unipa orienta

training offer
2023/2024
THE ACADEMIC COMMUNITY

Over 43,000 Students
Over 1,700 Professors and Researchers
Over 1,000 Bursary Students, PhD Students, Post Doc Grant Holders, Specialisation Degree Students
Over 1,300 technical and Administrative Staff
Over 400 Student Tutors

WHO WE ARE

Founded in 1806 by Ferdinand III, of the Bourbon royal family which ruled over the Kingdom of Naples and the Two Sicilies, who made Accademia Panormitana degli Studi a University, now UniPa, ours is a huge campus with a vocation evenly divided up between teaching, research and third mission. The current educational programme consists of 157 courses of study ranging from undergraduate Degrees to Single Cycle Master Degrees and specialisation Degrees, 34 specialisation schools and 31 research doctorates.

The courses on offer cover vast fields of knowledge and combine tradition and experience with a constant openness to innovation, to the job market and to social inclusion.

A number of eminent figures carried out activities at Palermo University: the President of the Republic, Sergio Mattarella, astronomer Giuseppe Piazzi, chemist Stanislao Cannizzaro, architect Giuseppe Venanzio Maruaglia and Nobel Prize for Physics winner Emilio Segrè. Giovanni Falcone and Paolo Borsellino and Francesca Laura Morvillo, have also studied at UniPa.
FROM UPPER SECONDARY SCHOOL TO THE UNIVERSITY SYSTEM

COURSE OF POST HIGHER SECONDARY SCHOOL STUDY

3 YEAR
BA/BSc
180 ECTS

2 YEAR
MA/MSc
120 ECTS

FIVE YEAR SINGLE CYCLE
MA/MSc
300/360 ECTS

SPECIALISATION SCHOOL

LEVEL 1 AND 2 MASTERS
Who can help me in my choice of university?

The Student Assistance and Guidance Desk offers information and assistance on the University’s educational programme, the guidance services designed to help them choose a subject, COT’s services, the enrolment process, selections, post graduate educational opportunities and career openings. A special help desk gives parents a place to find out more, ask questions and think about university choice related issues in order to support their children in their educational and career decisions.

Advice and tutoring for international students

The International Student Assistance and Guidance Desk for both EU and non-EU students, is designed to be students’ first help desk for information, guidance and support, especially in adapting to a different cultural context in which difficulties in fitting into the University world can emerge.

The desk assists students in the process of validating foreign qualification for University enrolment purposes. Support is also available for residence permit application/renewal paperwork and with any bureaucratic problems which non-Italian citizens may encounter.

How to use services:

Sessions can be in-person, at the COT offices, or online on the Microsoft Teams platform.

To book an advice and guidance session (both Italian and non-Italian students) in online mode:

www.unipa.it/strutture/orientamento/booking.html

To book an in-person introductory and guidance session, contact:

- for Italian students 091.23863206 or orientamento@unipa.it
- for international students 091.23865505 or internationalstudents@unipa.it

Who can help me choose what to study?

Palermo University’s Guidance and Tutoring Centre (COT) implements and promotes guidance, advice and information giving work both in-presence and in online mode for:

- Students in the last three years of their upper secondary school studies, with a view to providing them with an in-depth understanding of Palermo University’s educational programme;
- international students, including to help them with the required paperwork;
- teachers and parents of upper secondary school students to introduce them to the University and its educational provision and services;
- promoting the University’s educational programme and the services available to students;
- helping students decide which programme to enrol on;
- reinforcing the school-university partnership.

www.orientamento.unipa.it
UniPa guidance. The online guidance conferences and platforms for upper secondary school student are designed for young people in the final years of secondary school to offer an overview of University of Palermo and an academic basics. The themes dealt with: the educational programme; the way the Degree programme departments are organised; the university education credits system (ECTS) and additional requirements (OFAs); how to enrol on programmes; study abroad opportunities; students services and subsidies. The purpose of the online platform is to guide students in the programme of study choices via self-assessment and consideration of their interests and motivations.

How to use the service:
Sessions can be in-person, at the COT offices, or online on the Microsoft Teams platform.
To book an individual university guidance service in online mode:
access the following on line booking link:
www.unipa.it/strutture/orientamento/booking.html
To book an in-person introductory session, contact:
091.23863206 or orientamento@unipa.it

Individual advice sessions are designed to help students choose a course of study and consist of two stages: the testing room (collective aptitude and academic/careers tests) and an individual session with a counsellor to help students to take responsible educational and careers decisions.

How to use the service:
Sessions can be in-person, at the COT offices, or online on the Microsoft Teams platform.
To book an individual university guidance service in online mode:
access the following on line booking link:
www.unipa.it/strutture/orientamento/booking.html
To book an in-person introductory session, contact:
091.23863206 or orientamento@unipa.it

www.unipa.it/strutture/orientamento/studenti/Test-di-orientamento-Consulenza-individuale/
www.unipa.it/strutture/orientamento/studenti/Percorso-di-Orientamento-online-UniPaOrienta/
Programme choice guidance for year 3 students

GUIDANCE WORKSHOP

www.unipa.it/strutture/orientamento/studenti/III-anno/

The programme for year 3 students is designed to stimulate students to think about their interests and attitudes to future employment and the course of study this requires, in small groups.

How to use the service:
To book online conference and guidance services contact COT staff on 091.23863206 or email orientamento@unipa.it.

Programme choice guidance for year 4 students

GUIDANCE TRAJECTORY

www.unipa.it/strutture/orientamento/studenti/IV-V-anno/

This guidance is designed for students in the fourth year of secondary school and involves small group work both on and off line by guidance experts with the goal of stimulating them to think about their education and careers. Educational credits can be awarded to students for this, on agreement with schools.

How to use the service:
To book Dreams of the future services contact COT staff on 091.23863206 or email orientamento@unipa.it.
Pathways for Transversal Skills and Orientation (the former School-Work Programmes) for students in the last three years of upper secondary school take place at University of Palermo’s workshops and venues and are designed to focus on personal vocation, interests and individual learning styles.

For further information on the activation procedure and the trajectories offered, call 09123865512 or email orientamento@unipa.it.

A useful link to download the paperwork required for such partnerships with UniPa:

University Preparation Courses for Schools supply students in the last two years of upper secondary school with the foundations required for enrolment on University programmes. These take place regularly at school institutions on agreement between universities and schools.
How to pass entrance tests workshop
Lasting approximately two hours, this workshop analyses selection processes, bureaucratic elements and useful strategies for entrance tests. It also provides case studies to help students manage and understand the difficulties involved in tests.

How to study at UniPa: from school to University workshop
The workshop is designed to support the school-university transition, giving students insights designed to help them organise their studies and find the determination and motivation required to take on the new educational challenges before them.

Preparation courses
Entrance test preparation courses consist of 30 hours of lessons and exercises designed to develop students’ knowledge of the individual subject areas tested.

The subject areas covered are: Biology, Chemistry, Physics, Logic and General culture, Mathematics.

The courses are taught by University lecturers and are free of charge.

There are two sessions:
• winter (January - April) with afternoon lessons;
• summer (July-August) with full day intensive lessons.

Entrance test simulations
Lasting two hours, entrance test simulations measure students’ knowledge levels relative to the subjects of the tests to enable them to plan a learning trajectory and fill in any gaps they may have.
UNIPA GUIDANCE EVENTS

The Guidance and Tutoring Centre (COT), in partnership with the departments, organises information and guidance events on Bachelor Degree courses, Master Degree Single Cycle courses and Master Degree courses, services available to students, university facilities and job opportunities made available by the university both during and after university.

INFO SERVICE ACCESS METHODS:
- eventietest.cot@unipa.it
- +39 091 238 65503
- +39 091 238 65502

SUMMER AT COT
Activities for prospective students and their parents take place in the summer to support future students and their families in their important university programme decisions. Initiatives encompass information on programmes, time frames and enrolment methods, guidance and access test workshops and simulations.

WELCOME WEEK
For fourth and fifth year secondary school students, head teachers, teachers and parents. Every year Bachelor Degree courses and Master Degree Single Cycle courses are presented at the event.

WELCOME DAY MASTER DEGREE COURSES
Initiative designed for undergraduates and graduates. Every year Master Degree courses are presented at the event.

OPEN DAYS IN UPPER SECONDARY SCHOOLS
The Guidance and Tutoring Centre (COT) takes part in events organised by upper secondary schools to promote and present the university’s educational programme and the services offered to students.

GUIDANCE SALONS
COT takes part in salons on invitation by organisers to present the university’s programme and student services.

DEPARTMENTS’ OPEN DAYS
University of Palermo Open Days are organised by its departments for upper secondary school students with guidance and cultural insight activities. The Open Days give school students the chance to find out more about the university’s workshops, visit its museums, collections and exhibitions, take part in university lessons and meet university lecturers and students.
I’ve enrolled. What happens next?

University of Palermo’s Guidance and Tutoring Centre organises a series of initiatives for students designed to:

- facilitate their transition from school to university;
- foster student learning via the acquisition of a personalised study method, helping them to overcome the obstacles they may encounter in passing university examinations;
- support Italian and foreign students at times of personal difficulty, including in interpersonal relations, with the potential to impact negatively on their academic performance.

**Personalised study methodology consultancy**

For students who are falling behind in their exams, not sitting exams, those who are working and newly enrolled students, this service is designed to help students struggling and falling behind as a result of slow learning and, potentially, exam failures due to inadequate study methods. Sessions are carried out by study methodology experts and can be either in-person or online (booking required).

**Educational tutoring**

Educational tutors, PhD students and specialisation Degree students help undergraduates to improve their subject-related learning with exercises and in-depth workshops. These are course programme support activities. They are also available in online learning mode (booking required).

**Guidance and Tutoring Desks (SOT)**

Managed by senior students, for the purposes of setting up departments’ educational and managerial organisation to foster active involvement in university life via guidance and assistance.

**How to use the service:**

To book online conference and guidance services contact the COT staff on 091.23865515 or email tutorato.cot@unipa.it.
The psychological counselling service is free of charge and provided by University of Palermo’s Guidance and Tutoring Centre. Students can make use of psychological counselling services with a psychologist to help them cope with any difficulties, problems and uncertainties which may emerge during their time at the university. The objective of the service is to supply a listening, supportive space in which to think about and clear up personal, interpersonal and family matters and identify coping strategies to use at times of difficulty. Students are helped to gain an understanding of emotional requirements, events and experiences seen as problematic and elaborate these, learning how to overcome hurdles in their own way.

Psychological counselling is designed to play a fundamentally important role in preventing and treating student psychological malaise. Its objectives encompass fostering student adaptation to the university organisational framework, facilitating and promoting psychological wellbeing, autonomy processes and individual and interpersonal responsibility. Sessions can involve personal or group psychological support. This latter is especially suitable to fostering focus and problem visualisation and activating change by dialogue and mirroring with others. Where individual sessions are concerned the service prioritises the short term, from a few to a maximum of ten approximately 40 minute sessions. With group work the service offers fortnightly medium to long term sessions.

The service covers all students at the university, the central Palermo and Trapani, Agrigento and Caltanissetta campuses as well as students on transfer. Sessions can be in-presence, at the COT offices, or online on the Microsoft Teams platform. Psychological support is covered by professional secrecy regulations as regards both contents and the implementation of the service itself. It is available in both Italian and English. Students can request psychological counselling services from: counsellingpsicologico.cot@unipa.it Requests are processed in around 5-7 days.
SUMMARY

STUDENT ASSISTANCE/ PARENTS’ DESK*
*booking required
Monday/Wednesday/Friday 9 am to 1 pm, Tuesday 3-5 pm
www.unipa.it/strutture/orientamento/studenti/
091 238 63206 orientamento@unipa.it

INDIVIDUAL CONSULTANCY/CONFERENCES/GUIDANCE WORKSHOP*
*booking required
Monday/Wednesday/Friday 9 am to 1 pm, Tuesday 3-5 pm
www.unipa.it/strutture/orientamento/studenti/
091 238 63206 orientamento@unipa.it

SCHOOL-UNIVERSITY TRANSITION GUIDANCE TRAJECTORIES*
*booking not required
Monday/Wednesday/Friday 9 am to 1 pm
www.unipa.it/strutture/orientamento/studenti/scuola---universit/
091 238 65512 orientamento@unipa.it

PSYCHOLOGICAL COUNSELLING*
*booking required
Monday/Tuesday/Thursday/Friday 9 am to 1 pm Tuesday/Thursday 2-5 pm
www.unipa.it/strutture/orientamento/counselling-psicologico/
091 238 65518 / 091 238 65544 counsellingpsicologico.cot@unipa.it

TOWARDS UNIPA
How to pass entrance tests workshop*
How to study at UniPa: from school to university workshop*
Preparation courses*
Entrance test simulations*
*booking required
Monday/Wednesday/Friday 9 am to 1 pm
www.unipa.it/strutture/orientamento/preparazione-alle-prove-daccesso/
eventitetest.cot@unipa.it
+39 091 238 65503
+39 091 238 65502

UNIPA GUIDANCE EVENTS
www.unipa.it/strutture/orientamento/eventi/
eventitetest.cot@unipa.it
+39 091 238 65503
+39 091 238 65502

ASSISTANCE AND TUTORING DESK FOR INTERNATIONAL STUDENTS*
*booking not required
Monday/Wednesday/Friday 9 am to 1 pm, Tuesday 3-5 pm
www.unipa.it/strutture/orientamento/studenti-stranieri/
091 238 65505 internationalstudents@unipa.it

METHODOLOGY AND TUTORING*
*booking required
Monday/Wednesday/Friday 9 am to 1 pm
www.unipa.it/strutture/orientamento/metodologia-e-tutorato/
091 238 65515 tutorato.cot@unipa.it

www.orientamento.unipa.it
www.facebook.it/orientamento.unipa.it
www.unipa.it/strutture/orientamento/booking.html

These are free-of-charge sessions with guidance experts in distance or in-presence mode:
GUIDANCE AND TUTORING CENTRE (COT)
Viale delle Scienze / Building 2 / 2nd floor / Palermo
tel. 09123865500

www.unipa.it/strutture/orientamento/studenti/
What career opening assistance is available to me?

www.unipa.it/placement placement@unipa.it

PLACEMENTS AND CONTACTS WITH FIRMS
The service organises activities and events in partnership with Italian and international firms which can help undergraduates and graduates reduce the transition time between qualifying and getting a job.

FRONT OFFICE FOR UNDERGRADUATES/GRADUATES AND FIRMS
Information giving service designed to familiarise students and firms with the university’s placement services (access methods, activities, initiatives), current opportunities (hiring incentives, selections, regional and national programmes fostering employment) and, in particular, how to enrol and make use of the university’s job bank, Almalaurea.

ALMALAUREA: THE UNIVERSITY’S JOB BANK
Services fostering the meeting between job demand and supply. Firms can post job offers/internships, view CVs and get in touch with candidates. Graduates can fill in and update their CVs, view job/internship offers and apply.

RECRUITING DAYS AND CAREER DAYS
Events at which undergraduates and graduates can make contact with general and human resource managers at participating firms.

HIGHER EDUCATION APPRENTICESHIPS (PROMOTION AND SUPPORT)
Employment contracts designed to foster university education and youth employment.
EXTRA-CURRICULAR INTERNSHIPS

The service gives undergraduates and graduates the tools and assistance they need for gradual insertion into the world of work:

- co-ordinating and promoting the realisation of extra-curricular internships at a range of firms, public bodies, professional studios and associations in Italy and abroad;
- facilitating the meeting between supply and demand for extra-curricular internships via the Almalaurea platform; verifying access pre-requisites; managing the internship activation procedure.

www.stage.unipa.it  stagextra@unipa.it
THE DIGITAL UNIVERSITY

COMPUTERISED TESTS
entrance tests for local fixed place graduate courses

PAGOPA AND SPID SYSTEMS
introduced by the Italian digital agency (AGID) these allow students to enrol from an internet terminal

WI-FI COVER
the university’s own system, in constant improvement with investments to optimise services

UNIPA-ISEE ENROLMENT/REGISTRATION
To enrol at UniPa and pay the correct university fees, it is IMPORTANT that students have a valid ISEE (equivalent economic status indicator) form to upload onto the portal at the time of enrolment.

DIGITAL LIBRARY
a vast collection of electronic resources

THE NEW MYUNIPA APP
an app which acts as a digital tutor, guiding students through the various phases of their university career

DIGITAL REGISTRATION
of the final exam with automatic qualification issue

14:00 - Note
FINANCIAL SUBSIDIES

Regional Right to Study Body/ERSU

- study bursaries and extraordinary subsidies (monetary contributions);
- residential services (beds at the university halls of residence for non-local students);
- canteens (meals at the university canteens);
- cultural services (monetary contributions for the purchase of theatre subscriptions and/or for foreign language courses).
DIFFERENTLY ABLE
STUDENT SERVICES

The differently-abled operational unit offers services to support differently-abled students right from the entrance test and throughout their studies. Interested students can make use of the following services:

• study tutoring;
• personal assistance;
• transport and assistance;
• communication and sign language assistance;
• entrance test assistance;
• additional mobility bursaries for disabled students taking part in the Erasmus programme, in conjunction with the operational unit international mobility policies;
• access to technical equipment and specific educational subsidies;
• specific support for students with specific learning disabilities requiring the presence of specialist operators for consultancy and assessment of the action required to support the learning of students with specific learning disabilities;
• study bursaries and extraordinary subsidies (monetary contributions);
• residential services (beds at the university halls of residence for non-local students);
• canteens (meals at the university canteens);
• cultural services (monetary contributions for the purchase of theatre subscriptions and/or foreign language courses).

www.unipa.it/amministrazioni/direzionegenerale/serviziospecialispecialitadidatticagiustudenti/u.o.abilitadiverse/servizi-per-studenti-disabili/
INTERNATIONAL PROGRAMMES

International Student Mobility

UniPa offers students the chance to study abroad, within the European Union and outside it under the aegis of the following programmes:
- Erasmus+ for study and internships;
- Joint Degrees;
- Integrated study programmes;
- Visits.

Erasmus+ for Study
This programme allows students to do part of their studies abroad – from two to twelve months – in European or non-European countries. Under Erasmus+, students can attend courses, sit exams, do internships, prepare theses and obtain recognition of all this.

Erasmus+ for Traineeship
The programme allows undergraduates and new graduates to perform educational internships lasting from two to twelve months at firms and education and research centres in a participant nation.

Joint Degrees
The programme allows students to acquire two Degrees, one issued by their own university and the other by a foreign partner. Selected students can take part of their studies at a partner university on the basis of a shared programme of study and at the end of their studies they will be entitled to two Degrees or a single joint qualification.

Integrated study programmes
Agreements between University of Palermo and one or more foreign universities enables students to study for part of their Degrees at their own university and part of it at partner universities. It applies to all students enrolled at EU or non-EU universities and lasts a minimum of three months for a minimum of 15 ECTS.

Visiting
The programme promotes voluntary participation on international mobility programmes outside specific partnership agreements too. If their period of study at foreign partner institutions is accepted students must contact a lecturer within their Degree course who can tutor them for their period abroad and agree and sign a specific learning agreement specifying all the subjects to be studied abroad and the Italian subjects they correspond to and in which the credits will be validated.
University of Palermo’s special services include its library system and university history archive (SBA) which comprises 19 libraries with 36 service points, 2 regional campus libraries with 4 service points (Trapani, Marsala, Agrigento), the history archive and the liaison offices.

The university libraries offer access to study environments, large bibliographical printed and digital collections and services.

From the library portals it is possible to:
- check the opening hours, contact details and location of the university's libraries
- access its collections, use its bibliographical research tools to find out whether a work is available for consultation and lending, access the services offered both on site and online and find out about service access procedures and use methods.

On the Libraries in your Pocket App, accessible from MyUniPa, you can:
- locate libraries
- check seat availability and book your seat online in real time
- check opening times, events and news
- do bibliographical research in the online catalogue, the Discovery service and MLOL, the ebook, newspaper and periodical digital lending platform
- book and renew loans online
- access services and digital collections
- request information from the librarians by phone, email and chat

The University’s language centre / CLA
- language labs;
- language tests;
- language certifications;
- participation in Erasmus+ On-line Linguistic Support, e-learning course for various languages (Rosetta Stone);
- Open Badge language certification.

Partnership with the British Council for IELTS certification.

Italian as a foreign language school / ITASTRA
- teaching, consultancy and research in the field of Italian as a second and foreign language field.
UNIVERSITY SPORTS CENTRE / CUS

The University Sport Centre (CUS) offers University of Palermo students a multiplicity of services designed to combine their studies with free time, exercise and wellbeing.

- a large heated outdoor pool;
- courses in various disciplines such as fitness, indoor cycling, tennis, Caribbean dance, Argentinian tango and yoga, etc.
- discounts of at least 50% for students off prices paid by external members.

HEALTH

University Medical Centre / AMU

The University Medical Centre was the outcome of a Palermo University initiative in partnership with the Azienda Ospedaliera Universitaria Policlinico "Paolo Giaccone", to offer free medical consultancy services in various fields to the university’s undergraduates, doctoral students, specialisation Degree students, postdoctoral researchers and bursary holders.

It offers free outpatient services and specific services (medical and psychological).
TRAINING OFFER

2023/2024

- PHYSICS AND CHEMISTRY - EMILIO SEGRÈ
- MATHEMATICS AND INFORMATICS
- AGRICULTURAL, FOOD AND FORESTRY SCIENCE
- EARTH AND SEA SCIENCES
- BIOLOGICAL, CHEMICAL AND PHARMACEUTICAL SCIENCES AND TECHNOLOGIES
- THE SCHOOL OF MEDICINE AND SURGERY
- BIOMEDICINE, NEUROSCIENCES AND ADVANCED DIAGNOSTICS
- SURGICAL, ONCOLOGICAL AND STOMATOLOGICAL STUDIES
- HEALTH PROMOTION, MATERNAL-CHILD, EXCELLENCE INTERNAL AND SPECIALIST MEDICINE “G’D’ALESSANDRO”
- ARCHITECTURE
- ENGINEERING
- CULTURES AND SOCIETIES
- PSYCHOLOGICAL, PEDAGOGICAL, EXERCISE AND TRAINING SCIENCES
- HUMANITIES
- LAW
- ECONOMICS AND STATISTICAL SCIENCES
- POLITICAL SCIENCES AND INTERNATIONAL RELATIONS
## PHYSICS AND CHEMISTRY

Emilio Segrè

www.unipa.it/dipartimenti/difc

### BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

<table>
<thead>
<tr>
<th>Degree Code</th>
<th>Course Title</th>
<th>Area</th>
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<tbody>
<tr>
<td>L-30</td>
<td>Optics and Optometry</td>
<td>PA</td>
</tr>
<tr>
<td>L-30</td>
<td>Physical Sciences</td>
<td>PA</td>
</tr>
<tr>
<td>LMR/02</td>
<td>Cultural Heritage Conservation and Restoration</td>
<td>PA</td>
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### MASTER DEGREE

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<tr>
<th>Degree Code</th>
<th>Course Title</th>
<th>Area</th>
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<tbody>
<tr>
<td>LM-54</td>
<td>Chemistry</td>
<td>PA</td>
</tr>
<tr>
<td>LM-17</td>
<td>Physics</td>
<td>PA</td>
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</tbody>
</table>
The three years of the course include 50 ECTS of Curricular Theoretical-Practical Internships in Ophthalmic Lenses, Optometry and Contactology. These internships are held in companies in agreement with the university, by sector professionals who transfer: theoretical and practical knowledge in specific technical subjects in optics and optometry fields together with operational and laboratory skills with particular regard to the use of the most modern instrumentation and new materials used in optics, optometry and contactology.

What can you do with it?
Graduates in Optics and Optometry have the skills required to work in both the private optics and optometry field and the public sector, both academic and industrial.

What is the objective of the course? What is it? What does it train you for?
This course of study in Optics and Optometry is a three-year Degree programme, for a total of 180 ECTS. This professionally oriented course of study in Optics and Optometry is a highly professional training course for opticians and optometrists. It is aimed both at young people wanting to enter the optometrist profession and professionals already working in the field and to study the knowledge on which their professionalism is based in greater depth and then access higher university education. Today, the field of optics and optometry is full of technological challenges in both industrial applications, as well as in the improvement of eyesight and, therefore, of human health. For this reason, this course of study also intends to train highly qualified professionals suitable for employment in industry and research thanks to skills acquired in interdisciplinary application areas such as lenses for use in astrophysics, the use of instrumentation involving microscopy and molecular spectroscopy in biophysics and biomedicine and knowledge of modern biomaterials for optics and innovative 3D printing techniques.

What do you learn?
This course of professionally-oriented studies in Optics and Optometry provides a single path whose educational activities are divided into lectures, exercises and laboratories, theoretical and practical training and internships.

- Year I: students acquire adequate basic knowledge of physics, chemistry, mathematics and computer science, as well as aspects more closely related to optician training, knowledge of geometric optics and anatomy.
- Year II: students study advanced basic physics including Modern Physics and, as regards aspects more closely related to optician training, acquire biochemistry, physiology, ocular pathology and hygiene knowledge.
- Year III: students acquire skills related to the study of the structure of matter, materials and biomaterials for optics, optical instrumentation for astronomy and molecular biophysics.

What can you do with it?
Graduates in Optics and Optometry have the skills required to work in both the private optics and optometry field and the public sector, both academic and industrial. Optics and Optometry graduates use optometric techniques to examine visual deficiencies and manufacture, repair and sell glasses and protective lenses or corrective visual impairments due to refraction directly to the public on medical prescription, use optometric instruments and characterise lens properties and develop new optical materials, manage the most complex optical and optometric equipment on the market skilfully, provide specialised technical / scientific support in the field of academic scientific research and the optical industry. In the industrial sector their competences can be employed in large optical firms and small-medium sized companies dealing with technical articles and instruments for the optical and vision sector. In the commercial sector, skills are in the areas of product development assistance at customers’ premises, after-sales service (information and training courses at customers’ premises), application and development of optical products and instruments, process control and quality control in production. In the private professional sector their skills relate to entrepreneurship, freelancing and technical professionalism in optical companies making ophthalmic lenses and contact lenses. In the public sector their skills qualify them to work as professional technicians or technologists in public research institutions, universities or research laboratories as managers of the optical instrument process and quality control process, for example.
The first year courses are: Geometry and Algebra, Calculus I, Programming Methods for Physics, Chemistry, Physics I (Mechanics, Fluids, Waves, Thermodynamics), Laboratory of Physics I (statistical analysis of data, error theory with laboratory), English language (level B1).

The second year courses are: Calculus II, Physics II (Electrostatics, Magnetism, Electromagnetism, Optics), Laboratory of Physics II (electrical circuits, laboratory exercises on topics of electromagnetism and optics), Analytical and relativistic mechanics, Numerical methods for Physics.

The third year courses are: Quantum Mechanics, Nuclear and Particle Physics, Statistical Mechanics, Structure of Matter, Astronomy, Institutions of Mathematical Methods for Physics, Laboratory of Modern Physics. The educational offer also includes the following elective courses: Complements of Classical Physics, History of Physics, Institutions of Mathematical Methods for Physics, Laboratory of Modern Physics. The educational offer also includes the following elective courses: Complements of Classical Physics, History of Physics, Institutions of Mathematical Methods for Physics, Laboratory of Modern Physics. The educational offer also includes the following elective courses: Complements of Classical Physics, History of Physics, Institutions of Mathematical Methods for Physics, Laboratory of Modern Physics. The educational offer also includes the following elective courses: Complements of Classical Physics, History of Physics, Institutions of Mathematical Methods for Physics, Laboratory of Modern Physics.

Some selected students (max 6) are also offered a Path of Excellence (24 CFU) with access to a higher level of training, which includes new, integrative or more advanced topics and methodologies through lectures, seminars, internships and an in-depth project.

What can you do with it?
The graduates typically continue in a Master Degree Course, but also enter the labour market in public/private organizations and companies, research laboratories, banks, health companies, such as Agencies for the protection of Cultural Heritage and the Environment, Laboratories for the quality certification of industrial productions, Data processing and modelling centres, High-tech companies, Services relating to medical and health physics, Companies and industries in the microelectronics, IT and optoelectronics sectors. It is an admission requisite for the exams qualifying graduates for enrollment in the recently established register of chemists and physicists.
CULTURAL HERITAGE
CONSERVATION AND RESTORATION

(QUALIFYING PURSUANT TO LEGISLATIVE DECREES 42/2004)

CLASS LMR/02
CAMPUS Palermo
TYPE OF ACCESS Planned
SEAT OF INTERNATIONAL AGREEMENTS
Atene (GR)
Lisbona (PT)

What is the objective of the course? What is it?

What does it train you for?

This course of study in Cultural Heritage Conservation and Restoration is a Master Degree Single Cycle requiring a total of 300 ECTS. LMR/02 Master Degree Single Cycle graduates are capable of autonomous operational decision-making, identifying the state of conservation of historical and artistic artefacts and, on the basis of an interdisciplinary approach and modern restoration canons, implement maintenance, prevention and restoration work ensuring conservation over time and contextualising the artistic and cultural value of works of art. This course of study is a joint project - renewed on 21 July 2020 - with the Cultural Heritage and Sicilian Identity department via the Centro Regionale per la Progettazione e il Restauro.

What do you learn?

LMR/02 Master Degree Single Cycle graduates possess the knowledge and skills to distinguish between traditional and innovative methodologies on the basis of historic-artistic and scientific studies and interact with the various professionals working in the field of cultural heritage conservation and restoration. This course of study’s teaching staff come from six different departments: STEBICEF, DiFC, DiSTEM, Engineering, Architecture, Culture and Society.

Its practical work falls into four professional training course categories:

• PFP1 - Stone material derivatives;
• decorated architecture surfaces;
• PFP2 - Artefacts painted onto wooden and textile supports;
• Wooden furniture and statues, artefacts in worked, assembled and/or painted synthetic materials;
• PFP3 - Textile and leather materials and artefacts;
• PFP5 - Book and archive materials, paper artefacts, photographic, film and digital materials.
• Cultural Heritage Department institutions working in conservation and protection (archives, libraries, museums and superintendencies);
• Public and private research institutions and bodies working in the cultural heritage conservation and restoration fields;
• Professional sector firms and organisations.

In December 2018, thirteen Unipa Master Degree students were hired on permanent contracts as qualified restorers at Cultural Heritage Department institutions across Italy.

What can you do with it?

The course is qualifying for the profession of Cultural Heritage Restorer pursuant to legislative decree no. 42/2004.

Potential career openings are:

• Restoration workshops and firms;
What is the objective of the course? What is it? What does it train you for?

The Master Degree in Chemistry is a two-year programme accessible to students possessing a Bachelor Degree in Chemistry or any other Degree provided that 60 credits have been acquired in the following fields: Maths and Physics (12), General and Inorganic Chemistry (12), Organic Chemistry (12), Physical Chemistry (12) and Analytical Chemistry (12). The types of knowledge and skills that the student will acquire through the Chemistry Master Degree programme include thorough knowledge of research-related topics in the main four chemical disciplines (Inorganic, Physical/Theoretical, Organic, and Analytical Chemistry) and a good level of independence to work as a researcher in an academic or industrial laboratory. The Master Degree in Chemistry includes 190 hours of laboratory experience, 75 hours of professional traineeship and 850 hours of experimental thesis development in a research lab. At the end of the programme the Chemistry Master Degree graduate can access the state exam to become a senior professional chemist and register with the Professional Order of Chemists, access PhD programmes in scientific or technological fields or be employed by the public or private sector entities in areas where chemical competence is needed.

What do you learn?

Master Degree in Chemistry students will learn about the most advanced concepts and techniques required to study and resolve complex problems in the various fields of chemistry. Apart from mandatory courses such as Theoretical Chemistry, Supramolecular Chemistry, Spectroscopy, and Advanced Inorganic and Analytical Chemistry, the programme can be arranged with flexible personalized curricula where the student can choose from optional courses including Green Chemistry, Materials Chemistry, Environmental Chemistry and Chemistry Teaching Methodologies. Additionally, through practice sessions in research laboratories, Master Degree in Chemistry students will benefit from an extensive training-by-doing program during which they will solve problems of real research.

What can you do with it?

Master Degree graduates in Chemistry can find employment as:

- Chemical researcher in the industrial field;
- Self-employed professional chemist;
- Senior Chemical Staff in public or private laboratories;
- Academic researchers (requires PhD);
- Research manager in industrial R&D facilities;
- Junior-high and High-school teacher of scientific courses.
What is the objective of the course? What is it?

The course has the dual objective of completing and developing the student’s basic preparation in Physics and preparing Master Degree graduates for their entry into the job and research markets. The Master Degree Course in Physics in particular aims to provide the student with:

• the knowledge and ability to enter the world of research, knowledge that can subsequently be developed in PhD courses;

What does it train you for?

• the ability to promote and develop scientific and technological innovation, to manage technologies in areas related to physical disciplines in the sectors of industry, the environment, health, cultural heritage, and public administration.

What do you learn?

The course is structured in compulsory courses, which aim to complete the basic physics preparation, and optional courses aimed at providing graduates with specific skills in one of the following fields of physics: astrophysics, biophysics, physics of materials, physics of complex systems, theoretical physics. The courses take place in the two semesters of the first year and the first semester of the second year. Instead, in the second period of the second year the student prepares their Master Degree thesis, addressing original research problems in one of the research groups of the Department of Physics and Chemistry or even at universities or research institutions abroad.

What can you do with it?

The main areas of employment are:

• scientific research at universities and research institutions;
• the development and management of instrumentation and laboratories in various sectors of industry (microelectronics, optoelectronics, telecommunications, information technology, space, biomedical, optics), the environment, health, cultural heritage and public administration;
• the creation and use of complex reality models in the financial and socio-economic fields.
• teaching and dissemination of scientific culture with particular reference to the various theoretical, experimental and applicative aspects of classical and modern physics.
MATHEMATICS AND INFORMATICS

www.unipa.it/dipartimenti/matematicaeinformatica

BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

<table>
<thead>
<tr>
<th>Code</th>
<th>Degree</th>
<th>Field of Study</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>L-31</td>
<td>PA</td>
<td>Computer Science</td>
<td></td>
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<tr>
<td>L-31</td>
<td>PA</td>
<td>Artificial Intelligence</td>
<td></td>
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<tr>
<td>L-35</td>
<td>PA</td>
<td>Mathematics</td>
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MASTER DEGREE

<table>
<thead>
<tr>
<th>Code</th>
<th>Degree</th>
<th>Field of Study</th>
<th>Type</th>
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<tbody>
<tr>
<td>LM-18</td>
<td>PA</td>
<td>Data, Algorithms, and Machine Intelligence</td>
<td></td>
</tr>
<tr>
<td>LM-40</td>
<td>PA</td>
<td>Mathematics</td>
<td></td>
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</tbody>
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What is the objective of the course? What is it?

