

MATHEMATICS FOR ENGINEERS IN 18TH CENTURY: NEW METHODS, NEW INFLUENCES

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Professional engineering emerged from the intersection of technique and industry, with the belief that understanding mathematical principles would lead to technological advancements. During the Renaissance, engineers and architects were employed by princes, kings, the aristocracy, or early companies. However, it was in the army that the first engineers received their training during the 17th and 18th centuries. In this lecture, we aim to examine the teaching of mathematics to engineers, specifically focusing on the Barcelona Royal Military Academy of Mathematics (1720-1803), which was a pioneering institution. In 1739, a Royal Ordinance established the curriculum for the mathematical course offered at this academy. Prepared by Pedro Lucuce (1692-1779), the course consisted of eight treatises spanning approximately 2,200 pages, covering various branches of mathematics such as "pure" mathematics (arithmetic and geometry) and "mixed" mathematics (cosmography, statics, hydraulics, architecture, artillery, and fortification). Since logarithms, algebra, practical geometry, and trigonometry were well developed in this mathematical course, we will analyse how these "new mathematics" were taught and compare them to the mathematical courses in other European countries. The analysis of this course contributes to the knowledge of the study of modern mathematics in 18th century Spain.

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MEETING ROOM (124A), INSTITUTE OF PHILOSOPHY CAS, JILSKÁ 1,
PRAGUE 1

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