E3   Research Methodology of Didactics Science and Learning through Information Technologies and Communication.

The course aims to link research to the learning activity within technological environments teaching of Mathematics and Science. The aim is to give students basic skills to design individual and / or collaborative research-action projects and technological environments for developing teaching models that include the investigation of learning situations in multiple fields [group class / department, School Unit , Education Center, Center for creative activities, sub-area educational systems of units, Region, Territory, and Executive Education programs or Education, Training Trainers etc.]. With emphasis on epistemological peculiarities of Mathematics and Science should be totally able to understand the psychological, cultural, social, political and economic aspects and implications within the learning processes, teaching and design in a variety of educational settings and contexts, and in various conditions of everyday life. You will develop a historical approach general trends and examples in research-action methodology (categorization research questions Categorizations-Research Methodologies Research and correlations with Learning Theories and Philosophical examples. Modern research problem and methodology trends.). With particular emphasis on the use of ICT, observation and mikro -teaching will become critical analysis of the adequacy of interdisciplinary analysis on the factors involved in the research-action and on eco-systemic view parameters in complex and multifactorial conditions proximity actual life, diverse learning environments.