The goal of the Degree Program in Computer Science (CS) is to provide the student with knowledge, methods and techniques for the development of computer systems and applications. The two sides of computer science (applicative and theoretical) expressed in the Program contribute both to the construction of the deep basic culture that makes a graduate in CS able to understand the present world and to acquire new conceptual and technical tools in an area evolving continuously and rapidly, and which requires professionals who are capable of proposing innovative and universal solutions to new complex problems. In detail, a student in computer science:

• acquires knowledge and skills in Information and Communication Technologies (ICT), aimed at the design, development and management of ICT systems;
• becomes able to face and analyse computational problems and develop efficient algorithms for their solution;
• learns the methodologies of investigation and their applications in concrete situations, through appropriate knowledge of mathematical tools to support computing skills;
• acquires the ability to work in a team, to operate autonomously and to fit into work environments;
• acquires the cognitive tools that empower higher-level specialization;
• after graduation, will be able to contribute to the planning, design, development, estimation, testing and management of facilities and systems for the generation, transmission and processing of information, with the use of standardized methodologies.

What do you learn?

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What can you do with it?

Given the growing demand from companies for professional experts in computer science, currently a computer science graduate has no difficulty in receiving adequate job offers. In detail, a computer science graduate can access the following professions:

• Programmer technician
• Applications expert technician
• Web technician
• Data Base manager
• Technical manager of networks and telematics systems
• Software analyst and designer
• System analyst
• Junior Information Engineer (subject to passing the State Exam)
What is the objective of the course? What is it? What does it train you for?

Artificial Intelligence (AI) is an expanding scientific discipline, of great relevance and impact in the digital society, which is devoted to the study, understanding, design, and development of intelligent solutions that can replace or improve human intelligence. The number of technological applications of AI is increasing and determines the need for training professionals with specific skills who can not only understand and master the various aspects of the discipline but also use this knowledge in various application contexts. The growing need for professional experts in AI at all levels of complexity makes it necessary to offer a course of study specifically oriented towards the discipline, starting at the bachelor’s level. One of the main aspects of AI concerns how to derive knowledge from large amounts of data. The bachelor’s degree in AI trains future professionals in the field to manage complex systems on a large scale. For this, students will learn how to use specific IT models and tools and how to manage interdisciplinary aspects such as data processing from a statistical and ethical point of view. Moreover, students will also deepen specific and professionalizing aspects of the discipline, thus not neglecting the use of AI in the applications.

What do you learn?

During the three years, students will acquire knowledge on fundamental topics for artificial intelligence in the areas of mathematics, information technology, and the cognitive sciences. In particular, students will receive basic training on logical-mathematical and probabilistic tools (formalization of logical reasoning, differential and integral calculus, linear algebra, probability, and statistics) and on fundamental aspects of computer science (programming, data science, algorithmic techniques, database management, software engineering), which will allow them to deal with scientific and methodological rigor on the more specific topics of AI such as machine learning, artificial vision, search and optimization algorithms, human-machine interaction, knowledge representation, uncertain reasoning, as well as more applied topics, for example, in biomedicine. Legal and ethical knowledge is also provided to make graduates use the acquired skills more consciously. Internship activities are also planned in public bodies or private companies, to allow students to experience the use of AI in the workplace. Graduates will be able to contribute, on the basis of constantly updated interdisciplinary knowledge and skills, to design and implement innovative solutions based on AI techniques and models in both the public and private sectors.

What can you do with it?

The bachelor prepares for the professions of “Programming Technician” and “Expert Technician in Applications”. More specifically, the specific professional roles will be “Expert in Artificial Intelligence Applied to Data Analysis” and “Expert in Artificial Intelligence Applied to Interaction”. The Placement Service promotes active job searching methods by supporting graduates in developing a tailored project of professional integration, in line with their personal goals and the demands of the job market. Several meetings with the manufacturing world will be organized, not only to create direct contacts with companies interested in specific profiles but also and foremost as an opportunity to guide students in their future choices and to provide additional technical and professional experience. Graduates of the new bachelor in Artificial Intelligence will have the opportunity to complete the five-year course of study by enrolling in a master’s degree course, such as the Master’s Degree Course in Data, Algorithms, and Machine Intelligence, provided by the same Department that offers the bachelor in Artificial Intelligence.
What is the objective of the course? What is it? What does it train you for?

The Bachelor Degree in Mathematics can be obtained after three years of study and consists of 180 credits (CFU). A (non-selective) test evaluating the preliminary knowledge is to be taken after registration at the University. After the test, Additional Educational Obligations (OFA) can be assigned to the students.

The main purpose of the Degree in Mathematics is to develop the following competences:

• a firm understanding of the basic notions, and of the methods which are characteristic of the different sectors of Mathematics;
• solid skills in computational mathematics and computer science;
• the ability to efficiently use, both in written and oral form, at least one language of the EU.

What do you learn?

The disciplines that are studied during the Bachelor Degree in Mathematics are under the areas of pure Mathematics, Applied Mathematics, Didactics of Mathematics and History of Mathematics, as well as of Computer Science and Basic Physics. The English language is also studied and internships at companies and institutions are organized.

In detail, the curriculum consists of the following:

**FIRST YEAR**
- Algebra 1
- Mathematical Analysis 1

**SECOND YEAR**
- Algebra 2
- Mathematical Analysis 2
- Geometry 2
- Numerical Analysis
- Subsidiary Mathematics
- Dynamic Systems with Laboratory

**THIRD YEAR**
- Algebra 3
- Mathematical Analysis 3
- Geometry 3
- Probability Theory
- Physics 1
- Theoretical Mechanics

2 OPTIONAL COURSES (from Tables A and/or B)

**Table A**
- Elementary Mathematics from an Advanced Standpoint
- Theoretical Computer Science
- Educational Methodologies and Techniques for Computer Science

**Table B**
- Operations Research
- Financial Mathematics
- Statistics
- Financial Mathematics
- Statistics

What can you do with it?

The work areas for graduates in Mathematics are those that require mathematical and computational modelling, in industry, finance, services, scientific research, teaching, and public administration. In particular, mathematics graduates work at:

- Informatics companies;
- Banks;
- Financial companies;
- Industries;
- Services and Public administration;
- School teaching;
- Research.

Mathematics graduates can continue their education at the Department of Mathematics and Computer Science by enrolling in a Master Degree in Mathematics, and a PhD in Mathematics and Computer Science.
Data, Algorithms, and Machine Intelligence

What is the objective of the course? What is it?

What does it train you for?

The Master Degree Course in Data, Algorithms, and Machine Intelligence, delivered entirely in English, provides in-depth theoretical, methodological, experimental and practical skills in the fundamental areas of information technology. These constitute the conceptual and technological basis for the computational approach to problem solving and system design, in order to organize, manage and access information and knowledge. The course covers the fundamental topics that are in dispensable in the cultural background of a Master Degree in the sector, as well as some insights into advanced areas, such as big data processing and computational intelligence.

What do you learn?

The curriculum includes the following courses:

- Combinatorial and probabilistic algorithms,
- Big data management,
- Multisensory data exploration; Pattern discovery for the life sciences,
- Knowledge representation and reasoning; Cybersecurity,
- Information theory and data compression,
- Data encryption and codes,
- Cloud and high-performance computing,
- Complex networks,
- Artificial intelligence and deep learning,
- Machine intelligence for optimization,
- Computational econophysics.

What can you do with it?

The graduate can pursue a career as analyst or software designer in companies producing goods and services, in public or private organizations. For example, the graduate can be employed as developer, bioinformatician, software engineer, systems analyst. Technical or research positions can be sought in the areas of mathematical and information sciences, in private and public research centers, as well as in education and universities. As a senior information engineer, the graduate can be involved in the planning, design, development, testing and management of information-technology plants and systems.
What is the objective of the course? What is it? What does it train you for?

The Master Degree in Mathematics is the natural continuation of the Bachelor Degree. It includes training courses that complete and develop the acquired knowledge of mathematics. The purpose of the Master Degree is to train graduates who have a thorough knowledge of the scientific method and a solid groundwork of theoretical, methodological and applicative skills in the fundamental areas of mathematics.

During the studies, analysis and synthesis skills are developed, as well as the abilities to translate interdisciplinary problems into the mathematical language, and to identify solutions to complex problems.

What do you learn?

Besides providing mandatory teaching courses in pure mathematics, such as Algebra, Mathematical Analysis, Geometry, Mathematical Physics and history of mathematics, the Master Degree allows the graduate to choose optional teaching courses, according to their interests and to the job perspective. Knowledge in one or more sectors of pure mathematics can be favoured, also in view of the PhD Degree; or graduates might opt for focusing on the application contents of mathematics, or the knowledge of foundations of Mathematics and didactic methods, or of computer science.

What can you do with it?

Master Degree graduates in Mathematics will be able to work professionally:

- in banks, financial companies, insurance companies;
- in companies and firms working with modeling;
- in research, both at the University, enrolling in a PhD, and in other public or private research laboratories;
- in the dissemination of scientific culture;
- in the public administration.

Master Degree graduates in Mathematics can also apply, according to the current legislation, for school teaching positions.
AGRICULTURAL, FOOD AND FORESTRY SCIENCE

www.unipa.it/dipartimenti/saaf

BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

L-25 Agricultural engineering PA
L-25 Agricultural Sciences and Technologies PA/CL
L-26 Agrifood Sciences and Technologies PA
L-25 Forestry and Environmental Sciences PA
L-GASTR Gastronomic Sciences PA
L-25 Mediterranean Agricultural Systems PA
L-25 Viticulture and Oenology MARSALA/TP

MASTER DEGREE

LM-69 Precision agriculture PA
LM-3 Landscape Architecture PA
LM-69 Firm and Quality for the Agricultural and Food System PA
LM-70 Mediterranean Food Science and Technology PA
LM-69 Agricultural Productions and Technologies PA
LM-75&69 Agroengineering And Forestry Sciences And Technologies PA
LM-69 Sciences and Technologies for soil protection and conservation PA
The objective is to train graduates with specific bioengineering skills. Students have to acquire 180 university credits to graduate. The educational programme entails 19 mandatory examinations (8 credits each), an English language test, a practical-application training period in associated facilities and a final examination (oral). The Degree course is completed with 12 credits freely chosen by the student, also including English courses, and 3 credits for professional activities designed to help graduates find a job. No less than 25% of front-of-class teaching must consist of laboratory activities, practical exercises and field activities. At the end of the course, students obtain the qualification “Dottore in Agroingegneria” and, after passing the professional qualification examination, may register on Section B (Dottore Agronomo Junior) of the professional register.

The competences acquired enable graduates to tackle and solve the following issues, as junior professionals:
- first-level consultancy and design activities related to rural buildings, irrigation and drainage systems, greenhouses, cattle sheds;
- choice of food supply chain machines and plants;
- project drafts aimed at the provision of contributions for landscaping work on farms in accordance with the regional and national Rural Development Plans.

The main bioengineering fields of study focus on Agroforestry Territory and Agricultural Systems.

What can you do with it?
The Degree Program Board fosters graduates’ career openings. In particular:
- Start-ups: to conquer the market
- Entrepreneurship: to organize and manage businesses operating in rural areas
- Consulting and planning: to improve the performance of agricultural and agri-food businesses
- Public and private institutions: protecting the territory from instability
- Implementing the programs offered by the European Union (Rural Development Plans Sicily 2014-2020, etc.): to improve the quality of life in rural areas
- Public administrations: at the service of the community
- Private practice: to participate in multidisciplinary work teams
- Registration in Section B of the Professional Register of Agronomist and Forestry Doctors (Junior Graduate) after passing the professional qualification examination
- Continuation of studies is guaranteed in the Master Degree Course in Agroengineering and Forestry Sciences and Technologies.
What is the objective of the course? What is it?

This Degree course provides knowledge and skills for the agricultural sector, covering topics such as: management and defence of plant and animal productions; processing and marketing of agricultural products; implementation of rural development policies; management of agricultural businesses; valuation of land assets.

What does it train you for?

The Degree course is divided into two curricula:

• Agricultural sciences and technologies, (also held in Caltanissetta) This provides a multidisciplinary scientific background for managing agricultural production systems that promote the economic development of the rural environment.

• Organic farming: this prepares graduates, developing multidisciplinary skills for managing organic farms.

What do you learn?

Graduates acquire foundational knowledge in the areas of preparatory and professional subjects including agronomic principles, cultivation techniques, agricultural crop and livestock health, in order to understand the processes of production, transformation and marketing of agricultural products, obtained under both a conventional and organic management regime. In addition, students will learn the principles of agricultural economics, rural development policies, tools for valuing land assets, how to design and evaluate crop systems. They will also acquire the knowledge necessary for the technical-economic management of farms and processing enterprises.

What can you do with it?

In addition to continuing their studies, graduates can find employment in public and private companies that operate in agriculture as well as work as freelance professionals by enrolling in the Professional Register of the Order of Agronomists and Foresters (Sec. B) as a Junior Agronomist. In addition to self-employment, other job opportunities include working for public entities, international institutions and in public and private research organizations.
What is the objective of the course? What is it? What does it train you for?

The Degree Course aims, with a view to protecting the quality and typicality of food, to train qualified personnel capable of carrying out technical tasks in the management and control of the processing, conservation, distribution and marketing of food and beverages. They will also be capable of reconciling economy and ethics, as well as intervening with measures to guarantee the safety, hygiene, quality and wholesomeness of food, and to reduce waste and the environmental impact. The specificity of this course lies precisely in training a figure equipped with a complete ‘from field to fork’ vision, capable of integrating the most specific skills of the food technologist with fundamental knowledge elements of the primary production system - vegetable, animal and fish - and with the aspects related to the consumption and quality, nutraceutical, functional and gastronomic, of food.
What is the objective of the course? What is it? What does it train you for?

This Degree course aims to provide an in-depth knowledge of the forestry and pre-forestry systems, and their wood and non-wood ecosystem services.

Forests are: fundamental actors for the protection of the environment against hydrogeological instability, a basin of biodiversity and a defence against climate change. Graduates will be able to perform out-forest measurements and qualitative-quantitative analyses on forest stands. They will acquire the knowledge of forestry and economic valuation required to carry out professional activities such as planning and management of forests, protected areas, valuating forest goods and services. For graduation students must acquire 180 credits in 19 compulsory exams (8 ECTS each), pass a foreign language test, take a selection of activities (12 ECTS) also including English courses and an internship (3 ECTS) for vocational activities useful for insertion in the world of work. The 25% of front-of-class teaching consists of laboratory activities, practical exercises, and field activities. After graduation, students obtain a Bachelor Degree in Forestry and Environmental Sciences and, after sitting an examination, can enrol on section B (Junior Forest Doctor) of the Italian professional Order of Agronomists and Foresters.

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What do you learn?

Students acquire a knowledge of mathematics, chemistry and plant biology as a base from which to understand the morphology, anatomy and physiology of plants. From this basis they will be taught the taxonomy, diagnosis of the main plant diseases and the possible defences against them, for economic-estimation with specific reference to forest systems. Moreover courses cover cartography, the area of machines used and the risk factors in their use, hydraulic-forestry assets and the erosion and conservation of soils. The Forestry specific items include Forest ecology, Silviculture, Forest Mensuration, Forest Planning and Management and Forest Mechanisation.

Graduates will be able to address, resolve and manage the following aspects within the forestry and pre-forestry system:

• Sustainable management and enhancement of forest and environmental heritage;
• Forests and environmental assessments;
• Defence of the woods and the environment from biotic and abiotic adversities;
• Defence of the territory through hydraulic-forestry arrangements;
• Policies and programmes funded by the European Union for the use of economic resources for the environment and forest habitat.

What can you do with it?

The natural progression of studies continues with our Master Degree Courses in Agroengineering and Forestry Sciences and Technologies.

Professional opportunities:
• Start up: a way to conquer the market;
• Entrepreneurship: to manage companies operating in mountain, forest and pre-forest territory;
• Consultancy and planning: to improve business performance and develop green paths;
• Public and private institutions: to take care of safeguarding and protecting the territory and enhancing natural resources;
• Implementation of EU programs: to help improve the quality of the environment in rural and forest areas;
• Public administrations: at the service of the community;
• NGO: serving the environment;
• Professionals: also in multidisciplinary work teams.
What is the objective of the course? What is it? What does it train you for?
The Degree Course in Gastronomic Sciences aims to train the professional figure of the Gastronome. The Gastronome is able to manage the food and wine peculiarities of the territory and promote them by identifying opportunities and conveniences; moreover, he is a professional capable of analyzing food and wine systems consisting of the processes of production, transformation, and consumption of food, within the framework of knowledge also of aspects related to historical, artistic, environmental, social, biological and nutritional components.

The figure of the Gastronome takes on a crucial role particularly in Italy, a country where the agri-food sector is a key sector of the economy and invests heavily in promoting its typical products. In fact, of the more than 3 thousand PDO, PGI, and TSG products existing in Europe, more than 800 are Italian. In addition, the Degree Course in Gastronomic Sciences aims to promote and enhance the Mediterranean Diet, which has been recognized by UNESCO as an intangible cultural heritage of humanity.

What do you learn?
The graduate in Gastronomic Sciences acquires highly professionalizing knowledge, methodologies, and techniques with specific reference to the food and wine sector in order to practice the profession of Gastronome. As part of the degree program, one learns about the basic scientific, technical, and nutritional aspects of food and the development of historical, anthropological, and psychological skills related to the world of food.

The Gastronomic Sciences graduate matures an empirical knowledge of the Gastronomic Sciences through a structured program of educational trips, internships, and apprenticeships with national and international destinations.

What can you do with it?
The employment potential of the professional figure of the graduate in Gastronomic Sciences is manifold and ranges from the world of production (production, processing, conservation companies in the agri-food sector) to the world of distribution (small and large-scale food distribution, including e-commerce, mass catering, and catering) including companies in the world of gastronomy (restaurants, stores, wine shops, etc.).

Given the skills of the professional figure, communication activities (media, advertising sector, promotion of the territory and the food and wine supply chain) and collaboration with national and international institutions, governmental and non-governmental, operating in the fields of agri-business, nutrition, and development of the territory and tourism are also among the possible employment outlets. The graduate in Gastronomic Sciences can enroll in Master’s and Master’s degree programs at the undergraduate level.
What is the objective of the course? What is it? What does it train you for?

The degree Course in Mediterranean Agricultural Systems aims to address the areas of primary production (plant production and animal production) from a supply chain perspective within the Sicilian territory and the areas that fall within the Mediterranean basin, which are characterized by a strong environmental fragility and also as a function of climate change. In fact, operators in the agricultural sector will increasingly have to deal with the demands and rules dictated by large-scale organized distribution, current food safety regulations, and changes in lifestyles and consumption. All this requires the training of professionals who have a full awareness of the use of nonrenewable resources and the greater efficiency of the technical means that agronomic sciences make available and, therefore, to use them to guarantee the agricultural entrepreneur and the final consumer in line with the main international standards of quality certification of production processes and in compliance with the principles of sustainable development reported in Agenda 2030 and the European green deal.

What do you learn?

Undergraduate training in Mediterranean Agricultural Systems meets the need to train graduates capable of dealing with aspects related to primary production (plant and animal production) in a context of great environmental fragility that characterizes the hot-arid environment of the Mediterranean. The Degree Course in Mediterranean Agricultural Systems aims to train an expert capable of introducing adaptation strategies (use of unconventional water, use of agronomic techniques for maintaining and improving soil fertility) to continue to ensure the presence of agricultural crops that are strongly characteristic of the Mediterranean basin and to introduce others, such as tropical and sub-tropical plant species in a supply chain perspective.

What can you do with it?

In a context where the demand for food safety and quality of the environmental system is increasingly pressing, the new professional figure of the junior agronomist in Mediterranean Agricultural Systems has skills on the full awareness of the use of nonrenewable resources and the greater efficiency of the technical means that agronomic science allows and, therefore, to use them to guarantee the agricultural entrepreneur and the final consumer in line with the main international standards of quality certification of production processes. The graduate in Mediterranean Agricultural Systems can enroll in Bachelor’s and Master Degree programs at the undergraduate level. Registration in the Professional Register of Agronomists and Foresters, Section B (Junior Graduates) is expected after passing the State Examination for qualification to the profession.
Moreover, other issues explored include oenological technologies, chemo-physical, sensorial and microbiological analyses, industry regulations, business economics and marketing, development and management of plants and wine products.

What can you do with it?
Graduates in viticulture and oenology will be qualified oenologists, and they can carry out the profession both in Italy and in the EU, in the following areas:

- management, administration and consultancy in wineries for the planting and management of the vineyard;
- production and processing of grapes and derived products;
- marketing, communication and promotion of wine products;
- microbiological, chemo-physical and sensorial analyses of grapes, musts and wines for quality control and for the enhancement of the nutraceutical constituents of the products;
- refinement, conservation, and bottling of wines;
- registration in the Professional Order of Agronomists as a “Junior Agronomist” after the qualifying exams.
What is the objective of the course? What is it? What does it train you for?

Precision Agriculture Master Degree Course aims to mainly deepen the cultural, scientific and professional fields related to the application of precision agriculture technologies on farms and livestock farms in order to optimize the use of production factors with a view to efficiency economy, profitability, sustainability and stability of agricultural systems, with reference to crops, livestock and forestry activities in different contexts.

What do you learn?

Graduates in Precision Agriculture will have as a specific peculiarity the knowledge for the introduction of digital technologies in agricultural and zootechnical farms for their management in smart mode in accordance with agriculture 4.0.

What can you do with it?

The Master Degree Course in Precision Agriculture prepares for the following professions:
1) Technician for precision fruit growing;
2) Technician for precision herbaceous crops;
3) Technician for precision livestock.
What is the objective of the course? What is it? What does it train you for?

A complete and multidisciplinary educational path, starting from solid references based on Landscape Culture but fully empowering the graduate to use the tools for carrying out the landscape architect profession in an international scenario. The course is based on an interdisciplinary training offer, provided in two separate curricula in Italian and English, respectively.

The Course is taught by the Department of Agricultural, Food and Forestry Sciences and the Department of Architecture and is inspired by the European Convention of Landscape, which commits the signatory states to promote “the training of experts in the field of knowledge and intervention on landscapes”.

What do you learn?

The fundamental cultural axis of this educational path, in line with the sustainable development goals set by the United Nations in 2015 with the resolution “Agenda 2030 for sustainable development”, is the development of the students’ design skills in accordance with the transformation dynamics of urban and territorial areas in relation to the ecological and social processes and the needs of environmental, social and economic sustainability emerging from the scenarios of global change. At the same time, the students will be able to develop design hypotheses consistent with the social and cultural context of the place.

What can you do with it?

The professional profile that the course intends to develop is an expert who integrates theoretical-critical knowledge with professional skills in the field of landscape design but is able at the same time to collaborate, through a common language, with other professionals operating in the fields of architecture, agricultural sciences, engineering and natural sciences, as well as joining a participatory planning context. Such integration is a necessary element due to the multitude of application fields: from the design of systems of open spaces, parks, gardens, to the recovery of local heritage, urban regeneration, and the enhancement of location identities.
FIRM AND QUALITY
FOR THE AGRICULTURAL
AND FOOD SYSTEM

What is the objective
of the course? What is it?
What does it train you for?

This Master Degree course aims to form professionals that are ready to work within a global economic system and are able to initiate business and supply chain initiatives with sustainably coordinated productive, organizational and logistic processes. This course also responds to a specific need for highly qualified professionals able to oversee and improve the standards, certification and promotion of agricultural and livestock products and manage quality, sustainable, typical and historical agro-food chains. The Degree Course is divided into two curricula: Business and quality for the agricultural and food system and Sustainable management of livestock farms.

What do you learn?
The course program aims to provide students with knowledge and skills regarding the sustainability of agro-zootechnical businesses, the management of agro-industrial plants and processes, and food safety. Specific topics include post-harvest processing; management and handling of animal products; prevention and defence from food-borne pathogens and food contamination; quality and certification of agro-food products; agricultural business management, the agro-food market and agro-food policy. Issues of logistics, packaging and consumer behaviour are also covered.

What can you do with it?
Graduates in Business and Quality for the Agricultural and Food System are trained to work in: individual or associated agro-food companies, producer organizations, large-scale retailers, national and international (public and private) research organizations and consultancy institutions (FAO, European Commission, etc.) as well as for government bodies. After enrolling in the Order of Agronomists and Foresters (Sec. A), they can also work as freelance agronomists.
What is the objective of the course? What is it? What does it train you for?

The Master Degree course in ‘Mediterranean Food Science and Technology’ has the specific training objective of providing the advanced knowledge required to rationally choose the most suitable processes and transformation phases for modern production and for the management of the agri-food company.

What do you learn?

The course specifically addresses the problems relating to technologies applied to the management of raw materials and foods specific to the Mediterranean environment, also in relation to the various food distribution chains, including the areas of public catering, nutrition, and control of food safety and products of Mediterranean origin; food trade and safety legislation; the economics and management of agri-food business, marketing and, in particular, analysis of consumer behaviour. What makes the Degree Program unique is its focus on the sustainability of the agri-food industry processes and on the biological and microbiological control of food Mediterranean Agri-food chains, including those of animal and marine origin. The course will focus on the nutritional aspect and food safety control of products of Mediterranean origin; the development and formulation of new food products; the food law on trade and food safety; the economics of the food business, marketing and, in particular, the analysis of consumer behaviour.

What can you do with it?

The graduate in Mediterranean Food Sciences and Technologies can carry out management, planning, control, coordination and training activities in the production and conservation, distribution and administration of food products. They will be capable of autonomously developing innovative solutions in the food industry and in the freelance profession.
What is the objective of the course? What is it? What does it train you for?

This Master Degree course aims to train professional figures in the agricultural sector by:

• perfecting and consolidating technical and scientific skills for the design, management and control of sustainable and multifunctional agricultural production systems;

• imparting specific skills in agroecological management and the improvement of multifunctional (including technical/infrastructural, ornamental, historic, sport and recreational) green areas;

• providing knowledge and skills related to the application of EU and market policies and the evaluation of investments.

The Degree course is divided into two curricula: Plant productions and Agroecology and multifunctional green management.

What do you learn?

This course program prepares students in the subjects of horticulture and floriculture, including the propagation, production, management and defence of shrub, fruit and ornamental tree species and industrial and medicinal herbaceous species. Students will also learn through field surveys and laboratory experiments providing them with hands-on experience in collecting, processing and interpreting data. EU agricultural, rural and landscape policies are also studied, along with the market and the evaluation of investments. Understanding agroecological management and the improvement of multifunctional green space is pursued through specific disciplines included in the course program.

What can you do with it?

Graduates in Agricultural Productions and Technologies are able to work in:
industrial or associated agro-food companies, producer organizations, large-scale retailers, national and international (public and private) research and consultancy institutions (FAO, European Commission, etc.) as well as in governmental institutions; after enrolling in the registry of the Order of Agronomists and Foresters (Sec. A), they can also work as freelance agronomists.
**What is the objective of the course? What is it?**

The course consists of two cultural profiles: the first is 'Agricultural Sciences and Technologies' (LM-69) and the second is 'Forestry and Environmental Sciences and Technologies' (LM-73). Students choose from these two classes when they enrol and make their final choice in the 2nd year.

The course is suitable for all graduates in Forestry and Environmental Sciences, Agroengineering and Agricultural Sciences and Technologies and all those who care about environmental protection and the sustainable development of the territory, in line with the principles of the EU Green Deal and UN Sustainable Development Goals adopted by all United Nations member states in 2015.

**What do you learn?**

With a view to environmental, economic and social sustainability and climate change mitigation students acquire specific skills in each of the two profiles, to prevent and manage hydrogeological and environmental risk, manage and enhance forest resources (LM-73), use engineering and precision farming technologies (LM-69), plan forest systems and manage agroforestry businesses. Furthermore, the course provides GIS, green marketing and certification, natural engineering techniques, environmental impact assessment and environmental asset assessment, sustainable defence and biodiversity preservation skills. This Master Degree provides graduates with everything they need to solve complex situations related to the management of rural areas.

**What can you do with it?**

Graduates will be able to work in the following areas:
- Entrepreneurship: managing companies operating in mountain and forest territory;
- Consultancy and planning: improving business performance and developing green paths;
- Start-ups: a way to conquer the market;
- Public administrations: serving the community for the protection of the territory and to enhance natural resources;
- NGOs: serving the environment;
- Universities: PhD;
- Private practice: supporting both private and public companies for sustainable management of resources;
- State examination and registration on the Professional Register of Agronomists and Foresters, section A (Senior Graduates).
What is the objective of the course? What is it? What does it train you for?

The STEDIS Master Degree Course (LM 69) aims to mainly deepen the cultural, scientific and professional fields related to soil protection in the context of climate change, agricultural and forestry uses, sustainable management and enhancement of agricultural and forestry resources in the perspective of an organization and management of the agro-forestry company that takes into account the principles of the circular economy. The STEDIS course trains professionals specialized in the sustainable management of the soil ecosystem with reference to its multidisciplinary aspects ranging from the chemical-physical aspects of the system, to its conservation over time also for production purposes, to defense against erosive processes and the consequent problems of hydrogeological instability, to the arrangement of slopes and watercourses also with naturalistic engineering techniques. The STEDIS course prepares a professional figure adhering to the skills of the senior Agronomist and to the following professions codified by ISTAT: Hydrologists - (2.1.1.6.5), Planners, landscape architects and specialists in land recovery and conservation - (2.2.212), botanists - (2.3.1.1.5), agronomists and foresters - (2.3.1.3.0), researchers and graduate technicians in earth sciences - (2.6.2.14).

What do you learn?

The skills that STEDIS graduates can acquire are based on the acquisition of the most innovative technical-scientific knowledge of the disciplines of surveying and territorial information systems, applied botany, soil conservation and protection, hydrology and the physical quality of soils. The skills that can be acquired are completed by the topics of geomorphological hazards, environmental legislation and related evaluation techniques, soil microbiology, agronomic techniques and the choice of wood species for soil conservation purposes as well as prevention and protection from forest fires. The complex of these disciplines, which underlie the implementation of soil defence, conservation and sustainable management techniques, can be completed with a “student’s choice” section aimed at enriching skills and abilities in the fields of biotechnics of plant species and naturalistic engineering also with reference to the degradation of wooden materials, bioindicators of soil quality and the recovery of degraded areas.

What can you do with it?

STEDIS graduates have a professional profile that allows them to find a job placement, subject to public competition, in various state structures and apparatuses, such as the State Forestry Corps, or in the Regions, Provinces, Mountain Communities, Municipalities, Park authorities, nature reserves, agricultural engineering companies and companies and organizations operating in the field of defence, sustainable management and soil conservation. The Soil Protection Technician can also collaborate in the activities of environmental associations also with reference to the sector of environmental dissemination; another relevant professional outlet is that of freelance activity, as the graduate in “Sciences and Technologies for the defense and conservation of the soil” can access the Professional Register of Doctors of Agronomy and Forestry.
EARTH AND SEA SCIENCES

BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

L-32  Biodiversity and Technological Innovation  TP
L-32  Natural and Environmental Sciences  PA
L-34  Geological Sciences  PA

MASTER DEGREE

LM-75  Analysis and Environmental Management  PA
LM-6  Marine Biology  PA
LM-74  Georisks and Georesources  PA
LM-60  Natural Sciences  PA

www.unipa.it/dipartimenti/distem
What is the objective of the course? What is it? What does it train you for?

The specificity of the new CDS in Biodiversity and Technological Innovation provides for the training of:

- graduates with knowledge relating to the distribution of biodiversity and peculiarities in habitats capable of applying knowledge in terms of valorising natural capital on the basis of a circular, dynamic and sustainable long-term economy;
- technicians capable of operating through Key Enabling Technologies (biotechnologies, artificial intelligence and digitization, technologies for life sciences) in the context of One Health with an integrated perspective on health and the living environment;
- technicians able to correlate the loss of biodiversity with pollution, depletion of resources, degradation of ecosystems and climate change, caused by unsustainable production and consumption and able to develop protocols for ecological restoration.

Graduates can access various master’s degree courses (e.g. LM-60, LM-75, LM-6) and all degrees in particular in the biological and geological fields as well as engineering contributing to the accurate training in the field of the environment and biodiversity aimed at the future development of basic and applied research, promotion of scientific and technological innovation, professional and project activity in areas related to environmental and biotechnological disciplines and safety in the biotechnology sector.

What do you learn?

The degree course aims to train operators capable of:

- reading the biological complexity and the relationships between organisms to define tools to support biodiversity and ecosystem resilience in a One-health context that includes ecosystem services, human well-being, biodiversity conservation and will address all issues surrounding biodiversity erosion and loss and destruction, and then it will develop basic skills for understanding the language of modern technologies, expressed in terms of Key Enabling Technologies (biotechnologies, artificial intelligence, technologies for life sciences) through which to study biodiversity and map distribution, value and peculiarities in habitats.

This foundational pathway will build on the link between functioning, ecosystem services, human well-being, biodiversity conservation and will address all issues surrounding biodiversity erosion and loss and destruction, and then it will develop basic skills for understanding the language of modern technologies, expressed in terms of Key Enabling Technologies (biotechnologies, artificial intelligence, technologies for life sciences) through which to study biodiversity and map distribution, value and peculiarities in habitats.

What can you do with it?

Graduates will be able to access various Master Degree courses (e.g. LM-60, LM-75, LM-6) and all degrees in particular in the biological and geological fields as well as engineering for more accurate training in the field of the environment and biodiversity aimed at future performance of basic and applied research, promotion and development of scientific and technological innovation and safety in the biotechnological sector.

Graduates will may also:

- participate in intervention programs for the conservation and restoration of biodiversity through the design of new early warning technologies and the definition of tools to support biodiversity based on Key Enabling Technologies;
- carry out collaboration activities with local administrations (public administrations, Arpa, Department, Ministries) and private companies aimed at environmental monitoring in its abiotic and biotic components of ecosystems;
- join companies in the field of sustainable production and consumption, identifying the tools applied in the area that lead to economic savings, lower impacts and maintenance of ecosystem functions;
- the course prepares for the profession of (ISTAT codes):
  1. Planners, landscapers and land recovery and conservation specialists - (2.2.12.2);
  2. Food preparation technicians - (31.S.4.1);
The Degree program provides two educational paths, the first of which is aimed at developing skills in the natural sciences sector, especially through an in-depth focus on the "biological disciplines", and the second at providing knowledge and skills in the field of environmental sciences by focusing on the "agricultural, chemical, physical, juridical, economic and contextual disciplines".

It is a course organized into semesters and includes eighteen courses for a total number of 180 ECTS, aimed at those who want to make knowledge, protection, enhancement and management of nature and the environment the focus of their professional opportunities. The course prepares students for the following professions:

- Environmental control technicians;
- Food preparation technicians;
- Food production technicians.

What can you do with it?

At the University of Palermo with this qualification, you can access the following naturalistic / environmental Master Degree courses: Natural Sciences, Environmental Analysis and Management, Marine Biology, as they recognize the acquired 180 ECTS.

