Future and career prospects

The aim of the course is to impart theoretical and practical knowledge in Digital Technologies in Heritage Conservation, as well as developing competence in critical assessment and object-oriented solutions. The focus is on the assessment of the heritage buildings and objects, i.e. the existing building stock, its characteristics and the associated ageing behaviour of historical buildings and objects.

In addition, you will develop an awareness of the importance of cultural assets considered as knowledge stores, historical sources and components of regional identities.

Completion of the M.Sc. degree will equip you to take on highly technical tasks in heritage conservation and cultural management. You will be able to evaluate and devise independent solutions for technical problems and damage assessment, data archiving, technical building condition and historic building analysis, the planning of repair and maintenance measures, as well as the development of intelligent monitoring concepts.

Possible professional fields are:

- Industry/ Commercial: surveying, building research and planning offices (construction in existing buildings, structural design, building physics for the preservation of historical monuments)
- Specialist authorities (e.g. heritage offices)
- Museums and archives
- Research and science.

Eligibility

Admission requires a German or equivalent University degree with a standard period of study of at least six semesters (three years), 180 ECTS points and an overall grade of 2.5 or better in a related degree programme.

Related programmes include architecture, civil engineering and courses in the fields of preservation of historical monuments and cultural property, restoration as well as building conservation and construction, computer science and applied computer science, digital humanities, archaeology, geography, surveying, archival studies, cultural management and communication design.

Foreign students require a proof of German language skills level B2 to enroll. For further information please consult the pages of the International Office of the University.

A shared Master's Programme with

COBURG UNIVERSITY
of applied sciences and arts

Coburg University of applied sciences and arts
Prof. Dr. Olaf Huth – Intelligentes Monitoring,
Olaf.Huth@hs-coburg.de
www.hs-coburg.de/digitale-denkmaltechnologien

Contact and Subject Advisory Service
University of Bamberg
Chair for Digital Technologies in Heritage Conservation
(Lehrstuhl für Digitale Denkmaltechnologien)
Am Zwinger 4 • 96047 Bamberg

Prof. Dr. Mona Hess
Phone +49 (0) 951 / 863 - 1633
studienberatung-msc.ddt@uni-bamberg.de

For informations on the course, see www.uni-bamberg.de/ddt/ma-digitale-denkmaltechnologien

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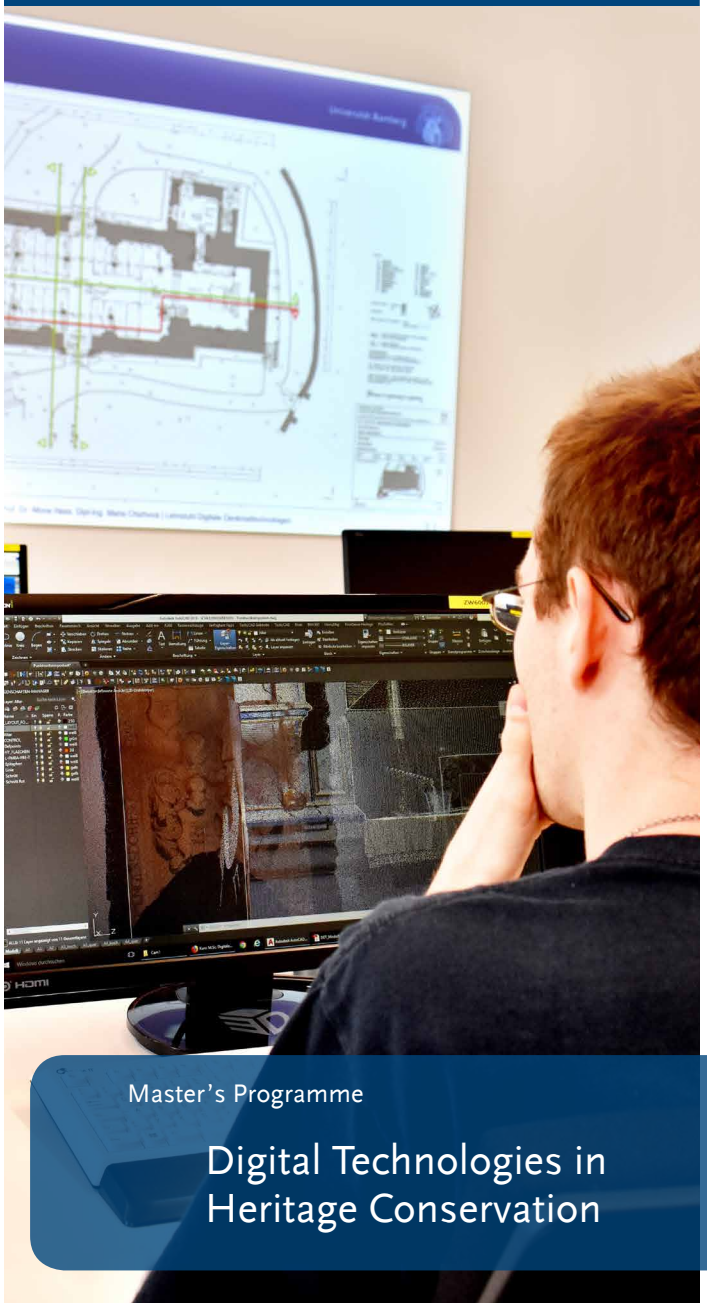
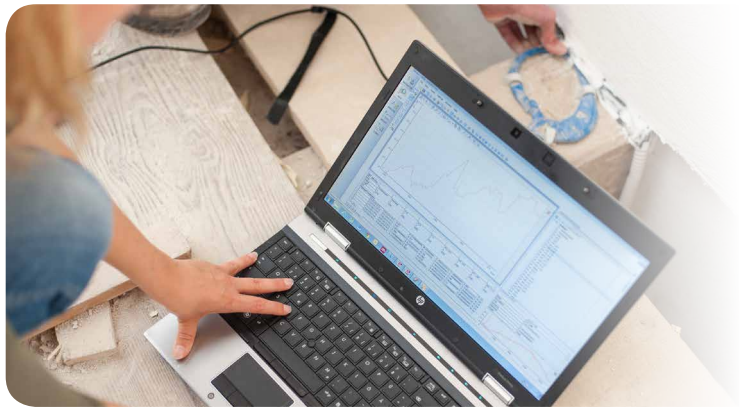
Universität Bamberg



