CORSO DI LAUREA: Economia Aziendale Internazionale

**INSEGNAMENTO:** Mathematics for Management

CFU: 6

EVENTUALE ARTICOLAZIONE IN MODULI:

ANNO DI CORSO: 2023-24

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ORARIO DI RICEVIMENTO: after class or by appointment

RISULTATI DI APPRENDIMENTO DELL'INSEGNAMENTO:

The course aims to make the student achieve the following learning outcomes.

- 1. With reference to knowledge and understanding, the course aims to provide the student with some basic mathematical tools necessary for the quantitative analysis of economic and financial problems. These tools are studied both from a theoretical and an applied point of view.
- 2. With reference to the applied knowledge and understanding the student learns to formalize a problem, to solve it through the use of quantitative methods, to discuss the solution.

## PROGRAMMA DETTAGLIATO

1) First and second order equations and inequalities

2) Elementary functions: Straight lines and parabolas

3) Study of functions: the domain, the graph, asymptotes

4) Derivatives

5) Continuous functions

*6) Study of functions: maximum and minimum points, concavity and convexity* 

7) Linear algebra: matrices and vectors. Basic operations with matrices and vectors. The rank and determinant of a matrix.

8) Linear systems.

# EVENTUALI PROPEDEUTICITA' CONSIGLIATE

None

#### MODALITA' DI SVOLGIMENTO DELL'ESAME

(Fermo restando che gli esami si svolgono tutti in presenza presso la sede di accreditamento del Corso di Laurea)

Written exam on the whole program. The written assignment consists in solving exercises. The partial score assigned to each exercise will be clearly indicated on the assignment based on the difficulty of the exercise itself.

#### CRITERI DI VALUTAZIONE DELL'INSEGNAMENTO

- 1. With reference to knowledge and understanding, the final exam will assess the student's acquisition of the fundamental notions relating to the topics listed in the detailed teaching programme.
- 2. With reference to the application of the acquired knowledge and skills, the final exam will assess the student's ability to formalize and solve a problem and discuss the solution.

## CRITERI DI ATTRIBUIZIONE DEL VOTO FINALE

The final grade is attributed on the basis of the score obtained in the written assignment. In addition, classroom exercises are planned in which the active participation of students is encouraged. The student who decides to solve an exercise on the blackboard can receive 1 reward point. It is possible to obtain up to a maximum of 3 reward points to be added to the final exam mark.

## MATERIALE DIDATTICO

The blackboards of the lessons in pdf format will be available on smart learn. The arguments can be supplemented by consulting the following textbook:

K. Sydsaeter, P. Hammond, A. Strom, Andrs Carvajal,"Essential Mathematics for Economic analysis", Pearson

## CONSIGLI DEL DOCENTE

Presence in the classroom is strongly recommended, in order to interact with the teacher. It is also recommended to review the lessons from time to time in order to be able to follow the next lesson effectively.