Testi del Syllabus

Resp. Did. **Matricola: null**

Anno offerta:	**2025/2026**
Insegnamento:	**2020007 - MATHEMATICS 2**
Corso di studio:	**D720 - FOUNDATION COURSE IN ENGINEERING AND SCIENCE**
Anno regolamento:	**2025**
CFU:	**5**
Settore:	**NN**
Anno corso:	**1**
Periodo:	**Ciclo Annuale Unico**

Testi in italiano

Lingua insegnamento	English
Contenuti	Part 1: The Euclidean space [12h]. Cartesian coordinates in 2D and in 3D. Distance between two points in the Cartesian plane and in the Cartesian space. Vectors, sum of vectors, scalar multiplication, (canonical) scalar product. Part 2: Closed curves [8h]. The concept of a closed curve (compared to that of a graph of a function). Equation of the circle. Equation of the ellipse. Part 3: Angles [10h]. Measuring angles. Properties of triangles. Basic relations among triangles and angles. Triangles and the circle. Part 4: Trigonometry [10h]. Trigonometric functions. Main trigonometric identities. Trigonometric equations and inequalities
Testi di riferimento	“Elementary Algebra”, OpenStax, available online: https://openstax.org/details/books/elementary-algebra-2e “Contemporary Mathematics”, OpenStax, available online: https://openstax.org/details/books/contemporary-mathematics “Precalculus”, OpenStax, available online: https://openstax.org/details/books/precalculus-2e “Calculus Vol. 3”, OpenStax, available online https://openstax.org/details/books/calculus-volume-3
Obiettivi formativi	This course introduces basic notions in geometry and trigonometry, with the calculus tools related to them. The objective is to give students a good understanding of the geometric meaning of trigonometric quantities as well as to reinforce their skill in performing computations
Prerequisiti	None
Metodi didattici	Lectures
Altre informazioni	--

Modalità di verifica dell'apprendimento	Exam: The assessment of learning is expressed on a thirty-point scale and will be carried out through a written test and an oral exam. A minimum score of 18/30 is required to pass

Obiettivi per lo sviluppo sostenibile

Codice	Descrizione

Testi in inglese

	English
	Part 1: The Euclidean space [12h]. Cartesian coordinates in 2D and in 3D. Distance between two points in the Cartesian plane and in the Cartesian space. Vectors, sum of vectors, scalar multiplication, (canonical) scalar product. Part 2: Closed curves [8h]. The concept of a closed curve (compared to that of a graph of a function). Equation of the circle. Equation of the ellipse. Part 3: Angles [10h]. Measuring angles. Properties of triangles. Basic relations among triangles and angles. Triangles and the circle. Part 4: Trigonometry [10h]. Trigonometric functions. Main trigonometric identities. Trigonometric equations and inequalities
	“Elementary Algebra”, OpenStax, available online: https://openstax.org/details/books/elementary-algebra-2e “Contemporary Mathematics”, OpenStax, available online: https://openstax.org/details/books/contemporary-mathematics “Precalculus”, OpenStax, available online: https://openstax.org/details/books/precalculus-2e “Calculus Vol. 3”, OpenStax, available online https://openstax.org/details/books/calculus-volume-3
	This course introduces basic notions in geometry and trigonometry, with the calculus tools related to them. The objective is to give students a good understanding of the geometric meaning of trigonometric quantities as well as to reinforce their skill in performing computations
	None
	Lectures
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	Exam: The assessment of learning is expressed on a thirty-point scale and will be carried out through a written test and an oral exam. A minimum score of 18/30 is required to pass

Obiettivi per lo sviluppo sostenibile

Codice	Descrizione