WHY ENROL?

Because it combines a solid basic preparation with a wide and flexible choice of courses and laboratories for critical analysis in areas of particular relevance and topicality, such as chemistry for the environment and cultural heritage, sustainable chemistry and energy, chemistry of biomolecules, methodologies of modeling, synthesis and catalysis and structural investigation on different scales of resolution

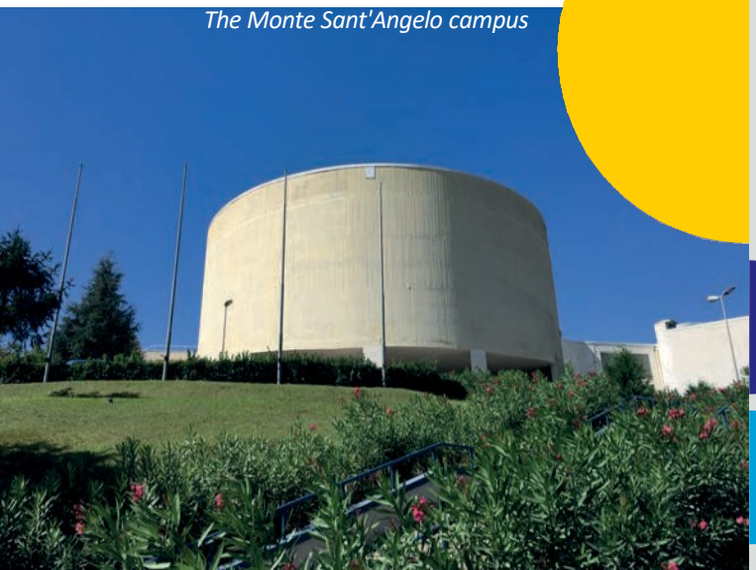
Because there is an optimal teacher/student ratio.
Because there are state-of-the-art laboratories available to students.

Because it dedicates significant space to the experimental thesis, which engages the student in an advanced research project developed with originality and increasing degree of autonomy.

Because an internship is offered in companies, facilities or public and private laboratories that facilitates entry into the world of work.

Because numerous mobility opportunities are offered for students thanks to exchange agreements in Italy and abroad.

Course Coordinator
Prof. Delia Picone
ccdscienzechimiche@unina.it



The Monte Sant'Angelo campus

Useful links

Polytechnic and Basic Sciences School
www.scuolapsb.unina.it

Dipartimento di Scienze Chimiche
http:// www.scienzechimiche.unina.it

Course of Study in Chemical Sciences
http://www.scienzechimiche.unina.it/lmsc

Student Secretariat
Common Centres University Complex of Monte S.
Angelo Via Cintia – 80126 Napoli e-mail:
segrmmff@unina.it

neapōlis

UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II
SCUOLA POLITECNICA E DELLE SCIENZE DI BASE

SCIENCE STUDY COLLEGE

MASTER DEGREE

CHEMICAL SCIENCES

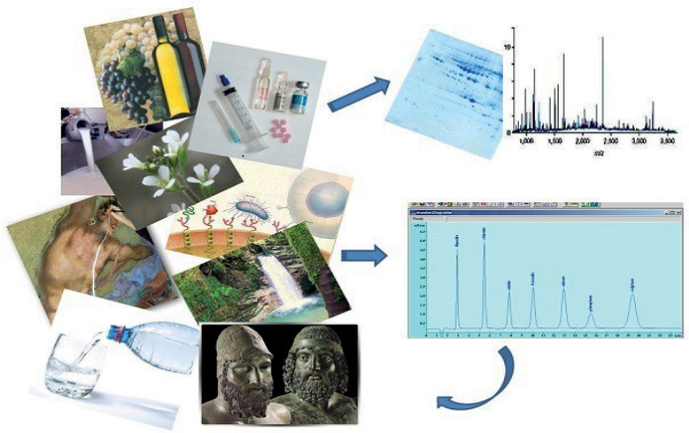
Dipartimento di Scienze Chimiche

MUR Ministero dell'Università e della Ricerca
DIPARTIMENTO DI ECCELLENZA 2023-2027

LEARNING OBJECTIVES

The course aims to integrate and deepen the chemical knowledge acquired in the first cycle through a path that adapts flexibly to the student's training needs and the demands of the world of work.

