

COURSE OF STUDY Degree in Physics

ACADEMIC YEAR 2023-2024

ACADEMIC SUBJECT Relativistic Mechanics

General information	
Year of the course	2
Academic calendar	First week of March - Last week of May
Credits (CFU/ETCS):	3
SSD	FIS/02
Language	Italian
Mode of attendance	Not mandatory

Professor/ Lecturer	
Name and Surname	Antonio Marrone
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Department and address	
Virtual room	
Office Hours	On request

Work schedule			
Hours			
Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
93	16	15	62
CFU/ETCS			
3	2	1	

Learning Objectives	Understanding Special Relativity
Course prerequisites	General Physics

Teaching strategie	Lessons on the blackboard
Expected learning outcomes in terms of	
Knowledge and understanding on:	Understanding Special Relativity
Applying knowledge and understanding on:	Application of Special Relativity
Soft skills	<ul style="list-style-type: none"> • Making informed judgments and choices Ability to proceed autonomously in the study of Special Relativity • Communicating knowledge and understanding Ability to express the acquired knowledge properly • Capacities to continue learning Ability to study independently from texts and scientific literature
Syllabus	
Content knowledge	Relativity principle Lorentz group Relativistic Mechanics Electromagnetism

	Particle scattering and decay
Texts and readings	L .D. Landau e E.M. Lifšits, Fisica Teorica II, Teoria dei Campi, Editori Riuniti
Notes, additional materials	Notes from the teacher
Repository	

Assessment	
Assessment methods	Oral test
Assessment criteria	Adequate comprehension and global knowledge of concepts and arguments described throughout the course.
Final exam and grading criteria	<i>Vote/30</i>
Further information	
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