CT for pre-school (kindergarten) future teachers: specific features, approaches and practical solutions

The aim of this module is to allow pre-school prospective teachers’ in the initial teacher education:

1) to donate with the knowledge and skills necessary to teach CT;
2) to gain an insight about the pedagogical approaches, tools and assessment strategies while teaching CT;
3) to learn how to prepare instructional plans, materials and activities while integrating CT into educational process.

Hence, pre-school prospective teachers will not only be trained by a “conceptual” and “pedagogical” view but also given the chance for “reflection” of their own understanding. Based on these facts, this module will consist of learning activities for pre-school aged children that will teach logical reasoning and problem solving with computational thinking considering skills like algorithmic design, pattern recognition, sorting, and searching. The activities will include unplugged activities like worksheets and educational games as well as creative drama. The activities will be organized in thematic headings and include various learning environments and tools which are collaborated with different disciplines.