The bachelor’s degree program Data Science is an interdisciplinary study program that deals with the modeling, processing and analysis of data. Modern methods from mathematics, computer science, and statistics are used to extract relevant information from large amounts of data.
We live in the age of digitization with all its benefits but also its own problems. We defend our opinions on social media with heart and soul, rate the vacation photos of our fellow human beings, and consume digital content via the streaming service we trust. In the process, we leave a distinct digital footprint in the form of data. It is estimated that the entire human race currently generates a data volume of several zettabytes (that’s a one with 21 zeros!) per year. Not every bit and every click is relevant, but technological miracles can be performed based on the amount of our personal data collected, but they also raise questions:
Nowadays, it is no longer about collecting as much data as possible, but rather about analyzing this data in a clever way and drawing the right conclusions from it. Big Data” quickly became the term “Smart Data”. And this is precisely where the newly founded “Data Science” degree program at FAU comes in:
It represents a key discipline for the digital age at the interface between mathematics and computer science and other disciplines such as natural sciences, engineering, economics, and information sciences. The goal of this bachelor’s degree program is to provide a solid foundational and advanced education in both mathematics and computer science with a strong focus on the requirements of future Data Scientists. In addition, an application subject is taken in which one can put one’s acquired knowledge to the test, such as physics, business informatics, biology or medical technology.
During your studies you will learn:
The standard period of study for the bachelor’s degree program is six semesters, with one semester in the second or third year of study specifically set aside for the possibility of a semester abroad, such as an ERASMUS semester at another European university.
Bewerbung für zulassungsfreie Studiengänge
#FAUtogether
FAU - Moving Knowledge
The bachelor’s degree program “Data Science” can be divided into the following consecutive levels:
In parallel to the above-mentioned study phases, you will continuously attend lectures from the core area of “Data Science”, such as mathematical data analysis and modeling, machine learning, or advanced design and programming.
During the bachelor’s degree program, you will learn about important areas of mathematics and computer science, as well as core topics in the field of data science. You will train your analytical thinking skills and learn to abstract and structure complex relationships. For your later career, you will acquire the ability to cope with constantly changing problems.
The training in Data Science takes place in equal parts in the areas of mathematics and computer science, whereby you can determine your own focus during the course of your studies. In addition, you choose an application subject in which you can deepen your acquired knowledge in a practical way.
If you still have doubts about choosing the “Data Science” degree program, read through the following statements and consider whether they apply to you.
If these points fit you, you will definitely make the right choice with the degree program “Data Science”.
FAU Erlangen-Nuremberg offers unique conditions for the degree program “Data Science”. Due to the strong content-related networking of the departments of mathematics and computer science and the spatial distance

of just two minutes on foot, there is a wide range of informatics and mathematics topics available, both of which are taught centrally in the degree program. Due to the great variety of subjects at FAU, you can choose your application subject from many different subject areas. This helps you to find your own individual specialization in your studies, which you are particularly interested in and enjoy.In addition, the industrial environment of the Nuremberg metropolitan region creates ideal conditions for sustainable and application-oriented studies. And perhaps you will already get to know your future employer during your studies, such as Siemens, Schaeffler or adidas.Alternatively, you can directly continue in the master's degree program in Data Science or other master's degree programs related to mathematics and computer science at FAU Erlangen-Nuremberg.

With a bachelor's degree as a data scientist, many exciting fields of work open up to you in which you can profitably apply your knowledge. You work directly at the interface between man and machine. Here are some examples of industries with potential employers:

Due to the high demand for graduates in the field of "Data Science" – there is an estimated shortage of over 100,000 experts for Data Science in Germany alone – career starters can expect a relatively high starting salary.

Of course, a bachelor's degree doesn't have to be the end of learning. You can earn a Master of Science (M.Sc.) degree in "Data Science" at various European universities or simply take the appropriate Master's program at FAU Erlangen-Nuremberg.

Afterwards, you can further deepen your understanding of data modeling and analysis in the context of a doctorate and thus even advance the current state of research, which will decisively shape the handling of the resource "data" for the coming decades.

Orientation Week

During the week of October 9-13, 2023, the Departments of Mathematics, Data Science, and Physics, in conjunction with FSI, will offer an orientation week for all first-year students in the following programs:

- Bachelor Mathematics
- Bachelor of Economics and Mathematics
- Bachelor Industrial Mathematics
- Teaching degree (grammar school) Mathematics
- Bachelor Data Science
- Bachelor Physics
- Teaching degree (grammar school) Physics

The course is optional, but participation is strongly recommended.

More detailed information can be found at the following website:
https://mp.fsi.fau.de/index.php/ersti-infos/orientierungswoche

30.09.

For enrollment in the B.Sc. Data Science program, very good German language skills are generally required. More detailed information on the accepted language certificates for international students can be found at https://www.fau.de/education/international/aus-dem-ausland-an-die-fau/bewerbung-und-einschreibung-fuer-internationale-bewerberinnen-und-bewerber/deutschkenntnisse-und-sprachzertifikate/.

The application deadline for the winter semester for international applicants is July 15th.

Applications have to be submitted via the campus management portal campo.fau.de

In addition to the general qualification for university entrance (Abitur), there are other access options for studying at FAU.

Our Student Advice and Career Service (IBZ) is the central point of contact for all questions about studying and starting a degree programme. Our Student Service Centres and subject advisors support you in planning your studies.

Degree: Bachelor of Science (B.Sc.)
Duration of studies in semester: 6
Start of degree program: Winter semester
Study location: Erlangen
Number of students: 50-150
Subject group: Mathematics, Natural sciences
Special ways to study: 1-subject Bachelor
Teaching language: completely in German
Admission Requirements: No Admissions Restrictions
Admission requirements (first semester): No Admissions Restrictions
Application deadline winter semester: 30.09.
General language skills: For enrollment in the B.Sc. Data Science program, very good German language skills are generally required. More detailed information on the accepted language certificates for international students can be found at https://www.fau.de/education/international/aus-dem-ausland-an-die-fau/bewerbung-und-einschreibung-fuer-internationale-bewerberinnen-und-bewerber/deutschkenntnisse-und-sprachzertifikate/.
Details and notes: The application deadline for the winter semester for international applicants is July 15th.
Applications have to be submitted via the campus management portal campo.fau.de
In addition to the general qualification for university entrance (Abitur), there are other access options for studying at FAU.