University of Florence (UNIFI), Florence, Italy

Mathematical, Physical and Natural Sciences Faculty

Bachelor's Degree Program in Diagnostics and Materials for Conservation and Restoration

https://www.tecnologie-restauro.unifi.it/vp-123-aim-and-scope.html

BODY

EDUCATIONAL OBJECTIVES

The main objective of the Bachelor's Degree Program is to create professionals capable of conducting scientific diagnostic investigations aimed at understanding the properties and characteristics of materials used in cultural heritage in order to ensure their preservation and conservation. In particular, the professional profile that should emerge from this educational path closely corresponds to that of a cultural heritage diagnostic technologist found in many other countries, both in Europe and beyond. This profile, which should hold equal importance and standing alongside other professional roles such as art historians, architects, archaeologists, etc., could certainly facilitate the alignment of institutions such as the offices ofn the Ministry of Cultural Heritage, Archaeological Museums, etc., with European and global standards. Therefore, it is the responsibility of this Bachelor's Degree Program to help students develop and refine a proper mindset by providing them with theoretical and methodological knowledge from the first year of the program, through the learning of experimental laboratory techniques applied to investigations on artifacts related to cultural heritage in a broad sense. For this reason, this program offers a structured educational activity in both theoretical courses, aimed at providing basic competencies in chemistry, mathematics, physics, mineralogy, petrography, biology, and laboratory courses, aimed at providing experimental investigation techniques and data analysis skills.

PROFESSIONAL PROFILES

Graduates, having acquired a solid general scientific foundation combined with adequate knowledge of art history, archaeology, and architecture, can position themselves as professionals who possess the skills of materials diagnostic technicians, experts in assessing degradation processes, and knowledgeable about products and technologies suitable for conservation interventions. This will enable them to work not only in universities and research centres but also in the laboratories and offices of the Ministry of Cultural Heritage, restoration institutes, related industries, and as independent consultants.

Graduates of this program will engage in professional activities within institutions responsible for the management and maintenance of cultural heritage, local authorities, and specific institutions such as superintendencies, museums, libraries, archives, as well as in companies and professional organizations operating in the field of cultural heritage preservation, conservation, and protection.

STRUCTURE OF THE PROGRAM

The program has a normal duration of 3 years. Normally, a student's activity corresponds to obtaining 60 credits per year. The Bachelor's Degree Program consists of a single educational path, with the possibility of dividing some courses into modules. The Student Handbook will indicate the courses offered each year, any division into modules, and the distribution of courses over the various years of study.

The Bachelor's Degree Program is based on educational activities related to 6 types: a) basic, b) characterizing, c) related or supplementary, d) student's autonomous choice, e) final examination and knowledge of a foreign language, f) additional educational activities (language skills, internships, and other knowledge useful for entering the job market).

Students are allotted 12 credits for independently chosen educational activities. For the designation of student-choice activities, students may select courses from among all those offered by the University. The choice of such activities is free as long as it is consistent with the educational project according to Article 10, paragraph 5 a) of Ministerial Decree 22/10/2004, no. 270. The Bachelor's Degree Program Council reserves the right to verify this consistency and to accept the student's study plan.

Six credits are reserved for internships. The internship involves active participation in university facilities or public institutions or private companies for a period of hours equivalent to 25 x 6 credits on a full-time basis, aimed at acquiring and/or improving knowledge of issues and techniques, also useful for the completion of the final examination. Twelve credits are reserved for the final examination, and three credits for knowledge of a foreign language (English).

COURSES (AS OF 2023)

First Year Courses

- Chemistry
- Fundamentals of Computer Science
- Physics I
- English
- Mathematics
- Palaeontology: Methodology and Archaeometry
- History of Architecture
- History of Art

Second Year Courses

- Microorganism Biology
- Materials Chemistry
- Restoration Chemistry
- Elements of Geology and Geomorphology
- Physics II with Laboratory
- Mineralogy with Applications
- Petrography with Applications

Third Year Courses

- Professional Development Activities
- Professional Development Activities
- Professional Development Activities
- Professional Development Activities
- Institutions of Architectural and Monument Restoration
- Mineralogy and Petrography Laboratory
- Physical Methods for Cultural Heritage
- Final Examination: Practical Work
- Final Examination: Report Writing
- History and Techniques of Restoration
- Technology of Wood Applied to Cultural Heritage
- Internship

ADMISSION REQUIREMENTS

The basic knowledge required for easy access to the program is typically acquired at the end of secondary education and includes a good general cultural background as well as more in-depth knowledge in fundamental disciplines (mathematics, physics, chemistry, art history, archaeology, etc.). An Educational Committee will be established to assess the initial knowledge; in particular, it will organize, within the month of September of each year, an evaluation test based on multiple-choice questions. The test is not mandatory for enrolment, but the Educational Committee will recommend, through a confidential procedure, that those who demonstrate deficiencies should fill these gaps through remedial courses and tutoring, as specified in the Student Handbook.