



PhD IN RISK AND ENVIRONMENTAL, TERRITORIAL AND BUILDING DEVELOPMENT XLI CYCLE

Project Description:

The PhD Program in Risk and Environmental, Territorial and Building Development (RSATE) was established in 2013 based on the observation that the role of universities—as centers of knowledge and scientific and technological innovation—is being profoundly reshaped in line with the European strategic objectives for smart and sustainable growth. It also stems from the awareness that a different and more productive relationship between the world of knowledge and the social and productive spheres is necessary. In this context, the PhD program addresses two broad general themes—“Risk and Development”—interpreted through various cultural areas: (1) Environment and Natural Resources, (2) Infrastructure, Transport, and Territory, (3) Built Environment and Chemistry.

The approach is highly multidisciplinary, covering five CUN areas (01 Mathematical and Computer Sciences, 03 Chemical Sciences, 04 Earth Sciences, 08 Civil Engineering and Architecture, 09 Industrial and Information Engineering) and eight sectors of the European Research Council: PE1 Mathematics, PE4 Physical and Analytical Chemical sciences, PE5 Synthetic Chemistry and Materials, PE8 Products and Processes Engineering, PE10 Earth System Science, PE11 Materials Engineering, SH7 Human Mobility, Environment and Space, SH8 Studies of Cultures and Arts.

Course Objectives:

The RSATE PhD program aims to train researchers who can meet, on one hand, the needs of Universities, and Research Institutions, and on the other hand, those of national and local authorities responsible for the governance and management of the environment, land, and built environment—as well as those of the business world, production sector, and the development and application of innovative technologies and professions. To this end, internationalization represents one of RSATE PhD program core missions, through the recognition, since the 36th cycle, as an innovative PhD program with a strong international character. Moreover, starting from the 41st cycle, an Advisory Board has been established, composed of internationally renowned scholars, presidents of the scientific societies of the relevant disciplinary sectors, and representatives of key territorial institutions and organizations. The board provides strategic guidance on the scientific and educational development of the program.

Furthermore, the PhD program positions itself as a key player in implementing the research directions outlined in the National Research Plan, aligning with the opportunities presented by the National Recovery and Resilience Plan (PNRR), particularly through its strong emphasis on ecological and digital transition. At both national and international levels, the research areas in which the PhD program expresses its full potential align with many of the goals of the United Nations 2030 Agenda for Sustainable Development.

At the local level, it supports the objectives of the Smart Specialization Strategy of the Apulia Region, also thanks to its identity as an intersectoral and interdisciplinary PhD program, and through the integration of research activities with dissemination and exploitation initiatives of the Department of Civil, Environmental, Land, Building Engineering and Chemistry (DICATECh) at the Polytechnic University of Bari.



Expected Employment and Career Opportunities:

The PhD program aims to develop a professional profile that meets the needs of universities, research and training institutions, national and local authorities responsible for the governance and management of the environment, territory, and built environment, as well as those of freelance professionals—whether working independently, in associations, or as employees of companies.

The current PhD training project is in close continuity with previous cycles. Therefore, it is particularly useful to analyze the employment data of PhD graduates from recent years. This analysis shows that all graduates have found employment in the sectors mentioned above. The alignment between the educational objectives of the PhD program and the needs and demands of the local area, the labor market, and the professional world (in addition to the academic sphere) has proven to be highly satisfactory, demonstrating the effectiveness of the program's structure, courses, and activities. However, a significant proportion of precarious employment is noted, primarily linked to the specific socio-economic conditions of the period.

Based on these findings, the program intends to strengthen training activities aimed at ensuring a solid foundational education followed by interdisciplinary specialist training. Highly specialized training paths within specific scientific-disciplinary sectors (SSDs) are also envisaged for PhD candidates who consciously intend to pursue a future in research at Universities or public and private Research Institutions.