



UNIVERSITY OF
MESSINA
| founded in **1548**

Bachelor's Degree in **HERITAGE INNOVATION ENGINEERING**



Scientific coordinator
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Department
Engineering



Duration
3 Years



Bachelor's Degree in
**Heritage Innovation
Engineering**

→ **Programme overview**

The proposed training programme, framed within a perspective that promotes the redevelopment of twentieth-century built heritage through an eco-oriented approach that combines respect and innovation as essential cornerstones, develops through three main phases.

- In the first phase, students acquire a solid foundation in the basic sciences of engineering, covering disciplines such as mathematics, physics, chemistry, materials technology, history, and representation.
- The second phase focuses on the acquisition of techniques and tools that characterise the engineering approach to knowledge, including construction solutions, performance assessment, geotechnical and structural fundamentals, and circular technologies.
- The third phase introduces sustainable design from environmental, social, and economic perspectives. This is developed through the analysis of the typological, morphological, linguistic, diagnostic, and structural characteristics of architectural works. The goal is to foster integrated land management, the restoration of existing buildings, the correction of original defects and related pathologies, and the modernisation of performance – thus achieving a synthesis among the various aspects of reality to be understood, interpreted, and transformed.

The knowledge acquired throughout the programme is consolidated through an internship, which students may complete within professional or industrial contexts, research institutions, or public bodies, as well as through national and international mobility opportunities (such as Erasmus programmes).

→ **Minimal entry requirements**

A foreign certified qualification demonstrating 12 years of study as equivalent to an Italian secondary school diploma.

Scan the QR Code for further admission requirements criteria.

→ **Language requirements**

International English Certificates accepted by UniME, B2 level of the Common European Framework of Reference.
Scan the QR Code for further information.



→ **Study programme**

The bachelor's degree in **Heritage Innovation Engineering** belongs to the Degree Class **L-23**

**YEAR
1**

- Mathematical Analysis
- Knowledge of Modern Materials
MOD A: Elements of chemistry applied to construction
MOD B: Life Cycle Materials Technology
- History of Modern and Contemporary Architecture
- Physics and Elements of Diagnostics for Cultural Heritage
- Architectural Drawing and Digital Representation
MOD A: Architectural Drawing
MOD B: Digital Representation
- Further language skills
- Subject chosen by the student

**YEAR
2**

- Applied Mathematics
MOD A: Complements of mathematical analysis
MOD B: Rational Mechanics
- Sustainable Technologies
MOD A: Building Construction
MOD B: Energy Efficiency Solutions
- Fundamentals of Geotechnical Engineering
- Applied Building Physics and Measurement for Heritage
MOD A: Applied Building Physics
MOD B: Measurements for building applications
- Tools for Building Design: from LCA to 5Rs
- Structural Mechanics
- Subject chosen by the student
- Internship

**YEAR
3**

- Digital technologies for surveying and modelling
MOD A: Geomatic Survey
MOD B: Digital surveying and modelling
- Structural Design by Digital Technologies
- Urban Regeneration
- Architectural Restoration
MOD A: Tools and methods for architectural restoration
MOD B: Surface restoration and structural consolidation
- Architectural Design
- Integrated sensing for Smart Building
MOD A: Sensors for smart Building
MOD B: Sensor-integrated Building Technologies
- Internship
- Final exam



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→ International opportunities

UniME students have the opportunity to participate in the Erasmus+ Mobility programme both for study and training. Calls are published on the site twice per year. Another opportunity for students is the UniME Funded programme "Students Around the World" (SAW) call for scholarships for study at the extra-European universities in the context of international cooperation agreements.

For further information please visit our site.

→ Tuition fees

UniME tuition fees for international students are calculated by country group.

Scan the QR Code for further information.



→ Job opportunities

The program prepares professionals in the construction process capable of assisting in professional firms, architecture and engineering companies, and public administration.

The acquired skills include:

- *Design support, contributing to the planning and execution of construction projects.*
- *EU and international regulatory expertise, ensuring compliance with European and global standards.*
- *Technical-operational and technical-administrative competence, managing procedures, technologies, and administrative aspects of construction.*
- *Transversal skills, promoting collaboration, communication, and innovation across technical and organisational contexts.*



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