UNIVERSITÉ Côte d'Azur

GRADUATE SCHOOL FORMAL, PHYSICAL AND ENGINEERING SCIENCES

Master's degree EARTH, PLANET AND ENVIRONMENT SCIENCE

LAND USE, GEOTECHNICS AND ENGINEERING

A WORD FROM THE HEAD OF THE PROGRAM



Louis De Barros Professor and researcher at Géoazur Laboratory

Because of its location between the sea and the mountains, the Côte d'Azur region is prone to natural hazards and yet, urbanization is constantly increasing. Engineering and design departments are faced with increasingly complex challenges linked to changing environmental, societal and legal requirements.

Therefore, there is great demand for trained geotechnical engineers who can deal with regional geological constraints and ensure the safety of structures. The land use, geotechnics and engineering program (AGI), alternating work and study, is the only one of its kind in the South of France. **It was created to meet the needs of today's design departments** (notably those in the South of France) **for high-performing geotechnical engineers.**

Its curriculum draws on the expertise of the Géoazur research laboratory and of industry professionals. With a strong emphasis on geotechnics and natural hazards, it perfectly addresses local issues.



2-year program (1 year alternating work and study)



expertise



Partner

engineering firms







A variety of sectors of activity

Specialized equipment



A PROGRAM TAILORED TO THE GEOTECHNICAL AND LAND USE CHALLENGES OF THE SOUTH REGION

The South Region offers an ideal setting for a specialization in geotechnics. With its focus on land use, geotechnics and natural hazards, the AGI program is particularly suited to the needs of local design departments.

It prepares students for the challenges of concentrated urbanization, complex and constraining topography and regional natural hazards, while taking into account changes in regulations such as the Elan law.

Students benefit from a multidisciplinary approach to geosciences with courses that range from mechanics and soil characterization to the design of soil-structure interfaces.

They gain the skills needed to implement geotechnical solutions adapted to geological constraints (earthquake-resistant constructions or structures resilient to clay retraction and swelling). The second-year internship consolidates this expertise and paves the way for a career in geotechnical engineering, in the South of France and beyond.

THE MAIN FOCUSES OF THE PROGRAM

Geotechnical fundamentals

- Soil and rock mechanics
- Logging and drilling
- Hydrogeology and hydraulics
- Applied geophysics
- Natural hazards (seismic, gravity, etc.)
- Etc.

Job-specific knowledge

- Geotechnical regulations
- Slope stability and support
- Geotechnical dimensioning
- In situ tests
- Risks and regional planning, etc

Job-specific skills

- Project management and communication
- On-the-job project
- Societal issues in the geosciences
- Work-study program



In Master 1, students complete an internship of 2 to 4 months. **In Master 2**, students choose between an internship of at least 4 months along with the standard full-time program or the work-study program alternating 8 months in the company with 4 months at the university.



94% EMPLOYABILITY RATE

After 6 months, **94% of graduates find a job.** This percentage was measured among students in the geotechnical specialization who completed the track previously called "geology, geophysics and geotechnics" over the last three years.



EXAMPLES OF CAREER OPPORTUNITIES

Geotechnical engineer, natural hazard engineer

Acquire geological and geotechnical data, analyze and design geotechnical solutions, characterize natural hazards and reinforcement solutions, etc.

Construction site manager, construction engineer

Manage and supervise construction sites, coordinate technical and human resources, etc.

Salary

For a geotechnical engineer in France: Median annual salary: **€41,000** Annual starting salary: **€36,000** Annual senior salary: **€46,000**



Amandine Parsy-Cotisson Geotechnical engineer

A WORD FROM AN ALUMNUS

After graduating in 2023 with a master's degree in geotechnics from the former geology, geophysics and geotechnics (3G) department at Université Côte d'Azur, **my internship led to a permanent contract with the OGéo soil engineering firm**. My studies gave me **the theoretical foundation in geology and geotechnics and the practical experience I needed to easily transition to working in the company**. My job as a geotechnical engineer is fulfilling and offers a lot of variety because it combines data acquisition in the field with analysis in the office. I enjoyed my studies because they allowed me to develop skills and gain knowledge that I can put to practice in my professional environment. **The lectures given by outside professionals offered a good balance with the theoretical knowledge provided in the fields of geotechnics, natural hazards, soil mechanics and geophysics.**







CONTACT

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