Graduates can find employment at:
- Museums, Botanical Gardens and Herbariums;
- Entities responsible for planning and management natural resources and for conservation and dissemination of natural and cultural heritage (Central Public Administrations, such as the Ministry of Agriculture, Environment, Cultural Heritage, Infrastructures, Universities and Scientific and Technological Research, Regions, Provinces, Municipalities and ARPA, private sector);
- Public and private social and health structures and professional organizations engaged in environmental control and monitoring activities, remediation of contaminated sites, formulation of protocols for environmental and quality certification, control of disposal and treatment of special and toxic Urban Solid Waste, preparation of multimedia systems communication and environmental information;
- Due to the particular diversification of the courses in the naturalistic and environmental fields, graduates will acquire a great propensity towards teaching life sciences in secondary schools.

For additional information: [www.unipa.it/dipartimenti/distem/cds/scienzeedellanaturaedellambiente2180/en/?pagina=presentazione]
What is the objective of the course? What is it?

The aim of the Course is to ensure the student acquires adequate scientific and professional knowledge of its contents and methods of investigation, to allow operation in the modelling and forecasting processes that regulate the Earth System. The Earth System is an ever-moving laboratory set where the ground trembles, volcanoes erupt, the sea modifies the coasts, landslides and rainwater erode the relief, and rivers overflow and flood the surrounding plains. Earth Sciences study the interactions between the geosphere and the other spheres, in order to understand the relative causes, effects and mechanisms, and also to better preserve the environment of our planet and to improve living conditions.

What do you learn?

- Fundamentals of Mathematics, Chemistry, Physics and Computer;
- Earth surface processes structure and internal dynamics of the Earth;
- geological-structural, paleontological, geomorphological, volcanological, and geophysical surveys, [field trips and a five-day geological campaign];
- microscope;
- aerial and satellite image interpretation;
- geophysical prospecting;
- sampling of sediment, water and gases;
- thematic maps;
- and LAB instruments and technologies (GIS; SEM; infrared and mass spectroscopy; X-ray);
- assessment of geological risk;
- vulnerability assessment of atmosphere, hydrosphere, soil, and subsoil;
- interventions for the geological risk mitigation and slope, river and coastal stabilization.

What can you do with it?

Profession of Junior Geologist, supporting tasks in:

- civil engineering;
- environmental impact;
- LAB analysis of geological materials.

The activities can be carried out at public institutions (Universities, INGV, ISPRA, Civil Defence, ministries, regional departments, offices, museums, etc.); private companies (AGIP and other oil companies, mining or energy companies, quarries, restoration companies of cultural heritage, professional geological studies, geotechnical laboratories, civil engineering companies, etc.); self-financed study (self-employed); middle and high school (teaching).
ANALYSIS AND ENVIRONMENTAL MANAGEMENT

What is the objective of the course? What is it? What does it train you for?

The Course in Environmental Analysis and Management is the perfect next step for graduates of the Bachelor Degrees in Natural and Environment Sciences, Geological Sciences and in Biological Sciences who are interested in acquiring the required knowledge and qualification to intervene with multidisciplinary skills in the prevention, requalification, diagnosis and solution of environmental problems, also assuming direct responsibility for projects and structures.

What do you learn?
The training course includes physical, mathematical, biological, chemical, ecological, earth science and juridical-economic disciplines and is aimed at developing the ability to apply knowledge and skills to tackle environmental problems with an interdisciplinary approach. The course has a duration of two years, organized in semesters, and includes courses for 120 CFUs. Several courses include laboratory experience or field exercises.

What can you do with it?
Graduates in Environmental Analysis and Management can find employment in both the private and public sectors, in particular in roles entailing the assumption of responsibility for the analysis, evaluation and management of environmental systems. Graduates can also fill roles that require specific skills in:

• environmental data processing and integrated environmental measures;
• assessment and management of pollution and de-pollution, and bioremediation;
• integrated management of waste and emissions;
• environmental certification and management systems;
• environmental impact assessment (EIA);
• environmental support for environmental planning and education.

Additional information: www.unipa.it/dipartimenti/distem/cds/analisi gestionambientale2110/en/?pagina=presentazione
What is the objective of the course? What is it?
What does it train you for?
The objective of the Master Degree Course is to train Marine Biologists with a strong background in basic and applied marine biology, with particular reference to the conservation and management of the marine environment and of fishing and aquaculture resources, environmental monitoring and environmental impact assessment.

What do you learn?
Students will gain theoretical and experimental skills in marine biology and ecology, conservation of marine ecosystems, protected marine areas, management of the coastal zone and of fishing and aquaculture resources, sustainable aquaculture, environmental monitoring and assessment, effects of human activities and climate change. Skills will be acquired through participation in lectures, seminars, laboratory exercises, excursions and fieldworks, curricular internships and the preparation of the final dissertation.

What can you do with it?
Master Degree graduates in Marine Biology are employed in public and private research centres; local authorities responsible for the management of marine protected areas, environmental monitoring and assessment; public bodies and consulting companies in the field of fishery and coastal zone management; fishery and fish processing enterprises; aquaculture and mariculture enterprises; marine protected areas; public and private schools after teaching qualification. They can enrol in PhD courses and high-profile specializations and can register with the National Order of Biologists as Senior Biologists.
What is the objective of the course? What is it? What does it train you for?

The main aims of this two-year Degree are to:
• provide a thorough knowledge in Earth Sciences;
• provide in-depth mastery of scientific methods;
• ensure a solid ability to professionally apply the knowledge and methods of Geology.

Students are trained to:
• carry out multidisciplinary studies of the Earth System, defining the models necessary both for a proper spatial planning and for a correct design of civil engineering works;
• develop strategies for the investigation and modelling of geological processes to enable both an accurate and modern assessment of the geological risk and a quantitative characterization of fossil or renewable georesources, their management and vulnerability.

What do you learn?

• After a first part with four compulsory teachings focused on the multi-faceted aspects of Applied Geology, a second part is split into three suggested paths (geological-paleontological; applicative geomorphological-geological; mineralogical-petrographic-geochemical-geophysical), with the possibility of personalizing one’s own path thanks to a wide range of courses of choice.

Overall, the educational plan includes:
• Courses, LAB and field trips;
• Seminars, group working, technical visits and traineeships at public agencies, private companies and construction sites;
• Periods abroad under the supervision of the hosting partner university, within the framework of international agreements.

What can you do with it?

• Thematic cartography;
• Geological risk assessment and mitigation;
• Soil, subsoil, air and water vulnerability;
• Geognostic surveys;
• Subsoil and sub-sea-surface exploration;
• Finding, exploitation and preservation of georesources;
• Conservation of cultural/environmental heritage;
• Environmental impact assessment.

The professional roles covered are:
• Senior Geologist, whose attendance is mandatory in civil engineering or architectural projects;
• Technical Manager/Officer of mining, quarry, territorial, and environmental companies or other technical agencies;
• Geologist in geological/engineering enterprises;
• research institutions;
• middle or high school Teacher.
What is the objective of the course? What is it? What does it train you for?

The free access Master Degree Course in Natural Sciences aims to create a professional figure with a solid cultural background in the systemic analysis of the natural environment. The educational program is completed by laboratory activities, internships and practice at public and private accredited institutions, as well as by field experimentation, through multi- and inter-disciplinary study trips. At the end of the course, Master Degree graduates will possess advanced knowledge with respect to the study of biotic and abiotic components of ecosystems, their conservation, land management techniques and the processes affecting the quality of environment and the conservation of biodiversity.

What do you learn?

They will be able to plan, illustrate and interpret field and laboratory activities, selecting the most appropriate procedures for elaborating, analysing and synthesizing data, for impact evaluation studies (flora, fauna) and assessment, preparation of (biological and a-biological) thematic maps through the use of GIS and databases.

They will be able to develop methods and techniques of territorial survey.

Graduates of this course must be able to carry out:

• basic and applied natural science research;
• cataloguing of naturalistic assets and design of monitoring plans;
• impact evaluation, recovery and management of natural environments;
• faunal management and conservation of biodiversity;
• application of the norms of environmental regulations requiring natural science competences;
• organization and management of scientific museums, aquariums, botanical gardens and natural parks;
• activities related to naturalistic and environmental education (preparation of educational tools, including multimedia ones for schools, universities, natural museums, parks, aquaria and botanical gardens).

What can you do with it?

Thanks to the acquired competences, graduates of this course may work as a fully qualified Botanist, Zoologist, or Ecologist upon its completion.

Professional opportunities

In the public sector:

• Universities and Research agencies;
• Environmental management and services, Ministries, local authorities and other public bodies;
• National and Regional environment protection agencies;
• National Healthcare Institutions, experimental stations, archaeological superintendence.

In the private sector, graduates of the course may carry out their activity in various types of companies and professional practices dealing with environmental issues.

Graduates in possession of the credits required by current legislation may participate in the admission tests for teacher training courses qualifying them to teach in first and second level secondary schools.

Further occupational areas consist of:

• museum activities in scientific or naturalistic museums;
• scientific dissemination activities and scientific journalism;
• design of natural parks and plans for Park Plans;
• management of protected areas.
BIOLOGICAL, CHEMICAL AND PHARMACEUTICAL SCIENCES AND TECHNOLOGIES

www.unipa.it/dipartimenti/stebicef

BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

<table>
<thead>
<tr>
<th>Level</th>
<th>Code</th>
<th>Program Title</th>
<th>Degree</th>
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<tbody>
<tr>
<td>L-2</td>
<td>Biotechnology</td>
<td>PA</td>
<td></td>
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<tr>
<td>L-27</td>
<td>Chemistry</td>
<td>PA</td>
<td></td>
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<tr>
<td>L-29</td>
<td>Pharmaceuticals and Animal Nutraceuticals</td>
<td>PA</td>
<td></td>
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<tr>
<td>L-13</td>
<td>Life Science</td>
<td>PA</td>
<td></td>
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<tr>
<td>LM-13</td>
<td>Pharmaceutical Chemistry and Technology</td>
<td>PA</td>
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<tr>
<td>LM-13</td>
<td>Pharmacy</td>
<td>PA</td>
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MASTER DEGREE

<table>
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<tr>
<th>Level</th>
<th>Code</th>
<th>Program Title</th>
<th>Degree</th>
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<tbody>
<tr>
<td>LM-6</td>
<td>Biodiversity and Environmental Biology</td>
<td>PA</td>
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<tr>
<td>LM-6</td>
<td>Molecular and Health Biology</td>
<td>PA</td>
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<tr>
<td>LM-6</td>
<td>Biomolecular Industrial Biotechnology</td>
<td>PA</td>
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<tr>
<td>LM-61</td>
<td>Human Feeding and Nutrition Sciences</td>
<td>PA</td>
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What is the objective of the course? What is it? What does it train you for?

The Course of Studies in Biotechnology is a three-year Degree course for a total of 180 ECTS. Main objective: to enable students to acquire technical and behavioural knowledge and skills relevant to a modern study and research methodology, immediately usable in the world of work.

What do you learn?

During the course, students learn to:

- know and interpret biological systems from a molecular and cellular perspective;
- apply laboratory protocols in several biotechnological production processes;
- design and develop new biotechnological analyses and experiments;
- develop experimentation on cells or their components, to produce good services for human health, such as in the field of agricultural production or in the environment;
- know the regulations and the ethical and bioethical problems connected with the use of biotechnologies;
- manage and interpret molecular tests (i.e., production of vectors and engineered systems, sequencing of nucleic acids and proteins).

What can you do with it?

The graduate in the three-year Biotechnology program will be able to fill technical-scientific operational and managerial roles in the medical, agricultural, pharmaceutical research fields, in bio-industrial production and in transformation processes. They can continue their studies in the Master Degree Courses of the class LM7, Agricultural Biotechnology, LM8, Industrial Biotechnology and LM6 - Biology. In particular, they can find work in:

- Universities and other public and private research institutes;
- Biotechnological, agro-food, pharmaceutical, and cosmetology industries;
- Research laboratories;
- Laboratories and public and private diagnostic service providers;
- Disseminators as freelance journalists, according to Law 148/2011.
What is the objective of the course? What is it? What does it train you for?

The Bachelor Degree in Chemistry is taught in 3 years for a total of 180 credits and provides:

• the basic knowledge of chemistry required for professional activities where scientific methods and technologies need to be applied, also through the use of specific equipment;

• a solid basic theoretical knowledge of the matter, fundamentals of chemistry, chemical processes and phenomena;

• thorough training in chemical laboratories (general, inorganic, organic, analytical, and physical chemistry), acquiring a variety of experimental skills;

• a well-defined level of independence in the chemical workplace, from industry to analytical and research labs in the fields of green and sustainable chemistry, synthesis and characterization of new materials and bioactive compounds, environmental chemistry, health, nutrition, renewable energy, preservation of cultural heritage.

The Chemistry program includes training on workplace safety and security, 420 hours of laboratory experience, 150 hours of professional traineeship.

At the end of the program, the graduate with a Bachelor Degree in Chemistry can sit the state exam to become a professional junior chemist and register within the B-category of the Professional Order of Chemists.

What do you learn?

Besides the fundamentals of Maths and Physics, Chemistry students will learn about the fundamental laws of thermodynamics, the basic principles of general chemistry (chemical equilibria and chemical kinetics), properties and reactivity of the chemical elements, relationships between molecular properties and macroscopic features, instrumental methods for chemical analyses, the chemical nomenclature of organic and inorganic compounds, physical, chemical and spectroscopic properties of classes of organic and inorganic compounds, chirality, aromaticity, properties and functions of biomolecules.

Additionally, through the practice sessions in the teaching laboratories, Chemistry students will benefit from an extensive training-by-doing program to resolve problems of real physical and chemical systems, perform stoichiometric calculations to apply the quantitative laws of chemistry, perform operations in the chemical laboratory in order to prepare, isolate and characterize chemical compounds, perform experiments in the fields of general chemistry, inorganic chemistry, analytical chemistry (from sampling to reporting), organic chemistry and physical chemistry, and obtain structural information from instrumental analysis and spectroscopic investigations, elucidate reaction mechanisms through experimental and computational tools.

What can you do with it?

Graduates in Chemistry can register to operate as:

• Chemical technician in the industrial field;

• Self-employed junior professional chemist;

• Freelance chemical technician;

• Chemical technician in public environmental protection bodies;

• Chemical technician in public laboratories for the protection and conservation of cultural heritage;

• Chemical technician in police corps and crime scene investigation laboratories;

• Chemical technician in private analysis laboratories, with the following duties:
  • drawing up and validating reports or analysis results;
  • processing data and/or information;
  • managing the chemical laboratory;
  • managing the safety and protection of workplaces and working environments;
  • analysing samples;
  • preparing certifications;
  • checking compliance with safety regulations;
  • carrying out chemical analyses relevant to the conservation of cultural and environmental heritage;
  • carrying out chemical analyses for environment protection and monitoring;
  • drafting and submitting technical reports.

Graduates in Chemistry can continue their studies in a Master of Sciences in Chemistry program as well as in other Master or PhD programs in the scientific and technological fields.
What is the objective of the course? What is it? What does it train you for?

The Course aims to train technicians with specific skills in Pharmaceuticals and Animal Nutraceuticals. The training system is aimed at acquiring in-depth theoretical preparation on basic biological and chemical knowledges together with solid theoretical and (individual) laboratory experience in the pharmaceutical and nutraceutical fields to acquire technical skills on:

1) drug production; medical-surgical devices and products for animal health;
2) methodologies and techniques of quality control of processes and products in the industry;
3) regulatory processes of the veterinary drugs;
4) development in the pharmaceutical field and health products for animal;
5) ability to inform/disseminate news on veterinary drugs, health products, complementary feed and medicated for animals.

What do you learn?

The Course is divided into the following educational activities:

• Basic activities, aimed at acquiring the fundamental principles of Physics, Mathematics, General Chemistry, Organic Chemistry, Animal Biology, Zoology, and Physiology of animal nutrition and animal feed essential for understanding and the learning of specific and characterizing disciplines;

• Specific and characterizing activities, aimed at acquiring essential knowledge and skills for the specific professional profile: the chemical-pharmaceutical and pharmacological characteristics of medicines for animals, complementary and medicated feed and nutraceuticals, medicinal plants, animal feed, the main laboratory techniques for the chemical and microbiological control of foods, supplements and the raw materials used in their production; the interactions between complementary feeds, nutraceuticals, foods and pharmacological therapies in animals; the formulation and regulatory aspects of nutraceuticals and products with a health value; animal nutrition and feed.

The Course is completed by the activity relating to the “English language”. External activities are also planned, such as training placements in companies, public structures and laboratories as well as study stays abroad, also within the framework of national and international agreements.

What can you do with it?

The professional profiles envisaged are:

1) Technician in the production of drugs, complementary feed, medicated feed, veterinary foods and products with a health value. Employment opportunities: pharmaceutical, feed and animal health products, food and agrochemical industries, in the sectors of research and development, production, quality control, regulatory activities and quality systems, private and public companies in the chemical-pharmaceutical sector that carry out analyses, studies and design of medicines and health products for animals public and private research and experimentation bodies for medicines and products for animal health and environmental protection.

2) Science Popularizer of drugs and animal health products. Employment opportunities: Medical Sales Representative di pharmaceutical, feed and health products for animals, food and agrochemical industries. The degree in Pharmaceuticals and Animal Nutraceuticals allows enrollment to the LM-86 and LM-9 Master Degrees offered by the Sicilian University of Messina or by other universities. Graduates can also access the register of Junior Chemists (Presidential Decree n.328/2001), after passing the State exam. This allows them to exercise all the functions for this profession, such as: Chemical technicians; Manufacturing production technicians; Food production technicians; Veterinary laboratory technicians.
LIFE SCIENCE

What is the objective of the course? What is it? What does it train you for?
The Bachelor Degree Life Sciences of the University of Palermo is a First Cycle Degree. It follows a 3-year undergraduate program, and schedules a total of 180 credits (ECTS), about 60 ECTS per year. The Degree class is Biology (code L-13). The name of the Degree course in Italian is “Scienze biologiche” [L-13].

The Bachelor program in Life Sciences is planned to provide students with a sound basic knowledge of the areas of Biological Sciences and a good mastery of the methodologies and technologies related to all the lectures, providing adequate preparation for assimilation of scientific progress and ensuring that the students know and properly understand all kinds of living organisms and related processes. The Bachelor Degree Life Sciences program covers a very wide range of topics through several learning activities, including lectures, exercises, lab practice, seminars, and innovative educational activities.

The Bachelor Degree Life Sciences program supports Erasmus mobility thanks to the numerous agreements in place. Students can spend a period abroad and attend authorized courses which can be included in the curriculum.

What do you learn?
At the end of the Bachelor Degree course, the graduates will be able to work with a good degree of autonomy and adequate knowledge in performing professional activities and applying techniques in private and public institutions. The course will train students as biologists able to classify and manage living organisms; analyse biological samples; perform environmental assessments; participate in conservation biology or molecular biology projects, examine natural processes; and, on the whole, understand how the biological systems - from the cells to the human body work and can be investigated.

What can you do with it?
The University of Palermo offers Master Degree programs under the Life Sciences fields: Biodiversity and Evolutionary Biology, Biology Applied to Research in Biomedicine, Applied Biology in Nutritional Sciences, Molecular Biology of the Cell, and Conservation Biology.

The Degree in Life Sciences affords admission to the Biologists’ Professional Register (Section B, Junior Biologists), subject to a pass in the professional qualifying exam, enabling the graduate to perform the activities recognized by Italian law. The Junior Biologist can find a technician job in different fields, from healthcare to bioinformatics, and in the field of agriculture, agro-food industries, and environmental service centres.
What is the objective of the course? What is it? What does it train you for?
The Master Degree Single Cycle program has the main objective of training graduates equipped with the necessary scientific basis to operate in the pharmaceutical industry, in every sector of the multidisciplinary process that starts from the design of potentially active molecules and leads to synthesis, experimentation, recording, production, control and marketing of the drug, according to the rules codified in the Italian and European Pharmacopoeias.

What do you learn?
Mathematics, Physics, Chemistry, Biology, Biochemistry, Molecular Biology, Medicinal Chemistry, Pharmacology, Pharmaceutical Technologies. Individual workshops are planned for:
- Analysis of Medicines;
- Drug Analysis;
- Special Methodologies in Pharmaceutical Analysis;
- Technologies of Pharmaceutical Forms.
There is also a period of practical-professional internship at organizations and companies.

What can you do with it?
- Pharmacist (Director, collaborator, Hospital);
- Pharma company salesperson;
- Key Account Manager;
- Sales Manager;
- Researcher and technician in the fields of drug design, synthesis and production, both in the industrial and university fields;
- Responsible for quality controls in pharmaceutical industries;
- Analyst in chemical laboratories.

CLASS LM-13
CAMPUS Palermo
TYPE OF ACCESS Planned
SEAT OF INTERNATIONAL AGREEMENTS
Alcalá de Henares (ES)
Bordeaux (FR)
Brno (CZ)
Danzica (PL)
Granada (ES)
Lione (FR)
Lisbona (PT)
Madrid (ES)
Montpellier (FR)
Münster (DE)
Porto (PT)
Praga (CZ)
Salonicco (GR)
Santiago de Compostela (ES)
Valencia (ES)
What is the objective of the course? What is it? What does it train you for?

The Master Degree Single Cycle program provides the theoretical preparation and practice necessary to exercise the profession of Pharmacist. The pharmacist must be prepared to perform the duties of a skilled multidisciplinary health worker who has completed scientific studies in the field of objectives of the national health service. The Pharmacy graduate can further expand his knowledge with Master Degrees and doctorates. At the end of the study cycle, graduates will have an advanced methodological preparation providing skills to enable the preparation and control of pharmaceutical formulations; foster knowledge of the action of drugs and biotechnological drugs; develop knowledge of the legislation regarding health products.

What do you learn?
Mathematics, Physics, Chemistry, Biology, Chemistry, Biochemistry, Medicinal Chemistry, Pharmacology, Pharmaceutical Technologies.

Individual workshops are planned for:
- Analysis of Medicines 1
- Drug Analysis 2
- Medicine and biomolecule analysis
- Medicine legislation and laboratory galenic preparations.

There is also a period of practical-professional internship at organizations and companies.

What can you do with it?
Pharmacist (Owner, Director, collaborator, Hospital):
- Pharma company salesperson
- Researcher and technician in the fields of drug design, synthesis and production, both in the industrial and university fields;
- Responsible for quality controls in pharmaceutical industries;
- Trade Marketing Manager;
- Operator in chemical analysis laboratories.
**What is the objective of the course? What is it? What does it train you for?**

The Course completes the biological knowledge acquired with the Bachelor Degree in Biological Sciences and other Courses dealing with naturalistic and environmental topics, and improves the student’s professional skills related to the protection, enhancement and management of biological resources and natural systems.

The aim is to train experts with an advanced scientific and technical specialization in the animal and plant biodiversity of terrestrial and aquatic ecosystems, with particular reference to the analysis and evaluation of biological and anthropic phenomena which influence biodiversity, regulate the ecological interactions and the dynamic responses of living in relation to the environmental characteristics and quality, determine the functionality of natural ecosystems and the sustainable management of biological resources.

**What do you learn?**

The training course involves the expansion of the students’ zoological and botanical knowledge and skills from the taxonomic, phylogenetic and bio-molecular perspectives; insights into the evolutionary processes; the study and interpretation of environment-living organisms’ interactions with reference to structural and functional adaptations, reproductive and development processes, behavioural features, conservation issues and anthropogenic impacts, the study of applied molecular biology techniques, the study of bioactive molecules and related pharmacological and toxicological aspects; the knowledge of modern methods of analysis and techniques for the acquisition and evaluation of data related to characterization of animal and plant species, qualitative and quantitative monitoring of biodiversity and environmental biomonitoring; the acquisition of teaching methods for teaching life science in schools.

**What can you do with it?**

Graduates in Biodiversity and Environmental Biology will be able to work as Botanists, Zoologists, Biologists and Ecologists. They will also be able to enrol in the National Order of Biologists (section A), after passing the State Exam. The potential job opportunities concern employees or freelance activities at:

- Public and private bodies involved in the characterization and valorisation of biological resources, environmental biomonitoring, risk assessment and environmental impacts, biodiversity conservation, environmental improvement and restoration, biological control.
- Laboratories and companies for the identification of animal and plant species useful for applications in various production sectors.
- Naturalistic museums, botanical or zoological gardens, management authorities of parks and nature reserves, historical gardens, and germplasm banks for the management and enrichment of biological collections and/or for naturalistic promotion, environmental education, and ecotourism activities.
- Publishing for naturalistic dissemination and scientific communication.
- Secondary school Degree and high school Degree depending on current legislation (teaching, teacher training, environmental education projects).
What is the objective of the course? What is it?

The Master Degree in Molecular and Health Biology completes the training in biology begun with the Bachelor Degree in Biological Sciences. Attendance at the learning activities is mandatory, and the minimum attendance requirement for admission to the final exam is 75% of lessons. The Master Degree trains graduates with an advanced preparation program to give scientifically and professionally comprehensive answers to various biological problems using modern biomolecular techniques. The Master Degree offers the opportunity to acquire skills regarding cellular, biochemical and physiological processes in prokaryotes and eukaryotes, including humans, as well related to the causes of human health alterations at the molecular, cellular, and organ levels.

What do you learn?
The Master Degree program in Molecular and Health Biology will provide graduates with a deep background in molecular, genetic and cellular techniques and knowledge of factors that can affect human health. The student will have the opportunity to choose a Degree course expanding their insight into the cellular and molecular aspects of biology or a Degree course in which he/she will acquire more knowledge on the factors that can affect human health. Students will acquire laboratory skills thanks to the significant experimental activity carried out during the 2nd year of the Master Degree (thesis internship).

Knowledge of the topics listed above is achieved by the students attending lessons and through self-study.

What can you do with it?
Graduates will be able to use the knowledge acquired during the Master Degree course both in basic research laboratories and in laboratories in the health sector (environmentalist, nutritionist, pharmacology). Graduates can use their skills in the sectors of industry, health and public administration as well as in private analysis laboratories and in the scientific communication field. The Master Degree is a valuable cultural basis for gaining access to many PhD programs in the field of Life Sciences.
What is the objective of the course? What is it? What does it train you for?

Specific objectives:
The specific objective of the course is to train experts in professional, applied research-based biotechnology use activities. Students are trained for future employment in laboratories using genetic engineering techniques, biomedical molecular diagnostics laboratories, food production and control laboratories and laboratories focusing on the production of proteins, drugs, and vaccines.

What do you learn?

Students are prepared to carry out the research and technological development activities in the sectors of professional activity. They are provided with in-depth knowledge of biochemistry, molecular biology, genetics and microbiology as well as an in-depth understanding of biological systems, including both microorganisms and animal organisms. Biological knowledge should include traditional and modern analytical methodologies and technologies such as genomics, proteomics, nanotechnologies and bioinformatics. These will be complemented by appropriate chemical expertise and knowledge of chemical, biotechnological and industrial problems.

What can you do with it?

Employment opportunities

Profile: Biotechnologist for industries and scientific research

Functions: Biotechnologists for industry and scientific research possess in-depth knowledge of biochemistry, molecular biology, functional genomics, microbiology and biological systems allowing them to:

- carry out fundamental and applied research in the field of genetic, protein and metabolic engineering, using recombinant DNA techniques for the production and development of molecules of biotechnological interest;
- carry out research activities in the field of genetic manipulation and control and monitoring of the presence of natural or genetically modified organisms, using molecular genetic techniques;
- operate in research and development laboratories for the supervision, validation and optimisation of biotechnological production processes, and supervise the correct implementation of production and analytical procedures and quality control in industrial production chains;
- select the technologies and instruments suitable for the structural and functional analysis of biological macromolecules, use the main biological databases for retrieving the information necessary for the development of processes, carry out bioinformatics analysis for the study of protein and nucleotide sequences, apply bioinformatics methodologies to access, organise, and analyse data in genomics, proteomics and metabolomics databases;
- genotype, isolate and select microorganisms for their use in small and large scale bioreactors, perform microbiological analysis of food, water, and food;
- plan and coordinate activities for the promotion and development of scientific and technological innovation in areas related to biotechnological disciplines, coordinate research projects in the field of molecular and industrial biotechnologies;
- solve problems related to the construction and use of biotechnological and industrial plants.

Skills: Biotechnologists for industry and scientific research are capable of using biological systems and engineering techniques for applications in various production sectors such as the biomedical, chemical-pharmaceutical, industrial and environmental sectors. Biotechnologists for industry and scientific research can use genetic manipulation techniques, tools traditional analytical and modern technologies (e.g. genomics and proteomics) allowing them to work in biomedical laboratories for molecular diagnostics and in research and development laboratories producing protein engineering and pharmaceuticals. With the skills acquired, this Master Degree in Biotechnology for Industry and Scientific Research produces top-level professionals for work contexts in which research and its technology transfer, at both laboratory and industrial levels, are the basis for the production of goods and services.
What is the objective of the course? What is it?

What does it train you for?

In accordance with the qualifying objectives of Degree class LM-61, the course aims at training graduates with a sound interdisciplinary scientific education in the field of human nutrition, who are capable of carrying out specialized tasks and complex activities of evaluation, coordination, control, programming, planning, management and training in various professional contexts (healthcare, industry, regulatory), aiming at maintaining and promoting human health.

What do you learn?

The educational program is structured as follows: during the 1st year, students will study subjects aiming at obtaining a broad spectre preparation, deeply investigating, therefore, class specific subjects such as: chemistry of active biomolecules, nutrition biochemistry, alimentation and hormone control disorders, food chemistry and technology, hygiene and collective health, pharmacology and food regulations; 6 credits are provided for language skills (English – level B2). The second year mainly aims at the study of nutritional analysis methodologies, feeding in various physiological and pathological conditions and in metabolic syndromes. The second year also envisages an internship to be carried out at the university as well as at public and private companies accredited with the University of Palermo, and the preparation of the Degree dissertation, which must be related to original experimental research carried out at the University or other public or private Research agencies, operating in the field of human feeding and nutrition.

What can you do with it?

Graduates of this course will be able to carry out professional activities in the food and human nutrition sector as non-medical nutritionists. This course also affords access to PhD courses and graduate schools and provides professional opportunities in the research sector.

Employment and professional opportunities for graduates (DM March 16, 2007, Art. 3, paragraph 7) may also be found in food, dietetic, pharmaceutical companies, in the control and experimentation laboratories of technologies for new foods and in the collective catering industry, in roles of responsibility, coordination and consultancy. Thanks to their ability to verify the correct intake of foods to achieve optimal levels of nutrients and to maintain the state of health in groups and individuals, graduates will be able to plan and carry out food education, training and dissemination activities. The profile of graduates of the LM-61 Degree program, culturally belongs to the Human Nutrition sector, but cannot overlap those of the Specialist in Food Science or nutritionist doctor.
# THE SCHOOL OF MEDICINE AND SURGERY

**Biomedicine, Neurosciences and Advanced Diagnostics**

- [https://www.unipa.it/dipartimenti/bi.n.d.](https://www.unipa.it/dipartimenti/bi.n.d.)

**Surgical, Oncological and Stomatological Studies**

- [www.unipa.it/dipartimenti/di.chir.on.s.](http://www.unipa.it/dipartimenti/di.chir.on.s.)

**Health Promotion, Maternal-Child, Excellence Internal and Specialist Medicine “G. D’Alessandro”**

- [www.unipa.it/dipartimenti/promiae](http://www.unipa.it/dipartimenti/promiae)

## Bachelor Degree and Master Degree Single Cycle

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<tr>
<td>L/SNT3</td>
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<tr>
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<td>L/SNT2</td>
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<td>L/SNT1</td>
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<tr>
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<td>Psychiatric rehabilitation technique</td>
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<tr>
<td>L/SNT3</td>
<td>Technics of neurophysiopathology</td>
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<td>Radiology, Diagnostic Imaging and Radiotherapy Techniques</td>
<td>PA</td>
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<tr>
<td>LM-41</td>
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<td>LM-46</td>
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## Master Degree

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<th>Level/NT</th>
<th>Course Title</th>
<th>Specializations</th>
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<td>LM-9</td>
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<td>LM-6</td>
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<tr>
<td>LM/SNT4</td>
<td>Prevention Health Profession Sciences</td>
<td>PA</td>
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<tr>
<td>LM/SNT3</td>
<td>Diagnostic technical health professions sciences</td>
<td>PA</td>
</tr>
<tr>
<td>LM/SNT1</td>
<td>Nursing and Midwifery Sciences</td>
<td>PA</td>
</tr>
<tr>
<td>LM/SNT2</td>
<td>Health Professions of Rehabilitation Sciences</td>
<td>PA</td>
</tr>
</tbody>
</table>
HEALTH CARE ASSISTENCE
(LICENSE TO PRACTICE)

What is the objective of the course? What is it? What does it train you for?
The course in Health Care Assistance aims to train health workers with the scientific and technical knowledge required to carry out the profession of Health Assistant (Assistente Sanitario: AS) responsibly. The AS is responsible for prevention, promotion, and health education. The AS could work in public and private structures, identifying health needs and preventive, educational and recovery intervention priorities. In particular, the AS can organize vaccination campaigns according to national and regional programs; carry out vaccination sessions; organize cancer screening campaigns; manage health surveillance for the prevention of infectious diseases; deliver personalized advice on preventive measures for travellers; collect data in epidemiological studies on the main risk factors for infectious, oncological, and chronic-degenerative diseases; perform community supervision and control activities, collaborate on national lifestyle research projects and act as a consultant in court.

What do you learn?
The course includes frontal lessons and professionalizing internship activities, with compulsory attendance. The frontal lessons are on defined thematic areas, as follows:

- Biomedical sciences (Biochemistry, Biology, Histology with elements of anatomy, Physiology, Microbiology, Pharmacology and Hygiene);
- Preliminary and interdisciplinary sciences (Psychology, Sociology, Hygiene and Social Statistics);
- Medical Surgical Sciences and Health Care Sciences (Internal Medicine, Infectious Diseases, Pediatrics, Gynecology and Obstetrics, Epidemiological Methodology, Applied Medical Techniques, Nursing and Neuropsychiatric and Rehabilitation Techniques, Applied Dietary Techniques Sciences, and Nursing Techniques, Neurology and Physical and rehabilitative medicine).

The course is completed with subjects such as Public Law, Forensic Medicine, Occupational Medicine, Protection and specific programs of radiation protection. The practical training activities carried out in the field of public health (in field of prevention, epidemiology, health promotion, communication, organization and health planning) are particularly important. At the end of the studies, the student will take a final test that qualifies him/her to practice the profession.

What can you do with it?
Graduates can be employed in Departments (DpTs) and National Health Service Structures such as Prevention DpTs, Hygiene and Public Health Services, Vaccination Services, Birthing centres, Consultants for Foreigners, Health Education Service for Preventive and Community Medicine, Occupational Medicine, Sports Medicine, Food Hygiene and Nutrition Service, International Vaccinations Centre-Travel Medicine, Hospital Health Management, Epidemiology and Research Unit, Prevention and Research Institutes oncology field, prisons. Graduates can continue their studies by accessing the Master Degree Course currently available at other universities located throughout the National territory and I and II level University Masters available at regional level.