Graduates in Chemical Sciences acquire:
a solid cultural preparation in the various sectors of chemistry;
advanced knowledge of modern measurement instrumentation, chemical properties and data analysis techniques;
a high level of mastery of the scientific method of investigation;
the ability to use the English language fluently, in written and oral form (level B2);
significant autonomy for work, which will allow them to take on roles of high responsibility in projects and structures.



ENTRY REQUIREMENTS

Information on access can be found on the website of the Degree Programme and on the website: http://www.scuolapsb.unina.it/index.php/ studiare-al-napoli/admissione-ai-corsi

TRAINING

The Degree Course has the European recognition "Chemistry Euromaster Label", which validates the qualification in EU countries and allows the graduate to continue his specialization studies in other European universities in the consortium.

EUROBACHELOR®

EDUCATIONAL PATH (120 CFU)

The course of study is divided into two curricula, different for the language (Italian and English), for the laboratory activities, and for the related and supplementary courses. In addition to the in-depth study of the basic subjects (Inorganic Chemistry, Analytical Chemistry, Physical Chemistry, Organic Chemistry and Biological Chemistry in 5 courses of 6 CFU each), there are 5 integrated laboratory courses of 6 CFU, from which the student must select 3.

Laboratory courses of the "Scienze Chimiche" curriculum
Caratterizzazione strutturale in stato solido e soluzione
Biosintesi e caratterizzazione strutturale di proteine
Proteomica e metabolomica
Metodi di spettroscopia molecolare
Metodologie di sintesi e caratterizzazione
Laboratory courses of the "Chemical Sciences" curriculum
Integrated modeling approaches in molecular catalysis: from ab initio to data driven
Biocatalysis
Bioprocesses for production of organic bioactive compounds
Nanoparticle Functionalization for Sensing Applications
Chemical methods for the environment

Related courses «Scienze Chimiche»	**Related courses «Chemical Siences»**
Chimica Analitica Forense	Chemistry of cultural heritage
Chimica dell'ambiente	Soft matter and nanosystems
Chimica fisica delle energie rinnovabili	Modelling of the photoinduced processes for Earth and space
Termodinamica di non equilibrio per sistemi chimici, biologici ed ambientali	Inorganic hybrid nanomaterials
Chimica e Tecnologia della Catalisi	Structural Crystallography
Chimica dei composti metallorganici	Omics SciencesT
Biologia Molecolare	Chemistry of materials: from crystal structure to nanostructures
Chimica delle sostanze organiche naturali	Organic Chemistry for Renewable Energies
Metodologie speciali in sintesi organica	Molecular Recognition
Chimica dei materiali: dai catalizzatori al design dei materiali	

To complete the study path	CFU
2 elective courses	12
English language laboratory and internship	10
Activities for the preparation of the Master's Degree thesis	38

JOB OPPORTUNITIES

Graduates will be able to carry out the following functions:

-Chemical Analysis and Quality Control Laboratory Manager
-Head of the Laboratory of Diagnostics and Analysis for the Environment and Cultural Heritage
-Head of the Synthesis Laboratory
-Technical Sales Representative of products and instrumentation for analysis
-Technician Graduated in Chemical and Pharmaceutical Sciences
-Researcher

They will be able to find employment in:
-Public bodies (health service, customs, special forces, e.g. police, carabinieri)
-Public and private research institutions
-Analysis, control and quality certification laboratories
-Industries and work environments that require basic knowledge in the fields of chemistry

Graduates will be able to carry out their activity as employees or as freelance consultants, after obtaining the title of Chemist through the state exam.
When in possession of the requirements provided for by current legislation, they will be able to participate in the admission tests to the training courses of teaching staff for lower and upper secondary schools.

THE HEADQUARTERS

The headquarters of the educational and scientific activities is in the University Complex of Monte S. Angelo in via Cintia, Naples
Links
By car: exit of the Fuorigrotta ring road
Rail lines: Metro Line 2 (staz. Campi Flegrei)
Circumflegrea (staz. Exhibition)
Bus: Piazzale Tecchio - MSA: 615; 180; R6 via Caldieri (Vomero) - MSA: 180
There are also several connections with private buses from the province of Naples and other provinces of Campania.
Services
Adisu Point | Synapse Center | Canteens | Bar Copy Service | Automated teller machine