

Sapienza University of Rome  
Faculty of Economics  
Degree Programs EPOS, FINASS, HE  
MATHEMATICS CRASH COURSE  
Academic year 2025-2026 (1-12 September)

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### Course objectives

This is an intensive course of instruction covering the basics of mathematics and aim at preparing students for the beginning of classes.

Attendance is not mandatory but **strongly recommended** in order to ensure a common foundation of basic knowledge for all students who will begin regular classes starting September 15.

Pre-course lessons will be delivered **in person** Faculty of Economics Room 1D (6th floor) and online at the [Zoom link](#):

### Timetable

Date	Time	Topic
<i>Week 1</i>		
01/09/2025	14:30-16:30	<b>Vectors: operations, linear dependence and independence</b> <b>Matrices: basic operations</b>
02/09/2025	14:30-16:30	<b>Matrices: determinant, rank</b> <b>Linear systems of equations</b>
03/09/2025	14:30-16:30	<b>Functions of one variable: domain, zeros, sign</b>
04/09/2025	09:00-11:00	<b>Limits: computation rules, indeterminate forms</b> <b>Continuity of functions</b>
05/09/2025	09:00-11:00	<b>Derivatives</b> <b>Differentiable functions</b>
<i>Week 2</i>		
08/09/2025	14:30-16:30	<b>Functions of one variable: sign, monotonicity, convexity, asymptotes</b>
09/09/2025	14:30-16:30	<b>Functions of one variable: sign, monotonicity, convexity, asymptotes</b>
10/09/2025	14:30-16:30	<b>Integrals: indefinite and definite integrals</b>

		<b>Geometric interpretation of definite integrals</b>
11/09/2025	14:30-16:30	<b>Functions of two variables</b>
12/09/2025	14:30-16:30	<b>Test</b>
	Total: 20 hours	