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- Medical Surgical Sciences and Health Care Sciences (Internal Medicine, Infectious Diseases, Pediatrics, Gynecology and Obstetrics, Epidemiological Methodology, Applied Medical Techniques, Nursing and Neuropsychiatric and Rehabilitation Techniques, Applied Dietary Techniques Sciences, and Nursing Techniques, Neurology and Physical and rehabilitative medicine).

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What is the objective of the course? What is it? What does it train you for?

Graduates in Dietetics organize and coordinate specific activities related to nutrition and dietetics, collaborate with the organizations responsible for health protection and the hygienic aspect of the nutrition service, process, formulate and implement diets prescribed by doctors and verify patients’ acceptance of these, collaborate with other specialists in the multidisciplinary treatment of eating disorders, study and elaborate the composition of food rations capable of satisfying the nutritional needs of population groups and plan the organization of nourishment services for healthy and sick communities, carry out didactic-educational and information activities aimed at spreading the principles of proper nutrition to allow the recovery and maintenance of a good condition of health in the individual, communities and population groups; carry out their professional activity in health facilities, in the public or private sector, as employees or freelancers.

What do you learn?
The student will have the opportunity to fully verify and understand the relevance and centrality of the dietitian’s role within a healthcare staff. The function of Dietetics is interpreted in view of the most recent scientific acquisitions of a medical order as well as the social developments recorded in recent years. The Mediterranean Diet, in particular, will be the leitmotif of the three years of the course. Some teachings (cardiology, endocrinology, gastroenterology, dietary technical sciences, oncology) are articulated with the aim of better addressing the complex issue of diet-obesity-diabetes-hepatic steatosis-cardiovascular diseases-tumours, all conditions that are considerably widespread today and whose treatment provides an increasingly central role for the Dietitian. The man-food relationship is not only technical and its understanding also produces favourable effects in the approach to the patient. Nutritional issues and humanistic and sociological aspects will also be addressed in relation to the woman-child unity and the adolescent world. The teachings of the course also contribute to the training objective of the Dietitian who will increasingly relate to a multi-ethnic social context. The Dietitian will therefore not only be expected to make use of a variety of technical knowledge, but also of adequate communication methods.

What can you do with it?
Graduates in Dietetics can carry out their professional activity in public or private health facilities and services, as employees or freelancers; they can play a dietary-nutritional consultancy role in the context of public or private health institutions, in the field of collective and individual catering services. The professional contribution of the graduate in Dietetics is also required by companies operating in the agro-food chain. Recently, the Dietitian has also been in demand from companies that deal, at different levels, with thermal and aesthetic medicine. In summary, the Dietitian can find employment opportunities in the following areas:
• Public Health Sector (Hospitals and Health Trusts);
• Private Health Sector (Nursing homes and outpatient clinics, freelance work);
• Freelance work in associated medical practices;
• Catering companies;
• Food companies.
Dietitians can continue their studies to obtain a Master Degree or a 1st level Master.
What is the objective of the course? What is it? What does it train you for?

This course is designed for physiotherapist scientific and professional training (DM no. 741/94 - Professional Profile of the Physiotherapist), a graduate professional dealing with recovery from pathological conditions concerning motor impairment, from strictly physical features to the psychomotor and cognitive domains, managing patients at all ages (from newborns to the elderly). Physiotherapists autonomously apply therapeutic activity to the functional re-education of motor, psychomotor and cognitive disabilities using therapeutic exercise, physical, manual, massage and occupational therapies. They plan the timing of application of the various techniques, consider indications and contraindications and verify the appropriateness of the rehabilitative methodology chosen to the final functional recovery goal.

The course’s priority is the theoretical/practical study of rehabilitation sciences and physiotherapy, performed through lectures, exercises, teaching laboratories and professional training in the rehabilitation of the musculoskeletal, neuromotor, respiratory and visceral cardio apparatus in all age groups. 19 integrated course are distributed over 3 years, divided into semesters, with 3 integrated internships for a total of 180 ECTS.

To graduate students have to pass all course exams and a final test with a qualifying examination and dissertation. Exams take place in 3 sessions x year, each with 3 different examination dates.

What do you learn?

Based on theoretical knowledge and clinical reasoning, students are trained in physiotherapy-rehabilitation methodologies for the purposes of optimal functional recovery, and therefore trained to work autonomously to:

- perform functional evaluations to identify lesions;
- choose the most suitable rehabilitation - physiotherapy technique and use highly specialised therapeutic approaches, including manual, physical, occupational and therapeutic exercises based on scientific and clinical evidence;
- verify the rehabilitation methodology used;
- investigate the need to adopt prostheses and aids, training patients in their use and verifying their effectiveness;
- establish an appropriate relationship with patients, caregivers and professional systems on the strength of knowledge acquired in:
  - core physics, biology and biochemistry, human anatomy and physiology subjects;
  - the main diseases of rehabilitative interest in such fields as cardio-vascular, pneumological, orthopedic-traumatological, neurological, etc. at all ages;
  - prevention for core epidemiology and public health concepts and essential health organisation aspects;
  - psychology and pedagogy to acquire interpersonal skills for social interaction;
  - English language for core scientific English (reading of scientific literature) for continuous professional updating.

What can you do with it?

Physiotherapists work in public, private-accredited or private health facilities in an employment or freelance capacity. Existing laws allow them to work in individual or associated professional studies. Physiotherapy graduates generally find work within one year of graduation and can continue their studies to obtain a Master Degree in Rehabilitation Health Professions.
What is the objective of the course? What is it? What does it train you for?

Graduates in Dental Hygiene are professionals who perform tasks related to the prevention of oral and dental diseases and assistance with therapies. They carry out dental health education activities and participate in prevention; provide deplaquing, tar- tar ablation and smoothing of the dental roots, as well as topical application of the various prophylactic means, provide education on the various methods of oral hygiene and on the use of non-invasive diagnostic means suitable for highlighting microbiological infections, oral biofilms and superficial mucosal lesions, motivating the patient to have periodic clinical checks to ensure the protection of oral and dental health.

What do you learn?

The graduates in Dental Hygiene will be provided with adequate preparation in the basic disciplines, integrating pathophysiological and pathological study with clinical methodology and therapeutic procedures. These will allow them to better understand the most relevant elements of the characterizing training activities dealt with in the professionalizing disciplines. They will focus on the oral cavi- ty diseases, which develop in childhood, adult and geriatric age, and learn how their intervention can improve oral health (through prevention, or treat- ment assistance). They must also know how to use at least one language of the European Union, in addition to Italian.

What can you do with it?

The occupation of dental hygienist can be carried out in different areas:

• in the private sector, in dental surgeries, which ensures access to "high quality" treatment;
• in the public sphere, in public structures, where they operate with regard for prevention as well as scientific research;
• the social sphere in residences for elderly pa- tients, centres for the disabled and schools.

In all these areas, the activity of the dental hygien- ist improves the cost/benefit ratio of dental care by virtue of the marked preventive aspect of his/her work. Finally, the three-year graduate in Dental Hy- giene can continue his/her training in the Master Degree Course "Healthcare Technical Care Profes- sions".
NURSING
/LICENSE TO PRACTICE/

What is the objective of the course? What is it? What does it train you for?
The graduate in Nursing is the operator of the healthcare profession of nursing who performs in professional autonomy activities aimed at prevention, care and safeguarding of individual and collective health, fulfilling the functions identified by the professional profile as well as the code of ethics and using planning methodologies to assist children in achieving their developmental goals as well as caring for adult and elderly patients. The nurse is the healthcare provider responsible for general nursing in its preventive, curative, palliative and rehabilitative and technical forms, also performing relational and educational duties. The main functions are disease prevention, care of sick and disabled persons of all ages and health education.

In addition, the nurse:
- participates in identifying the health needs of the individual and the community, formulating the related objectives;
- plans, manages and evaluates the nursing care intervention, ensuring the correct application of diagnostic-therapeutic prescriptions and acting either individually or in collaboration with other health and social care professionals.

What do you learn?
During the three years of the course of study, students will be in touch with the real world of health, with those who suffer and need help to overcome obstacles. The student will thus have the opportunity to experience an unparalleled professional and human growth; they will learn to integrated theoretical knowledge with operational and organizational procedures, critical thinking with human skills, experimentation with real context assistance.

Before being admitted to the wards, students will practice in the laboratory, having the opportunity to train in a controlled environment, and to perform what they have learned in class, and apply theoretical principles to clinical practice so as to develop:
- technical and practical skills through the use of simulators;
- they will develop care, organizational, relational and problem solving skills by applying care methodologies using simulated clinical cases devised with patients, families and health professionals.

What can you do with it?
Nurses carry out their professional activity in health care facilities, in the public or private sector, in healthcare facilities and in patients’ homes, as employees or freelancers; they can contribute to the training of support personnel and directly update their professional profile and research. Studies can be continued by gaining admission to the Master Degree in Nursing and Midwifery or the Master Degree in Nursing Health.
What is the objective of the course? What is it? What does it train you for?

This Degree course aims to train health professionals capable of working in the prevention and rehabilitative treatment of speech and communication pathologies and oral functions in developmental, adult and geriatric age. It aims to teach people how to perform function evaluations, identify dysfunctions and formulate appropriate treatment programmes in the various pathological conditions to achieve functional recovery objectives. On the strength of clinical reasoning based on clinical-functional diagnosis students are trained to choose the most suitable rehabilitation-speech therapy technique and use specific and highly specialised therapeutic approaches and aids.

What do you learn?

Knowledge is acquired in the physics, biology and biochemistry, psychology and pedagogy fields, etc. The course aims to study the main diseases of rehabilitation interest, in particular in the field of oto-laryngology, phoniatrics, audiology, neuropsychiatry, etc. In the disciplinary area of prevention, the goal is to provide data on the core concepts of epidemiology, public health and business organisation. Students develop the following communication skills: listening, informing / talking with patients and family members in an effective and understandable way, and motivating their work and decisions taken with colleagues and with various professional figures.

What can you do with it?

Speech therapists can work in the national and regional health services as employees or freelance, in accredited and affiliated private structures, clinics and rehabilitation centres, as well as in educational structures or local bodies, nursing homes, medical and multispecialist outpatient clinics, individual or associated rehabilitation studio and service cooperatives. They can carry out study and research activities and professional consultancy work. Furthermore, speech therapists can access the Master Degree in Rehabilitation Sciences of the Health Professions and 1st level Master.
What is the objective of the course? What is it? What does it train you for?

The Study Course in Nursing delivered entirely in English aims to train professionals in the nursing area with the possibility of "placement" at European and non-European level (see OCSE data). The final exam has the value of a State Examination which admits graduates to work as a Nurse. Admission is gained by sitting a test in English (B2-CEFR) and attendance is mandatory. The course is divided into basic and characterizing disciplines and focuses on professional activities and clinical training for 60 CFUs. It includes formal, vocational training activities chosen by the student and a fee for the study of other individual training activities. The final exam in English consists of the preparation and discussion of a written paper on a theoretical-practical topic and is preceded by a professional test demonstrating the acquisition of skills related to nursing care practice. The acquisition of skills is calculated in credits, 60 each year, for a total of 180 credits.

What do you learn?

The Degree Course in Nursing aims to:
• Provide students with the knowledge necessary to understand the biological and physiological phenomena occurring in the human body in its various phases of development;
• Provide students with the knowledge necessary to understand the etiology, pathophysiology, clinical and instrumental diagnosis of human disease in various developmental stages;
• Provide the student with the theoretical and technical-practical skills suitable for the prevention of major human diseases in its various developmental stages;
• Provide students with theoretical and technical practices adapted to perform the assistance tasks required by the job profile of the nurse in Italy and abroad;
• Provide students with adequate theoretical and technical practices in the fields of Forensic Medicine, Bioethics and Professional Ethics and Health Management.

What can you do with it?

The Degree in Nursing trains a healthcare provider who operates autonomously in the areas of prevention, care and safeguarding individual and collective health, using planning methodologies to provide assistance for the achievement of childhood goals, and care for adult and elderly patients. The Nurse is the operator responsible for general nursing of the preventive, curative, palliative and rehabilitative types. The main functions are disease prevention, assistance for the sick and disabled of all ages and health education in Italy and in foreign countries. The Degree in Nursing offers the graduate the possibility of working in highly specialized health facilities nationally (IRCCS) and internationally, or to perform research in nursing, SSD/MED 45.06/MI.
ORTHOPTICS
AND OPHTHALMOLOGICAL
ASSISTANCE
(LICENSE TO PRACTICE)

What is the objective
of the course? What is it?
What does it train you for?
This Degree Course in Orthoptics aims to train orthoptist-ophthalmology assistants. The Degree course’s educational modules are designed to give students an adequate mastery of general scientific methods and contents and specific professional knowledge in science orthotics. These activities include both in their core aspects and through disciplines characterising in relation to the specific objectives of the Degree course, teachings and activities in the field of preparatory, biological and psychological sciences, orthoptics and ophthalmology, medical-surgical assistance, prevention and health services, clinical interdisciplinary, health management, interdisciplinary, human and psycho-pedagogical sciences.

What can you do with it?
Orthoptists treat motor and sensory vision disorders and perform clinical-instrumental semeiology technique ophthalmology. They are responsible for the evaluation and rehabilitation of strabismus and amblyopia. They assist ophthalmologists in the diagnostics and surgical correction fields.

They can work in territorial health units or hospitals, private or accredited nursing homes, private eye doctors’ studios or as consultants, ONLUS operating regionally and nationally. They can work as freelance professionals independently of competences. An Orthoptics Degree gives graduates access to the Master Degree in Rehabilitation Sciences in the Health Professions course.
What is the objective of the course? What is it? What does it train you for?

Graduates in the Midwifery health profession must acquire the skills required by the specific professional profile. The achievement of professional skills will be implemented and completed also through practical training and a clinical internship, coordinated by a teacher at the highest educational level required for the professional profile and corresponding to the standards defined at European level; this practical training, in the three years of the course, will have particular importance and will be an integral and qualifying part of the professional training.

The cultural and behavioural skills achieved in the training context of the specific profile will ensure, at the end of the training course, full mastery of the skills achieved and their immediate use in the workplace.

What do you learn?

The three-year course will give Midwifery graduates an adequate preparation in the basic disciplines, allow them both to gain a better understanding of the most relevant elements, relating to gender, which are at the basis of the physiological and pathological processes to which their preventive and therapeutic intervention is addressed and the maximum integration with the other professions.

What can you do with it?

They can work in health facilities, in the public or private sectors, both as employees and freelancers, and in particular to:

- Assist and advise women in the period of pregnancy, during childbirth and in the puerperium;
- Conduct and complete eutocic deliveries under their own responsibility, and provide assistance to the newborn;
- Participate in health and sexual education interventions both within the family and in the community;
- Participate in the psychoprophylactic preparation for childbirth;
- Participate in the preparation and assistance for gynecological interventions;
- Participate in the prevention and detection of cancers of the female genital sphere;
- Participate in mother and baby care programs;
- Manage, as members of the health team, in compliance with professional ethics, care intervention within their competence;
- Contribute to the training of support staff and directly contribute to the updating of their professional profile and of research;
- Identify potentially pathological situations that require medical intervention and implement emergency measures, where necessary.
What is the objective of the course? What is it? What does it train you for?

This course aims to provide students with core knowledge in etiopathogenesis, physiopathological and psychosocial aspects, symptomatology, diagnosis and treatment of the most common mental disorders in childhood, adolescence and adulthood through theoretical-practical activities. This Degree qualifies graduates for the Psychiatric Rehabilitation Technician health profession, health workers whose work includes: rehabilitation, education, primary prevention and health promotion for individuals with mental disabilities. This course allows students to develop important skills including: assessment of mental disabilities as well as subject potential, need and resource analysis in the family and social environments, implementation and verification of the rehabilitation project under the supervision of a psychiatrist.

What do you learn?

Graduates in Psychiatric Rehabilitation Techniques must acquire knowledge of:

• the structural and anatomical organisation of the CNS and related biological, neuro-chemical and physiological phenomena;
• fundamental psychological development and family dynamics concepts;
• the most common tools and rating scales for psychodiagnosis;
• fundamental psychiatric treatment concepts in both pharmacological and psychotherapeutic fields;
• core mental hygiene principles and the prevention of mental distress in the various life contexts;
• psychiatric mental health service organisation legislation;

• core psychiatric rehabilitation principles, theories of reference, models, techniques and intervention strategies. They must acquire the ability to design individualised rehabilitation interventions and ongoing assessment procedures and outcomes.

What can you do with it?

Technicians of Psychiatric Rehabilitation work as employees or freelance professionals in the private and public sectors. Workplaces include psycho-social centres, rehabilitation therapy centres, therapeutic communities, nursing homes, residences for the elderly, drug addiction services. The Degree also offers direct access to the Master Degree - LM 57/2 in Health Professions of Rehabilitation Sciences.
What is the objective of the course? What is it? What does it train you for?

The Degree in Audioprothetic Techniques prepares students for a career as Hearing Aid Specialists. Through this programme students acquire the following skills: interviewing the patient, testing the patient’s hearing, analysing test results, selecting the appropriate hearing instrument, fitting and dispensing hearing aids to patients, verification of the fitting and patient follow-up. They are also responsible for taking moulds of patients’ ears and preparing or designing earmolds and other coupling systems. Hearing Aid Specialists instruct clients on proper hearing aid use and perform procedures such as real ear measurements and cochlear implant mapping.

What do you learn?

This Degree aims to prepare students in the core subjects required for a comprehensive knowledge of audiology and hearing aid related topics such as:
- anatomy and physiology in which they learn the morphology and functional aspects of the ear and the hearing system;
- acoustic physics;
- materials science and technology;
- data processing systems;
- audiology;
- otolaryngology;
- audiometry and cochlear implants combined with wide ranging professional training gives students everything they need to take on the challenges of the job.

To complete their learning, students are also trained in other subjects: psychiatry, radiology, neurology, neurosurgery, occupational medicine and business economics.

What can you do with it?

Hearing Aid Specialists can work in the public and private sector, as employees or freelance. They can complete their training with a Master Degree of the same class. Professional training at other facilities during the course gives students the opportunity for direct contact with other hearing aid specialists who can assist them in finding employment. They can liaise with colleagues in the field, scholarly journals, and professional trade organisations to ensure they are aware of relevant updates in audiology.
What is the objective of the course? What is it? What does it train you for?

The course aims to train health professionals with the scientific and technical knowledge required for the profession of prevention technician. Prevention technicians carry out prevention, training, verification and control activities on hygiene and safety in the workplace, environmental protection, hygiene and public health, veterinary and food health. In particular, the prevention technician carries out activities in the field of:

- Environmental safety (sampling of environmental matrices, monitoring of automatic detection networks, verification of plant protection products);
- Safety at work (preparation of the Risk Assessment Document and Safety Operational Plans, sampling of dust or aero diffused substances, microclimate, noise and brightness measurements);
- Food safety (development of self-control plans (HACCP), sampling of food stuffs, management of animal health registry, emergencies and health alert states and food/feed-related emergencies).

The Degree course includes lectures and practical training activities with compulsory attendance. At the end of the studies, the student will sit a final qualifying test.

What do you learn?

The course includes frontal lessons and professional training experience gained in public facilities. The frontal lessons concern different thematic areas in the context of:

- Basic sciences (Chemistry, Biology and Genetics, Biochemistry, Histology with elements of Human Anatomy and Human Physiology);
- Prevention (Internal Medicine, Infectious Diseases, Microbiology, Epidemiological Methodology, Hygiene and Occupational Medicine);
- Environmental safety (Applied Physics, Environmental Technical Physics, Environmental Health Engineering, Applied Medical Sciences and Techniques);
- Occupational safety (Radiology and Radioprotection, Pharmacology, Occupational Safety, Biological Risk, Applied Medical Sciences and Techniques);
- Food security (food chemistry, food science and technology, food hygiene, inspection of food of animal origin, applied medical sciences and techniques).

The course completes the training with General Sociology, Labour Law and Legal Medicine.

What can you do with it?

At the end of the course the student obtains a Degree qualifying him/her for the profession of Environmental and Workplace Prevention Technician. After graduation, the Prevention Technician can work in Public Health Facilities and in the private sector as an employee or consultant in the field of food safety, safety in the workplace, environmental safety, and as a Technical Consultant for the Court. He or she can also operate as a freelancer.

The student can also continue his or her studies by accessing the Master Degree in “Sciences of the Healthcare Professions of Prevention” available at other universities in Italy, and by attending the level I Masters also available at regional level.
What is the objective of the course? What is it? What does it train you for?
The aim of this course is to train healthcare professionals in the technical-diagnostic area to enable them to acquire theoretical preparation and effective practical experience with the behavioural skills required to work in a team and for immediate entry into the job market. Knowledge of the core disciplines gives Biomedical Laboratory Technicians (BLT) an understanding of the elements underlying the major human pathological processes. Graduate BLTs will have acquired the ability to:

- perform technical services independently, demonstrating an ability to work in a team with other professionals;
- manage laboratory equipment and perform the predefined scientific analysis methods necessary to produce reliable and top quality results;
- assess the correspondence between the services provided and indicators and reference standards;
- manage the biological/chemical risk;
- provide information on how to collect, transport and store biological materials;
- participate in work planning and organisation;
- assess the correspondence between the services provided and indicators and reference standards;
- manage the biological/chemical risk;
- provide information on how to collect, transport and store biological materials;
- participate in work planning and organisation.

What do you learn?
Theoretical lectures cover several thematic areas:

- Core sciences: chemistry, biology, biochemistry, physics, statistics, physiology, microbiology, pathology;
- Laboratory medicine sciences: clinical biochemistry, clinical microbiology, clinical pathology, pathological anatomy;
- Biomedical laboratory techniques: technical laboratory medicine sciences, clinical molecular medicine, informatics, molecular pathology;
- Clinical sciences: endocrinology, internal medicine, gastroenterology;
- Prevention and safety in laboratories: occupational medicine, imaging diagnostics and radiotherapy;
- Health management: ethics and history of medicine, psychology, business organisation.

Qualifying training activities take place in the diagnostic laboratories of public hospitals under the supervision of expert tutors, and in research laboratories. At the end of the course, BLTs sit a final qualifying test for the profession of Biomedical Laboratory Technician.

What can you do with it?
Biomedical Laboratory Technicians (BLT) work in national health service hospitals and non-hospital laboratories. They also work in similar privatised facilities, in the Experimental Zooprophylactic Disease Institutes (IZS) and also freelance. Specifically, they can work in:

- clinical diagnostic laboratories: biochemistry, pathology, microbiology, pathological anatomy, drug-toxicology, immunology, haematology, transfusion services;
- quality control laboratories in the biomedical field and the pharmaceutical industry;
- Regional environmental prevention and protection agency analysis and control laboratories;
- manufacturing industries and laboratory diagnostics sector marketing agencies;
- university and non-university research biomedical sector laboratories.

Furthermore, BLT graduates can continue their studies in a Master Degree, I and II level master's and Ph.Ds.
What is the objective of the course? What is it?

What does it train you for?

The Degree Course of Neurophysiopathology Techniques (hereinafter: NPT) aims to train health professionals skilled in neurophysiopathology techniques, relevant and indispensable investigation methodologies for the study and diagnosis of pathologies of the peripheral and central nervous system and also for therapeutic interventions (neurostimulation treatments) on an electrophysiological basis (electroencephalogram, electromioneurography, poligraphy, evoked potentials, reflex responses, magnetic and electrical transcranial stimulation) with the ability to independently draw up a technical report.

What do you learn?

The NPT degree program, through a wide and articulated training on basic and characterizing knowledge provided through frontal teaching and practical training activities, favors the acquisition of skills suitable for being able to perform in different clinical contexts (out-patients service, hospital wards, intensive care units, operating rooms) all evaluation and therapeutic techniques on an electrophysiological basis (electroencephalogram, electromioneurography, poligraphy, evoked potentials, reflex responses, magnetic and electrical transcranial stimulation) with the ability to independently draw up a technical report.

What can you do with it?

The NPT carries out its professional activity in public health structures where the specific professional figure is present (hospitals, university clinics, specialist outpatient facilities) or private-accredited or private as well as in industrial-commercial enterprises of production of neurophysiological equipment with the task of setting up, testing and checking the equipment in question. NPT graduates can also continue their studies for the achievement of the Master’s Degree in Sciences of the Technical Health Professions: LM / SNT3.
What is the objective of the course? What is it? What does it train you for?

The objective of this Degree course is to train professional Medical Radiology Technicians (TSRM) as health workers with solid core and practical knowledge in the field of diagnostic imaging and radiotherapy sciences and techniques, and capable of responsibly carrying out activities relating to diagnostic procedures, radiodiag nostics, radiotherapy, nuclear medicine and health physics in their areas of competence.

What do you learn?

Teaching activities include lectures and professional training carried out in public and private facilities. Its integrated teaching courses are held by one or more teachers relating to the specific objectives of the course and include core sciences, prevention and safety disciplines. Great space is provided for training on radiological, nuclear medical and radiotherapy imaging techniques and equipment, image processing and archiving systems. Training is completed with professional management skills and other disciplines such as medical oncology, orthopaedics and odontostomatology.

What can you do with it?

Employment opportunities for graduates in medical radiology techniques for imaging and radiotherapy are:
- diagnostic imaging and radiotherapy departments and services operating national health system hospitals and similar private structures;
- production industries operating in the diagnostic imaging and radiotherapy fields.

Professionals can carry out all interventions requiring the use of both artificial and natural ionizing and non-ionizing radiation, on medical prescription. They participate in the programme and organisation of work in the field of the facility they work in and in accordance with their skills.
What is the objective of the course? What is it? What does it train you for?

This Master Degree Single Cycle in Medicine and Surgery prepares students for the medical surgeon profession. Medical surgeons treat and cure the most common and prevalent dysfunctions, diseases and lesions in the population; develop and implement early diagnosis of serious diseases in patients at risk; prescribe drugs and non-drug treatments, clinical examinations for diagnosis, hospital admission and specialist visits; monitor the course of diseases and their treatment; demand and implement preventive measures for patients or the organisations they work in.

What do you learn?

The Medicine and Surgery Master Degree Single Cycle programme includes the study of bio-medical and medical subjects, as well as a thorough knowledge of English and psychology based on a medical-patient approach. Attendance at preclinical and clinical internships is mandatory.

What can you do with it?

Career opportunities for graduates in Medicine and Surgery are offered by:
- Universities and research centres;
- Hospitals and specialist national health system centres;
- Public and private clinics, national and international health and humanitarian organisations.

A Master Degree Single Cycle is also a requirement for admission to Medical Speciality Schools.

Practical evaluation internships in the medical area for the state exam (TPVES) within the curricular course of the Master Degree Single Cycle in Medicine and Surgery allow students to achieve a Degree in medicine and a full license to practice medicine at the same time.
What is the objective of the course? What is it? What does it train you for?
The Master Degree Single Cycle in Medicine and Surgery, Technology specialisation, (MED-IT) first and foremost, trains students for the medical doctor profession. Medical doctors treat and cure the most common and prevalent dysfunctions, diseases and lesions in the population; develop and implement early diagnosis of serious diseases in patients at risk; prescribe drugs and non-drug treatments, clinical examinations for diagnosis, hospital admissions and visits to specialists; monitor the course of diseases and their treatment; demand and implement preventive measures for patients or the organisations they work in.

In addition, the course is designed to train students with a clear awareness and vision of the potential offered to the medical field by technological advances and the correct use of the most advanced and innovative technologies in the medical field, from prevention to diagnosis, treatment and rehabilitation.

What do you learn?
The Medicine and Surgery Master Degree Single Cycle programme includes the study of bio-medical and medical subjects, as well as a thorough knowledge of English and psychology based on a medical-patient approach. In addition, in order to align this programme to core and specialist knowledge of biomedical engineering, an in-depth study of subjects such as mathematical analysis, physics, chemistry, computer science, biochemistry and statistics is included in the programme.

Specific teaching aimed at providing students with an engineering education enabling them to deal with complex computer analyses and plan technological applications in the medical field complements medical subject matter. Attendance at preclinical and clinical internships is mandatory. Practical evaluation internships in the medical area for the state exam (TPVES) within the curricular course of the Master Degree Single Cycle in Medicine and Surgery allows students to achieve a Degree in medicine and a full license to practice medicine at the same time. In addition, during or at the end of the course, students may acquire 40 CFU (ECTS) from subjects in the Biomedical Engineering Degree course, and after passing a final examination, obtain a three-year Degree in Biomedical Engineering.

What can you do with it?
• Universities and research centres;
• Hospitals and specialist national health system centres;
• Public and private clinics, national and international health and humanitarian organisations.

A Master Degree Single Cycle is also a requirement for admission to the Medical Speciality Schools. Thanks to the skills acquired in the engineering/technological field, doctors trained in MED-IT (who are also awarded a three-year Degree in Biomedical Engineering) can work not only in the traditional fields of medicine but also in a wide variety of sectors, including new medical and pharmacological device design.
What is the objective of the course? What is it? What does it train you for?

The primary objective of the course is to train professionals who practice the full range of general dentistry with a holistic approach to oral health, both for prevention and cure. The Master Degree Single Cycle Programme covers the following:

- Anamnestic assessment of patients, with particular attention to diseases that may affect oral tissues and/or be relevant to the definition of a treatment plan;
- Clinical examination of the oral cavity and the stomatognathic system;
- Diagnosis of congenital and acquired diseases of teeth, oral mucosa, jaws and related tissues;
- Oral disease prevention for individuals and populations;
- Therapy of congenital and acquired diseases of teeth, oral mucosa, jaws, temporomandibular joints and related tissues, as well as oral rehabilitation;
- Prescription of drugs and devices for the treatment of oral diseases;

What do you learn?

Some fundamental learning that the Master Degree Single Cycle Programme covers includes:

- Anamnestic assessment of patients, with particular attention to diseases that may affect oral tissues and/or be relevant to the definition of a treatment plan;
- Clinical examination of the oral cavity and the stomatognathic system;
- Diagnosis of congenital and acquired diseases of teeth, oral mucosa, jaws and related tissues;
- Oral disease prevention for individuals and populations;
- Therapy of congenital and acquired diseases of teeth, oral mucosa, jaws, temporomandibular joints and related tissues, as well as oral rehabilitation;
- Prescription of drugs and devices for the treatment of oral diseases;

What can you do with it?

Graduates in Dentistry and Prosthodontics can practice as dentists both in private practice and within the National Health Service.

Graduates in Dentistry and Prosthodontics have career opportunities in private dental practice, in clinics, in single and poly-medical facilities, as well as in those affiliated with or accredited by the Regional Health Service. Career opportunities are also available, according to current legislation, by the facilities of the National Health Service, including hospitals. Graduates may also work in Universities and Research Centres (public or private) in the fields of clinical, biomedical and material research. Graduates of this Master Degree Single Cycle programme also develop the learning skills necessary for postgraduate specialisation and further training (Masters, PhD and Specialty programmes).
What is the objective of the course? What is it? What does it train you for?

This course trains professional biotechnologists with a core knowledge of human pathologies and the ability to apply innovative techniques to the molecular and cellular biotechnology field, both diagnostic-therapeutic and biomedical scientific research. The course provides students with practical preparation through: internship in laboratories; internships in biotechnology companies; international experience in the Erasmus mobility programme. Overall, the course aims to train qualified professionals with practical laboratory experience and transversal and cutting-edge skills helping them to find work.

What do you learn?

Graduates will know and be able to apply:
- cellular, molecular and gene transfer methodologies to identify therapeutic targets and innovative diagnostic approaches for molecular medicine, oncology, regenerative medicine and biocompatibility;
- innovative technologies for gene and cell therapies;
- technologies applied to the study of genomics, transcriptomics and proteomics;
- techniques involving the use of biomaterials and nanotechnologies applied to biomedicine;
- assisted human reproduction techniques and those necessary for individual genetic profile characterisation.

What can you do with it?

- Scientific research and technological development in universities, national public institutions (National Institute of Health, CNR, IRCSS, health research institutes) and the pharmaceutical, diagnostic and biotechnological areas;
- Scientific communication in the pharmaceutical, diagnostic and biotechnological areas;
- Biomedical diagnostics in public and private clinical laboratories, including RIS laboratories;
- Joint working with physicians in clinical trial monitoring programmes and design and application of biotechnological diagnostic and therapeutic strategies;
- Teaching for class A060.
What is the objective of the course? What is it? What does it train you for?

The Neuroscience Master Degree course fits into University of Palermo educational provision innovation and rationalisation process. The programme trains experts in neuroscience and neurobiology who can further refine their skills through doctoral and Master Degree. Graduates of the Neuroscience programme can take on leadership posts in the research and development departments of private and public hospitals, the pharmaceutical and biotechnology industries, companies and innovative start-ups.

What do you learn?

The course is designed to provide adequate and balanced training in the core subjects as well as clinical areas, especially in biochemistry, anatomy and physiology, with advanced study of the structural, morphological and functional aspects of the central and peripheral nervous systems, including cellular and molecular aspects. These elements are designed to prepare students for appropriate contextualisation of pathological processes, as well as relevant diagnostic-instrumental pathopharmacological therapies. The course also provides students with an opportunity to study information processing in neuroscience which is strategic to the modern computational approach to neuroscience.

What can you do with it?

This Master Degree in Neurosciences trains experts in neuroscience and neurobiology, managers in research divisions designed to create new drugs, new bio-engineering technologies for the management, diagnosis and treatment of diseases of the central and peripheral nervous system.
What is the objective of the course? What is it? What does it train you for?

The professional profile of Doctors in Prevention Health Professions Sciences, according to their advanced training path, is designed in order to provide the acquisition of skills in the fields of management, training and research processes in prevention activities, in collaboration with the other professional figures and health administration. Their activity is aimed at the planning, management and organization of preventive health intervention measures and assistance, guaranteeing a technical and qualified managerial approach. Through an interdisciplinary collaboration, they also guarantee the involvement of families and social groups for a greater awareness of the problems inherent in prevention. The training course allows students to obtain skills useful for planning training interventions adapted to European standards, through an optimization of the human, technological and information resources available to health facilities. Graduates in Prevention Health Professions Sciences can also manage updating and coordination activities of the internship in the basic training of the professional figures with whom they cooperate.

What do you learn?

Over the two years, professionals will have to acquire knowledge and skills in the field of health economics, organization and management of health services provided by personnel with technical health functions in the medical area; business organization; principles of public administrative and health law, management of human resources, culture of quality and safety within the company; health promotion in the target population of the service implemented through information, communication and social marketing plans; essential methodological elements of epidemiology; legislation related to safety in the workplace pursuant to law 81/2008; use and promotion of research methods and tools; use of the most common IT systems used in the public administration.

What can you do with it?

The achievement of the degree in Prevention Health Professions Sciences guarantees access to the managerial role, in the public and private sector, as well as a role in university teaching, coordination of university courses and research. Public activities can be carried out within structures of the National Health System (hospitals and/or local health agencies and/or regional environmental protection agencies, regional health departments), at the Departments of Prevention, regional agencies for Environmental (ARPA) and their territorial services. Private activities can be carried out as employees or freelancers in the specific sectors of prevention in workplaces and health care.
What is the objective of the course? What is it? What does it train you for?

