



**Bachelor of Science**

# Media Informatics

## Profile

In the first semesters of the bachelor's programme Media Informatics, you acquire the *fundamentals* of informatics and natural sciences. Elements of aesthetic and technical media design complement these fundamentals. You learn essential theories and methods as well as how to handle specific tools in practice.

Based on this knowledge, you can broaden and deepen your expertise and skills in advanced modules in digital media topics – particularly digitalisation. You can choose compulsory elective modules according to your interests to create your *individual areas of specialisation* – e.g. in interactive systems, web applications, secure IT systems, multimedia communication, e-business, communication design, visualisation, media production, computer graphics, mixed and virtual reality.

Within projects each semester, you learn to *work together in teams*, organise your work and develop media informatics products and applications. Such projects include conception,

requirement analysis, planning, design, implementation and testing as well as maintenance and further development. During an external semester, you can work in a company or study abroad. Thus, as a graduate, you have already acquired much of the often expected *practical experience*.

A dozen experienced professors and lecturers from professional practice teach the courses. They provide *excellent supervision* of autonomous work in our well-equipped laboratories.

Personal interests and required skills:

- You would like to be able to develop software yourself, systematically and in a team.
- You like to put together creative, technical solutions.
- You are not afraid of practical theories.
- You should master abstract thinking, be able to develop concepts and plan your work independently.
- You should be very committed and goal-oriented.

**Please note:** The language of instruction is mainly German.

## Career Options

Graduates with a solid education in informatics and digital media competence are more and more wanted – regionally around Düsseldorf and Cologne, in Germany and worldwide. As a graduate of this bachelor's programme, you typically work in media systems development or at the interface between design and implementation.

The programme's focus on informatics in digital media is an important asset to many enterprises. Your *individual* profile developed in the programme may benefit web and media agencies, software developers, IT consulting firms, and IT service providers. Alternatively, you can continue with further studies in our Master of Science Media Informatics.

# SYLLABUS

## SEMESTERS 1-3

- Object-Oriented Programming 1–2
- Web Programming
- Computer Networks
- Computer Architecture
- Database Systems 1–2
- Mathematics 1–3
- Formal Models and Algorithms
- Software Engineering
- Media Design 1–2
- Fundamentals of Computer Graphics
- Human-Computer Interaction
- Compulsory Elective Modules: Informatics Project 1–2
- Studying Professionally

## SEMESTERS 4-5

- Web Engineering
- IT Security
- Operating Systems
- Digital Image and Sound Engineering
- Compulsory Elective Modules: Advanced Topics A + B + C + D
- Compulsory Elective Modules: Media Project A + B
- Fundamentals of Business Administration
- Project Management, Media and IT Law

## SEMESTER 6

- External Semester: Internship Semester, Semester Abroad or Research Semester

## SEMESTER 7

- Compulsory Elective Modules: Individual Specialisation, Scientific Work Based on a Chosen Subject
- Bachelor's Thesis

Please check the module manual for detailed information on the contents of the study programme at [medien.hs-duesseldorf.de/bmi-en](http://medien.hs-duesseldorf.de/bmi-en).

## Further Information

### Faculty contact:

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

About the programme, admission requirements and application:

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

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

## Get in Touch

### Admissions Office

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

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

### 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)

### 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)

### Office of Counselling and 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 Invites You

Visit us! Join courses during our yearly trial week (*Schnupperstudium*) and attend our information events (e.g. *Studio5-Infotag*, *Tag der offenen Tür*, *Hochschulinformationstage*, *Wochen der Studienorientierung*).

Information on all events (in German only):

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

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