Deusto
Facultad de Ingeniería
Faculty of Engineering

CHAIR OF COMPUTATIONAL MATHEMATICS

INVITATION

IKTrace Seminar (IMAT–CCM)

Coffee, discussion, and academic exchange

SIXTH SEMINAR TALK

If mathematics is the answer, what was the question?
Teaching Mathematics Beyond Mathematics

Lidia Serrano Martínez - University of Deusto

Abstract

What does it mean to teach mathematics in a university degree programme where mathematics is not the main discipline? Is knowing the mathematical content and being able to solve the associated exercises enough? What changes when the same mathematical knowledge is taught in different disciplinary contexts?

This talk invites reflection on the teaching of mathematics at university, focusing particularly on its role in engineering programmes. It explores the contrast between approaches centred on presenting established mathematical knowledge and techniques, and alternative perspectives that propose organising study around genuine questions that call for investigation. From this point of view, mathematics is not simply a collection of results and procedures to be transmitted and applied, but an interconnected activity in which concepts, techniques and ways of reasoning acquire meaning through their relationships with one another and with problems arising in other disciplines.

Drawing on a specific case–the Calculus I course in a Biomedical Engineering degree program–this presentation will address questions emerging from research in this context. How can the same mathematical object, such as the derivative, play different roles depending on the disciplinary context? How can questions be identified that connect different mathematical topics with disciplinary knowledge? And what does it take to design inquiry-based activities that connect mathematical activity with engineering problems?

Rather than proposing a universal teaching methodology, the aim is to open up a discussion about the knowledge and decisions involved in teaching mathematics across different university contexts. Knowing mathematics is essential, but is it enough to teach it meaningfully in other disciplines?

Event details

WHEN
November 25, 2026, 16:00-18:00

WHERE
Classroom E312, ESIDE building

FORMAT
Coffee and discussion session

Keywords

- University mathematics teaching
- Engineering education
- Inquiry-based learning
- Disciplinary context

Participation

Colleagues and students are warmly invited to attend, take part in the discussion, and share ideas related to their own research interests.

Seminar spirit

The IKTrace Seminar is conceived as a regular forum for exchange across research lines, teaching interests, and interdisciplinary initiatives. This sixth session opens a space for mathematical discussion, informal questions, and possible future collaborations.