Testi del Syllabus

Resp. Did. **Matricola: null**

Anno offerta:	**2025/2026**
Insegnamento:	**2020006 - MATHEMATICS 1**
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: Number sets [8h]. Natural numbers, integer numbers, rational numbers, real numbers and the real line. The order relation on real numbers. Basic operations with real numbers and their properties. Absolute value. Part 2: Functions and their graphs [5h]. The concept of function from R into R and of graphs of a function. Part 3: Polynomial functions [13h]. Integer-power functions and polynomials. Straight lines and their Cartesian equations. Parabolae and their cartesian equations. Solving polynomial equations and inequalities. Hyperbolae and their cartesian equations, solving related equations and inequalities. Part 4: Rational functions, non-integer powers, exponentials and logarithms [14h]. Non-integer power functions, solving related equations and inequalities. Exponential and logarithmic functions. Exponential and logarithmic 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
Obiettivi formativi	The objective of this course is to explain basic notions and techniques of the arithmetic of real numbers. Equations and inequalities are both solved as exercises and interpreted as relations between functions. The course constitutes the basis for the subsequent mathematics courses
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: Number sets [8h]. Natural numbers, integer numbers, rational numbers, real numbers and the real line. The order relation on real numbers. Basic operations with real numbers and their properties. Absolute value. Part 2: Functions and their graphs [5h]. The concept of function from R into R and of graphs of a function. Part 3: Polynomial functions [13h]. Integer-power functions and polynomials. Straight lines and their Cartesian equations. Parabolae and their cartesian equations. Solving polynomial equations and inequalities. Hyperbolae and their cartesian equations, solving related equations and inequalities. Part 4: Rational functions, non-integer powers, exponentials and logarithms [14h]. Non-integer power functions, solving related equations and inequalities. Exponential and logarithmic functions. Exponential and logarithmic 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
	The objective of this course is to explain basic notions and techniques of the arithmetic of real numbers. Equations and inequalities are both solved as exercises and interpreted as relations between functions. The course constitutes the basis for the subsequent mathematics courses
	None
	Lectures
	--
	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