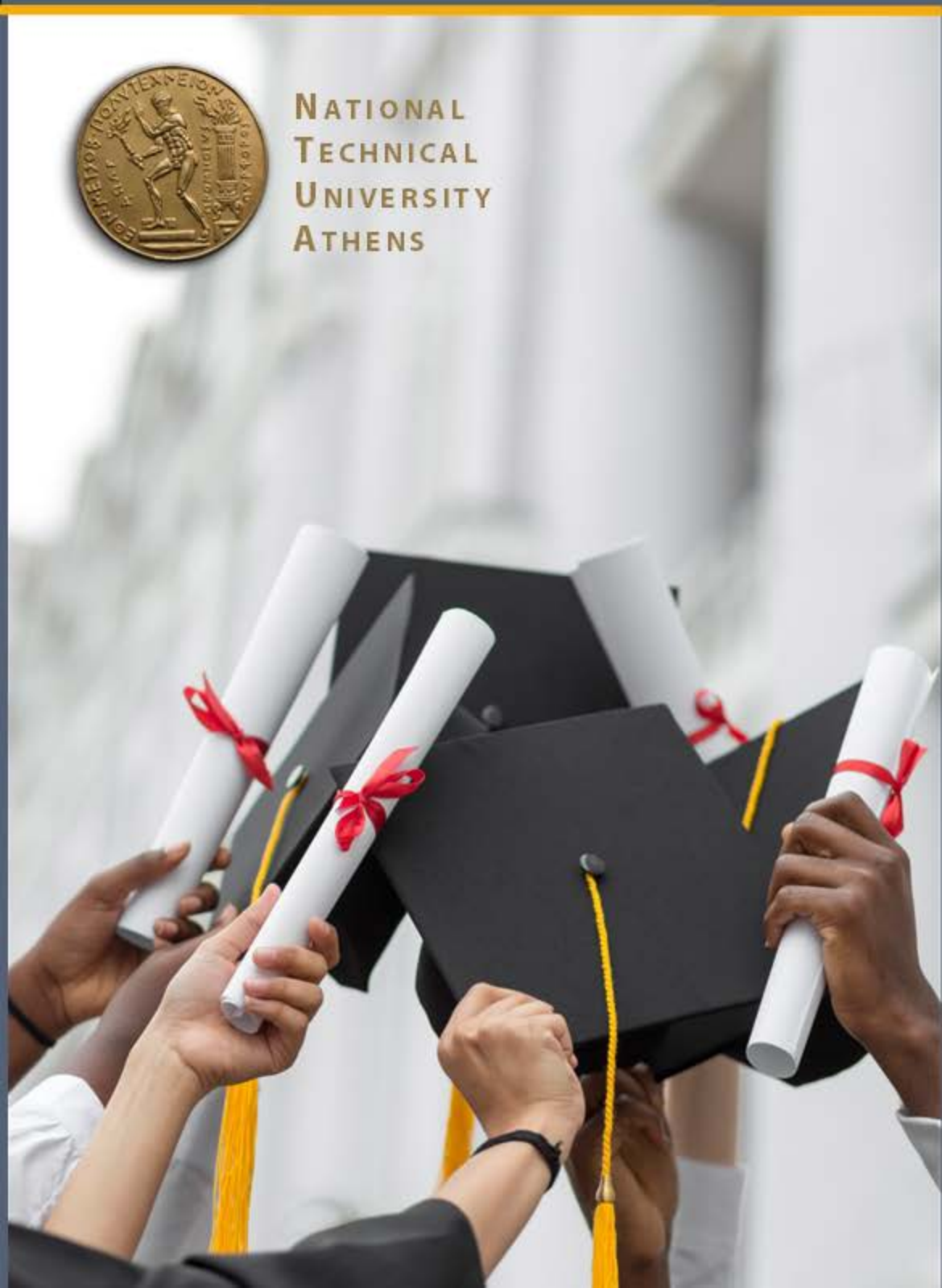


Master of Science

**ANALYSIS
AND DESIGN
OF STRUCTURES**



NATIONAL
TECHNICAL
UNIVERSITY
ATHENS



Master of Science in

ANALYSIS AND DESIGN OF STRUCTURES

A unique programme carefully and thoughtfully designed to prepare students to be leaders in the field

Why Study at NTUA

Upon graduation, our students become innovators in the field of structural design and engineering, creating safe, resilient, and innovative structures that can stand the test of time.

