



Description of the course

MASTER DEGREE COURSE IN	
MATERIALS SCIENCE	
<i>Study programme for students enrolled in the academic year 2024-2025 - entirely held in English</i>	
1st YEAR	
COMPULSORY COURSE UNITS	credits
PHYSICAL CHEMISTRY OF MATERIALS	6
PHYSICAL METHODS FOR MATERIALS CHARACTERIZATION AND LABORATORY	10
ORGANIC FUNCTIONAL MATERIALS	6
PHYSICS AND TECHNOLOGY OF SEMICONDUCTORS	8
FUNDAMENTALS OF NANOSCIENCE	8
ADVANCED LABORATORY FOR THE PREPARATION AND CHARACTERIZATION OF MATERIALS	10
SURFACES STRUCTURE AND DYNAMICS	6
1 FREE-CHOICE COURSE UNIT AMONG THE FOLLOWING	credits
COMPUTATIONAL METHODS FOR MATERIALS SCIENCE	6
CRYSTALLOCHEMISTRY OF MATERIALS FOR THE SUSTAINABLE BUILT ENVIRONMENT	6
PHYSICS OF DISORDERED MATERIALS	6
SUPERCONDUCTING MATERIALS	6
SUSTAINABLE ENERGY: MATERIALS AND TECHNOLOGIES	6
ELECTROCHEMISTRY OF MATERIALS	6
NANOFABRICATION	6
OPTICS AND LASER PHYSICS	6
OPTICS OF MATERIALS	6
2nd YEAR	
COMPULSORY COURSE UNIT	credits
MATERIALS TECHNOLOGY	6
OPTIONAL UNIT	
ENGLISH LANGUAGE B2 (PRODUCTIVE SKILLS)	3

OTHER COMPULSORY ACTIVITIES	
FREE-CHOICE CREDITS	12
PATENTS AND PRODUCTS DEVELOPMENT	2
STAGE	2
FINAL EXAM	38
USEFUL INFORMATION: • free-choice credits can be chosen among the university's educational offer as long as they are consistent with the educational path • according to the didactic regulation of the degree course, attendance is recommended but not mandatory for lessons, but it is mandatory for laboratories for at least 90% of the hours	