Master of Science

COMPUTATIONAL HUMANITIES

Interdisciplinary Study Program

Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

Faculty of Mathematics and Computer Science

Faculty of Arts and Humanities

ZPD studio for audio-visual culture

Aims and Content

Interdisciplinary Focus: The program combines **advanced computational techniques** with **humanities research**, teaching innovative approaches to the analysis of cultural, historical, and social data.

Multimedia Analysis: You will learn to handle **text, audio, image, and video data** in computational analyses, enabling you to work with diverse media formats within humanities research.

Skill Development: You will develop **skills in programming and data analysis**, and a strong understanding of how to apply **digital tools** to humanities disciplines such as linguistics, musicology, history, and arts.

Critical Thinking: You will critically examine the **ethical, cultural, and societal implications** of using **computational methods** in the study of human culture.


ZPD building © Tom Bauer AD PHOTOGRAPHY

Program Structure

Study Program: Available as a **120 ECTS Single Major** or as a **45 ECTS Major** with a second major in the humanities, such as literary studies, musicology, history, linguistics, art history, archeology, and many more!

Overview:

Semester

1	**Deep Learning + Computational Text Analysis**
2	**Natural Language Processing + Computational Music Analysis**
3	**Research Project + Elective Courses**
4	**Master's Thesis + Colloquium**

Requirements:

Bachelor's Degree (180 ECTS)

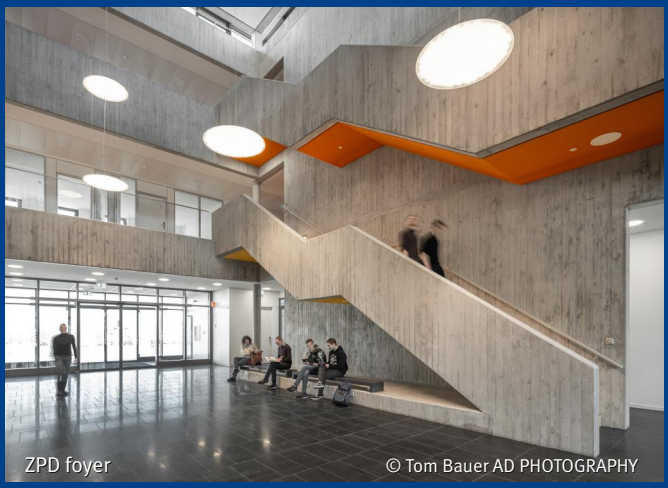
60 ECTS **Digital Humanities**
or equivalent qualification

Including at least:
10 ECTS **Mathematics**
5 ECTS **Programming**
5 ECTS **Machine Learning**

20 ECTS **Humanities subject**

e.g., Literary studies, Linguistics, Musicology, History, Philosophy, ...

English Language Skills (B2)



ZPD foyer © Tom Bauer AD PHOTOGRAPHY

Studying in Würzburg

The **Julius-Maximilians-Universität Würzburg (JMU)** has an international reputation for excellent research and is proud to be home of outstanding researchers.

A large part of this program will be held at the new **Center for Philology and Digitality (ZPD)** and will be closely connected to research conducted at the **Center for Artificial Intelligence and Data Science (CAIDAS)**.

More information for international students at the International Office (www.uni-wuerzburg.de/en/international/studying-in-wuerzburg/).

Alte Mainbrücke, Festung Marienberg Image: Universität Würzburg

ZPD working space © Tom Bauer AD PHOTOGRAPHY

Careers and Perspectives

Graduates of the Computational Humanities program are equipped with a **broad range of skills** that bridge AI technology, data science, and the humanities. This opens up a **wide range of career paths** in both traditional and emerging fields:

- Data Science & Analysis
- Cultural Heritage & Preservation
- Artificial Intelligence & Natural Language Processing
- Digital Humanities Research & Teaching

The Future of the Field:

With **rapid technological advancements**, such as AI, the demand for professionals who understand both the technical and human aspects of data is **steadily increasing**. The skills developed in this program will not only prepare you for **current opportunities**, but will also position you at the forefront of **emerging fields** in the Digital Humanities.

Computational Humanities at a Glance:

Interdisciplinary Approach: Combines a technical focus on computational methods (e.g., AI) with humanities.

Bridging Media and Culture: Embraces various modalities and cultural domains, including text (literature), audio (music), video (film), and image (art).

International Study Program: All courses in English.

go.uniwue.de/ch-master

(German) Video

Contact

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