The course prepares to the profession of Coordination in Sciences of the Technical Healthcare Professions, in agreement to what mentioned in the law 502 published in the 30th December 1992 (article 6, paragraph 3) and subsequent amendments and additions contained in the law no. 251, article 1, paragraph 1. Graduates have to advanced cultural and professional training to act with high skills in the care, management, training and research processes in one of the areas relevant to the various health professions included in the class.

What do you learn?

During the two years of the course the students will acquire the ability to transfer the diagnostic or assistance technical knowledge acquired in the operational reality in order to carry out technical activities for clinical purposes, didactic training in health services and in those where professional skills are required.

They will learn to apply organizational analysis and management control and analysis of health processes that involve them, specific to the professional field.

They will acquire the ability to transfer the knowledge gained in the operational reality in order to take responsibility for the organization, in planning and in the quality of the professional acts performed within their duties.

What can you do with it?

Technical Coordinator in healthcare facilities in the Regional Health Trust, private healthcare facilities, university teaching, continuous training, research in the area of expertise.
NURSING AND MIDWIFERY SCIENCES

What is the objective of the course? What is it?

The graduate will acquire competences in:
- planning and management of healthcare personnel;
- the new methods of work organization, technological and IT innovation, (with respect to teleassistance and distance learning);
- planning and organization of pedagogical and educational interventions;
- the homogenization of the operating standards with those of the European Union;
- the knowledge of health management techniques and procedures.

What do you learn?

The specialist graduate training course trains the students in:
- making decisions relating to the organization and management of health services provided within public or private health structures of low, medium or high complexity;
- using the health economics and business organization skills necessary for a profitable organization of the health services and for the management of the human and technological resources available in relation to the cost/benefit ratio;
- using methods and tools of research in the organization of health services;
- planning the optimization of the various types of resources (human, technological, IT, financial) given by the reference health structures of low, medium or high complexity.

What can you do with it?

The methodological knowledge acquired allows graduates to find employment in the following sectors:
- corporate training or academic centres with Management or Coordination functions of training structures for teaching, tutoring and training planning activities;
- health and social-sanitary structures with Management or Coordination functions of the services in which nurses and midwives work;
- research centres for projects related to nursing and midwifery fields or for multi-centre and multi-disciplinary projects.

Graduates with the Master Degree in Nursing and Midwifery Sciences carry out their professional activity as employees in public or private or accredited health facilities, in the community and in home care.
HEALTH PROFESSIONS OF REHABILITATION SCIENCES

What is the objective of the course? What is it? What does it train you for?

This course allows students to develop the advanced knowledge and expertise in care, management, training and research processes required to work in one of the health professions included in this class (podiatrist, physiotherapist, speech therapist, orthophtist, assistant in ophthalmology, neuropsychomotor developmental age therapist, psychiatric rehabilitation technician, occupational therapist, professional educator). Graduates acquire assistance, educational and preventive skills, developing an integrated approach to organizational and management problems in the health professions.

What do you learn?

Graduates will develop the knowledge and skills to:

• make decisions on health service organisation and management, enhancing human, technological, information and financial resources;
• supervise specific sectors of health organisation for rehabilitation;
• use research methods and tools;
• ensure they remain up-to-date and get ongoing training;
• develop tutoring and coordination skills in training;
• communicate clearly on organisational and health issues with team members and users;
• critically analyse ethics and deontology in the health sector professions.

What can you do with it?

This Master Degree gives graduates access to managerial posts in the following fields:

• management;
• monitoring;
• planning;
• consultancy;
• management of human resources;
• information technology.

The skills acquired relate to:

• corporate organisation in the health sector;
• costs and structures management;
• research;
• quality control;
• case management.

The Master Degree offers access to freelance work or employment in public health institutions, accredited or in agreement with the national health system, and the university.
ARCHITECTURE

www.unipa.it/dipartimenti/Architecture

BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

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MASTER DEGREE

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The course belonging to the Science and Building Technique Degree class aims to train professionals capable of working responsibly on joint analysis, planning, maintenance, adjustment, and restoration work, existing architecture upgrading, management of processes on various scales, urban and local construction. The course focuses on intervention on the built/natural environment and, after identifying actual critical issues, provides students with the tools required to intervene with high quality outcomes. Accordingly, the course of study aims to offer the community an educational course moulded to shared social needs representing real employment spheres for architects/junior engineers.

The main feature of the educational course is design itself in its feasibility study: technical, economic, environmental, sustainable and administrative. In addition, students complete a traineeship in private design studios or public or local institutions.

At the end of the course students will have gained a mature critical-historical awareness and a full-blown grasp of the quality of a built space, an in-depth knowledge of relief representation methods, both traditional and innovative techniques and materials, building components; the behaviour of structures even in seismic risk conditions; the construction and management processes, material and structure alteration processes; urban planning technique and design; social phenomena related to the urban environment and their dynamics. Student knowledge and competence will be assessed in their final project and its methodological aspects and operational phases will be assessed.

Graduates will have the opportunity to work for private and public institutions or local authorities and contribute their skills to design companies. Specifically architects/junior engineers will be capable of working autonomously or in partnership in roles such as:

- Designers, in accordance with the law (in the fields of architectural design, furniture, urban planning, landscape architecture and restoration);
- Graduate Technician Executive in the technical offices of public bodies, in the field of urban building maintenance, territorial and architectural assets;
- Technical director at public and private companies in the building and environmental sectors; Building Project Manager and testing;
- Designer, Director of Works, supervision, accounting and liquidated damages in simple civil construction, using standardised methodologies;
- Surveyor of current or historical buildings and geometric surveys of any nature.

Furthermore, graduates can register on and apply for any Master Degree courses offered by the Department of Architecture.
INDUSTRIAL DESIGN

What is the objective of the course? What is it? What does it train you for?
The Industrial Design Bachelor Degree course, class L-4, was set up in 2002. It trains professionals capable of applying design to various product and visual communication sectors, through the development of skills, knowledge and critical capabilities oriented to innovation. The training takes the form of lectures and laboratories and is completed by internships in companies, organisations and professional studios.

Product Design
The Product Design course renews the initial cultural content of the Degree course, traditionally focused on product and visual communication, but now also permeated by the most recent project methodologies such as “Design Thinking” and designed to expand designers’ range of action in the direction of more complex areas such as service design (product-services), systems design and strategic design. The leitmotiv of the course is the ethical approach, oriented to environmental sustainability and social and technological innovation.

Space Design
This is a new specialisation, which maintains the course’s ethical approach and, therefore, its environmental sustainability and social and technological innovation orientation, aiming to expand designers’ training into the field of space design. That is: the organisation of public and private spaces (exhibit design). This curriculum meets the interest of students towards the furniture design and to the stakeholders who see the opportunity.

What do you learn?
Industrial Design graduates combine technical-instrumental skills with an ability to develop creative processes, with skills in:
- object and industrial product design;
- designing visual communication elements (two-dimensional, multimedia, interactive);
- developing designs and strategies for the promotion and fruition of cultural heritage products (exhibitions and event preparation, designing services for culture);
- elaborating strategies for sustainability in production and fruition.

What can you do with it?
Professional opportunities are mainly in companies working in the production of assets and services fields and design studios. In addition, Industrial design graduates can continue their studies in Master Degree courses.
URBAN DESIGN FOR THE CITY IN TRANSITION

CLASS L.21
CAMPUS Palermo
TYPE OF ACCESS Free

What is the objective of the course? What is it?

The three-year degree in Urban Design for the City in Transition (UDCT) trains experts in the analysis, research and representation of cities, human-made or natural territories, environments and landscapes. Their professional expertise is paramount for elaborating urban, territorial, environmental and sectoral plans, projects and programmes that are drawn up by public administrations (regions, municipalities, local authorities) or by agencies, private companies and the third sector.

The professional abilities of the graduates in Urban Design for the City in Transition allow them to understand and interpret the processes of historical transformation of territories and cities. These are peculiar skills that are necessary for drafting analyses aimed at knowing territorial resources and their state of preservation, the built heritage (both historical and contemporary) and complex systems such as landscape and environmental ones. The competences of the UDCT graduate also include social, political and economic components that interact with the planning of cities and territories, as well as knowledge in the use of strategic environmental assessment (SEA) tools and the representation and management of territorial information data (Geographic Information Systems), which today is among the most required professional skills for public administrations and in all cases of drafting complex territorial projects. The Degree Course in UDCT trains graduates who can understand the greatest contemporary changes that relate to the training experience offered by the course: Digital Design for the City; Analysis of the Urban; Regeneration of the Contemporary City; History of Cities and Territories; Advanced Spatial Analysis; Inclusive Urban Design; 3D Mapping for the Territory; Landscape and Green Networks.

The course is characterised by various studios that are central to the training experience offered by the Degree Course in UDCT: Digital Design for the City; Analysis of the Urban; Regeneration of the Contemporary City; History of Cities and Territories; Advanced Spatial Analysis; Inclusive Urban Design; 3D Mapping for the Territory; Landscape and Green Networks. These studios are linked to plans and projects, which can therefore be identified as:

- Public administrations for the government and management of the territory (municipalities, regional councillorships, local authorities for cultural and environmental heritage, public authorities, port authorities, local development agencies, etc.);
- Professional firms, service companies, private institutions and the third sector.

Those who have obtained a Higher Diploma in the relevant technical institutes, if they have graduated in Urban Design for the City in Transition, can access the Italian State Examinations for the professions of Agrotechnician, Graduate Geometer, Agricultural Technician and Industrial Technician according to the indications of Presidential Decree 328/2001.

Internships can be carried out in whole or in part during the course of studies according to the procedures established in agreements stipulated between the Orders or Colleges and the Universities (Presidential Decree 328/2001).

What do you learn?

The course requires the students to carry out as much experimental experience as possible that allows them to grasp the various points of view on the transformation of cities and territories - in historical, economic, social, environmental, landscape, infrastructural and urban design terms. This is fundamental to train professionals who can operate in the most current fields of urban studies and planning.

The course is built on five different disciplinary areas made up of basic, characterising and related subjects:

- Urbanism, Planning, Architecture and Landscape;
- Economics, Geography and Sociology;
- Ecology;
- Representation and History of Architecture;
- Basic subjects.

The course is characterised by various studios that are central to the training experience offered by the course: Digital Design for the City; Analysis of the Urban; Regeneration of the Contemporary City; History of Cities and Territories; Advanced Spatial Analysis; Inclusive Urban Design; 3D Mapping for the Territory; Landscape and Green Networks. These studios are related to a set of theoretical-practical teachings aimed at understanding urban and territorial phenomena and at the construction of principles and methodologies useful for cognitive approaches and drafted with practical experimentations aimed at acquiring cultural apparatuses and operational techniques.

What can you do with it?

Graduates in Urban Design for the Transitionality may continue their studies by enrolling in two-year Master’s Degree Courses. Subject to a State Examination, the title of Junior Planner can be obtained, as well as registration in the Order of Architects, Planners, Landscapers and Conservators, section B, ‘Planning’ sector.

The privileged stakeholders for Junior Planners are those subjects, both public and private, operating in the field of urban and territorial transformations, infrastructures and transport, landscape and environment, participatory processes linked to plans and projects, which can therefore be identified as:

- Public administrations for the government and management of the territory (municipalities, regional councillorships, local authorities for cultural and environmental heritage, public authorities, port authorities, local development agencies, etc.);
- Professional firms, service companies, private institutions and the third sector.

Those who have obtained a Higher Diploma in the relevant technical institutes, if they have graduated in Urban Design for the City in Transition, can access the Italian State Examinations for the professions of Agrotechnician, Graduate Geometer, Agricultural Technician and Industrial Technician according to the indications of Presidential Decree 328/2001.

Internships can be carried out in whole or in part during the course of studies according to the procedures established in agreements stipulated between the Orders or Colleges and the Universities (Presidential Decree 328/2001).
What is the objective of the course? What is it? What does it train you for?

The course in Digital Technologies for Architecture is a professionally oriented three-year degree course aimed at those interested in a technical degree that leads quickly to employment. The CdL trains a versatile modern professional figure capable of responding to today's needs expressed by the sectors of architecture in which the common denominator of activities is the digital declination of the various disciplines with a specific focus on the most advanced digital techniques of representation and communication of architecture.

The course envisages training activities in the area of basic disciplines and teachings aimed at providing the knowledge - both theoretical and practical - necessary to operate in the field of design processes, realisation and management of architectural works, territory management, cartographic and architectural survey, as well as graphic restitution through the most advanced technologies available. Finally, graduates will be able to operate in the field of technical and economic feasibility, cost calculation, the production and realisation process of architectural works both from a technical and regulatory and administrative point of view. In line with the practical vocation of the Course, ample space is given to laboratory training activities, as well as to internships in companies, technical studies, construction companies or public bodies.

What do you learn?

The degree programme trains a versatile figure in the field of architecture who is able to:

- Use digital photogrammetric and laser scanning techniques to survey architectural artefacts;
- Resume the architectural project through the use of CAD and the application of the principles of parametric architectural modelling;
- Apply the BIM methodology and information modelling and using technical documentation and dedicated software for modelling objects and producing drawings;
- Represent and modelling the built environment through virtual reconstruction of historical and contemporary architectural artefacts and digital visualisation of architecture;
- Manage spatial data in digital format through the use of GIS;
- Manage work and site accounting procedures through the use of specific software for the production of estimated metric calculations, technical specifications, measurement booklets, work progress reports, maintenance plans, etc;
- Verify the correct application of safety procedures in site management, planning and directing works and supervising construction and distribution aspects relating to modest constructions;
- Apply public and private works legislation, town planning instruments and building permits and carry out forensic consultancy activities.

What can you do with it?

The Graduated Technician will be a multi-purpose figure capable of using the most innovative digital technologies available today and with support functions for design and consulting activities carried out by more specialised professionals or in an autonomous manner.

The main foreseen job opportunities are freelance activities, employed in the technical role of public administrations or engineering and architecture companies, legal or economic-commercial companies, building companies, real estate management, public law bodies for the management and control of the territory.

The prosecution of studies in Master Degrees is not a natural outcome for courses in this class, but can be carried out after the necessary educational debts have been met.
What is the objective of the course? What is it? What does it train you for?
The objective of this Master Degree Single Cycle of Science in Architecture (LM4 Code) is to train professionals with skills in the Architecture field, following the EU 85/384 resolution. The course focuses on architectural design at various scales. It offers knowledge and experimental/scientific activity from the perspective of physical reality. Graduates in Architecture must be capable of designing on different scales using the appropriate tools: they must have all the competences required to verify design feasibility, building processes, modifications and transformations of natural and artificial environments, with full knowledge of multiple aspects, and paying attention to critical observation of cultural changes and modern needs.

What do you learn?
Graduates must achieve full knowledge of all aspects of Architecture. This knowledge must give graduates the ability to design on multiple scales, with the appropriate architectural tools. Graduates must be skilled in describing their designs, framing their designs within a wide contemporary social and cultural context horizon. Graduates must also have all the skills required to direct the building process, including coordinating other specialists in the fields of Architecture, civil engineering, urban planning, restoration and conservation.

What can you do with it?
Graduates in Architecture will have specific skills in the Architecture field, in accordance with existing European laws. This architect qualification enables graduates to sit public examinations to obtain a Professional Architect qualification in Italy and the European Union. Professionals in architecture can run their own firms, be employed in public offices or private companies and operate in the field of architectural design, the building industry, conservation and Architecture transformation.
What is the objective of the course? What is it?
What does it train you for?
The course is designed to train professionals with the specific architectural skills required to fulfill the provisions of EC directive 85/384. The central focus of the educational programme of this course of study is architectural design on various scales, from objects to buildings, towns and cities to the local area. Design - in process form and making use of its own procedures - is the knowledge tool and experiential-scientific activity which interprets physical reality in view of its useful and necessary adaptation to human life and habitation.

What do you learn?
This course’s approach to architectural design pays specific attention to the issues revolving around sustainable adaptation of places and the regeneration of urban fabrics and established settlements. The course focuses in particular on urban transformation and grafts, recovery, building restoration and the regeneration of open spaces. Graduates in Architecture for Sustainable Existing Building Renovation Design must be capable of designing on a range of scales and using architectural means, including plan sciences. They must have acquired the skills required to perform feasibility studies and the tasks involved in construction work, transforming and modifying the natural and built environment, with a full awareness of aesthetic, distributional, functional, structural, technical-constructional, infrastructural, managerial, geographical, economic and environmental considerations and with critical attention to cultural changes and contemporary society’s demands.

What can you do with it?
Graduates in this Master Degree course will have acquired specific professional architecture skills in accordance with existing European directives enabling them to take on suitable and responsible transformational design in the local area and environment in the various sectors and action scales. The qualification obtained enables graduates to sit state exams enabling them to gain access to the architecture profession in Italy and the European Union. Graduates in Architecture for Sustainable Existing Building Renovation Design can work freelance or for public and private institutions and bodies working in the architectural design, construction, conservation and transformation fields.
What is the objective of the course? What is it? What does it train you for?

The aim of the course is to train top level designers qualified to design industrial production and advanced craftsmanship and innovative forms of communication and services, starting from specific design cultures. The focus is territorial material and intangible resources, training designers capable of contributing to the identification, enhancement and best use of these resources, with a view to environmental, economic and socio-cultural sustainability, with particular reference to the agro-food and tourism sectors and activities related to cultural goods and production.

What do you learn?

The course develops several skills, especially:
- exhibition space and event planning design;
- agro-food processes and products: from coordinated image to packaging;
- web, interaction design, multimedia;
- service design;
- sustainable project development and agro-food sector strategies;
- strategic design for territorial development.

Partnerships with companies are also envisaged for the development of projects and prototypes and other supplementary activities (conferences, seminars, workshops, conferences). The training course is completed by company internship and a final project.

What can you do with it?

The main career opportunities of the expert designer are represented by:
- manufacturing industries, in particular SMEs and advanced handicraft productions;
- agency of innovative and technological products and services in the field of information;
- generation of innovative start-ups based on design-driven production;
- private or university research centers;
- professional offices and communication agencies;
- public and private institutions in charge of territorial development and promotion actions;
- independent professional activity.
What is the objective of the course? What is it? What does it train you for?

The Master Degree Course in Spatial Planning (SP) constitutes the higher professional level of the Planner’s university education, in continuity with the Degree Course in Urban Design for the City in Transition or with access from other degree courses subject to verification of entry skills. The Course in Spatial Planning trains planners who will be able to work in the city and in the field of the sustainable development of territories. There are various fields in which SP graduates will be able to work: from the definition of land uses to the conscious and sustainable use of natural resources, from the protection of the environment to the enhancement of landscapes, from infrastructural provisions to urban services. The transversal skills of SP graduates will be spent in different areas ranging from the preservation and promotion of cultural heritage to the protection of ecosystem balances, from urban regeneration to the design of the smart city.

In short, one of the main objectives of the Master Degree Course in Spatial Planning is to respond to the current demands of the world of work, which calls for specific reference figures for the construction of strategies, policies and projects of urban and territorial transformation, acting as mediators between the political sphere, social dynamics and territorial realities. The teaching is offered entirely in English so as to offer the graduate further opportunities to enter the world of work in an international context.

What can you do with it?

Graduates are capable of managing, coordinating and elaborating evaluations and strategic environmental and technical feasibility studies on urban and territorial plans and projects. The privileged stakeholders SP students will interact with are public and private bodies operating in the field of urban and territorial transformation, infrastructure and transport, landscape and environment. This Master Degree also provides students with access to the state examinations for the Agrotechnician, Surveyor Graduate, Agricultural Expert and Industrial Expert professions.

What do you learn?

The course envisages that the students will gain as much experimental experience as possible with thematic workshops, lectures, seminars and meetings with experts and public administrators, internships in public offices, institutions and private companies that will enable them to grasp the various points of view on the transformation of the city and the territory, in economic and evaluative, social, environmental, landscape, infrastructural, historical and architectural and urban design terms.

In particular, each year of the course offers a thematic planning workshop: the one in the first year focuses on urban values (Planning Studio I), the one in the second year on territorial values (Planning Studio II), while two more workshops are dedicated to the in-depth study of topics related to landscape design (Landscape design Studio) and to social geography and participatory practices in planning processes (Social geography and participatory practices Studio). In addition, the Master Degree Course in Spatial Planning provides for other disciplines oriented to deepening themes, methods and practices concerning Planning Theories, Geomatics, Urban and Regional Economics, Technological Design of Settlements, Landscape Ecology, as well as Energy Policies for the Territory and Sustainable Mobility Policies.

The training programme provides the Master Degree graduate in SP with specific skills for carrying out management activities, coordinating and drawing up strategic environmental assessments and technical feasibility studies of urban and territorial plans and projects. Furthermore, the graduate will be able to direct and carry out complex and specialised analyses concerning cities, territories, landscapes and the environment and their reciprocal interrelationships, possessing exclusive skills in strategic environmental assessment (SEA).

In 2019, the Degree Course received QR Certification - Quality Recognition from AESOP.
BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

L-7  Environmental Engineering for Sustainable Development  PA
L-9  Biomedical Engineering  PA
L-9  Chemical and Biochemical Engineering  PA
L-8  Cybernetic Engineering  PA
L-7  Civil Engineering  PA
L-9  Energy and Renewable Sources Engineering  PA
L-8  Digital enterprise innovation engineering  PA
L-9  Marine technologies Engineering  TP
L-23  Building Engineering, Innovation and Restoration  PA
L-9  Electrical Engineering For E-Mobility  PA
L-8  Electronics Engineering  PA
L-9  Management Engineering  PA
L-8  Computer Engineering  PA
L-9  Mechanical Engineering  PA
L-9  Robotics Engineering  PA
L-P01  Techniques for buildings and territory  PA

MASTER DEGREE

LM-29&27  Electronics and Telecommunications Engineering  ONLINE
LM-29  Electronics Engineering  PA
LM-20  Aerospace Engineering  PA
LM-21  Biomedical Engineering  PA
LM-22  Chemical Engineering  PA
LM-23  Civil Engineering  PA
LM-24  Building Engineering  PA
LM-25  Ciber-Physical Systems Engineering For Industry  PA
LM-24  Engineering And Innovative Technologies For The Environment  PA
LM-24  Electrical Engineering  PA
LM-30  Energy and Nuclear Engineering  PA
LM-32  Computer Engineering  PA
LM-33  Mechanical Engineering  PA
LM-31  Management Engineering  PA
LM-31  Management Engineering  ONLINE
What is the objective of the course? What is it? What does it train you for?

The role of an Environmental Engineer is to identify, resolve and avert the main environmental problems by applying sustainable solutions. The educational goals of this Degree in Environmental Engineering are the identification of environmental problems and their resolution in structural and non-structural action. Specifically graduates will be capable of:

- analysing and interpreting environmental data;
- using innovative techniques and tools for environmental regeneration;
- identifying local risk areas;
- assessing projects’ environmental compatibility including in sustainability terms in relation to current norms and climate change mitigation considerations.

What do you learn?

Environmental Engineers study the subject matter common to all engineering Degrees together with certain subjects designed to assist them in their future professional needs. Graduate training is achieved via suitable knowledge of science fundamentals (maths, physics and chemistry) and engineering (theoretical and applied) with specific reference to those relevant to the environment and soil protection: hydraulics, hydrology, environmental health engineering, technical-environmental physics, ecology, geomatics, geotechnics, etc. In general the course’s main subject matter relates to themes revolving around environment safeguards and regeneration and soil protection. Student learning takes place through participation in educational activities made up of front-of-class lessons, practical exercises and workshop activities supplemented with themed seminars and technical visits.

What can you do with it?

The multidisciplinary nature of the course means that graduates in Environmental Engineering are highly versatile. Environmental Engineers are currently much sought after by both firms and local authorities which are increasing turning towards green economy and sustainable resource management. These new trends are bound up with an increasingly structured production legal framework linked to hydro-geological risk, soil protection, waste disposal, water resource management and monitoring, environmental regeneration and eco-sustainable urban building. These are the norms which have fostered the emergence of environmental engineering experts, professionals to turn to for advice and opinions and the design and implementation of engineering work in harmony with existing legislation. Career openings are as follows: firms, public and private bodies and professional studios working in design, planning, creation and management of work and systems with which to control and monitor the environment and territory, protect the soil, ensure industrial safety, environmental regeneration, water treatment, waste management and recycling, use of raw materials and environmental, geological and energy resources, environmental impact and compatibility assessments on plans and work.
What is the objective of the course? What is it? What does it train you for?
The objective of the course is to introduce students to:
• mathematics, chemistry, thermodynamics, mechanics and electromagnetism fundamentals and their engineering applications;
• the primary properties and characteristics of materials and biomaterials in interactions with biological tissues;
• biochemistry, biology and medicine fundamentals;
• designing and producing artificial systems for the functional recovery of tissues and organs to substitute, integrate or rehabilitate;
• electronics, robotics and medical software development basics;
• developing and analysing medical-biological signals, images and data.

What do you learn?
You learn to:
• prepare and characterise biomaterial for applications such as prosthetics, diagnosis and cure, developing existing relationships between working structure and properties;
• design and evaluate the use of suitable materials for diagnostic medical devices for the prevention and treatment of diseases and handicaps, substitution or modification of anatomy or a physiological process;
• design and produce biomechanical (passive prosthetics), electronic (sensors and diagnostics), mechatronic (active prosthetics) and robotic (robotic surgery) devices;
• develop biosensors, new prosthetics and artificial organs, devices for biomedical use, pharmacological devices and devices for the support and assistance of the disabled.
• develop technology for diagnostics;
• analyse electrical and/or magnetic phenomena;
• elaborate data and images;
• model physiological systems;
• design, create and test medical devices and implants designed for diagnosis, treatment and monitoring;
• develop and manage the production and creation of electromedical biosensors and instruments;
• develop clinical decision-making and health information system supports.

What can you do with it?
• Work freelance or in industry, hospitals and health institutes, specialist clinical laboratories and research centres and universities;
• design, produce, manage and test biomedical and pharmaceutical devices;
• manage health service supply;
• manage suitable medical software for diagnostic assistance;
• work as an engineer responsible for health information systems or a support engineer for biomedical laboratory activities and radiology health institutes;
• perform research, design and/or production work on materials and biomaterials for biomedical devices, systems and equipment for diagnosis, cure and rehabilitation.

A further career opening is continuing studies in the Master Degree in Biomedical Engineering.
Chemical and Biochemical Engineers have a key role in contemporary society as they manage complex technologies and produce a huge amount of products crucial for the high standard of life that we know. Thanks to their efforts they offer society wide availability of food and drinkable water (sustainable fertilizers and pesticides, desalters and potabilizers), new energy vectors (biofuel, hydrogen, fuel cells) new materials for thousands of applications (drugs also with controlled release, traditional and adaptive polymers, organic electronics), processes for the decontamination of air, water and soil.

What do you learn?
The Bachelor Degree Course is characterized by the following 3 main elements:
- knowledge and understanding of fundamental science: mathematics, physics, chemistry and biology
- knowledge and understanding of industrial engineering fundamentals
- knowledge and understanding of chemical and biochemical engineering fundamentals: thermodynamics, transport phenomena, unit operations, process plant design, material science, biochemistry, microbiology.

What can you do with it?
Most of the Chemical and Biochemical Engineering Graduates from University of Palermo proceed to attend a Master Degree in Chemical Engineering as this further upskilling of their competences opens doors to much better job positions and salary. Bachelor level graduates can easily find positions as specialized technicians in many different industrial sectors such as refinery, petrochemicals and the process industry, even if with salaries that are generally lower than those of Master’s graduates.
What is the objective of the course? What is it?

The Degree Course in Cybernetic Engineering studies dynamic systems capable of self-regulation and the control mechanisms that confer this ability to them. It aims to train an engineer who can study and manage a cybernetic system as a whole, seen as a network of elements that interact with each other, and to apply modern information technologies to the emerging fields of automation.

What do you learn?

The Course in Cybernetic Engineering teaches its own methodological knowledge and Information Engineering skills, in a solid multidisciplinary training course which involves the study of:

- Basic disciplines (mathematics, physics and geometry);
- Engineering courses with a transversal nature (electrical engineering, electronics, embedded systems, measurements ...);
- Specific training in the automation sector (control, industrial and mobile robotics);
- In-depth study of the specific aspects of cyber engineering, with reference to the different aspects of mechatronic and cyber-physical systems;
- In-depth study of information technologies used in various application areas characterized by interactions between the real and digital world;
- Strong focus on the ability to use both procedural and object oriented programming languages (C, language, Java, Python, Matlab, assembly).

What can you do with it?

The graduate in Cybernetic Engineering has several employment opportunities as a freelance developer, within companies, administrations and public and private entities in all production and service sectors in which information technologies and the principles of automation play an important role.

Some examples of systems and application areas in which the Cybernetic Engineer can operate are:

- Autonomous vehicles;
- Sensor networks and internet networks;
- Distributed monitoring and control systems;
- Automation of distribution and supply systems for goods and services;
- Assisted technology systems;
- Robotic systems;
- Technologies for the Cloud.

For those wishing to continue their university education with a Master Degree course, the new Master Degree Course in Cyber-Physical Systems Engineering for Industry is the natural next step. In addition to this path, graduates can also continue on the Master Degree course in Electronics Engineering (in English), which includes training courses suitable for the Cybernetic Engineer. Graduates from these sectors find jobs very quickly. In Italy 91 graduates out of 100 work after one year. The situation is even better for graduates from the University of Palermo: in this case, all graduates (100%) find work within one year and enter the job market with higher economic rates than the entire panorama of Engineering (source: Alma Laurea official data).
What is the objective of the course? What is it?
What does it train you for?
The course trains civil engineers to work, in accordance with the skill level achieved, on designing, implementing, maintaining and managing structures and infrastructure, i.e. works which fit into and interact with the natural and/or built environment in their various life cycle phases.

What do you learn?
The course teaches the fundamentals in:
• building modelling and calculation principles, methodologies and tools as well as structural elements and medium complexity level structure design;
• design variable calculation principles, methodologies and tools and medium complexity level hydraulic work design;
• criteria and methods for road infrastructure geometric design and safety;
• transport system engineering (public urban road and rail transport, individual road transport) with reference to transport demand and supply analysis;
• survey engineering and surveying criteria, problems and methodologies, structure and territorial control, monitoring and representation;
• principles relating to the physical-mechanical characterisation of the land and the principal experimental methodologies for the determination of the related parameters;
• medium difficulty level experimental test performance methodologies and data interpretation in various sectors of civil engineering;
• engineering architectural designs related to technological, plant, structural, environmental and safety aspects.

What can you do with it?
Civil Engineering graduates can perform design support and team work, work supervision, public work estimates and testing, simple building accounting, direct, instrumental and geometric surveying of various types in a range of contexts such as freelancing, firms, public bodies and private civil construction sector firms. The resulting qualification entitles graduates to register on the Engineering register (civil and environmental sector) after sitting a state exam. Graduates can also continue their studies with a Master Degree in Civil Engineering lasting two years. As far as career openings are concerned, Alma Laurea official data shows that civil engineers rapidly find work after graduating with an MSc. 70% of Palermo civil engineers find work within a year and 86% within three years.
What is the objective of the course? What is it?

The Degree Course aims to train a professional with knowledge and skills on the design and management methods of processes and technologies for the rational and safe use of energy sources in the civil and industrial fields. In particular, graduates in Energy and Renewable Sources Engineering will work in the fields of Electrical, Energy and Nuclear Engineering, studying devices and processes for the generation (photovoltaic, solar thermal, wind, cogeneration, thermoelectric and nuclear power plants), transformation, distribution and use of renewable sources and energy efficiency today play a fundamental and no longer marginal role in the three technological areas of electricity production, heating / cooling of buildings and transport. Therefore, the profile of the Energy Engineer becomes essential in the new design scenario of a development model compatible with the exploitation of natural resources.

What do you learn?

The Degree Course is divided into three curricula: Electricity, Energy, Technologies and Production. The main topics, treated with different emphasis in the three paths, embrace the following topics:

• Analysis, design, management and construction of electricity distribution systems, electrical machines and home automation systems;
• Methods for carrying out measurements in electrical and thermal systems;
• Analysis, design, management of authorization and connection procedures of generation plants from renewable sources;
• Sizing, management and efficiency of plants for the separate or combined production of electricity, heating and cooling;
• Analysis of the energy aspects of industrial processes and of thermal and cooling machines;
• Energy analysis and energy certification of buildings;
• Net zero energy buildings;
• Study of heat exchange in civil and industrial fields;
• Fundamentals of nuclear engineering;
• Management of energy processes in civil and industrial fields;
• Mode of operation of the energy market;
• Evaluation of the environmental impact of energy systems;
• Analysis of the reliability of components and energy systems;
• Qualitative and quantitative risk assessment techniques.

What can you do with it?

According to Centro Studi Avvenia, in 2018 the number of employees in Italy in the renewable energy sector increased. In particular, Electrical and Energy Engineers were highly sought after for jobs as energy managers, energy saving technicians, electricity grid developers and electricity market experts with a three-year employment rate in Italy of over 90% (ref. AlmaLaurea). Here are some of the possible career opportunities:

• Employment and/or consulting in energy, systems, machines and components (hydraulic, electrical, thermal, refrigerators, motors, boilers, heat exchangers) companies;
• Employment in companies operating in the field of the construction of components and plants for renewable sources;
• Energy Management Expert (EGE), Energy Expert in multidisciplinary teams;
• Audits, certifications and energy and environmental assessments;
• Collaboration with Energy Service Companies (ESCO);
• Expert in the safety and environmental impact of industrial activities even at high risk;
• Freelance after enrolment in the professional register;
• Public employment (Municipal technical offices, Energy Department, Ministry).

At the end of the Bachelor Degree it is possible to complete the training course with the following Master Degrees:

• Energy and Nuclear Engineering;
• Electrical Engineering.
What is the objective of the course? What is it? What does it train you for?

Nowadays, the combination of digital technologies and enterprise management is one of the key factors for the economic development of our country. Such terms as Industry 4.0, Cyber Security, Big Data, internet of things have been the centre of media attention daily since the society of the third millennium is and will be more and more based upon them. The Degree Course in Digital Enterprise Innovation Engineering originates from a careful analysis of the current needs of the labour market, generating the demand for a versatile professional figure capable of quickly having access to the production world and keeping updated with the evolution of the most advanced technologies. The training course aims to prepare innovation experts, with reference to computer engineering and management engineering.

These new engineers, highly specialized in digital transformation, will be capable of supporting companies dealing daily with the challenges posed by the widespread use of new technologies. The individual who graduates in Digital Enterprises Innovation Engineering is a multifaceted professional figure with strong technical and methodological foundations whose engineering-based approach to problems makes him or her capable of understanding and managing business phenomena, as well as designing and implementing processes and services through the effective use of the most advanced digital technologies.

What do you learn?
The Degree Course offers a flexible educational path to students, aiming at combining basic scientific knowledge with technological innovation, and particularizing through the “Management Engineering” and “Computer Engineering” curricula. The choice of curriculum made during the second year allows the student to opt for promoting the acquisition of skills more related to the management of digital enterprises or to the creation of their products.

