Fakultät für Ingenieurwesen
Facoltà di Ingegneria
Faculty of Engineering

5

COURSE DESCRIPTION – ACADEMIC YEAR 2025/2026

Course title	**Laboratory of Mathematics**
Course code	42601
Scientific sector	ND
Degree	Professional Bachelor in Wood Technology (L- P03)
Semester	1
Year	1
Credits	4
Modular	No

Total lecturing hours	40
Total lab hours	-
Attendance	Attendance is not compulsory but recommended.
Prerequisites	Strong mathematical basis.
Course page	Microsoft Teams and https://ole.unibz.it/

Specific educational objectives	The course aims to reinforce and deepen the mathematical skills acquired by students in high school, from both theoretical and practical perspectives. In particular, it focuses on the concepts of equations and functions, key notions from differential and integral calculus, an introduction to differential equations, and the fundamentals of linear algebra.

Lecturer	Dr. Ivano Colombaro
Contact	Room B1.5.12 email: ivano.colombaro@unibz.it phone: +39 0471 017943
Scientific sector of lecturer	MATH/04
Teaching language	English
Office hours	By appointment, to arrange beforehand via email.
Lecturing Assistant (if any)	
Contact LA	
Office hours LA	
List of topics	• Functions: domain, range, inverse. • Derivatives. • Integrals. • Function analysis. • Differential equations. • Linear algebra.

Teaching format	Lecture-based exercises and practical activities.

Learning outcomes	**Intended Learning Outcomes (ILO)** Knowledge and understanding: 1. Knowledge of the main mathematical concepts and formalism of calculus and linear algebra. 2. Proficiency in the techniques of integral and differential calculus, and the linear algebra. Applying knowledge and understanding: 3. Ability in solving problems concerning function analysis by means of the calculus tools. 4. Ability to apply mathematical techniques and methods learned in the course. 5. Ability to adopt the mathematical formalism in problem solving. Making judgments 6. Efficiency in recognizing the right approach and convenient tools, to suitably deal with mathematical problems and questions. Communication skills 7. Proficiency to use English at an advanced level, especially in reporting on the calculations in a clear and effective way, by means of the written production and oral presentations. Learning skills 8. Ability to deal with problems in an appropriate way and to apply the suitable techniques. 9. Capability in abstracting and generalizing problems, using the suitable scientific formalism and methods.

Assessment	The exam consists in the preparation of a presentation, which must be handed in and orally presented. Furthermore, homework and class participation will be evaluated. **Formative assessment**

Form	Length/duration	ILOs assessed
In class activities	10 hours	1,6,7,8,9

	Summative assessment **Form** / **%** / **Length/duration** / **ILOs assessed** Oral presentation / 100% / 30 minutes / 1,2,3,4,5,6,7,8,9
Assessment language	English
Assessment Typology	Monocratic
Evaluation criteria and criteria for awarding marks	Laboratories are graded on a pass/fail basis.

Required readings	Lecture notes.
Supplementary readings	Any book of "Calculus" in the Library reserve collection.
Software used	