



**UNIVERSITÀ DEGLI STUDI  
DELL'INSUBRIA**

**DEPARTMENT OF SCIENCE AND HIGH  
TECHNOLOGY**

**DESCRIPTION OF THE EDUCATION COURSE  
(COURSE RULES)**

**BACHELOR'S DEGREE in MATHEMATICS**

**2024/2025**



I - GENERAL INFORMATION	
NAME OF THE DEGREE PROGRAMME (CDS)	Bachelor's degree in Mathematics
CLASS	L-35
TYPE	3-year
LOCATION	Como
INTERNET ADDRESS	<p>For information on the educational goals of the degree course, employment opportunities, admission requirements, admission procedures, expected learning outcomes, training path/study plan, final examination, you can consult the Annual Report (SUA-CdS), published on the web page of the course at the following address:</p> <p><a href="http://www.uninsubria.it/triennale-matematica">www.uninsubria.it/triennale-matematica</a></p>
DEPARTMENT	<p>Department of Science and High Technology – DiSAT</p> <p><a href="https://www.uninsubria.it/ugov/organizationunit/7976">https://www.uninsubria.it/ugov/organizationunit/7976</a></p>
RESPONSIBLE	Professor Giovanni Bazzoni
COURSE TEACHING SECRETARIAT	<p><a href="https://www.uninsubria.it/servizi/tutti-i-servizi/servizio-di-ascolto-manager-didattici-la-qualita-disat">https://www.uninsubria.it/servizi/tutti-i-servizi/servizio-di-ascolto-manager-didattici-la-qualita-disat</a></p>
CALENDAR OF TEACHING ACTIVITIES	<p><u>1st semester</u>: start date 23/09/2024 – end date 17/01/2025</p> <p><u>2nd semester</u>: start date 24/02/2025 – end date 13/06/2025</p> <p><u>Exam session</u>: from 01/12/2024 to 31/03/2026</p> <p>To find out the dates of suspension of the teaching activities and closures of the University facilities due to national and local holidays and other closures (Christmas Holidays, Easter Holidays, University closures), students are required to consult the <b>University Teaching Calendar</b> approved by the Academic Bodies at this link:</p> <p><a href="https://www.uninsubria.it/chi-siamo/sedi-e-orari/calendario-didattico-di-ateneo">https://www.uninsubria.it/chi-siamo/sedi-e-orari/calendario-didattico-di-ateneo</a></p>
FURTHER INFORMATION	<ul style="list-style-type: none"><li>• ACCESS TO THE COURSE: Free</li><li>• POSSIBLE ISSUE OF DOUBLE DEGREE: Not foreseen</li><li>• LANGUAGE IN WHICH TEACHING IS PROVIDED: Italian</li><li>• PRESENCE OF ANY PATHS/CURRICULA: There are no paths or curricula</li></ul>
ADMISSION, INITIAL KNOWLEDGE VERIFICATION AND RECOVERY OF THE ADDITIONAL LEARNING DUTIES (OFA)	<p>The bachelor's program in Mathematics is a free access course. It is strictly mandatory to take a non-selective national entrance test to verify the student's initial preparation. The degree course in Mathematics adheres to the Coordination of the knowledge verification tests for the scientific degree courses organized by the National Conference of the Presidents and Directors of the University Structures of Science and Technology (con.Scienze) in collaboration with the National Plan for Scientific Degrees of the Ministry of Education and the Interuniversity Consortium</p>



	<p>of Integrated Access Systems (CISIA). Therefore, students will be able to take the <u>TOLC@Casa</u> test (unless otherwise communicated) even in an earlier session (if any) with respect to the enrollment period. The last session for will be held on November 21st, 2024.</p> <p>The test is considered passed if the student correctly answers at least 10 of the 20 questions contained in the Basic Mathematics module. In case of failure, the student will be assigned OFA (additional learning duties) to be fulfilled within the first year of the course. Students with OFA will be provided with materials in the e-learning area on the topics of the test, and the instructors will be available for further information and clarifications. The OFA will be considered fulfilled if the student with OFA, by September 30th of the first year of the course, has passed the exam of Mathematical Analysis I or Linear Algebra. Enrollment in the second year of the programme in a regular position is in any case subject to the fulfillment of the OFA by September 30th of the calendar year following the enrollment year.</p>
<b>PREPARATORY TRAINING ACTIVITIES FOR THE VERIFICATION OF THE INITIAL KNOWLEDGE</b>	<p>In the first half of September, it will be possible to follow the lessons of the mathematics pre-courses. All indications, including dates, will be published on the following page of the website: <a href="https://www.uninsubria.it/formazione/consigli-e-risorse-utili/orientamento/orientamento-ingresso/preparati-alluniversita">https://www.uninsubria.it/formazione/consigli-e-risorse-utili/orientamento/orientamento-ingresso/preparati-alluniversita</a></p> <p>Information on the pre-course of Mathematics for the Scientific Area is available at this link: <a href="https://www.uninsubria.it/formazione/consigli-e-risorse-utili/orientamento/orientamento-ingresso/preparati-alluniversita-5">https://www.uninsubria.it/formazione/consigli-e-risorse-utili/orientamento/orientamento-ingresso/preparati-alluniversita-5</a></p>
<b>CAREER GUIDANCE, ENROLLMENT PROCEDURES AND OTHER ADMINISTRATIVE ASPECTS</b>	<p><b>STUDENT SERVICE</b></p> <p>The INFOSTUDENTI service is a web application that offers a communication channel through which students or potential students can obtain useful information by contacting the various offices of the University (Student Secretariats, Right to Education and Student Services, Career Guidance and Placement, Teaching Secretariats and International Relations).</p> <p>With this system it will be possible to send questions and receive the related answers by also attaching documents and following the status of your request.</p> <p>You can access the service at the following link: <a href="https://www.uninsubria.it/servizi/infostudenti-servizio-informazioni-gli-studenti">https://www.uninsubria.it/servizi/infostudenti-servizio-informazioni-gli-studenti</a></p>



