



Hochschule Düsseldorf  
University of Applied Sciences



Centre for Digitalisation  
and Digitality



Faculty of Media

**Bachelor of Science**

# **Data Science, AI and Intelligent Systems (DAISY)**

## **Profile**

Students of the Data Science, AI and Intelligent Systems bachelor's programme at Hochschule Düsseldorf – University of Applied Sciences receive future-oriented education at ZDD – Centre for Digitalisation and Digitality. The study programme focuses on imparting digital qualifications in the dynamic and ever-changing areas of data science, artificial intelligence (AI) and intelligent systems.

We emphasise practical and project-based learning formats to teach students fundamental skills in programming, data visualisation, data analysis as well as in the development, evaluation and application of AI systems.

DAISY has been interdisciplinary from the start – including modules and specialisation options in all seven faculties of HSD. Our approach not only encourages a broad view on the application areas of data science and AI, but also enables students to develop solutions for complex problems.

From the 4th semester onward, students gain the option to follow their passions and choose from the following specialisation modules: Digital Health, Industry 4.0, Smart Energy, Digital Design and Media, Business Analytics, Digital Culture as well as Social Services and Welfare. These professional foci are at the heart of DAISY and enable students to apply their previous knowledge in real application contexts and develop them further.

DAISY means hands-on: through direct experience and interdisciplinary collaboration students learn to use data effectively to create intelligent solutions that are both technically innovative and relevant to society.

Although some module names are in English, the main language of instruction is German. Knowledge of English is a must for working with specialist literature, especially in higher semesters.

## **Career Options**

DAISY graduates are qualified to work in a variety of professions in technology and research and development as well as in businesses and social contexts. They develop and analyse data science and AI systems, design intelligent, safe and ethically responsible technologies and conceptualise and implement digital strategies. Their knowledge allows them to work in interdisciplinary teams at the interface between technology and application to develop innovative solutions to complex problems and to promote digital transformation in healthcare, energy, media, business analysis and social services.

## **Admission Requirements**

Please check if you meet all requirements for admission to the study programme. Further information (in German only):

[hs-duesseldorf.de/bdaisy-voraussetzungen](https://hs-duesseldorf.de/bdaisy-voraussetzungen)

# SYLLABUS

## **SEMESTERS 1-3**

Fundamentals of applied informatics with a focus on handling data and AI systems. Fundamentals of software development, mathematics/statistics and social skills. Introduction to intelligent systems as well as security and infrastructures, complemented by courses on visualisation and societal and legal aspects.

## **SEMESTERS 4-5**

Technical specialisation and a broad range of selection from the following areas: intelligent systems, visualisation or technology, ethics and society. Students focus on one of seven professional fields that is offered by the respective faculties of HSD.

## **SEMESTER 6**

Internship semester or semester abroad to apply the acquired knowledge in practice.

## **SEMESTER 7**

Final study period including an individual bachelor's thesis and colloquium to deepen academic skills.

Please check the module manual (currently in German only) for detailed information on the contents of the study programme.

## Further Information

### Events for prospective students (in German only)

[hs-duesseldorf.de/zsb\\_veranstaltungen](https://hs-duesseldorf.de/zsb_veranstaltungen)

### How to apply

[hs-duesseldorf.de/prospectivestudents/degreeseekings/application](https://hs-duesseldorf.de/prospectivestudents/degreeseekings/application)

### Information for international applicants

[hs-duesseldorf.de/degreeseeking](https://hs-duesseldorf.de/degreeseeking)

### About the programme and admission requirements

(in German only)

[hs-duesseldorf.de/bdaisy-voraussetzungen](https://hs-duesseldorf.de/bdaisy-voraussetzungen)

## Get in Touch

### Faculty contact

Study programme coordinator

[daisy.zdd@hs-duesseldorf.de](mailto:daisy.zdd@hs-duesseldorf.de)

### Student Advisory and Counselling Service (ZSB)

[studienberatung@hs-duesseldorf.de](mailto:studienberatung@hs-duesseldorf.de)

[hs-duesseldorf.de/zsb-en](https://hs-duesseldorf.de/zsb-en)

### Admissions Office

[zulassung@hs-duesseldorf.de](mailto:zulassung@hs-duesseldorf.de)

[hs-duesseldorf.de/zulassungsstelle](https://hs-duesseldorf.de/zulassungsstelle) (in German only)

### International Office (IO)

[international-office@hs-duesseldorf.de](mailto:international-office@hs-duesseldorf.de)

[hs-duesseldorf.de/io-en](https://hs-duesseldorf.de/io-en)

### Family Support Centre

[familienbuero@hs-duesseldorf.de](mailto:familienbuero@hs-duesseldorf.de)

[hs-duesseldorf.de/fam-en](https://hs-duesseldorf.de/fam-en)

### Disability Services (ABS)

[barrierefrei@hs-duesseldorf.de](mailto:barrierefrei@hs-duesseldorf.de)

[hs-duesseldorf.de/abs-en](https://hs-duesseldorf.de/abs-en)

### Psychological Counselling Service (PSB)

[info.psb@hs-duesseldorf.de](mailto:info.psb@hs-duesseldorf.de)

[hs-duesseldorf.de/psb-en](https://hs-duesseldorf.de/psb-en)

HSD on social media  
[facebook.de/hsduesseldorf](https://facebook.de/hsduesseldorf)  
[instagram.com/hsduesseldorf](https://instagram.com/hsduesseldorf)

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