

# ADMISSIONS TEST

## MATH TOPICS

SCHOOL OF ECONOMICS & BUSINESS  
UNIVERSITY OF NAVARRA



Universidad  
de Navarra

SCHOOL OF  
ECONOMICS  
& BUSINESS

## **1. LINEAR ALGEBRA**

- Matrices: dimensions, operations, transpose, determinant, rank, trace, and inverse.
- Systems of linear equations: solving, classification, and interpretation using matrices.

## **2. FUNCTIONS AND CALCULUS**

- Polynomial, rational, exponential, and piecewise-defined functions.
- Limits and continuity. Derivatives and basic differentiation rules.
- Tangent lines, increasing and decreasing behavior, maxima and minima, concavity, convexity, and inflection points.

## **3. INTEGRAL CALCULUS**

- Antiderivatives and basic integrals.
- Definite and indefinite integrals.

## **4. PROBABILITY AND STATISTICS**

- Operations with events, probability calculations, independent events, and simple random experiments.
- Standard normal distribution. Mean, median, variance, and standard deviation.

## **5. LINEAR PROGRAMMING**

- Objective function and constraints. Feasible region.
- Optimization problems in two variables and identification and interpretation of solutions.