

SUMMARY

This project aims at developing a novel and integrated framework to teach math classes in engineering courses at the university level, using active learning methodologies.

Technology is undoubtedly helping to reshape our lives. Students' skills, learning environment, and needs impel adjustments in what is the role of the teacher. Thus, we must think on how to adjust and adapt courses' contents, and ways to deliver them, and how to create motivating learning frameworks to present these students with the best as possible learning experiences.

This will promote a new design for an Engineer profile, one which encompasses an Engineer willing to manage the tools that our lifestyle requires. Without exaggeration, we can say that our project will help to design a new profile Engineer.

Topics

Quality and Relevance of Higher Education in Partner Countries
New innovative curricula/educational methods/development of training courses
Recognition, transparency, certification.



DEVELOPMENT OF INNOVATIVE MATHEMATICAL TEACHING STRATEGIES IN EUROPEAN ENGINEERING DEGREES

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INTELLECTUAL OUTPUTS

Curricula update

- Identification of the need for curricula update from the perspective of university level.
- Extended discussions around curricula update.
- Modernization of curriculum of selected courses.

Adaptation and Modernization of Pedagogical and Working Materials

- Generation Z is disrupting the way learning takes place. These students want to be directly and actively engaged in their learning process.
- Teachers need to provide stimulating learning environments and new approaches to teaching – this is where Active-learning takes the stand.

Peer-Learning Methods

- Development of pedagogical materials to help other teachers in the application of active-learning methodologies.
- Emphasize the importance of student-centered learning, experiential learning, problem-based learning, amongst others.

CONFERENCES



These Workshops are devoted to the exchange of the best teaching practices and experiences in Engineering Courses. The goal is to better understand the current conceptualization of pedagogy and review current practices, which could enhance students' knowledge, and consequently improve learning outcomes.

<http://www.isep.ipp.pt/Page/ViewPage/WorkshopIII>

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