The course outline includes a comprehensive set of subjects bound to the professional peculiarities. The main subjects are related to the regulatory, economic and managerial aspects of companies, to the management of industrial production and to business economy. Particular attention is dedicated to the skills that will allow graduates to bring innovation to the world of companies with a strong digital vocation, thanks to the ability to design software systems, understand how the Internet works, manage and analyse large data sets.

What can you do with it?
Graduates in Digital Enterprises Innovation Engineering can access the world of employment choosing from a wide range of possibilities: from industries to service companies, from public administration to the financial sector, from consultancy to entrepreneurial activity, from companies whose core business is the production of digital products to those exploiting new information technologies as a tool to innovate their production processes.

The digital market is indeed constantly growing, with the Italian market registering requests for new specialists to work as data scientists, business analysts, project managers, security analysts, key professionals for advancing new digital transformation projects.

In such a context, the path offered by the Degree Course in Digital Enterprises Innovation Engineering lays the foundations for training the engineers of the future. At the end of the three-year course, graduates will either be able to use the acquired Degree to gain direct access to the world or employment, or to continue their studies by being admitted to the Master Degree courses in the classes of Management Engineering and Computer Engineering without any re-sits.
What is the objective of the course? What is it? What does it train you for?
The course aims at training professionals responding to the needs of the labor market in the fields of industrial production, production of energy from the sea, industry of marine extractions, movement of goods and passengers and of the design of works aiming at the protection of the coasts.

In line with the provisions of the qualifying educational objectives for graduates in the L-9 Degree class, Industrial Engineering, graduates in Marine Technologies Engineering will have adequate knowledge of the methodological-operational aspects of mathematics and other sciences and will be able to use this knowledge to interpret and describe engineering issues.

What do you learn?
The Degree course includes basic and typical industrial engineering subjects and aims at the training of an engineer with solid groundings and soft skills, able to access various Master Degree courses.

At the same time, the course integrates some subjects with a specifically professional nature, with respect to the industrial sector and marine applications, providing tools that can be used in numerous fields of the industrial sector, from manufacturing to transformation.

Finally, thanks to the multidisciplinary studies in the field of marine technologies, graduates will gain a wealth of knowledge that can be used in the territory, becoming a precious regional asset.

What can you do with it?
Graduates in Marine Technologies Engineering will find many professional opportunities, ranging from mechanical and electromechanical industries, and companies and entities operating in the energy sector, to manufacturing companies and the technical offices of Public Administrations. Furthermore, the skills acquired in areas strictly related to the marine professions will enable them to carry out their activity in companies operating in the plant and port sector, shipyards, fish farming companies and shipping companies. Having passed a state exam qualifying them to work as an engineer, by enrolling in the register of ‘Junior Engineers’, they will be also able to work as a freelancer in the field of technical consulting. The Degree also prepares students for admission to Master Degrees mainly (but not exclusively) in the field of Industrial Engineering.
What is the objective of the course? What is it? What does it train you for?

The target of the Degree Course is to train professionals able to perform different activities in the field of Building and Construction Engineering. The graduate will be able to carry out:

- historical, structural, architectural analyses of buildings;
- technical and economical assessments;
- representation and geometrical surveys of buildings;
- simple design processes;
- organization and management of construction sites;
- management and economical evaluation of buildings and construction processes;
- direction and management of technical, administrative and productive processes;
- design of structural and architectural restoration of existing buildings.

What do you learn?

The Degree trains professionals in the fields of design of new constructions and static restoration of existing buildings, design and management of construction sites, production of materials and components for the construction industry. The first year of the Degree includes basic science courses (Mathematics, Physics, Chemistry, Technical Drawing, History of Architecture). The courses of the second year introduce engineering fundamentals (Hydraulics, Structural Mechanics, Technical Plants, Material Technology).

What can you do with it?

The graduate can be employed by design and construction companies, private or public administrations or can apply for the Master Degree. The Building Engineer is a professional able to cooperate at any stage of the design process of new structures or in the restoration of existing buildings, working from the preliminary design to the construction process and maintenance stage. As an example, the graduate can work as:

- Designer of new buildings;
- Designer of restoration and retrofitting applications of existing structures;
- Draughtsman or woman;
- Technician for geometrical surveys;
- Construction site manager;
- City planning technician;
- Professional for economical valuation.
What is the objective of the course? What is it? What does it train you for?

The objective of this Degree course is to train engineers with both fundamental electrical engineering knowledge and skills and the ability to apply and structure this knowledge to the e-mobility sector. E-mobility began as a response to the pressing need to reduce the polluting emissions generated by combustion engines. All vehicles using electricity for traction and propulsion are thus studied.

The course covers battery powered vehicles, hybrid vehicles with internal combustion engines in series/parallel configuration and fuel cell electric vehicles but also electric drones and modern aircraft in which onboard services are being progressively electrified to reduce and, in future, eliminate energy-intensive systems such as hydraulic, mechanical and pneumatic systems. Vehicles are not the sole subject of study and power systems and electrical network measurement devices supplying energy for new sustainable mobility are also covered by the course.

What do you learn?

This Degree course offers students an educational trajectory which combines fundamental engineering scientific knowledge with an innovative trajectory which aims to project today’s mobility, with its energy inefficiencies and pollution generation, into the mobility of the future, already present in the European Union’s development policies but also laying the foundations for the development of the autonomous vehicles currently of such market interest.

Electrical Engineering for E-Mobility graduates will have the fundamental knowledge required to design, build, manage and test all vehicles’ electrical components (batteries, converters, engines, cabling and measurement tools) and to design, implement and test electrical infrastructure supporting e-mobility (distribution networks, distributed generation, smart-grid, recharging infrastructure). For the purposes of satisfying powerful market demands this Degree course comprises a significant laboratory component.

What can you do with it?

Given the applied nature of the course, graduates in Electrical Engineering for E-Mobility will have a multidisciplinary type training with a pronounced professional character and will thus find immediate work in all e-mobility employment contexts. Specifically:

• e-mobility component, device and system production industries;
• electrical energy conversion component, device and system production industries;
• the car industry;
• public and private transport service bodies;
• electrical vehicle maintenance, repair and servicing centres;
• consultancy services for the e-mobility market;
• public and private electrical energy distribution bodies;
• public and private electrical infrastructure for mobility design, creation and management bodies;
• electrical vehicle and electrical plant safety experts;
• freelance work after registering on the professional register;
• public office (local council technical offices, ministries).

Graduates in Electrical Engineering for E-Mobility can also continue their studies with a specific course rather than starting work right away. To this end, the University of Palermo Master Degree course in Electrical Engineering Board formalised a commitment to add an E-Mobility curriculum to its programme from academic year 2022/23 onwards at its 30 October 2018 meeting.
What is the objective of the course? What is it? What does it train you for?

The Bachelor Degree program in Electronics Engineering at the University of Palermo, with the benefit of more than 60 years of history, provides students with all the key knowledge and skills required to become a successful engineer, with the solid scientific and technological background needed to design, realize and employ electronic devices, circuits and systems.

By performing laboratory activities, graduates will also acquire the multidisciplinary skills required today in the following fields: Smart Cities, Internet-of-Things, Big Data, Industry 4.0, secure broadband telecommunications networks, electric and intelligent vehicles, domotics, mechatronics, robotics, and diagnostic medicine.

What do you learn?

The program offers an interdisciplinary training course organized across 3 years and 4 different curricula (Modern Electronics, Electronics for Robotics and Mechatronics, Internet Technologies and Biomedical Information Technologies). During the 1st year, students acquire the fundamentals of Mathematics, Physics and Information Engineering, and afterwards they study disciplines specifically related to Electronics and Telecommunications.

Depending on the curriculum, during the 3rd year, students focus on electronic circuits design, or Internet-of-Things and telecommunications networks, or the modelling and control of robotic platforms, or biomedical diagnostic equipment and signal analysis methods.

What can you do with it?

Thanks to the skills acquired, graduates can access the workplace or continue with the Master Degree program in Electronics Engineering in Palermo. Job opportunities are widespread and varied (large industry, small and medium-sized enterprises, public and private research institutions) depending on the curriculum chosen, and range from the design, development, and production of electronic devices and systems, to the design, production and maintenance of telecommunications systems, the design, production, management and use of biomedical sensors, equipment and medical software, and the design and control of robotic platforms in the automotive, nautical or avionic field.
Companies, which are responsible for driving the economic growth of every country, are very complex systems that require specialized and professional skills to be managed.

Management engineers employing quantitative tools and methodological rigor, elements typical of engineering sciences, find solutions for managerial and organizational problems so reaching high levels of efficacy and effectiveness and achieving a continuous improvement of business results. Therefore, the education of management engineers requires a set of skills that encompass technological, productive, economic, organizational, managerial, and even sociological and psychological disciplines, and contribute to reaching a full understanding of all business phenomena.

In sum, a management engineer is called on to solve technical, economic, managerial and organizational problems in both manufacturing and service companies by leveraging methods and skills that characterize engineering sciences. For this reason, the Bachelor Degree in Management Engineering of the University of Palermo trains management engineers and responds to the needs of transversal skills that are increasingly required by the world of work and by companies. Particularly, the multiplicity of skills that distinguish a graduate in Management Engineering supports the interaction among the various company actors, allowing a more effective management of the company.

What is the objective of the course? What is it? What does it train you for?

What do you learn?
The Bachelor Degree in Management Engineering lasts three years and covers 180 credits. The preparation of a Bachelor Degree Graduate Management Engineer is based on a solid basic training program and on the development of design and problem solving skills. The Management Engineering Bachelor Degree program is divided into three main blocks of disciplines. The basic disciplines focus on the study and comprehension of the main scientific principles, an essential prerequisite for a subsequent in-depth study of technological, engineering, economics, and organizational variables. The students will acquire skills in the fields of mathematics, physics, geometry, and chemistry. The engineering disciplines include disciplines of basic engineering science such as statistics, operations research, business information systems, materials and production technologies, quality and production management, product development, plant management and industrial plants. Finally, the management engineering disciplines are related to specific economic, managerial, and organizational topics, such as economics, business management and organizational behavior, and management of industrial plants.

What can you do with it?
The Management Engineering Bachelor Degree integrates a solid scientific and engineering background with a wide knowledge of economics and management. This preparation allows management engineers graduating from the University of Palermo to follow diverse career opportunities operating in an extensive scope of professional activities such as planning and management of manufacturing and logistics systems, strategic planning, marketing, cost accounting, organization, finance, project management, and management and planning of new information and communication technologies. The most natural continuation of the program is the Master Degree in Management Engineering offered by the University of Palermo. For admission requirements please see the related Master of Science Program.

The Management Engineering Bachelor Degree program opens up rewarding and exciting career opportunities to its students. The multiple business function skills of the management engineer allow her/him to find a job very quickly (official statistics report that in 2019, 97.7% of graduates found an employment within one year from graduation). Management Engineering graduates can find employment in any kind of industry (Automotive, Agrofood, Oil and Gas, Textile and Fashion, Business Consulting, Banks, Healthcare, Public administration, etc.), filling different positions in a variety of business functions (Operations and Supply Chain, Marketing, Corporate Finance, R&D, Controlling, etc.).
COMPUTER ENGINEERING

What is the objective of the course? What is it? What does it train you for?
The Bachelor Degree in Computer Engineering trains young specialists capable of designing and managing computer applications and systems. A Computer Engineer can design and develop any software product ranging from web and mobile applications to large database-driven applications typical of organizations such as public administrations or private companies. A Computer Engineer, typically, analyses the scenarios and the usage patterns of such applications and chooses the most suitable programming languages to develop the software. Such a figure also deals with the design of computer systems by assessing the computational, storage and data transmission capabilities required for the correct and efficient management of a specified scenario. In this area, the Engineer is also able to choose from the possible computing infrastructures, operating systems and networking solutions offered by different suppliers. The professional profile formed by the Degree course also focuses on problems related to the computer security of hardware and software infrastructures.

What do you learn?
The Degree course provides essential background in core disciplines such as: Mathematical Analysis, Geometry and Algebra, Physics, Numerical Methods for Engineering. The other subjects are divided into two major areas: Information Engineering: Electrotechnics, Electronics, Signal Theory, Automatic Control. Computer Engineering: Computer Fundamentals, Programming, Algorithms and Data Structures, Databases, Operating Systems, Computer Networks, Software Engineering, Web and Mobile Programming. The student will be able to choose optional courses, and will also do an internship and take a final test to obtain the Bachelor Degree.

What can you do with it?
The Bachelor graduate will be able to work as a freelance designer of computer systems and applications, in private companies in the IT field or in public and private institutions that need experts in the management of computer systems. The Bachelor Degree can be also enriched with the Master Degree in Computer Engineering, which complements the program by focusing on topics related to the most recent and advanced information technologies, such as Artificial Intelligence, Big Data, Robotics, Image Processing and CyberSecurity, in collaboration with the research laboratories of the Department of Engineering.
What is the objective of the course? What is it? What does it train you for?
The Mechanical Engineering Course trains a professional with specific skills in the industrial engineering field. Starting with a solid basic multidisciplinary training with knowledge of Mathematics, Physics and Chemistry, the course provides general skills in all mechanical engineering fields: materials, production technologies, machine design, fluid dynamics, thermal and fluid machines, industrial plants, machines and systems, mechanical technology, etc. These specific skills are followed by in-depth studies in the qualifying Scientific Disciplinary Sectors (SDSs) typical of mechanical engineering.

What do you learn?
The Mechanical Engineering Course intends to provide:

- a basic level of knowledge of chemical-physical processes as well as mathematical and informatics tools for engineering applications;
- a good level of knowledge of the techniques and methodologies used in the industrial engineering field;
- a good level of knowledge in specific mechanical engineering areas: materials, design methods, fluid and heat machines, production technologies, industrial equipment and related technical services;
- the ability to work independently or to interface with interdisciplinary working groups.

What can you do with it?
The Bachelor Degree in Mechanical Engineering, aimed at training a junior mechanical engineer, enable graduates to either continue their studies or quickly be integrated into the workplace, and access excellent career opportunities. These opportunities are generated by their acquired capacity to adapt to various professional contexts and continuously upgrade their skills. Graduates in Mechanical Engineering will find a wide range of employment opportunities, with various functions, mainly in:

- companies that design, produce and maintain mechanical components;
- manufacturing, automotive, naval and aeronautic companies;
- energy conversion companies;
- service and industrial consulting companies;
- public authorities (with technical tasks).
ROBOTICS ENGINEERING

What is the objective of the course? What is it? What does it train you for?
The objective of the course is to provide the student with the knowledge, techniques, and skills related to the design, development, and maintenance of software systems required for modern industrial and service robotic systems.

What do you learn?
The course of study in Robotics Engineering provides a solid grounding in the fundamental and standard disciplines of information engineering. The main body of the course provides the knowledge of Automation, Electronics, Mechanics, and Telecommunications context for robotics and the knowledge of Computer Engineering for Robotics. The body of knowledge enables the robotic engineer to analyze problems in the field of industry and services and to design, develop, and maintain software systems related to the identified robotic solutions, including analyzing the ethical and legal issues.

What can you do with it?
The main employment venues for the robotics engineer involve freelancing as an analyst, designer, or tester of robotics software systems or parts thereof. In addition, the robotics engineer will be able to work in public and private service industries and companies such as companies that produce robotics hardware and software, automation and robotics systems sectors, and companies operating in public and private services that involve automation and robotics-related activities. Graduates who intend to continue their studies can enter the Master Degree in Computer Engineering without educational obligations, where a specific curriculum in Artificial Intelligence and Robotics is already active. In addition, they will also be able to access, without educational obligations, the Master Degree in Cyber-Physical Systems Engineering for Industry and the Master Degree in Electronic Engineering with minimum educational obligations, which can also be remedied through elective subjects. The educational chain is ideally completed with the international ICT Ph.D. course in which there are several profiles in the field of robotics. In addition, the graduate will also be able to enter the recently established Doctorate of National Interest in Robotics and Intelligent Machines.
What is the objective of the course? What is it? What does it train you for?

The Degree Course takes the form of a specific course of study for Graduated Geometer, as a qualified technician in the civil and territorial construction and infrastructure sector, through a professionalizing study plan which includes exercises in Laboratories and a significant practical internship at companies, organizations and professional studios in the sector that actively participate in the construction of the course. The areas that it intends to cover, after a basic training in scientific disciplines, concern legislative aspects, appraisal, shipbuilding, topographic survey, cadastre, representation, structural static structures and behaviours, building support and data management using GIS and BIM.

At the end of the course there is no natural continuation on the Master Degree but direct access to the register of geometers and graduate geometers is allowed.

What do you learn?

The Degree Course will train professionals with a cultural profile concentrated on three main cores: land surveying, construction and appraisal. The contents taught also include: energy efficiency, work and construction safety, building protection, building monitoring, occupational safety, real estate valuation and asset management. The entire course of study will have a strong focus on digitization and IT management of projects and activities. In the courses and, above all, in the laboratories, various computer programs useful for the activities of trained professionals will be taught: SW for CAD, BIM, GIS, topographic survey, energy certification; the advanced use of a spreadsheet will be taught, useful for carrying out technical calculations, reports, bills of quantities. The use of digital tools for land surveying and monitoring will be taught.

In particular, the first year prepares the student for the basic disciplines and activities, supported by the first laboratories which aim to consolidate the contents learned. The second year prepares the student on specific issues, inherent to the building and construction process in its various forms, of new constructions and management of the existing with particular attention to energy aspects. The third year consists of workshops that consolidate the knowledge and experience of previous years and of a professional internship.

What can you do with it?

The professional to be trained works in the fields related to construction, building and the Territory. It is a professional who carries out activities in synergy with engineers and architects for the construction of new buildings and public works. He/she also collaborates in the design of building recovery and redevelopment interventions of the existing one, with reference to the aspects of safety, energy efficiency and internal environmental quality, carry out activities in contexts related to the management and representation of the territory to survey the territory and the built environment.

Placement:
- Professional studies;
- Private companies (in technical, commercial or productive structures);
- Public Administration (in Urban Planning and Public Works Offices, Superintendencies and Regional Directorates of Cultural and Landscape Heritage, Local Authorities, State Property Agencies, Land Agencies, Civil Engineering Offices, Fire Brigades, Motor Vehicles, etc.).

Enrollment in a Master Degree is not a natural outlet for graduates.
What is the objective of the course? What is it? What does it train you for?

The course aims to train professionals with specific skills in the design, management and optimization of distributed electronic systems, telecommunications networks, and related services, especially with regard to emerging cellular networks and the Internet of Things. The course is taught entirely in English and is organized in online mode, following the most established models for distance learning, with the integration of didactic lessons (content prepared by teachers for use in asynchronous mode) and interactive lessons (with guided interactions with teachers / tutors and students).

What do you learn?

The training course provides: (i) advanced skills in Electronics (design of programmable electronic systems, electronic circuits for radio frequency applications, instrumentation and measurements, numerical processing and transmission systems); (ii) skills for modern telecommunications systems (from fiber optics, to 5G/6G networks, to new communication bands from microwaves to Terahertz); (iii) skills in network systems and services, with particular attention to protocols and security for IoT systems. Internship activities are offered through appropriate agreements with interested companies.

What can you do with it?

Graduates can find jobs in public and private companies in ICT, industrial and manufacturing services, research and higher education institutions. Typical careers include:
- companies producing electronic products and equipment;
- manufacturing and service companies using electronic technologies and network infrastructures;
- fixed and mobile network operators;
- companies operating in the telematics and multimedia network sectors, e.g. Internet services, telemedicine and remote surveillance;
- public and private companies providing terrestrial or space telecommunications services;
- public administrations;
- national and international scientific and technological research bodies;
- regulatory and control bodies.
What is the objective of the course? What is it? What does it train you for?

The Master Degree program in Electronics Engineering aims to train professional figures with a solid preparation in the following fields: electronics, electrical and electronics measurements, telecommunications, automation, and bioelectronics. The Master Degree graduates during the Course carry out several laboratory activities to acquire skills in the fields of micro/nano electronics, electronic design (also at radiofrequency), electronics for industry, energy and automotive, ICT systems, bioelectronics, domotics and robotics. The Degree program also offers students the possibility to enroll in highly specialized training courses in cooperation with prestigious companies (e.g. TIM and STMicroelectronics).

What do you learn?

The program offers a training program entirely taught in English and organized in 4 different curricula (Modern Electronics, Telecommunications, Electronics for Robotics and Mechatronics, and Bioelectronics). The course is structured into some common subjects ranging from applied electronics, electronic programmable systems, electronics measurements, microwave electronics, and afterwards in disciplines specifically related to the chosen curriculum, e.g. optoelectronics and nanoelectronics, or mobile networks and wireless systems, or control systems for automotive and industrial robotics, or IoT for biomedical applications and statistical analysis of biosignals.

What can you do with it?

Thanks to the acquired knowledge and skills and given the wide range of job opportunities on offer, all the graduates in Electronics Engineering usually find employment in a short time and have excellent prospects for growth and pay. Graduates can enrol to second-level Master or Ph.D. courses at universities or find a job in public and private research institutions, or otherwise in large, small and medium-sized enterprises. The job opportunities depend on the curriculum chosen, and include the design, development and realization of electronic devices and systems, network systems, control and automation systems, and the production, management and use of biomedical sensors, equipment and software.
What is the objective of the course? What is it? What does it train you for?

The Master Degree Course in Aerospace Engineering provides theoretical knowledge and practical technical skills related to the disciplines relevant to the Aerospace Engineer such as fluid-dynamics and propulsion, flight dynamics, science and technology of materials and structures, computational mechanics, aircraft and spacecraft technology and systems. Students will acquire the advanced knowledge necessary to identify, formulate, and solve complex and interdisciplinary problems related to several aspects of aeronautic and aerospace systems, and learn how to design and manage complex experiments relevant to the aerospace engineer.

What do you learn?

The Master Degree, which awards a total of 120 ECTS, comprises the following subjects:

1) Characterizing subjects
- Aerospace structures
- Gas-dynamics
- Aircraft and systems conceptual design
- Automatic control
- Aeronautical production technologies
- Flight dynamics
- Aerospace materials
- Aerospace propulsion

2) Courses chosen by the student
- Experimental stress analysis
- Mobile and distributed robotics
- Science and technology of composite materials for aerospace applications
- Process design
- Corrosion and protection of aerospace materials
- Vibrations

What can you do with it?

Our graduates are typically employed in aeronautical and aerospace companies, largely present both in the national and international context, and in all industries producing high-tech products. They may also find employment in universities and research centres, in public and private companies for experimentation and research in the aerospace sector, air transportation and traffic management, in the military air force and other military forces, and in all industries for the production of machines and equipment where aerodynamics and light structures are relevant.
The Master Degree in Biomedical Engineering aims to train a professional figure able to use the methodologies and technologies needed in order to understand, formalize and solve problems of medical-biological interest, through close collaboration with the specialists of the various sectors involved. The course provides a complete preparation mainly centered on the ability to design devices, materials, equipment and instrumentation for diagnostic, therapeutic and rehabilitative use, biomechanical modeling and biomedical signals, regenerative medicine technologies and tissue engineering.

What do you learn?
The Master Degree Course includes common university courses aimed at providing a solid and complete preparation in the biomedical field and more specific teachings in three different curricula. In particular, for the field of Biomechanics, some aspects of biomechanics of biological tissues and medical robotics will be studied; the “Biomedical Information Technologies” curriculum will study aspects of electronics, internet-of-things and robotics for biomedical applications. Finally, the “Biomaterials for regenerative medicine” curriculum will focus on aspects concerning biomaterials together with their biocompatibility and biodegradation.

What can you do with it?
Graduates in Biomedical Engineering will be able to work both in the free profession, in industries, hospitals, healthcare facilities and specialized clinical laboratories, and in research. Graduates will be able to work in the design and/or production of biomaterials (Curriculum “Biomaterials for regenerative medicine”), use biomedical devices, systems and equipment for diagnosis, treatment and rehabilitation (Curriculum “Biomedical Information Technologies”), or use methodologies and tools to describe the behaviour of biomechanical, bio-artificial, and biological structures and components ("Biomechanics" curriculum).
What is the objective of the course? What is it? What does it train you for?
Chemical Engineers play a key role in contemporary society as they manage complex technologies and produce many products that are crucial for the high standard of life that we know. Through their efforts, they offer society a wide availability of food and drinkable water (sustainable fertilizers and pesticides, desalters and potabilizers), new energy vectors (biofuel, hydrogen, fuel cells), new materials for thousands of applications (drugs also with controlled release, traditional and adaptive polymers, organic electronics), processes for air, water and soil decontamination.

What do you learn?
The Chemical Engineering Master Degree course (Post graduate Level) further enhances the curriculum of students, allowing for more specialized and advanced knowledge and capabilities for the design, management and optimization of plant and processes for the production of fuels and biofuels, materials, food matrices and nutraceutical, environmental protection.

What can you do with it?
Chemical Engineering Master Degree Graduates from University of Palermo successfully work in many different industrial sectors. The following companies frequently advertise jobs requiring this qualification: Eni, Saipem, Erg, Shell, Enel, Basf, Exxonmobil, Lyondellbasell, Solvay, Procter & Gamble, General Electric, Novartis, Unilever, Biochemtex, And Many More.

CHEMICAL ENGINEERING

CLASS LM-22
CAMPUS Palermo

TYPE OF ACCESS Free
SEAT OF INTERNATIONAL AGREEMENTS
Arras (FR)
Atene (GR)
Ciudad Real (ES)
Edimburgo (GB)
Loughborough (GB)
Łódź (PL)
Nantes (FR)
Praga (CZ)

Chemical Engineering graduates from Palermo successfully position themselves in many different industrial contexts: chemical, petrochemical, oil, energy, food, water, pharmaceutical and biotech sectors. The Chemical Engineering Degree course is characterized by a strong interdisciplinary component and continuous updating of the contents. Therefore, graduates are able to understand and solve complex problems at a wide range of length scales, from the (bio)molecular to the industrial scale. Thanks to these unique characteristics, Chemical Engineers are extremely appealing candidates for all industrial sectors, including pharmaceutical and biotechnology, food, and consumer products, in the development of traditional and high tech materials and devices, and in the fields of energy and environmental preservation.

Three curricula with many courses in English language are currently offered:
• The Chemical Engineering for Sustainable Processes curriculum delivers graduates able to work in many different fields, e.g. chemical, biochemical, food, oil, pharmaceutical sectors, with a particular focus on the design and operation of sustainable plants and processes.
• The Chemical Engineering for Materials curriculum delivers graduates able to work in the fields of traditional and innovative materials, engineering and bio- and nano-technologies.
• The Chemical Engineering for Food Processing curriculum delivers graduates able to work in the fields of traditional and innovative processes for food processing and transformations and nutraceutical production and valorization.

A major point of strength is the short time it takes after graduation to find a permanent job. In the last few years, about 85% of the Master Degree graduates from University of Palermo have found work within one year after obtaining their Degree. Every year a so-called “Chemical Engineering Week” takes place in order to facilitate the direct contact between industrial companies and graduating students.
CIVIL ENGINEERING

What is the objective of the course? What is it? What does it train you for?

This two year Civil Engineering Master Degree course develops previously acquired skills and knowledge further, training highly qualified professionals capable of taking on complex problems relating to the fields in which civil engineers typically work: structural and geotechnical, hydraulic, infrastructural and transport.

What do you learn?

Specific educational objectives: structural dynamics, theory and design of bridges, steel structures, seismic zone constructions, building testing and monitoring, structural computational mechanics, structural theory, support structure foundations and work, geotechnics, aqueducts and sewers, health and engineering engineering, maritime building, territorial hydraulic protection, geometrical-functional road, rail and airport infrastructure design and its safety, management and building, transport system planning, design and implementation.

What can you do with it?

Civil Engineers can work in technical and/or managerial roles in the following contexts: freelance work, professional studios and firms; civil work construction and maintenance firms; public bodies with technical offices for civil work and infrastructure planning, design and management; research and experimentation centres (both public and private). This Master Degree in Civil Engineering entitles graduates to register on the Engineering register (civil and environmental sector) after sitting a state exam. Alma Laurea data shows that 86% of Master Degree graduates in Civil Engineering find a job within three years of graduation.
What is the objective of the course? What is it? What does it train you for?

The course aims to qualify professional engineers specialized in the main construction fields: structural design and retrofitting, plant engineering, architecture, sustainability, and materials recovery. These areas are present in the various courses under the flag of sustainability and innovation. The course aims to train new professionals capable of dealing with the design of standard and complex building systems in an interdisciplinary, flexible, and innovative way, by exploiting new technologies, new construction criteria and new materials, while respecting structural safety, energy-saving and the architectural quality of the buildings.

What do you learn?
Knowledge is acquired on:
• the design and construction of buildings, the renovation and use of existing buildings;
• the structural design of reinforced concrete (RC), steel and masonry systems, with particular regard to structural safety in seismic areas and concerning the design of new constructions and the retrofitting and reinforcement of existing buildings;
• plant design with in-depth analysis of issues related to energy-environmental sustainability and building safety;
• issues related to the use of traditional and innovative building materials with particular reference to degradation and durability.

What can you do with it?
In addition to working as an independent professional, graduates in Building Engineering can hold technical-administrative and managerial positions of high responsibility in public and private organizations. The Master Degree graduate will also have knowledge of business organization and professional ethics, which will derive from the experience gained during the internship. They will be able to communicate and express problems relating to specific aspects of building systems and to hold conversations by presenting ideas and offering solutions to specialists and non-specialists.
What is the objective of the course? What is it? What does it train you for?

The Master Degree Course in Cyber-Physical Systems Engineering for Industry is part of class LM-25 (Automation Engineering). It is the continuation of the Bachelor Degree course in Cybernetic Engineering and more generally a Master Degree course of interest to Bachelor Degree graduates from the classes of Information Engineering (L-8) and Industrial Engineering (L-9).

It offers a multidisciplinary course of study, with a strong connotation in the automation sector, enriched by transversal knowledge of industrial and information engineering. These allow the student to acquire a specific preparation oriented to process engineering, management and control of complex systems in the fields of industrial automation, robotics and of mechatronics, as well as in the typical areas of the smart factory (Smart Industry or “Industry 4.0”).

What do you learn?

The course provides knowledge and methodological skills typical of engineering automation and control, in continuous and discrete time, as well as in more specific sectors of industrial technologies. It also provides for an in-depth study of the issues concerning the dynamics of mechanical systems, the study of embedded sensors and the development of automatic measurement chain systems.

Alongside this knowledge, the Master Degree course explores some themes specific to the sectors of information engineering and of great interest for the industrial field, such as data analysis, filtering and classification, Machine algorithms and Deep Learning, Cybersecurity and Cloud security. These have a substantial impact in increasing the quality and safety of a typical chain of industrial production.

The Course of Studies also includes a series of relevant laboratory activities in almost all the courses provided. In this sense, the possibility of studying and experimenting in state-of-the-art laboratories in the fields of Additive Manufacturing and new modeling techniques and advanced visualization (Augmented Reality) is of particular importance, offering the graduate a new point of view in remarkable harmony with the most innovative demands of the labor market.

What can you do with it?

The graduate in Cyber-Physical Systems Engineering for Industry offers several employment opportunities in all working areas (industrial and otherwise) in which the principles of automation and the technologies of cyber-physical systems play an important role, operating as a system engineer, designer or technician in any application context.

The professional opportunities on offer mainly concern the following areas: electronic, mechanical, automotive, electromechanical, aerospace, chemical and industrial robotics, mobile and submarine, service companies (water management and services network, transport, energy, civil and industrial automation, big data, Internet of Things and related services), research and development centres and laboratories for the automation sector, public administration and freelance engineer.

Graduates from these sectors find work very quickly and with average salary levels that are usually higher than those for the entire panorama of Engineering (source: Alma Laurea official data). The multidisciplinary preparation that characterizes the training course, in addition to offering excellent placement prospects in the labour market, can also allow graduates to continue with third-level training, finding an outlet in PhD courses at national and international level in the cultural and scientific fields pertaining to cyber-physical systems and their industrial applications.
What is the objective of the course? What is it? What does it train you for?

The role of this course in Engineering and Innovative Technologies for the Environment is to identify, resolve and prevent the main environmental problems by applying sustainable solutions. The objective of the course is to train professionals with specific skills in environmental process, plants and work and the use of innovative technologies for the purposes of monitoring and safeguarding the environment in three specialisations:

- environmental protection and regeneration;
- water resources and hydrogeological risk;
- environmental sustainability in industrial processes.

What do you learn?

This Master Degree course varies according to specialisation chosen: option one trains graduates in waste water treatment and waste management; option two in climate change mitigation, water resource management and coastline defence; option three in the use of alternative and renewable energy sources, industrial safety and atmospheric pollutant dispersion modelling, etc. Learning takes the form of front-of-class lessons, practical exercise and laboratory work, thematic seminars and technical visits.

What can you do with it?

- Public and private research centres focusing on the analysis and monitoring of the natural environment, environmental risk evaluation, environmental conservation and recovery, biological control;
- Laboratories and firms researching animal and plant species useful in various production sector applications;
- Lower and upper secondary school teaching in accordance with current legislation;
- Freelance work with preferential access to botanical gardens, natural science museums, park management bodies, historic and tourist gardens;
- Scientific education publishing.
What is the objective of the course? What is it? What does it train you for?
The course aims to train engineers with specific skills oriented to the design, construction, and management of generating plants (including from renewable energy sources), transmission and distribution systems, electricity consumption nodes, and to the related economic, regulatory and safety implications, to operate in all those sectors in which electricity represents a relevant aspect (electric mobility, smart grid, etc.). Graduates will be able to interpret, identify, formulate, and solve complex problems, also in an innovative way and with an interdisciplinary approach; they will be able to conceive, design and manage complex and/or innovative systems, processes, and services.

What do you learn?
The training course includes teachings that further study the conceptual, methodological and design aspects of the sectors characterizing the field of electrical engineering (Electrotechnics, Electric Power Systems, Power Converters, Machines and Electrical Drives, Electrical and Electronic Measurements), using the necessary supplementary supports provided by other disciplinary fields (Electronics, Automation, Telecommunications, etc.). The training is complemented by business-economic and market concepts.
The training course includes lectures, theoretical/practical and laboratory exercises, seminars, technical visits, company internships.

What can you do with it?
There are numerous job opportunities for an electrical engineer: freelance activity as a professional engineer; researcher in public or private research institutes; teacher at training centres; designer/technical director/office/manager in technical offices of the Public Administration (local authorities, INAIL, ASP, ARPA, GSE, ARERA, Fire Brigade, etc.) or of private companies operating in the sectors of production, transmission, distribution, sales and use of electricity, renewable sources, e-mobility, smart grids, the construction of components, equipment, power converters and electric drives.
What is the objective of the course? What is it? What does it train you for?