Master's Programme

Digital Technologies in Heritage Conservation



Profile of the degree programme

Today, innovative digitisation techniques are being adopted in the fields of heritage conservation and monument preservation, museum studies and the protection of cultural assets. The digital recording of buildings and objects is now as much a part of the preservation of historical monuments as the permanent monitoring of the condition of a building with intelligent sensor systems. The aim is the digital synthesis of all data relevant to the object.

The Master's programme in Digital Technologies in Heritage Conservation, unique in Germany, offers you an overview of the abilities and limits of current and developing technologies. It provides the opportunity to gain in-depth knowledge in the application of these technologies. The programme answers the needs of specialists at the interface of heritage conservation and technology. In four semesters, it leads to a postgraduate qualification with high employability.

Master's Degree • 4 Semesters • 120 ECTS points

The course consists of core, advanced and specialist module groups, as well as a final master's thesis. All modules are taught in German.

The core modules introduce the topics relevant to the application of digital technologies in heritage conservation (see below) while the advanced modules allow you to focus on specific areas:

- Digital modelling in heritage conservation (subjects include: Building Information Modelling, Structural Support Simulation)
- Digital analysis and monitoring in Heritage Conservation (subjects include: Preservation Sciences, Physical evaluation and remediation, Monitoring, Structural Analysis)
- Digital networking and knowledge distribution in the preservation of monuments (subjects include: Web Technologies, Computing in the Humanities)

The specialist modules expand on the content of the advanced courses. Digital technologies are applied to practical examples from current research. The aim is to acquire assessment, application and networking skills.

The course begins in the winter semester and can be taken full or part-time.

Core: Digital cultural heritage technologies, informatics in monument preservation, digital object recording, digital archiving, signal analysis, construction physics in cultural heritage, virtual modelling	**45 ECTS points**
Advanced: Digital modelling, digital analysis/monitoring/structural damage analysis, information & network technologies, knowledge transfer & public engagement	**15 ECTS points**
Specialist: Digital modelling, digital analysis/monitoring/structural damage analysis, information & network technologies, knowledge transfer & public engagement	**30 ECTS points**
Master's thesis: Practice based project	**30 ECTS points**

Our features

The course prepares you for complex applications in the high-tech field of heritage conservation and monument preservation. The interdisciplinary team of teachers, the unique vocational profile and the modern technical equipment guarantee state-of-the-art training. The University of Bamberg and the Coburg University of applied sciences and arts enjoy an excellent reputation in the monument, object and engineering sciences as well as in application-oriented digital technologies.
Bamberg's old town has been a UNESCO World Heritage site since 1993 and its university was founded in 1647. It currently has 13,000 students. The University of Bamberg also has an International Office to assist international students.