



FH KREMS
UNIVERSITY OF APPLIED
SCIENCES / AUSTRIA

Bachelor

Data Science and Analytics



NEW CHALLENGES FOR COMPANIES

“The internet of things, Industry 4.0 and social media; data mining and machine learning; the exponential growth in storage capacity and increase in cloud-based processing power: all of these groundbreaking developments illustrate the rise of data-generating technologies. These bring new challenges for companies, but they also open up new opportunities.”

Data scientists and business data analysts play a part in corporate and organisational decision-making by analysing data and visualising the results.

STUDY LOCALLY - WORK GLOBALLY

Handling big data is increasingly becoming a managerial concern. This is transforming the world of business, giving rise to data-driven businesses.

Exponentially growing databases can be utilised as a commercial resource. Insights gained from data analysis pave the way for optimisation of company processes and procedures, improvements in customer satisfaction and more targeted strategic decisions.

This requires:

- Knowledge of hardware and software, in order to gain access to data from various sources
- Statistical data analysis methods, and
- Managerial models for interpreting data, in order to draw conclusions geared towards achieving company objectives.

KEY SKILLS

The degree programme has a strong technical focus. Students obtain basic knowledge of structured and unstructured data, database systems and database queries, as well as descriptive and explorative data analysis. Application of this expertise concentrates on specific competences related to data management, analysis and interpretation. There is also an emphasis on data preparation, the results of which feed into annual reports and data visualisations. Specialisations in specific sectors and fields of application are planned, such as digital finance and insurance products, social-media analysis, urban planning and digital mobility concepts.

The course contents also include core competences connected with data protection regulations, privacy and IT security, as well as function-specific social skills and the management of corporate culture with a view to achieving business objectives.

CLOSE COOPERATION WITH BUSINESS AND RESEARCH

In terms of the research topics of enterprise 4.0 and the new world of work, IMC Krems already has a strong reputation as an innovative partner for businesses and research institutes. With this in mind, the degree programme builds on current partnerships with companies and research bodies. This gives students direct access to applied research carried out in collaboration with business.

DEGREE PROGRAMME COMPATIBLE WITH PART-TIME EMPLOYMENT

A block-based programme structure, as well as a teaching concept comprising contact hours and online learning, are designed to enable those in part-time employment to enrol for the programme.

CAREER OPTIONS WITH OUTSTANDING PROSPECTS

Graduates will find secure work places after graduation. They are “mobile workers” who can do their jobs from all over the world. The future of work lies in this sector.

- financial services: including optimising stock exchange and business value analysis and designing customised digital financial products (FINTech)
- retail: boosting revenue with the support of recommender systems and by optimising complaint management procedures using semantic data analysis
- industrial manufacturing: using mathematical process analysis models for quality forecasting and developing recommendations for parameterisation
- insurance: in connection with risk assessment and designing custom insurance products
- public administration: such as designing smart cities and digital mobility concepts

PROSPECTIVE STUDENT ADVISORY SERVICE

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DATA SCIENCE AND ANALYTICS

FOR TOMORROW'S CORPORATE PROCESS DESIGN ENGINEERS

QUICK FACTS

Start of degree programme*:

September 2018

Study places:

Limited

Language of instruction:

English

Entrance requirements:

Secondary school leaving certificate or equivalent

Duration:

Six semesters

Academic degree:

Bachelor of Science (BSc) – 180 ECTS**

Format:

Full-time/compatible with part-time employment

* Subject to accreditation by the Agency for Quality Assurance and Accreditation Austria (AQ Austria)

** ECTS: European Credit Transfer System

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Prospective Student Advisory Service

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