The Master Degree Course aims to train engineers with advanced knowledge and skills in the fields of design, planning, management, and on-site operation of energy systems. The course encompasses several technologies exploiting traditional/fossil, nuclear and renewable energy sources. It focuses in particular on efficient and sustainable solutions designed to minimize the environmental impacts of industrial and building sectors, within the current worldwide framework of “green energy” transition. Theoretical analysis, numerical methods and experimental activities are carried out during the course, to allow the students to acquire a comprehensive and in-depth knowledge of the subjects.

What do you learn?

The course offers the student the flexibility to choose between two career paths, namely “Production and management of energy” and “Green Energies”. The former path provides skills in the field of thermal physics of buildings, eco-design of energy systems, combustion, nuclear power plants, computational fluid dynamics and pollutant emissions. Conversely, the “Green Energies” path provides an in-depth focus on sustainable energy sources and plants exploiting renewable or low-impact sources, such as geothermal and biomass, wind and wave energy, solar thermal and power. Common subjects for the two paths allow the student to develop solid knowledge in energy systems analysis, thermoeconomics, HVAC (Heating, Ventilating and Air Conditioning) systems and refrigeration. Some subjects are studied in the English language, to allow foreign students an easier approach.

What can you do with it?

The Master Degree graduate will be a professional capable of working as:

- an entrepreneur, creating his or her own firm operating in the sector of energy efficiency, such as Energy Service Companies, or a consultant;
- a highly qualified employee in large industries operating in the energy sector (petrochemical, transformation, transmission system operators, etc.), as well as in the production of components such as HVAC, refrigeration and heat exchangers, high performance building envelope elements, or in any other energy-intensive manufacturing sector;
- in the public administration as an energy manager, or a figure responsible for energy equipment and contracts or in the development of energy-related financial products;
- in the research sector within supranational, national or local agencies or authorities and in laboratories for development and/or certification of new equipment and materials.
What is the objective of the course? What is it?

The Master Degree in Computer Engineering trains qualified senior engineers who can coordinate teams that design and develop highly complex computer systems and applications. Students are trained on cutting-edge technologies in many fields of computer engineering, such as Embedded Systems, Web Applications, CyberSecurity, Artificial Intelligence and Big Data. The Master's graduate in Computer Engineering also acquires skills related to business management and marketing useful for starting independent activities.

What do you learn?

The topics covered are related to the following disciplines:

- Cryptography
- Formal Languages and Compilers
- Embedded Systems
- Web Systems Design and Architecture
- Image Processing
- Artificial Intelligence
- Big Data
- Robotics
- Computer Security

The student will be able to choose optional courses, such as Marketing and Business Administration. In the last semester of the second year, students will carry out an internship in research laboratories in order to prepare their final thesis.

What can you do with it?

The Master Degree graduate in Computer Engineering will be able to work either independently or in teams. Graduates may work as designers and analysts of large computer systems, supervising design and development teams. Within companies or public and private organizations, the Master Degree graduate in Computer Engineering will be capable of covering executive roles thanks to the extensive technical knowledge provided by the course.
What is the objective of the course? What is it? What does it train you for?

The Master Degree in Mechanical Engineering aims to train young graduates suited to working both public and private research centres, and to carrying out professional activities with a high technical and scientific profile, also to support industrial or university research activities. The professional activities are consistent with the cultural expectations of mechanical engineering, as it has been established over the decades, with reference to its three typical aspects: the design, production and operation of mechanical artifacts.

What do you learn?

The Master Degree in Mechanical Engineering offers the student the opportunity to acquire the basic and higher level cognitive tools for the continuous updating of their knowledge and skills. This objective is pursued through teaching courses with a higher methodological content. Moreover, the ability to acquire new skills is stimulated by independent research and studies conducted during the preparation of the Master’s Degree thesis. The achievement of the objective is verified by way of a final exam. The main activities of the professional figure are:

- The design of plants, systems and industrial processes, from a functional, energy and economic point of view;
- The definition of experimental plans and test methods for the evaluation and improvement of the product’s functional, quality and reliability characteristics;
- In-depth study of knowledge of the technical-scientific problems of various sectors underlying applications and innovations in engineering.

The aim of the Master Degree in Mechanical Engineering is to provide:

- In-depth knowledge and solid expertise in all areas in which mechanical engineers traditionally operate (production, design, automation, plant engineering, propulsion of land vehicles, transport);
- The ability to work in interdisciplinary teams and to interface with specialists in different areas.

What can you do with it?

The senior Mechanical Engineer carries out his or her functions in companies, public or private authorities or as a freelancer, working both independently and in groups, which may often be multidisciplinary, and also assuming coordination responsibilities. The presence of the Mechanical Engineer is required in aerospace, chemical, civil, electrical, manufacturing, metallurgical, agricultural, marine, petroleum and other engineering disciplines to varying degrees. Most of the equipment required by all these disciplines for their jobs is designed, manufactured and maintained by Mechanical Engineers.
What is the objective of the course? What is it? What does it train you for?

Conceived as a tech-MBA and specifically designed for students with a Bachelor Degree in Engineering, the Master Degree in Management Engineering at the University of Palermo allows students to complement the in-depth knowledge and the way of thinking gained during their engineering background, with the ability to take strategic decisions and tackle management issues. Management Engineers are managers with advanced quantitative problem-solving skills, capable of managing companies that operate in increasingly complex, international and technologically advanced environments. The program is inherently multidisciplinary and integrates high-level management skills with in-depth technical competences in several areas, such as operations and supply chain, finance, economics, project management, innovation, strategy, logistics, and technology management.

What do you learn?

The Management Engineering program is entirely taught in English and is divided into three discipline blocks:

- Methodological disciplines which include the methodological basis of the second level management engineer such as advanced statistical methods and tools for management engineering, business process modeling techniques, project management methodology and software.
- Core disciplines which study the main business functions of every company, such as marketing, corporate finance, strategy, operations and supply chain, technological innovation and human resources.
- Elective (focus) disciplines which relate to more specific topics such as sustainable technologies, public sector economics, industrial safety, technology analysis, smart manufacturing.

The educational model of the program is strongly based on active learning and the courses are taught using several teaching methods: lectures, practical sessions, case studies, flipped classroom, and in-class discussion. Students are involved in practical-based labs and project works developed in a team where they can experience real challenges and apply the skills, methods and knowledge acquired.

What can you do with it?

The Management Engineering program opens up rewarding and exciting career opportunities for its students. The multiple business function skills of the management engineer allow her/him to find a job very quickly (official statistics report that in 2019, 97.7% of graduate students found employment within one year from graduation). Management Engineering graduates can find employment in all kinds of industries (Automotive, Agrofood, Oil and Gas, Textile and Fashion, Business Consulting, Banks, Healthcare, Public administration, etc.) and fill different positions in a variety of business functions (Operations and Supply Chain, Marketing, Corporate Finance, R&D, Controlling, etc.).
What is the objective of the course? What is it? What does it train you for?

Conceived as a tech-MBA and specifically designed for students with a Bachelor Degree in Engineering, the Master Degree in Management Engineering offered at the University of Palermo is an online program that allows participants to complement the in-depth knowledge and the way of thinking generated by an engineering background and develop the ability to take strategic decisions and tackle management issues. Management engineers are managers with advanced quantitative problem-solving skills and the ability to manage companies operating in increasingly complex, international and technologically advanced environments.

The online program is inherently multidisciplinary and integrates high-level management skills with in-depth technical competences in several areas, such as operations and supply chain, finance, economics, project management, innovation, strategy, logistics and technology management.

What do you learn?

The Management Engineering online program is entirely taught in English and is divided into three discipline blocks:

- Methodological disciplines include the methodological foundations of second level management engineering such as advanced statistical methods and tools for management engineering, business process modelling techniques, project management methodology and software.
- The core disciplines study the main business functions of every company, such as marketing, corporate finance, strategy, operations and supply chain, technological innovation and human resources.
- The elective (focus) disciplines relate to more specific topics such as sustainable technologies, public sector economics, industrial safety, technology analysis, smart manufacturing.

The educational model of the program is strongly based on active learning and the courses are taught with several teaching methods: lectures, practical sessions, case studies, flipped classroom, and in-class discussion. Students are involved in practical-based labs and project works developed in teams where they can experience real challenges and apply the skills, methods and knowledge acquired.

What can you do with it?

The Management Engineering Online program opens up rewarding and exciting career opportunities for its students. The multiple business function skills of the management engineer allow her/him to find a job very quickly (official statistics report that in 2019, 97.7% of graduate students found employment within one year from graduation).

Management Engineering graduates can find employment in all kinds of industries (Automotive, Agrofood, Oil and Gas, Textile and Fashion, Business Consulting, Banks, Healthcare, Public administration, etc.) and fill different positions in a variety of business functions (Operations and Supply Chain, Marketing, Corporate Finance, R&D, Controlling, etc.).
## BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

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## MASTER DEGREE

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CULTURAL HERITAGE: KNOWLEDGE, MANAGEMENT AND ENHANCEMENT

What is the objective of the course? What is it? What does it train you for?

The course provides full core training in the tangible/intangible cultural heritage. The historical-archaeological curriculum focuses on the archaeological heritage, while the heritage and cultural tourism curriculum focuses on the cultural heritage of the territory for cultural tourism promotion purposes, with particular attention to Sicily. Laboratory and internship activities are designed to create a first connection with the job market. Students learn methods related to the recovery and conservation, analysis and classification, management, communication and promotion of the cultural heritage. They learn to draw up technical reports and develop skills in English.

What do you learn?

The course covers history from ancient Greece to the modern world and the geography of cultural heritage, archaeology from prehistory to the Middle Ages, history of art, anthropology, classical and Italian literature as well as the linguistic dialect heritage. The English course leads to level B1. The legal-managerial aspects covered include legislation, applied economics and management of the cultural heritage, while communication and promotion skills are covered by courses in Italian linguistics and communication, museology, communication laboratories and IT applications. The training is completed by lab/field activities and an external internship.

What can you do with it?

There are four Master Degrees in Archaeology, Ancient Sciences, Historical, Anthropological and Geographical Sciences and the History of Art related to this course. Job opportunities concern organisations working in the management and enhancement of sites, collections and monuments and archaeological excavations, or with technical offices operating in the cultural heritage sector. Graduates can work in the use of museum collections, sites and monuments and with travel agencies. They can be excavation assistants, tour guides and take part in territorial study projects or setting up exhibitions. After earning a few credits, they can teach literature and art history at high school level.
What is the objective of the course? What is it? What does it train you for?

Communication Sciences is a strongly interdisciplinary program that provides the theoretical foundations, methodological tools and technical knowledge to understand the world of contemporary communication and be able to act within it.

The different specializations of the course reflect the professional fields for which the degree prepares and are chosen after a common first year in which the necessary foundations are provided to perceive and understand the complexity of communication phenomena.

They are:
1) Information and Social Media;
2) Public Communication;
3) Publishing and Cultural Design;
4) Visual Culture;
5) Marketing and Advertising.

Each of these paths offers the opportunity to delve into the functioning of specific media, their peculiar communicative artifacts, the languages they use, the variables and strategies that can be employed to achieve specific results, and the techniques for measuring the effectiveness of different communicative actions.

Because of the characteristics of its object of study, the course is distinctly contemporary, when not future-oriented. Moreover, because of the great impact that technology has on communicative processes, it presupposes constant attention to innovation and to the way in which transformations in the technological devices that are used to communicate affect communication itself and the relationships it creates.

What do you learn?
The interdisciplinary nature that characterizes the course in Communication Sciences, that is, the co-existence of teaching from areas that cover both so-called humanistic disciplines and those of a more technical/scientific nature, stems from the complexity of communicative phenomena. Indeed, it obliges one to constantly keep in mind both types of study, which precisely in communication find a necessary synthesis. Sociological, linguistic, philosophical, historical, literary, artistic and semiotic subjects thus coexist with economics, statistics, design, computer engineering, Big Data analysis, just to name a few.

In addition, dealing with communication involves the need to develop alongside theoretical knowledge also various practical skills, which in the course are assigned to different Laboratories each of which prepares to produce a specific communicative product. Again there are different possibilities: from written texts to visual design, from websites to photography, from screenwriting to musical communication, etc. The course also offers ample possibilities for customization of the curriculum, with as many as 4 courses to choose from a large number of optional subjects, each dedicated to a specific aspect of communication. Finally, there are several credits for educational activities to be carried out with alternative teaching modes such as seminars and workshops with professionals and companies.

What can you do with it?
There are two types of career outlets in the communication professions. On the one hand, there are the professions that have now become traditional, ranging from journalism to advertising, from public communication to publishing; on the other hand, there are a large number of new professions that until a few years ago were not considered as such. Think of the digital identity management that Social Media Managers deal with for entities, companies or personalities, the communicative processes to which Influencers give rise or the new forms of journalism that the Internet has made possible, and again the many forms of audiovisual communication that have arisen with YouTube and continue with other social.

Of course, one can decide to continue one’s studies by pursuing a Master Degree, which, in the case of Communication Studies, allows one to specialize in a specific field. The University of Palermo offers three courses in this regard:
1) Public, Business and Advertising Communication;
2) Cultural Heritage Communication;
3) Communication for Food.

If the first offers a broad-based preparation on strategic communication, the last two focus on productive sectors towards which the Sicilian territory appears particularly suited and which have shown considerable economic growth in recent years: cultural heritage, both tangible and intangible, and food and wine.
**SOCIAL WORK**

**CLASS L-39**

**CAMPUS Palermo, Agrigento**

**TYPE OF ACCESS** Planned

**SEAT OF INTERNATIONAL AGREEMENTS**
- Granada (ES)
- Jaén (ES)
- Lubiana (SI)
- Marsiglia (FR)
- Oslo (NO)
- Restia (RO)
- Saragozza (ES)
- Siviglia (ES)
- Sundsvall (SE)
- Würzburg (DE)

**What is the objective of the course? What is it? What does it train you for?**

The aim of this Degree course is to train professional social workers, professionals capable of reading the dynamics and social processes at work in the territory they work in critically, reflectively and autonomously, preparing adequate action on social problems, working within the public and private social services, taking into account the operating methods used in a given organisational system.

Within the training pathway, fundamental importance is accorded internships at organisations or services in agreement with the University of Palermo, as well as the various activities organised within study workshops - Social Service Laboratory and the Interdisciplinary Applied Research Laboratory on Bodies, Rights and Conflicts for the Palermo campus and Laboratorio LAPP (Social Research applied to Social Work) for the Agrigento campus.

**What do you learn?**

The Degree course curriculum offers complete core and specific training via related scientific-disciplinary sectors and an attention to the overall coherence of training through contents targeted to class objectives. The course includes a core of sociological subjects with particular reference to general sociology and social science methodology, public policy analysis, the sociology of culture and communication and the sociology of deviance, as well as the fundamental social work disciplines (principles and ethics, methods and techniques, organisation, international social work). The course also includes psychology, law and public health subjects. The curriculum also provides for at least 18 ECTS in internships and internship guidance, giving priority to supervision by social workers.

**What can you do with it?**

The Degree provides access to the State Examination for registration in section B of the professional register of social workers. The occupational openings provided by a Degree in Social Work are in public and private social organisations and in the liberal professions.

Social workers can work in public or private structures, local health authorities, prefectures, government departments such as the Ministry of Justice, the Ministry of Labour, the Ministry of Health, etc. They can also work in local authorities, territorial services, personal service centres and rehabilitation centres; services for minors with justice problems and adults in penitentiaries; elder people’s homes, family homes and shelters for battered women. Finally, they can work in the various structures that work with immigrants, both EU and non-EU, especially in a region like Sicily, a land of access for migrants. Our course pays particular attention to specific training in this regard, with a view to working in reception centres and temporary detention centres. Graduates in Social Work can also continue their studies by taking a Master Degree in Social Work and Social Policies, which qualifies them for the State Examination for enrolment in section A of the Professional Register of Social Workers.
GLOBAL STUDIES: HISTORY, POLICIES, CULTURES

What is the objective of the course? What is it? What does it train you for?
This Bachelor Degree in Global Studies: History, Politics, Cultures (class L42-History) provides students with the necessary tools to understand and intervene in modern global phenomena from a historical perspective. The multidisciplinary approach of this course in Global Studies: History, Politics, Cultures provides students with a core training aimed at historical investigation and communication in which they learn fundamental notions of epistemology and the methodologies used in history and other social sciences; core anthropological and geographical investigation training; the ability to produce a spatio-temporal interpretation attentive and culturally responsive to the issues posed by the global nature of the contemporary world; a core knowledge of cultural processes in historical perspective; a core training aimed at understanding political, social and economic phenomena and concepts on a national and global scale.

What do you learn?
This Degree Course in Global Studies: History, Politics, Cultures is organised into a single curriculum designed to provide a solid education encompassing knowledge of the most important institutional, economic, social, political and cultural phenomena in a chronological span ranging from ancient to contemporary times. During the first and second years of the course students acquire core knowledge of the main historical periods and the social sciences methods useful in historical research, such as geography, political philosophy, political economy and anthropology. During the second and third years, the course allows students to acquire notions related to different areas of historical analysis and offers them the opportunity to start building a training path responding to their specific cultural and professional interests. In the final year students acquire the sociology fundamentals, investigate paths linked to globalisation and cultural interaction, and are given the opportunity to integrate the training undertaken with a further globalisation perspectives, partly in preparation for the Master Degrees they intend to take.

What can you do with it?
The course prepares students to work as cultural operators and for professional careers in institutions and organisations active at an international level, especially in cultural, social, economic, political and development cooperation; libraries and archives, with technical and support functions; traditional and digital publishing; cultural organisations, in the promotion of exhibitions, shows and events; administrative bodies, with secretarial and general affairs coordination functions. Furthermore, as this is a three-year Degree course, training guarantees wide ranging study continuation potential to obtain a Master Degree with which to build a more specific professional profile direct connected (without grade deficits) to history Master Degrees, for those interested in teaching and research; Master Degrees in peace and development cooperation sciences; Master Degrees in communication sciences and religious studies.
What is the objective of the course? What is it? What does it train you for?
The course aims to provide students with a comprehensive training in archaeology. It gives them great expertise in the field of historical-cultural issues and methodology and develops practical skills. Students learn to read and manage the archaeological evidence (sites, monuments, artefacts) using a wide range of sources and methodologies. Students can choose to focus on pre-classical, classical or post-classical archaeology, history of art and architecture, material culture and landscape archaeology, or acquire a strong knowledge of methodologies and applied sciences. The course promotes and encourages international study, within the joint Degree (Göttingen University), Erasmus+ and SEMP (Swiss European Mobility Programme) programme.

What do you learn?
The primary contents of the course are the humanities (history and culture of the ancient world, archaeology). At the same time, methodological and practical skills are provided through disciplines such as archaeological methodology, chemistry for cultural heritage, geomatics, virtual archaeology and laboratory activities. By means of practical activities and internships in institutes operating in the archaeology and cultural heritage sectors, our students also learn to work in the field (archaeological excavations, surveys, and analysis of finds) both independently, under the leadership of the head of the research, and within working groups.

What can you do with it?
Profile: Archaeologist
Functions: scientific management of archaeological surveys and excavations, cataloguing and documentation of finds, museum itineraries planning, promotion activities (exhibitions, events, dissemination), teaching.

Placements/opportunities: cultural heritage management offices (Soprintendenze BBCC) museums, archaeology parks, public and private institutions, cooperatives operating in the cultural heritage field, cooperation for archaeological research, designing and drafting territorial information systems (Risk Maps), construction site monitoring and preventive archaeology.

Profile: Physical anthropologist
Functions: scientific management of archaeological excavations, cataloguing and documentation of finds, museum itineraries planning, promotion activities (exhibitions, events, dissemination), teaching.

Profile: Teacher
Placements/opportunities: teaching at secondary schools (teaching classes: ancient and modern literature, arts).
COMMUNICATION OF CULTURAL HERITAGE

What is the objective of the course? What is it? What does it train you for?

This Master Degree course in Communication of Cultural Heritage aims to train competent professionals, knowledgeable in the areas pertaining to the communication of cultural heritage, textual and visual culture, mastering communication skills, and therefore capable of designing and coordinating high-profile projects focusing on the promotion and enjoyment of the cultural heritage, critical editions of texts and contemporary visual culture. The Cultures of the text curriculum aims to give graduates an understanding of textual knowledge in connection with the humanities, while the Visual Culture option aims to give graduates a mastery of the visual sciences, on the basis of the interplay between image analysis, social and individual perspectives and the media supporting these images.

What do you learn?

This Master Degree course focuses on subjects such as information and communication theories and techniques; semiotics; and socio-economic, anthropological-political and cognitive disciplines; as well as various other subjects aimed at combining communication sciences with other areas of knowledge (such as modern and contemporary art; museology and art and restoration criticism; entertainment sciences; cinema, photography and television; musicology and history of music; Italian literature, literary criticism and comparative literature; and modern languages such as English, German, Arabic, and/or Albanian) with a view to shaping the curriculum in accordance with the requirements of the job market.

What can you do with it?

Experts in Cultural Heritage Communication can analyse, plan and implement initiatives aimed at communicating the cultural heritage. The cultural heritage concept is to be understood in a broad sense to include not only artistic and monument assets, but also other material and immaterial elements contributing to shaping a given culture (food, traditions, celebrations, etc.). These professionals also perform consultancy work in the design and implementation of spaces and tools devoted to the enjoyment of the cultural heritage (museums, exhibition areas, cultural itineraries, promotional tools such as brochures, virtual applications, videos, etc.), which need to be effective from a communication point of view; they can also offer specialist advice concerning verbal and visual communication (in particular within cultural institutions, public and private foundations, libraries, archives, etc.).
What is the objective of the course? What is it? What does it train you for?

The interclass program in Communication for Food is the first Master Degree program of its kind in Italy and Europe. It brings together the educational aims of the Communication Theories degree class (LM92) with those of the Economic and Social Sciences on Food and Wine (LM/GASTR), in order to train experts in both fields, so that the contents of LM/GASTR can be best communicated through the theories and techniques of LM92.

The outcomes of this new course of study are many. First of all, it is to train communicators who are competent specifically in the food and wine sector, so as to provide the territory - Sicilian and beyond - with professionals capable of promoting the goods and services related to that sector.

What do you learn?

Graduates in Communication for Food receive a high-profile training that is completely original with respect to traditional knowledge of the agri-food field, maturing a sensitivity to the cultural, social, aesthetic, anthropological and semiotic bearing that food possesses, as well as specific knowledge about the dynamics of valorization, promotion and fruition of food products.

To the knowledge of communication and, in particular, of semiotic disciplines, are added historical, anthropological, geographical and sociological knowledge, which enables an understanding of the dynamics of production and transformation of food and wine that have occurred over time and space. To them are added the aesthetic area knowledge inherent to food taste, the scientific-food and nutrition knowledge, the legal knowledge, and also the economic-tourism and marketing knowledge necessary to understand the possibilities that food and wine can offer in terms of economic development. Added to these is the creative and design area, carried out through laboratory-type teaching, which allows students to confront the problems presented by the design of both classically understood communication (from advertising campaigns to food and wine journalism) and consumer spaces.

What can you do with it?

The outgoing cultural profile is that of the Food Communicator who can act both in the field of communication design in the strict sense and in research in the field of food culture and food dissemination and education. Possible professional profiles consistent with the skills envisaged by the degree include: consultant for the promotion of food and wine products (strategic planner, ADV specialist, event planner, press officer, social media manager); consultant for restaurants, wine shops and other places of food consumption; consultant for tourist agencies, production farms or agritourisms; consultant for agencies and institutions that promote activities in the field of biodiversity and control over food knowledge; designer and coordinator of research groups on food and culture at various levels for participation in funding calls (regional, national, European); popularizer on food and wine knowledge and creator of editorial content for magazines, food and wine guides, cookbooks and specialized publishing houses; promoter of food education, communication consultant in the field of dietetic-nutritional.
What is the objective of the course? What does it train you for?

This Master Degree course in Public, Corporate and Advertising Communication aims to train professionals who join the employment market with high-level theoretical and methodological skills enabling them to create successful communication products and promotional campaigns. Course subjects are designed to acquire in-depth knowledge of communication management in companies, political institutions and local and national administrations, as well as in public bodies and non-profit organisations. Specific attention is paid to the field of advertising and the effective product communication creation process. To this end, the course provides students with the tools they need to create advertising campaigns, events and services for press and public relations purposes, in both graphic content and language.

What do you learn?

This Master Degree programme aims to acquire knowledge relating to communication management in public, private and tertiary-sector organisations, advertising agencies, and the definition and management of companies’ corporate image. The course focuses on the core subjects and activities related to public and corporate communication and subjects relating to social, political, IT and language studies. During the course students are given the opportunity to acquire know-how crucial to their future professional role, through a 150-hour internship.

What can you do with it?

Occupational opportunities pertain to the management of the entire communication process in its various aspects, in both the public and private sectors, non-profit organisations and political and administrative institutions: from public relations to journalistic information in press offices, social media management to institutional communication, the coordination and editing of promotional texts to advertising campaign planning (working on words, slogans, data, images and virtual formats), from context analysis to the implementation of communication strategies aimed at a range of targets.
What is the objective of the course? What is it? What does it train you for?

This Master Degree in Cooperation, Development, and Migration aims to give students the knowledge and skills to understand problems related to poverty, vulnerability, and migration issues in order to find fair and sustainable solutions. This idea is based on a concept of human development that focuses on improving people’s living conditions, and removing the causes of inequality, discrimination, violence, and poverty in order to guarantee people a life worth living.

What do you learn?

This Master Degree trains students to develop action related to areas regarding education, health, work, access to resources, freedom and political participation, gender justice and human rights. From an educational point of view, the Degree course is strongly multidisciplinary in approach and based on fully understanding the realities of the so-called global south. The professional training provided is characterised by a strong methodological focus on knowledge, know-how and work. Internships and training activities are employment focused and students are helped to form strong and diversified links with the labour market in Italy and abroad.

What can you do with it?

The Master Degree provides access to careers such as:

• international organisation manager;
• public and private sector social development and international cooperation manager;
• careers in diplomatic and international relations;
• planning and coordination experts in development programme and humanitarian intervention.

The Master Degree gives access to post-graduate Masters’ and Ph.D. Courses. This Master Degree has a programme of scholarships for post-graduate fieldwork in developing countries.
What is the objective of the course? What is it? What does it train you for?

In this course students enhance previously acquired knowledge, specialising through an adequate in-depth study of class and developing their analysis and research skills, of philology and classical, medieval and modern literatures and, potentially, diachronic linguistics.

What do you learn?

The first year of the course consists of in-depth studies in which students acquire critical core competence knowledge, through the study of class specific subjects in the philological, linguistic, literary, historical-archaeological ambits. In the second year, they complete their education from a more interdisciplinary perspective and prepare dissertations for the final examination.

What can you do with it?

Graduates in Classical Studies perform research and studies on the origin, evolution and structure of language. They can apply their language knowledge to the critical editing of written texts. They are capable of reconstructing the ancient Mediterranean civilisation context, as well as carrying out research in the political and social history and archaeology of the Greek and Latin world fields.
SOCIAL SERVICE, INEQUALITIES AND SOCIAL VULNERABILITY

What is the objective of the course? What is it? What does it train you for?
This course aims to train professionals capable of carrying out social territorial analysis and performing managerial roles in local government and private or tertiary sector organisations, in Italy and abroad, working in the social services or more generally in processes of social development or human and community promotion. The approach is interdisciplinary, and pays particular attention to disciplines aimed at understanding social processes and the appropriate construction of social policies revolving around local authority functioning, organisational management problems, coordination and organisation of territorial interventions coordination and management of cooperation organisations and the tertiary sector, together with international careers in non-governmental organisations in the humanitarian field, community development projects and action on migratory flows in Italy and abroad.

What do you learn?
There is a close connection between professional social service disciplines and other fields. These include:
- the sociology of family relationships, development and migration, marginality and vulnerability;
- social policy, social cooperation and the tertiary sector;
- private law and administrative law (with a focus on: migrants, minors, gender, local authorities);
- business organisation for the management of interventions in the territory and public, cooperation and tertiary sector organisations;
- social psychology;
- political science (for the analysis of local social policies);
- human rights (also in relation to the management of migration flows). Course traineeships (12 ECTS) are designed to test advanced skills and tasks (social research, design, management and social service evaluation).

What can you do with it?
This Master Degree in Social Work provides graduates with access to the State Examination for registration in section A of the Professional Register of Social Workers. Graduates find employment in public, private and tertiary sector organisations and in the liberal professions. Graduates perform the following in a working context:
- planning, design, management (services, projects, organisations);
- coordination of services and community development projects;
- quality analysis and assessment (services, projects, organisations);
- supervision of internships for students in the LM-87 class;
- social and social work research;
- teaching and training related to social policies and social work.
What is the objective of the course? What is it? What does it train you for?

This Master Degree in Art History is designed to provide graduates with advanced training in the field of art history disciplines with high-level competence in the various figurative art fields from late antiquity to the contemporary age in a geographical area extending from the Mediterranean to Northern Europe. In addition to specialised teaching covering all Western tradition historical phases and languages, the course offers a wide range of iconographical, theoretical and methodological disciplines. Particular attention is paid to the use of new media applied to personal research, publishing and heritage cataloguing, as well, of course, as the bibliographical tools, primary and secondary sources that enable aspiring scholars to provide adequate historical and cultural contextualisation of the artefacts.

What do you learn?

Master Degree graduates in Art History can carry out consultancy work for individuals, organisations and institutions (not only for strictly cultural purposes) in relation to their own training and in the fields covered by their studies. They can, therefore, act, in public or private contexts, as reference points for cultural policies and in the enhancement of their fields of study. During the course of studies they acquire the following professional skills:

• expertise in the main art-history fields for the appropriate placing of works of art in space and time;
• evaluation and contextualisation of artistic phenomena;
• appropriate planning skills in the museum education field;
• the ability to plan and manage internal and external (cultural and informative) communication in museums and cultural institutions focusing on cultural heritage.

What can you do with it?

The course provides its graduates with the appropriate cultural tools to start professional careers in the fields of cultural mediation (dissemination, tourism, teaching), museum studies and curatorship, cultural management, the antiques market and as forensic experts, journalistic criticism and curatorial studies, editorial consultancy and digital cultural heritage communication.
What is the objective of the course? What is it? What does it train you for?

The course focuses on the connection between historical events, geographical areas, traditions, social and cultural relationships. The course provides:

- specialist and in-depth knowledge of historical, geographical, and anthropological issues concerning the Western world, in a global context, and of issues regarding the connection between cultures, societies, economies and environments;
- professional and methodological skills of use for future employment in local authorities and cultural initiatives.

There are two curricula.

The historical curriculum studies research and historical knowledge methodologies, particularly regarding the most recent historiographical acquisitions and revisions, critical use of sources, current information and multimedia technologies. Moreover, students learn to analyse and interpret political, institutional, social, economic, cultural, and religious processes, their long-term juxtaposition and mutual influence.

The anthropological-geographical curriculum provides the theoretical and methodological skills required to study and research relationships between cultural perspectives, social processes, religious practices and the human environment; and to analyse the cultural complexity of contemporary societies. These overall topics are supplemented by geographical and anthropological themes contextualising historical knowledge within the human sciences.

The anthropological-geographical curriculum is based on specific subjects supplying the fundamental tools with which to study cultural processes, social transformations, multiculturalism and the territory-society relationship. Other related disciplines enable students to go into further depth on anthropological and geographical studies in essential fields concerning environmental issues, linguistic identities and interculturality. Historical subjects combine specific curriculum training with an in-depth knowledge of European history and historiography. In both curricula two workshops applying digital technology to historical studies allow students to apply the skills acquired in publishing.

What do you learn?

The historical curriculum is mainly based on the history of medieval, modern and contemporary Europe, and deals with historical, methodological, and educational issues. Key moments in European history are observed, with specific attention to the Mediterranean area, sources, and institutions. These overall topics are supplemented by geographical and anthropological themes contextualising historical knowledge within the human sciences.

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What can you do with it?

Professional skills in the field of cultural heritage allow course graduates to work in:

- local cultural heritage sector authorities (state, regions and local authorities);
- public cultural heritage conservation and promotion bodies (libraries, archives, museums, superintendencies);
- tertiary sector firms specialising in tourism;
- firms working in publishing, management and updating of websites;
- non-profit organisations (associations, foundations, NGOs).

Graduates of the course can also:

- teach humanities in secondary schools;
- coordinate and plan national, regional, and local museum, and nature parks;
- coordinate cultural event planning and organisation teams;
- organise public and private professional training;
- promote cultural tourism and cultural heritage enhancement.
What is the objective of the course? What is it? What does it train you for?

This course of study in Religions and Cultures is an inter-university joint Master Degree between the University of Palermo and the Pontifical Theological Faculty of Sicily, with teaching contributions from the Foundation for Religious Sciences (FS-CIRE, Bologna). The course offers keys to the interpretation of current religious phenomena by analysing the world religion history, hermeneutics and sociology of religious phenomena, geopolitics, anthropology, and inter-religious dialogue and conflict; epistemological-doctrinal elaboration in philosophical and theological contexts; literary and artistic representations; ethical-juridical religious system codifications.

Internships at institutions and/or organisations active in inter-religious contexts or in the conservation/communication of the religious heritage aim to refine students’ professional skills.

What do you learn?

The educational programme of this course of study involves the following areas:

- sources and methods in the history of religions and culture;
- hermeneutics of Christian, Jewish, and Islamic religious texts;
- the geopolitics, anthropology, and sociology of religious phenomena;
- inter-religious dialogue and conflict;
- epistemological-doctrinal elaboration in philosophical and theological contexts;
- literary and artistic representations;
- ethical-juridical religious system codifications.

What can you do with it?

The Master Degree provides access to the following competition classes for school teaching, subject to possession of the specific ECTS:

- A-11 (ex 51/A);
- A-12 (ex 50/A);
- A-13 (ex 52/A);
- A-18 (ex 36/A);
- A-19 (ex 37/A);
- A-21 (ex 39/A);
- A-22 (ex 43/A);

Career opportunities include:

- study and research on religious phenomena at public and private research centres and religious science institutes;
- religious or religion-related publishing;
- activities requiring expertise in inter-religious communication and relations and specific problems in multi-denominational social contexts, such as those related to cultural mediation;
- university teaching and research.

What do you learn?

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- sources and methods in the history of religions and culture;
- hermeneutics of Christian, Jewish, and Islamic religious texts;
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### BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE

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### MASTER DEGREE

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www.unipa.it/dipartimenti/sc.psicol.pedag.edellaformazione
What is the objective of the course? What is it? What does it train you for?

The Bachelor Degree course in Physical Education and Sport Sciences (L22) provides students with a solid preparation in the field of motor activities, sports and, in particular, the study of the theoretical, technical and methodological aspects necessary to understand the basics of the functioning of the human body in movement as well as the psycho-pedagogical, juridical-economic and didactic aspects relating to physical exercise. Students acquire basic skills in four areas: technical-sports, prevention and adapted physical education, managerial and educational-didactic. Moreover thanks to agreements with Sports Federations and the Regional Sport School of Coni, they can acquire top-level Federal Instructor licenses.

