

Master degree course in MATERIALS SCIENCE
curriculum MATERIALS SCIENCE
Study programme for students enrolled in the academic year
2023-2024
(for [Allegato 2*](#))

1st YEAR		
MANDATORY UNITS	CREDITS	HOURS
ADVANCED LABORATORY FOR THE PREPARATION AND CHARACTERIZATION OF MATERIALS	10	LEZ: 8 ore; ESE: 10 ore; L: 96 ore
FUNDAMENTALS OF NANOSCIENCE	8	LEZ: 64 ore
ORGANIC FUNCTIONAL MATERIALS	6	LEZ: 40 ore; ESE: 10 ore
PHYSICAL CHEMISTRY OF MATERIALS	6	LEZ: 48 ore
PHYSICAL METHODS FOR MATERIALS CHARACTERIZATION WITH LABORATORY	10	LEZ: 40 ore; ESE: 12 ore; L: 48 ore
PHYSICS AND TECHNOLOGY OF SEMICONDUCTORS	8	LEZ: 48 ore; ESE: 24 ore
SURFACES STRUCTURE AND DYNAMIC	6	LEZ: 40 ore; ESE: 10 ore
1 FREE-CHOISE UNITS AMONG THE FOLLOWING:	CREDITS	HOURS
COMPUTATIONAL METHODS FOR MATERIALS SCIENCE	6	LEZ: 48 ore
CRYSTALCHEMISTRY OF MATERIALS FOR THE SUSTAINABLE BUILT ENVIRONMENT	6	LEZ: 32 ore; ESE: 10 ore; L: 12 ore
PHYSICS OF DISORDERED MATERIALS	6	LEZ: 48 ore
SUPERCONDUCTING MATERIALS	6	LEZ: 48 ore
SUSTAINABLE ENERGY: MATERIALS AND TECHNOLOGIES	6	LEZ: 24 ore; L: 36 ore
ELECTROCHEMISTRY OF MATERIALS	6	LEZ: 48 ore
NANOFABRICATION	6	LEZ: 48 ore
OPTICS AND LASER PHYSICS	6	LEZ: 48 ore
OPTICS OF MATERIALS	6	LEZ: 48 ore
2nd YEAR		
MANDATORY UNITS	CREDITS	HOURS
MATERIALS TECHNOLOGY	6	LEZ: 40 ore; ESE: 10 ore
OTHER MANDATORY UNITS	CREDITS	HOURS
PATENTS AND PRODUCTS DEVELOPMENT	2	ESE: 20 ore
STAGE	2	T: 50 ore
12 ADDITIONAL FREE-CHOISE CREDITS AMONG THE ESAMS NOT CHOSEN IN THE 1st YEAR		
OPTIONAL UNIT	CREDITS	HOURS
ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)	3	ALT: 75 ore
FINAL THESIS	38	PRF: 950 ore

***Allegato 2 contains detailed information about the courses**

ATTENTION: Attendance is not mandatory for lessons, but it is mandatory for laboratories for at least 90% of the hours

HOURLY LEGEND:

LEZ = lessons

ESE = exercises

L = laboratories

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2nd YEAR		
MANDATORY UNITS	CREDITS	HOURS
MATERIALS TECHNOLOGY	6	LEZ: 40 ore; ESE: 10 ore
OTHER MANDATORY UNITS	CREDITS	HOURS
PATENTS AND PRODUCTS DEVELOPMENT	2	ESE: 20 ore
12 ADDITIONAL FREE-CHOISE CREDITS AMONG THE ESAMS NOT CHOSEN IN THE 1st YEAR		
FINAL THESIS	40	PRF: 950 ore

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