



## Math Education

MAT/04 - 9 CFU - 1° Semester

### Teaching Staff

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### LEARNING OBJECTIVES

Knowledge and comprehension of the main topics of teaching/learning mathematics and main theoretical frameworks of research in mathematics education.

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### DETAILED COURSE CONTENT

The mathematics laboratory and the pedagogy of Dewey. "Embodied mind" theory. Role of gestures in teaching/learning mathematics. History of mathematics in mathematics education. Learning theory of Piaget. Learning theory of Vygotskij. Theory of semiotic mediation. The role of technology in mathematics education and the TPACK framework. Dynamic geometry systems in the learning of mathematics. Theory of multiple intelligences of Gardner. Kolb learning styles. Collaborative and cooperative learning. Special education needs in inclusive teaching/learning environments.

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### TEXTBOOK INFORMATION

Main resource is to attend the lectures, that will provide also laboratorial activities.

Research papers will be provided together with on-line material.

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