical Engineering	t.BA.MT.PA-EN.19HS	6	Fall	5. semester
Measurement and Control Systems 1	t.BA.MT.MRT1-EN.19HS	2	Fall	3. semester
Industrial Design: Basic Principles	t.BA.WV.INDE-EN.19HS	4	Fall	5. Semester
Total Credits		32		

¹ you can choose only one of these two modules due to schedule overlaps

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XXK.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
Total Context Modules		8		

* availability depending on number of students

System Engineering

Modules in English for Bachelor Exchange Students
Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Product Development for Systems Engineering 3	t.BA.ST.PM3-EN.19HS	4	Fall	3. semester
Signals and Systems 1	t.BA.XX.SISY1-EN.13HS	4	Fall	3. semester
Computer Engineering 1	t.BA.XX.CT1-EN.13HS ¹	4	Fall	3. semester
Automation 1	t.BA.WV.AUT1-EN.19HS ¹			5. semester
System on Chip Design	t.BA.WV.SCD-EN.19HS	4	Fall	5. semester
Industrial Design: Basic Principles	t.BA.WV.INDE-EN.19HS	4	Fall	5. semester
Digital Image Processing 1	t.BA.WV.DIP-EN.19HS	4	Fall	5. semester
Project Thesis: Systems Engineering	t.BA.ST.PA-EN.19HS	6	Fall	5. semester
Additive Manufacturing (3D printing)	t.BA.WV.AFV-EN.19HS	4	Fall	5. semester
Total Credits		34		

¹ you can choose only one of these two modules due to schedule overlaps

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XX.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
Total Context Modules		8		

* availability depending on number of students

Energy and Environmental Engineering

Modules in English for Bachelor Exchange Students
Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Project Thesis: Energy and Environmental Engineering	t.BA.EU.PA-EN.19HS	6	Fall	5. semester
<i>Total Credits</i>		6		

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XXK.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
<i>Total Context Modules</i>		8		

* availability depending on number of students

Transport Systems

Modules in English for Bachelor Exchange Students
Fall Semester Study year 2022-2023

Modules / Courses	Module Code	ECTS Credits	Term	Level
Project Thesis: Transport systems	t.BA.VS.PA-EN.19HS	6	Fall	5. semester
<i>Total Credits</i>		6		

Options from other Engineering Programs

due to the structure of the curriculum, you can only choose one module from this group

Digital Assistive Technologies	t.BA.WM.DAST-EN.19HS	4	Fall	5. semester
Digital Health	t.BA.WM.DHEAL-EN.19HS	4	Fall	5. semester
Introduction to Computer and Communication Security	t.BA.WM.INCSEC-EN.19HS	4	Fall	5. semester
International Management - Asia	t.BA.WM.INTMAN-EN.19HS	4	Fall	5. semester
Principles and Applications of the IoT	t.BA.WM.PRIAP-EN.19HS	4	Fall	5. semester
Rapid Software Prototyping for Engineering Science	t.BA.WM.RASOP-EN.19HS	4	Fall	5. semester
Safety and Systems Engineering	t.BA.WM.SASEN-EN.19HS	4	Fall	5. semester

Context modules

Bionics	t.BA.WVK.BION-EN.20HS	2	Fall	
Intercultural Communication and Management	t.BA.XXK.ICAM-EN.19HS	2	Fall	
German for Beginners	t.BA.XX.GFB.17HS	2	* Fall	
Introductions to Swiss Society and Politics	t.BA.XX.ISSP-EN.20HS	2	* Fall	
<i>Total Context Modules</i>		8		

* availability depending on number of students