## II - STUDY PLAN

### PLANNED TEACHING – COHORT 2024/2025

By planned teaching we mean the set of courses provided for the entire course of study, which must be taken by all students who enroll in the current academic year (Enrollment Cohort) to complete the training course and obtain the qualification

LES = lesson; EX = exercise session, LAB = laboratory

### KEY TEACHINGS

YEAR I								
SEMESTER	COURSE Title	INTEGRATED COURSE/ TEACHING Title	Scientific sector S.S.D	SUBJECT AREA/ TAF	CFU	HOURS	Assessment Methods*	
I	ALGEBRA I		MAT/02	A/Mathematical training	9	LES. 52 EX 30	V	
I	MATHEMATICAL ANALYSIS I		MAT/05	A/Mathematical training	9	LES. 56 EX 24	V	
I+II	PHYSICS I WITH EXERCISES		FIS/03	A/Physical training	10	LES. 56 EX 36	V	
I+II	ALGORITHMS AND DATA STRUCTURES	ALGORITHMS AND DATA STRUCTURES (1st MODULE)	INF/01	A/ Computer training	6	LES. 48	V	
		ALGORITHMS AND DATA STRUCTURES (2nd MODULE)			6	LES. 48	V	
II	LINEAR ALGEBRA AND GEOMETRY		MAT/03	A/Mathematical training	8	LES. 56 EX 12	V	
II	COMPUTATIONAL MATHEMATICS		MAT/08	A/Mathematical training	6	LES. 40 LAB. 16	V	
II	ENGLISH LANGUAGE		L-LIN/12		2	LES. 32	G	

YEAR II								
SEMESTER	COURSE Title	INTEGRATED COURSE/ TEACHING Title	Scientific sector S.S.D	SUBJECT AREA/ TAF	CFU	HOURS	Assessment Methods*	
I	ALGEBRA II		MAT/02	B/Theoretical training	8	LES. 56 EX 12	V	
I	MATHEMATICAL ANALYSIS II		MAT/05	A/Mathematical training	8	LES. 56 EX 12	V	



I	PHYSICS II		FIS/03	C/Supplementary related	6	LES. 48	V	
I	GEOMETRY I		MAT/03	B/Theoretical training	8	LES. 48 EX 24	V	
II	MATHEMATICAL ANALYSIS III		MAT/05	B/Theoretical training	8	LES. 64	V	
II	NUMERICAL ANALYSIS		MAT/08	B/Application modeling training	8	LES 56 EX 12	V	
II	GEOMETRY II		MAT/03	B/Theoretical training	8	LES. 64	V	
II	PROBABILITY AND STATISTICS		MAT/06	B/Application modeling training	8	LES. 48 EX 24	V	

### YEAR III

SEMESTER	COURSE Title	INTEGRATED COURSE/ TEACHING Title	Scientific sector S.S.D	SUBJECT AREA/ TAF	CFU	HOURS	Assessment Methods*
I	MATHEMATICAL PHYSICS		MAT/07	B/Application modeling training	8	LES. 48 EX 24	V

\*G – JUDGMENT

\*V – EXAM

\*I – ELIGIBILITY

\*F – FREQUENCY

### ELECTIVE COURSES (CURRICULAR)

#### YEAR III – ONE COURSE TO BE CHOSEN AMONG:

SEMESTER	COURSE Title	MODULES Name	Scientific sector S.S.D	SUBJECT AREA/ TAF	CFU	HOURS	Assessment Methods*
II	FUNDAMENTALS OF ADVANCED ALGEBRA		MAT/02	B/Theoretical training	8	LES. 64	V
II	FUNDAMENTALS OF ADVANCED GEOMETRY		MAT/03	B/Theoretical training	8	LES. 64	V
II	INSTITUTIONS OF HIGHER ANALYSIS		MAT/05	B/Theoretical training	8	LES. 64	V

