

BACHELOR

Digitalisation & Engineering

INFORMATICS

Special offer for students from Austrian HTLs
with a focus on Information Technology.

CURRICULUM

FULL-TIME

Overview of accreditations for Austrian HTL graduates:

- Full accreditation of course based on subjects covered in HTL
- Full accreditation of course, participation is highly recommended.
- Exemption from attending the course. Must pass the exams.

Semester I	H	ECTS
Mathematics, Statistics and Theoretical Computer Science		
MATHEMATICS I		
<input checked="" type="checkbox"/> Mathematics I – Theory	2	3
<input checked="" type="checkbox"/> Mathematics I – Exercise	2	3
STATISTICS AND PROBABILITY IN COMPUTER SCIENCE		
<input type="checkbox"/> Statistics and Probability in Computer Science – Theory	2	3
<input type="checkbox"/> Statistics and Probability in Computer Science – Exercise	2	3
Software Engineering and Data Modelling		
<input checked="" type="checkbox"/> Web Technologies	4	6
<input type="checkbox"/> Programming I	4	6
Computer Science and Society		
<input checked="" type="checkbox"/> Introduction: Applied Informatics	1	1
<input type="checkbox"/> General Business Administration	2	3
Social Skills		
<input checked="" type="checkbox"/> Intercultural Competences	1	2

Semester II	H	ECTS
Mathematics, Statistics and Theoretical Computer Science		
Mathematics II	2	3
Theoretical Computer Science and Logic	2	3
Algorithms and Data Structures I	2	3
Computer Systems		
DATABASE SYSTEMS		
<input type="checkbox"/> Database Systems – Theory	2	2
<input type="checkbox"/> Database Systems – Exercise	2	3
<input checked="" type="checkbox"/> Technical Foundations of Computer Science	2	2
<input type="checkbox"/> Networking Technologies and Management Systems I	2	2
Software Engineering and Data Modelling		
Programming II	4	6
Design Methodology in Human Computer Interaction	2	3
Computer Science and Society		
Reflections on Computer Science, Society and Ethics	1	1
Social Skills		
Creative Thinking	2	2

Semester III	H	ECTS
Mathematics, Statistics and Theoretical Computer Science		
Advanced Statistical Methods for Data Science	2	4
Algorithms and Data Structures II	2	3
Computer Systems		
Networking Technologies and Management Systems II	2	3
Operating Systems	2	3
Software Engineering and Data Modelling		
Software Engineering and Project Management	4	6
Computer Science and Society		
REFLECTIONS ON CRITICAL ALGORITHM STUDIES		
Reflections on Computer Science, Society and Ethics	1	1
Critical Algorithm Studies	2	2
Process Management	2	3
Computer Science and Law	2	3
Research and Scientific Working		
Scientific Skills and Writing	2	2

Semester IV	H	ECTS
Computer Systems		
DISTRIBUTED SYSTEMS		
Distributed Systems – Theory	2	3
Distributed Systems – Exercise	2	3
IT Security		
Risk Management	2	3
Cybersecurity and Data Protection	3	4
Data Science and Emerging Technologies		
FROM DATA CAPTURING TO ANALYSIS AND INTERPRETATION		
Data Mining, Acquisition and Preparation	2	3
Machine Learning, Artificial Intelligence and Big Data Analytics	3	4
Data Visualization, Presentation and Real-time Integration of Digital Products	2	3
Data Science Capstone Project	3	4
Computer Science and Society		
Reflections on Computer Science, Society and Ethics	1	1
Research and Scientific Working		
Bachelor Exposé Preparation	1	2

SPECIAL FEATURE

One specialisation and two electives

The programme includes a specialisation in **data science and emerging technologies**, as well as two electives with a strong practical focus:

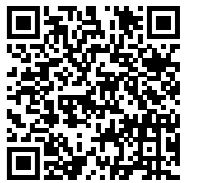
Business Process and Enterprise Technologies or **Bioinformatics**.

Semester V	H	ECTS
Practical Training Semester		
Practical Training Semester (22 weeks à 30 hours)	0	28
Practical Training Coaching Seminar	1	2

Semester VI	H	ECTS
Data Science and Emerging Technologies		
Current Trends and Emerging Technologies	2	2
Computer Science and Society		
Reflections on Computer Science, Society and Ethics	1	1
Research and Scientific Working		
Bachelor Seminar and Bachelor Paper	1	8
Bachelor Exam	0	2
Social Skills		
Communication and Presentation Skills	1	1
ELECTIVE 1: Business Process and Enterprise Technologies		
ERP-CONSULTING		
Customizing	3	6
Data Transformation and Data Warehousing	3	3
Integrated Value Flows	2	3
Business Application Integration	3	4
ELECTIVE 2: Bio Informatics		
IMAGE PROCESSING AND VISUAL COMPUTING IN BIOLOGY AND MEDICINE		
Image Processing and Visual Computing in Biology and Medicine – Theory	2	2
Image Processing and Visual Computing in Biology and Medicine – Exercise	1	2
Biological Foundations of Bio Informatics	2	3
Algorithms and Tools in Bio Informatics	2	3
Big Data for Bioanalytics and Medicine	4	6

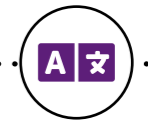
Students choose one elective out of two in semester six. Subject to possible alterations (Version 03/2022)

AT A GLANCE



Full-time | Monday – Friday

Courses take place from Monday to Friday between 8.00 a.m. and around 8.00 p.m. (in exceptional cases on Saturdays).



English

The language of instruction is English. This prepares you for a career in a multicultural environment.



Six semesters

The degree programme lasts three years, with a total workload of 180 ECTS. Graduates receive the academic degree of Bachelor of Science in Engineering (BSc).



22-week internship

You can quickly put into practice the expertise you have picked up during your courses. The internship is an obligatory part of the programme.



Study fee

EU/EEA citizens pay a study fee of EUR 363.36 per semester, plus the student union fee.



Terrific landscape and safe environment



#proudtobestudent



Ultra-modern Campus Krems site

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Version: 03/2022

ACCREDITATIONS



MEMBERSHIPS



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