Through taught modules delivered by world class experts, individual and group work, and an individual research project students graduate with the ability to make an invaluable impact on society.

NTUA cultivates an interdisciplinary research environment, enabling and accelerating collaboration across numerous disciplines such as material science, mechanical engineering and computer science.

Many of our graduates find themselves in highly skilled jobs, further higher education or professional studies.

Administration

Director: Prof. Evangelos Sapountzakis

Members:

Prof. Ch. Gantes

Prof. N. Lagaros

Ass. Prof. Ch. Mouzakis

Prof. P. Nomikos

Ass. Prof. A. Papadimitriou

Prof. P. Tsopelas

Ass. Prof. A. Voulodimos

Prof. C. Zeris

Requirements

The Master of Science degree in Analysis and Design of Structures is awarded to students who have successfully completed a structured programme of at least 90 credits, consisting of 60 credits of graduate level subjects and 30 credits of dissertation.

Over the duration of three academic semesters, students are required to be successfully examined at 5 courses in the winter term, 5 courses in the spring term and develop their postgraduate thesis.

Career Prospects

Public Sector: Drive the industry by developing policies that shape the urban environment.

Builder & Construction Manager: Manage people and technology to bring building and infrastructure design to life.

Engineering Consultant: Be at the forefront of the built environment by applying engineering concepts to architectural designs.

Engineering Risk & Hazard Analyst: Advise organizations to analyze and mitigate risks and natural hazards.

Degree Master of Science in Analysis and Design of Structures

Accredited by the Greek State

Language English

Type Full-time on campus

Credits 90 ECTS, three (3) semesters

Start every September

Tuition Fees 500€ per semester for non-EU students

Ranking 4th in the world and 2nd in Europe for Civil Engineering, Shanghai Ranking by subject

Module Information

Students can opt for a specialization in one of the following sub-disciplines:

STREN - Structural Engineering:

Proficiency in state-of-the-art analysis, modeling and design methods for complex structures, sustainable construction materials, deep foundations and underground constructions.

ADERS - Analysis and Design of Earthquake Resistant Structures:

Proficiency in advanced analysis and design methods for earthquake resistant structures, deep foundations and undergraduate construction.

Key features

Through a programme that seamlessly integrates theory, application and design you will be able to:

- design safe, resilient, and sustainable structures and systems of structures within an adverse and ever-changing environment.
- develop construction materials for a sustainable built environment.
- deliver solutions to build on, in and with soils.

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Courses

STREN

- Advanced Concrete Technology
- Design Models for Aseismic Repair and Strengthening
- Design of Steel Buildings
- Recent Advances in RC Design Models
- Reliability of Structures
- Steel Structures for Marine Applications
- Advanced Mechanics of Masonry
- Design of Cable and Membrane Structures
- Design of Technical Projects II
- Information Systems in Construction Management
- Engineering Materials

ADERS

- Nonlinear Analysis of Frame Structures and Applications in Seismic Engineering
- Novel Methods for Seismic Isolation and Response Control of Structures
- Signal Processing in Earthquake Engineering
- Engineering Seismology
- Experimental Earthquake Engineering
- Pathology and Design of Structures under Seismic Actions
- Special Topics in Earthquake Engineering
- Structural Intervention on Cultural Heritage Structures

ANALYSIS

- Advanced Plastic Analysis of Framed Structures
- Advanced Structural Dynamics
- Applied Structural Analysis of Framed and Shell Structures
- Design of Technical Projects I
- Theory of Shells
- Mechanics of a Continuous Medium
- Machine Learning
- Boundary Elements
- Load-carrying Behavior and Design of Structural Systems
- Non Linear Finite Analysis of Structures
- Stochastic Finite Elements
- Structural Optimization
- Applied Elasticity
- Plasticity and Fracture of Materials

GEOTECHNICAL

- Computational Geomechanics
- Geotechnical Engineering in Design of Structures
- Ground Investigation Methods
- Computational Methods in the Analysis of Underground Structures
- Seismic Design of Surface and Underground Geotechnical Structures



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CONTACT US

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Zografou Campus, Athens, Greece



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