#### YEAR III – ONE COURSE TO BE CHOSEN AMONG:



I	FUNDAMENTALS OF ADVANCED MATHEMATICAL PHYSICS		MAT/07	B/Application modeling training	8	LES. 64	V
I	PROBABILISTIC METHODS IN MATHEMATICAL PHYSICS		MAT/07	B/Application modeling training	8	LES. 64	V
II	FUNDAMENTALS OF NUMERICAL ANALYSIS		MAT/08	B/Application modeling training	8	LES. 64	V

**YEAR III – TWO COURSES TO BE CHOSEN AMONG:**

SEMESTER	COURSE Title	MODULES Name	Scientific sector S.S.D	SUBJECT AREA/ TAF	CFU	HOURS	Assessment Methods*
I	ANALYTICAL MECHANICS		MAT/07	C/Supplementary related	8	LES. 64	V
I	STATISTICS		SECS-S/01	C/Supplementary related	8	LES. 64	V
II	MATHEMATICAL METHODS OF PHYSICS		FIS/02	C/Similar and supplementary	8	LES. 64	V

**YEAR III – OTHER ACTIVITIES:**

SEMESTER	COURSE Title	MODULES Name	Scientific sector S.S.D	SUBJECT AREA/ TAF	CFU	HOURS	Assessment Methods*
	ELECTIVE COURSE		NN		16		
	OTHER USEFUL KNOWLEDGE FOR THE JOB MARKET		NN		1		
	FINAL EXAM		NN	E/Final exam	5		V

\*G – JUDGMENT

\*V – EXAM

\*I – ELIGIBILITY

\*F – FREQUENCY



### III - RULES OF THE DEGREE COURSE

**PREREQUISITES:** not foreseen

#### **RECOGNITION OF LANGUAGE AND COMPUTER CERTIFICATIONS.**

The acquisition of 2 credits in English is required; these can be obtained by passing the relevant test from the English language course of the Degree Course. The English Language course can be followed in any of the 3 years. The language test may be replaced by the presentation of certificates of recognized international validity of at least a B2 level.

#### **RECOGNITION OF PROFESSIONAL SKILLS OR EXAMS OBTAINED IN PREVIOUS CAREERS.**

The Course Committee may recognise:

- certified professional knowledge and skills in accordance with the present legislation on the subject;
- knowledge and skills gained in post-secondary level training activities in the implementation and design of which the University has contributed.

The request for recognition will be evaluated by the Course Committee.

Recognition may take place if the activity is consistent with the specific training goals of the course and the training activities for which recognition is requested, also taking into account the content and duration in hours of the performed activity.

#### **ATTENDANCE OBLIGATIONS**

Attendance is not compulsory but is strongly recommended.

#### **ENROLLMENT IN THE YEARS FOLLOWING THE FIRST**

Students who, on the 30th of September of the calendar year following the year of enrollment, have ~~not~~ taken the initial knowledge test (TOLC@Casa) or have not fulfilled the additional educational duties (OFA) cannot take the second- and third-year exams.

#### **METHOD OF ACQUISITION OF 1 CFU OF "OTHER USEFUL KNOWLEDGE FOR THE JOB MARKET"**

The acquisition of 1 CFU of "Other useful knowledge for the job market" can take place:

- by presenting language certificates (English, French, German, Russian, Spanish, Portuguese) of recognized international validity of at least a C1 level;
- through the presentation of certificates of ICT skills of recognized international validity;
- through the participation in career guidance activities, recognized by a professor of the degree course;
- through the presentation of a seminar on a topic agreed with a professor of the degree course.

#### **TEACHING MODALITIES**

The teaching activities are organized in courses that include one or more of the following activities:

- Lectures in the classroom. 1 CFU of lectures: 8 hours
- Classroom exercises. 1 CFU of exercises: 12 hours
- Laboratory activities. 1 CFU of laboratory: 16 hours

#### **PROCEDURES FOR TRANSFERRING FROM OTHER DEGREE PROGRAMMES**

Students coming from another University or from another Degree Programme of this University, or from previous cohorts, may request a transfer to the Degree Programme. Transfer requests will be considered by the Course Committee who will perform the recognition of the university credits according to the following criteria:

- analysis of the program;
- evaluation of the congruity of the previous career scientific sectors and contents of the training activities, with the specific training goals of the course and of the individual activities.

The recognition is performed in accordance with art. 3 paragraphs 8 and 9 of the Ministerial decree for the redefinition of the Classes (March 16th 2007). The recognition is performed up to the amount of university credits foreseen by the course.

The transfer is however allowed only to students who have participated in a test to verify the initial preparation similar to the one of the Degree Course.

**For further information and insights, you can consult the web page of the course:**

[www.uninsubria.it/triennale-matematica](http://www.uninsubria.it/triennale-matematica)



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