What do you learn?

In the technical-sports area, the Study Program provides expertise on both the theory and methodology of training and on motor and attitudinal assessment methods in sport. The fundamental knowledge acquired in the field of prevention and adapted motor education provides skills related both to the theory and methodology of human movement and to the theory, technique and didactics of motor activities addressed to people of all ages, and regarding preventive and compensatory motor activities. The legal and economic disciplines provide the basic skills for the organization and management of the structures in which physical, sports, recreational and tourist activities are carried out, as well as for the organization of sporting events. In addition to psychological and pedagogical disciplines, the knowledge acquired in the educational-didactic area concerns motor learning and the improvement of motor skills in the developmental age.

What can you do with it?

The natural continuation of the Physical Education and Sport Sciences program is enrolment in one of the three Master Degrees activated in the School: Sciences and Techniques of Sports Activities, Sciences and Techniques of Preventive and Adapted Motor Activities, Sport Management.
What is the objective of the course? What is it? What does it train you for?
The course trains students to cope with and manage significant issues related to the training process within institutions and vocational training, companies and public authority facilities. It consists of 3 areas: Socio-pedagogical education (aimed at health promotion, family education, prisoner educational services and services for people with disabilities); Early childhood education (educational services for nurseries, families with children, play areas, free time, homecare); Community education (aimed at preventing social distress, family support, the well-being of minorities and underprivileged people, drug addiction support services, support services for the care of the elderly, abused children and prisoners).

What do you learn?
The educational path aims to develop the student’s familiarity with the educational network, building training materials and models, and integrating processes with new technologies. Through techniques and operational skills related to public and private training contexts and enhancing a professional approach, the course trains students to become professionals and trainers.

What can you do with it?
Pedagogical Science Degree, with two curricula: Pedagogical and Training and Planning (Degree L85). Three possible job profiles: socio-pedagogical educator, early childhood educator, community educator.
What is the objective of the course? What is it? What does it train you for?

The goal of the Bachelor Degree course in Psychological Sciences and Techniques at the University of Palermo is to introduce students to theories and empirical research in Psychology. This Degree equips students with an in-depth understanding of the fascinating field of psychology, and accompanies them as they applying their knowledge in a real-world setting.

The Bachelor Degree in Psychological Sciences and Techniques prepares students for careers in teaching, research, or clinical psychology.

What do you learn?

This course provides students with a basic knowledge of Psychology in all its aspects. To achieve this goal, it involves Foundations and History of Psychology, Physiological Psychology, Psychology of Personality, Developmental Psychology, Social Psychology, Dynamic Psychology, Clinical Psychology, Psychological Research Methodology, Psychological testing, Foundations of Psychopathology, Occupational and Organizational Psychology, Behaviour Observation, Psychological Interview. The course syllabus also includes interdisciplinary topics from Social Statistics, Anthropology, Contemporary Philosophy, Basic Computing Skills, English language.

What can you do with it?

After the Bachelor Degree in Psychological Sciences and Techniques, you can start psychology entry-level jobs under the supervision of a senior psychologist or pursue a social care career (e.g. in residential and semi-residential centres, maternal-child services, educational and training services, social support services and so on). However, most of our students enrol in a Master Degree in Psychology. The Department of Psychological, Pedagogical, Exercise and Training Sciences offers three different Master Degree programs (2-year specialization): Clinical Psychology, Life Span Psychology, Social and Organizational Psychology.
SCIENTES OF PRIMARY EDUCATION

What do you learn?
Graduates are expected to unpick many of the controversies related to curriculum, inclusion, creativity, and the nature of teaching. They explore in detail how children learn and develop, how they acquire language, become competent learners, learn to socialize, as well as how they participate and behave within school contexts. The course provides advanced theoretical and practical training in the subjects – psycho-pedagogy, teaching methodology, technology and research – that concern the professional profile of a pre-school and primary school teacher. The curriculum contains prescribed course units covering theory and teacher training for the levels of schooling mentioned. It also provides specific training in handling and integrating cases of special needs pupils. The study plan consists of thirty exams that focus on the contents of the national guidelines for the pre-primary school curriculum and the first cycle of education (limited to primary school) and on the professionalizing disciplines for teaching, twenty-four workshop classes (with compulsory attendance), six hundred hours of internship (with compulsory attendance), from the final graduation exam, which consists of the discussion of a thesis and a written report on internship experiences and workshop activities. Attendance at the lessons is highly recommended due to their close connection with the workshops and with the entire internship.

What can you do with it?
At the end of the five-year course, the final exam is equivalent to a state exam which enables the teaching of all pre-primary and primary school subjects. After obtaining the qualifying Degree, graduates can apply for a fixed-term position in a pre-primary or primary school, participate in the admission tests to one-year specialization course (60 credits) to becoming a Special Education Teacher (either for pre-primary or primary school); enrol in the “Early Childhood Education and Care” program (60 credits) program to work with children aged 0 to 3 years.
What is the objective of the course? What is it?
What does it train you for?
The main objective of this course is to offer students specific competences in clinical psychology and neuropsychology practices directed at individuals, families, groups, and communities who are suffering from distress or unhealthy conditions. This Master Degree program is organized in two different curricula: “Care and relationship” and “Neuropsychology.” Both of them share a strong theoretical background which is common to the activities of the first year. In the second year the activities focus on achieving professional competencies linked to the two specific areas of expertise. This Master Degree program aims to work on the effective figuring of the professional role of the clinical psychologist.

What do you learn?
Through theoretical activities designed to integrate frontal lectures and interactive methods, this course aims to provide students with professional skills:
• developing diagnostic assessment with individuals, through the adoption of specific tools for measuring mental functioning;
• realizing interventions aimed at promoting healthy well-being, risk prevention, stress-coping mechanisms, close relationship management and neuropsychological rehabilitation;
• monitoring the effectiveness of psychological interventions using an empirical methodology, to link clinical and research activities;
• tailoring interventions on the basis of the patient's individual features and based on their context of care.

What can you do with it?
The Master Degree includes the qualification for the profession of psychologist. The graduates will be able to work in all the mental health fields regulated by the Italian government. These include the promotion of prevention and/or well-being interventions, focused to offer psychological support to individuals, groups, and communities in both public and private contexts. They can also provide diagnostic assessment, rehabilitation interventions and participate in research activities. Finally, after a further four-year training program, they can qualify as a psychotherapist or a neuropsychologist.
What is the objective of the course? What is it? What does it train you for?

The Master Degree program is designed for students interested in expanding their knowledge of the psychological processes underlying typical and atypical development through the lifespan. The course is also aimed at preparing students to plan and carry out research and intervention programs in order to foster psychological well-being and social inclusion, as well as to prevent the onset of behavioral problems and psychological disorders in different contexts (e.g., school, family, neighborhood). Moreover, the course is focused not only on the assessment and treatment of individual and relational difficulties, but also on training programs for educators, caregivers, teachers, and social workers.

What do you learn?

The Master Degree program provides students with knowledge, skills, and attitudes that will enable them to stimulate positive development through the lifespan. In this framework, the program is focused on subjects like typical and atypical psychological functioning of individuals and families, psychopathology, assessment, data analysis methods. The program is also dedicated to designing research and intervention programs, using assessment tests, performing clinical interviews, preventing and treating behavioral problems and learning disabilities. Finally, the program allows students to develop the specific professional skills needed to act autonomously and responsibly in working environments.

What can you do with it?

The Master Degree includes the qualification for the profession of psychologist. The graduates can be employed in all the areas of professional psychology, such as:

• public and private organizations providing psychological and educational services to individuals, groups, and communities;
• schools (i.e., training of teachers, promotion of students’ competences);
• public and private research institutions (performing empirical surveys);
• socio-educational, therapeutic, reception, recovery and rehabilitation communities;
• healthcare institutions;
• training institutions;
• freelance professionals (i.e., psychotherapy after Psychotherapy Training).
SOCIAL, OCCUPATIONAL AND ORGANIZATIONAL PSYCHOLOGY
(LICENSE TO PRACTICE)

What is the objective of the course? What is it? What does it train you for?

The Master Degree in Social, Occupational and Organizational Psychology aims at training professionals who perform psychological interventions in social contexts, equipping them with the cognitive, methodological and operational tools required to work in the field of human relations.

What do you learn?

The graduate will be able to carry out, in full professional autonomy, psychosocial activities aimed at the design and management of:
- needs analysis;
- cultural mediation in intergroup conflicts;
- evaluation of human resources, assessment of psychological aspects of individuals and groups;
- psychosocial intervention in communities;
- career counselling and career guidance;
- reduction of employment-related discomfort (burnout, mobbing, job strain etc.).

What can you do with it?

The Master Degree includes the qualification for the profession of psychologist. The graduates can be employed as:
- Professional advisor for public agencies and non-profit organizations facing psychosocial issues such as inter-ethnic relations, marginality or intergroup conflict;
- Advisor for agencies interested in attitudes, attitude change and consumer behaviour;
- Human resources manager (or professional advisor in human resources for small and medium-sized companies);
- Professional advisor for school and career guidance, recruitment and selection of personnel, training and development of personnel, implementation of organizational interventions, outplacement.

The course provides the theoretical and empirical basis needed to understand, evaluate and predict human behaviour in both small and large communities and in work organizations. More specifically, students will learn the cognitive, affective and behavioural features involved in social processes and in the dynamics of social and work organizations.
THE SCIENCE OF PREVENTIVE AND ADAPTED PHYSICAL ACTIVITY AND SPORT PERFORMANCE

What is the objective of the course? What is it? What does it train you for?

The Science of Preventive and Adapted Physical Activity and Sport Performance course was established to meet the needs for high professionalization both in the field of preventive and adapted motor activities and in sports qualification. The Interclass Master Degree Course is based on the fusion of the educational objectives already provided for in Master Degree Classes LM-67 (Science of Preventive and Adapted Physical Activity) and LM-68 (Sport Science) and responds to the need to create a training course which results in common basic scientific-cultural activities included in the following scientific areas: physical education and sport sciences, adapted physical activity, biology of physical exercise, psychology of exercise and sport, sports medicine.

What do you learn?

The Master Degree Course lasts two years with a first common preparatory year and a second year differentiated into specific training courses. In particular, during the second year of the LM-68 course, fundamental knowledge and skills are acquired to improve athletes’ sports performance through advanced training techniques and specific training schedules for sports, gender and age groups. Instead, during the second year of the LM-67 course, students expand the theoretical and applicative knowledge for the maintenance of optimum physical efficiency, throughout the whole life, both in healthy subjects and disabled people.

What can you do with it?

The Interclass Master Degree Course was established to respond to the modern needs for high professionalization in the sports sector of high level and motor activities for healthy and differently able subjects along their life cycle. The course, therefore, prefigures the inclusion of recent graduates in various sectors: public institutions, public and private structures, health centres and SPAs, gyms, and sports clubs. They will also be able to access further education courses and doctoral research schools.
What is the objective of the course? What is it?
The program aims to provide advanced knowledge and operational skills designed to train professionals specialized in pedagogical and educational sciences, both in the education and global care of the person throughout the entire life cycle. The Course allows, on the one hand, students to qualify for the professional role of Educationist, now necessary in the socio-health training contexts and also in the so-called “0-6 system”; on the other hand, it provides all the disciplinary requirements for teaching in the A18 class. The study course aims to develop highly specialized study and research skills, design skills, and specific management and communication skills.

What do you learn?
The course aims to train professionals with high organizational and managerial skills in the training process and design, coordinate, and evaluate highly specialized training courses in different contexts, tailored to the person’s entire life cycle. The objectives concern the acquisition of advanced theoretical and operational knowledge in educational and training research with a particular focus on qualitative and relational approaches and methodologies. Specifically, through teaching courses, seminars, and practical exercises, the system pursues qualifying training objectives.

What can you do with it?
Social-educational and social-assistance services and facilities; third sector associations. Educational services aimed at promoting well-being and health, educational care of the person, groups, the elderly, and the community and benefits of juvenile justice, re-education aimed at the recovery and reintegration of offenders in social life. Coordinator of territorial educational services. Manager of educational and training organizations. Expert in the design and conducting of scientific research in the educational field. Pedagogical consultant. Specialist in the processes of skill recognition, assessment and certification. Pedagogical Coordinator of nursery schools.
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<th>Level</th>
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<td>L-5</td>
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<td>LM-43</td>
<td>Digital Humanities for Research</td>
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<td>LM-14</td>
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<td>LM-37 &amp; LM-39</td>
<td>Languages and Literatures: Interculturality and Education</td>
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<td>LM-38</td>
<td>Modern Languages and Translation for International Communications</td>
<td>PA</td>
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<td>LM-45 &amp; LM-65</td>
<td>Musicology and Performance Studies</td>
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<td>LM-78</td>
<td>Philosophical and Historical Sciences</td>
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<tr>
<td>LM-57</td>
<td>Transnational German Studies</td>
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What is the objective of the course? What is it? What does it train you for?
The course of study aims to provide a solid basic preparation on theoretical debate, production and mediation in the field of literature, visual arts, music, theatre practices and cinematographic production and multimedia entertainment in the contemporary world. To this end, the thematic study of the different languages and forms of artistic production and fruition in the contemporary world will concern the debate relating to contemporary Italian literary production, the theoretical debate and twentieth-century and contemporary production in the field of visual arts, entertainment and theatrical culture, modern and contemporary musical culture and its basic technical instrumentation and historical articulation, cinema and multimedia production; this thematic elaboration is flanked by the elaboration of adequate hermeneutical tools, on the basis of the intention that the reference to ‘contemporaneity’ certainly does not constitute an abstract and ultimately asphyxiated chronological limitation, but rather the way in which, from time to time, our present organizes the production, the mediation and the theoretical and critical debate on artistic practices, and this both from the technical point of view, from that of technological, design-planning mediation, from that of the elaboration of different languages, methods and disciplinary codes and the definition of these areas, as well as from the point of view of theoretical, imaginative values.

What do you learn?
In this direction, a strategic function is also recognized in the study of the imaginary and cultural representations in their historical development, due to the reformulations which that thematic and methodological heritage gives place from time to time. To achieve the aforementioned purposes, a significant theoretical investment is also made in the field of aesthetics and theory of the arts, of the theory of language and semiotics of the arts, of economic and social history, of sociological studies. On this basis, the course of study articulates a system shared by all the areas of expertise which, together with the basic ministerial requirements, will include the very foundations of artistic reflection, with particular reference to the strong characterization ensured by computer knowledge and architectural design and theoretical, critical and methodological skills. The course is divided into four curricula, which associate specific curricular skills in the fields of visual arts and history of art, music, theatre, cinema and multimedia, and finally in the field of acting and multimedia.

What can you do with it?
The ideal continuation of the studies undertaken in the three-year DAMS Degree are the Master Degree courses in “Musicology and Performing Sciences” and in “History of Art”, as well as the other Master Degrees and advanced courses in the artistic, performative and management fields.
HUMANITIES

What is the objective of the course? What is it?

The Degree course aims to train students to read and interpret a wide range of texts, primarily literary but not only, using linguistic, philological and historical-literary methods and according to a correct historical-critical perspective. Its objective is to provide the student with a solid basic training in the fundamental humanistic disciplines (literary, linguistic, historical and geographical), to be used in view of an eventual continuation of studies in Master's Degrees or in professions that require the specific competence acquired by the graduate in the humanistic field.

What do you learn?

The Degree program offers two curricula, steering students to two specific fields of study: Classic and Modern. Many subjects are common to both curricula: for example, linguistics, Italian literature, Latin literature, geography and the fundamental problems of history from the Middle Ages to the contemporary age.

While the classical curriculum focuses on ancient literature (Greek and Latin), history, and archaeology, the modern curriculum emphasizes areas of study from the Middle Ages to contemporary times. In addition to the core course units in each of the above areas, students may choose from a range of elective subjects in the second and third years, to build more specific profiles, also with a view to initiating Master Degree studies.

The three year program is designed to allow literature graduates to meet all the requirements of the subsequent Master Degree programs in more specific subject fields.

What can you do with it?

Our graduates are prepared to continue studies to 2nd cycle level and can enrol in several Master Degree Courses: for instance Italian studies, Philosophical and historical sciences, Classic studies. They will comply with the necessary requirements published in the Calls or Application of each Master Degree Program.

They may also pursue work in some professional fields that require a solid preparation in the humanities, particularly those in which a strong command of the syntax and grammar of the Italian language is required, using linguistic forms and styles for oral and written communication: for instance cultural services (libraries and archives), publishing (editing and translation of texts), information (as a journalist in the cultural sector), and advertising (as a copywriter).
What is the objective of the course? What is it?

The interclass Degree course Languages and Literatures – Intercultural Studies provides broad training in the field of foreign languages (level B2) and of the European and extra-European literatures and civilizations, allowing students to acquire specific skills in the context of intercultural and multilingual exchanges. The Degree course prepares students for employment in various contexts, from Language Mediation and Intercultural Communication to publishing, and the tourism industry related to the cultural, archaeological and artistic heritage of Sicily. More specifically, students who choose to enrol in class L-11 “Modern Languages and Literatures” will be prepared to find employment as language operators in economic, commercial and cultural institutions, whereas those who enrol in class L-12 “Linguistic Mediation and Italian as a Second Language” will achieve effective skills in the teaching of Italian for foreigners.

What do you learn?

The Degree program includes the following languages: English, French, Spanish, German, Arabic, Chinese and Russian. Students will achieve adequate knowledge of cultural and scientific contents and methods of the foreign languages, linguistic mediation and translation. They also acquire competences in at least two European or extra-European literatures, as well as a solid expertise in linguistic methodologies and in the diachronic study of the different and specific literary traditions. With respect to the teaching of foreign languages, students will be able to learn the graphemic, phonetic and morphosyntactic traits of the studied languages, also in relation to the different levels of the Common European Framework. As far as the literary disciplines are concerned, the Degree course guarantees the acquisition of the main methods of approach to the literary text as well as of the various methods of textual interpretation.

What can you do with it?

Job opportunities:

• language operator in socio-cultural mediation, Linguistic Mediator and facilitator;
• teaching Italian to foreigners;
• negotiation interpretation;
• translation in the economic-commercial, communication, cultural, tourist fields;
• linguistic and cultural consultancy in industry and the tertiary sector (publishing, media, literary and cultural agencies, art and entertainment);
• organization and production of cultural and informative material in the tourism sector;
• planning and implementation of intercultural events;
• translation in the economic-commercial, communication, cultural, tourist fields.

The Degree course provides students with the linguistic and cultural requisites needed to continue in Master Degree courses in view of both teaching and research preparation. More precisely, they can enrol in the following Master Degrees of the University of Palermo: Languages and Literatures: Interculturality and Education, Modern Languages and Translation for International Communications and Transnational German Studies.
What is the objective of the course? What is it? What does it train you for?
The course in Philosophical and Historical Studies aims to provide a broad post-secondary education in the field of Human Sciences. The course also prepares to the two-year Master Degree course (Philosophical and Historical Sciences (LM78), Historical, Anthropological and Geographical Studies, LM84) for subsequent access to teaching in I and II grade secondary schools (History and Philosophy, Human Sciences and History and Geography).

The course of studies is divided into two curricula, one philosophical and one historical, each of which allows the student a specific qualification of his programs through a path of scholarship either in the historical field or in the philosophical field, with the achievement of knowledge and skills specific to each research area.

What do you learn?
The course provides students with a solid knowledge of the history of philosophy and the history of humanity from antiquity to the present day and a well-structured understanding of the developments in philosophical, socio-political and economic systems. The course of study aims at fostering critical learning of the main problems of theoretical, logical-epistemological and linguistic, philosophical-scientific, socio-historical, ethical-political, religious and aesthetic research, as well as the acquisition of the structured knowledge in the areas of psychological disciplines, sociological, pedagogical and anthropological disciplines, while aiming at the acquisition of an adequate mastery of the variety of research methods and tools in the philosophical and historical field as well as in the socio-psycho-pedagogical and anthropological field.

What can you do with it?
Possible work perspectives for graduates in Philosophical and Historical Studies are:
• Copywriter: able to create, draft and edit texts for advertising messages in agencies or as a freelancer;
• In order to acquire the necessary editorial skills, the course includes a digital publishing workshop and an internship at the University Press;
• Organiser of Conferences, Exhibitions, Cultural Events;
• Cultural operator;
• Management secretary;
• Press office and external communication collaborator.
What is the objective of the course? What is it? What does it train you for?

The Master Degree Course in Digital Humanities for Research (LM43), which will be delivered in Italian and entirely online, focuses on the relationship between humanistic culture and new media and ranges from literature to linguistics, the arts, cinema, communication, history with an eye to the European and Mediterranean context, in a perspective of integration with the world of communication and the digital humanities. In fact, the entirely online mode allows (through synchronous and asynchronous interaction, sharing and collaboration with the class and the lecturer) Italian and foreign working students, students with disabilities and family difficulties to access the courses provided with greater ease and flexibility, developing their dynamic and active role in the learning process.

The course enables students to undertake an interdisciplinary training pathway through which they can acquire a humanistic education and at the same time learn, from different perspectives, to master up-to-date IT tools relevant to the processing of cultural content. The combination of the two disciplinary areas, humanities and IT, is aimed at creating composite and flexible professionals who are familiar with humanistic content, are able to process it in digital form and know how to communicate multimedia products and e-learning via the web.

What do you learn?

The student will acquire the ability to reconstruct, using text coding tools, the genesis and evolution of a text through the realisation of digital editions; to design, develop and manage websites; to plan, create, manage website content; to deal with the editing, uploading and management of content (text, images, video) on websites, blogs, e-commerce portals and social networks; to orchestrate corporate storytelling through the acquisition, on a theoretical level, of the notions of ‘hypotheticality’ and ‘fragmentariness’ and, on an applicative level, of the tools for creating content based on different declinations of digital storytelling (timeline, story mapping, transmedia storytelling, visual and video storytelling); to design and develop video games for educational purposes; to teach and co-ordinate the dissemination of digital innovation in school education; to process and order the library’s heritage on an IT level, to digitise the information and document management process, to work on everything related to online research, to maintain and update digital archives; to deal with the IT management of documents, the creation and ordering of a digital archive; to develop digital strategies aimed at intercepting users’ needs and meeting them; to digitally process textual content intended for publication.

What can you do with it?

A graduate in Digital Humanities for Research will be able to spend the skills acquired in publishing houses and multimedia editorial agencies, in online journalism, in universities and research centres (databases for research projects, digital libraries, information retrieval); in companies producing and localising software (human-machine interface, usability); in companies operating in the ‘language industry’, in libraries and museums; in schools of all kinds and degrees (e-learning, application of information and communication technologies to learning processes, digital consultancy and coordination activities); in web agencies. In other words, graduates will be able to exercise functions of responsibility in activities related to sectors such as: publishing and digital publishing, edutainment, quality certification of multimedia products, the arrangement and presentation of databases, and the enhancement of cultural heritage. The Master Degree Course therefore trains a professional figure who has theoretical knowledge and operational skills suitable for carrying out professional activities related to the role of cultural operator (with functions of design, coordination, implementation and management of digital platforms and content) and related to intercultural mediation in public bodies and national and international cultural institutions.
ITALIANISTICS

CLASS LM-14
CAMPUS Palermo
TYPE OF ACCESS Free
SEAT OF INTERNATIONAL AGREEMENTS
Bordeaux (FR)
Halle (DE)
Heidelberg (DE)
Jaén (ES)
Liegi (BE)
Lleida (ES)
Londra (GB)
Lovanio (BE)
Montpellier (FR)
Toruń (PL)
Tours (FR)
Varsavia (PL)

What is the objective of the course? What is it? What does it train you for?
The Master Degree in Italianistics aims to provide an in-depth disciplinary preparation and adequate tools to train experts in Italian culture, language and literature. The course is structured in order to allow students to consolidate and expand their knowledge, improving their philology, linguistic, and historical-literary skills, using the most updated instruments of scientific research.

At the end of course, students will have the necessary critical orientation skills in historical-literary phenomena and in the analysis of texts; they will have acquired strong skills in the communicative practice of writing and orality, and they will be able to produce and manage oral texts and professional writings in the field of Italian Linguistics and Literature.

What do you learn?
Graduates in Italianistics learn to perform research and studies on the origin, evolution and structure of languages, the relationships between ancient languages and modern languages, grammars and vocabulary.
They can apply their knowledge of linguistics to the critical revision of written texts for publication, audiovisual and multimedia texts.
Graduates will be able to combine the knowledge provided by their subject field (LM-14) with new knowledge, in constant dialogue with other disciplines and with the use of new technologies. The program of the course also aims to provide theoretical, critical and methodological competencies to train graduates able to operate in national and international cultural environments.

They acquire notions of didactics functional to teaching and gain their first professional experience through the internship.

What can you do with it?
The course aims to provide the appropriate skills for preparing students in the fields of research, teaching, organization and management of cultural events, or publishing and libraries.
The expected learning outcomes are: full command of two languages (level C1 of the CEFR in at least one of the two), with advanced knowledge of the corresponding literatures and cultures; advanced skills with respect to the methodologies of critical and linguistic analysis, as well as of literary comparison, acquisition of the basic mechanisms regulating linguistic change at the diachronic and synchronic levels; knowledge of the fundamental morphological and syntactic structures of medieval texts in the vernacular languages of the Romance or Germanic areas. The educational program also provides for a period of internship in public or private institutions, in Italy or abroad, to increase skills with direct professional experience.

What can you do with it?
Expert in Didactics of Languages and Civilizations
- Teacher of foreign Languages within the national educational system, in Italy and abroad;
- Teacher of Italian L2 for foreigners at different levels of schools;
- Expert in linguistic mediation and management of social inclusion processes;
- For those possessing specific credits in appropriate groups of disciplines, as required by current legislation, participation in admission tests for training courses on secondary schooling of linguistic and literary subjects in Italian schools and teaching of Italian as a foreign or second language;
- Linguistic centres and institutes of Italian culture in Italy and abroad, as teacher of Italian language and culture LS/L2;
- Associations and public and private institutions dealing with language training in Italy, where the graduate - in addition to teaching activities;
- Contributes to the implementation of initiatives aimed at integration (especially of migrants);
- Planning and promotion of cultural activities with high responsibility functions;
- Collaboration as linguistic and cultural consultant in the field of entertainment, publishing and journalism and multimedia communication, both nationally and internationally;
- Hospitals, courts, offices where graduates facilitate communication with foreign users (including migrants);
- After passing the selection tests, participation in PhD courses and 2nd level University Master courses in Italy and abroad.

What do you learn?
The Master Degree program includes the following languages: English, French, Spanish, German, Russian. The course provides a high-level training in the field of Humanities with a special focus on the disciplines of linguistics (including syntactic theory, pragmatic theory, sociolinguistics, discourse analysis), literature, history, cultural studies.
What is the objective of the course? What is it? What does it train you for?

The Master Degree in Modern Languages and Translation for International Communications, which mainly provides a linguistic and humanistic training, aims at achieving a full command of two foreign languages from the European Union area, the Slavic area, the Chinese and / or the Arab-Islamic area. At the same time, the purpose of the Master Degree is the acquisition of the theoretical and applicative tools for linguistic analysis and translation of all kind of texts (literary, legal, scientific and specialized languages).

A fundamental aspect of the architecture of the Master Degree is the scientific and professional study at a high level, which can be pursued through the organization of the educational offer developed in training courses in the field of translation and which guarantee high theoretical and applicative skills that can be used, in particular, in the field of audiovisual translation and subtitling, as well as in the translation of non-fiction texts, and in the publishing world.

The professional goal is to create experts and specialists with excellent skills in European and American Slavic, and Arabic-Islamic languages and cultures, as well as in the Chinese language and culture, and with the knowhow necessary to find employment in cultural institutions in Italy and abroad, in an international context.

What do you learn?

The Master Degree program includes the following languages: English, French, Spanish, German, Russian, Arabic and Chinese.

With regard to the study of foreign languages, the Degree program offers a high-level linguistic and metalinguistic training, with in-depth studies in the different levels and registers of oral and written communication, as well as in the specialized lexicon and in the sectoral languages. The syllabus incorporates disciplines aimed at acquiring linguistic, socio-linguistic and translation skills, including the study of phonological, morpho-syntactic and lexicological systems, as well as the theoretical and methodological aspects of the translation process, also with reference to the use of CAT tools. The course also involves the study of history, literature, literary criticism and of a discipline of the legal field. Moreover, the educational program provides for a period of internship in public or private institutions, in Italy or abroad, to increase skills with direct professional experience.

What can you do with it?

Job titles:
• translator and Liaison Interpreter;
• Cultural Linguistic Mediator;
• Literary Translator;
• Audiovisual Translator;
• Translator of specialized texts.

Job outlets:
• National, international and non-profit organizations, including non-governmental ones (for example in the field of international cooperation and development aid and social and cultural integration policies);
• Public and third-sector bodies and institutions;
• Companies specialized in the organization of national and international events, publishing and communication industry, advertising;
• Translation agencies;
• Subtitling agencies.
MUSICOLOGY AND PERFORMANCE STUDIES

What is the objective of the course? What is it?
What does it train you for?
The Master Degree Program in Musicology and Performance Studies aims at creating specialists in the fields of Music, Theatre and Film Studies. It allows students to specialize in two different areas: Musicology (LM 45) or Performance Studies (LM 65). Students will acquire advanced knowledge about History and Theory of Music, History of Theatre and Acting, Film History. They will also acquire management skills.

What do you learn?
Students will be able to discuss and analyse musical works, theatrical plays, films and videos of different periods and genres. They will be able to find, use and discuss sources of different kinds. They will also acquire the skills required to apply new research approaches and to communicate the results of their research.

What can you do with it?
Graduates will be able to use the knowledge and skills they have acquired in the fields of research, conservation of cultural heritage, organization and production of Music, Film and Theatre, communication and dissemination, teaching.
What is the objective of the course? What is it? What does it train you for?

The Master Degree in Philosophical and Historical Sciences aims at providing students with a thorough preparation in the field of: historical-philosophical, theoretical, logical-epistemological and linguistic, gnoseological, philosophical-scientific, ethical-political, aesthetic, historical and historiographical studies.

On the basis of the knowledge and competences acquired in the first cycle of studies, the student will have to show an advanced knowledge of the main methodologies of analysis of philosophical texts, with reference to the fundamental concepts, the forms of argumentation, and the particular languages, as well as to the theories and interpretative models in use in the different general and sectorial fields of philosophy.

Within the framework of the historical teachings, the student will have to show that he/she has an advanced knowledge of the sources, methods, and historiographical debates at a specialized level with particular attention to the most innovative and up-to-date directions of the various disciplines.

What do you learn?

On this basis, the student will acquire the ability to set up an original research project, moving on an interdisciplinary level and showing the ability to formulate independent judgments on issues related to the philosophical and historiographical debate treated as salient aspects of the contemporary cultural debate.

What can you do with it?

• Researcher;
• Professor in schools;
• Specialist in public relations, press offices, cultural associations, non-profit organizations, associations representing interests;
• Research centres, cultural associations and non-profit organizations;
• Editors of in-depth historical programs for popular and public history purposes.
What is the objective of the course? What is it?
What does it train you for?
Transnational German Studies offers students a journey through Europe’s cultural and literary history, in which the development of Europe – from its past through to its present and on to its future – can be experienced. Transnational German Studies is a course for those keen to understand Europe anew – as an idea, the past of which can be explored; for those with an interest in literary studies and cultural history who would like to trace the lines connecting the humanities in the European community; a course for those who want to broaden their horizons.

In the Transnational German Studies study trajectory, which connects four European universities, the intellectual history of Europe is explored in both theoretical and concrete ways. By following the common thread of German Studies back from its common European roots in the Middle Ages to the present day, a small group of international students will have new academic experiences together in four different countries.

What do you learn?
In the culture and language module, the literature is considered within the context of cultural history and the intercultural aspect of European literature in general, focusing particularly on German literature. The interculturality is examined in several steps and analyzed in detail using various theoretical approaches and literary examples. Key cultural study questions accompany the students throughout the semesters and the phenomena of trans-, inter- and multiculturalism are dealt with especially with regard to the literature of German pre-modernity.

For example, multilingualism is considered as a theoretical idea and an historical fact, but at the same time experienced practically by international students who take language courses in German and/or the languages of the universities at which they are staying. In the Literature module regarding literary history, German literature is viewed from within its European context based on its epochs and trends. The medieval tradition in particular offers students a new approach to the trans-European idea based on selected examples: intertextuality is viewed as an intercultural moment from a motif-historical perspective. Here, job-related skills are acquired or strengthened, and new networks are opened up. Through discussions with representatives of various career paths and practical projects, the individual future of the participants already takes shape during the master’s course.

What can you do with it?
The students will be able to work in international cooperation institutes, in national and international bodies and institutions; they will be able to act as editors and proofreaders of technical and advertising texts, linguists and philologists, correspondents in foreign languages, organizers of fairs, exhibitions and cultural events. The student can also attend PhD Courses in Italy and abroad.
**BACHELOR DEGREE AND MASTER DEGREE SINGLE CYCLE**

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<td>LMG/01</td>
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**MASTER DEGREE**

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<tr>
<td>LM-90</td>
<td>Migration, Rights, Integration</td>
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[www.unipa.it/dipartimenti/di gi.](http://www.unipa.it/dipartimenti/di gi.)
What is the objective of the course? What is it? What does it train you for?
The Business Law Consultancy course is a three-year Bachelor Degree course in law belonging to the group of “Sciences of Legal Services” (L-14). The Course aims to provide students with an interdisciplinary education which will allow them to work with a sound foundation in law, business administration and organizational engineering.

In particular, graduates will achieve the necessary competence both to choose the most efficient company form for a new business, and to apply for the administrative authorisations and licenses required. As a legal consultant, a graduate will have the appropriate knowledge for assisting businessmen and women in concluding business contracts.

What do you learn?
The curriculum allows students to achieve basic knowledge of private and constitutional law, business administration, accounting and the theory of ‘open innovation’. Moreover, the Course enables students to achieve specific knowledge of commercial law, tax law, labour law, administrative law, private international law, comparative law, and the theory and practice of negotiation, including simulations.

The most important questions discussed in the lectures are the following: How to set up a firm? How to draw up a business plan? What company form is the most appropriate as regards tax law? How to conclude a financing contract? How to conclude a cross-border sales contract?

What can you do with it?
Graduates will be able to use their knowledge working either as freelancers or as employees of companies or public organizations. Moreover, graduates will be able to apply for selection in the recruitment of court assistants and court clerks, bailiffs, police officers and prison staff. Finally, graduates may continue their studies in order to obtain – after only two years – a Master Degree Single Cycle in Law.

Students enrolled in the Business Law Consultancy course spend several months either in local firms, in law-firms or in other entities in order to put their knowledge into practice. These firms or entities may sign contracts of employment with the future graduates.
What is the objective of the course? What is it?
What does it train you for?

Educational aims
The Master Degree Single Cycle:
• provides full training in core subjects as well as in class-specific ones, with respect to the subject areas defined by Ministerial Decree 25/11/2005;
• guarantees that the student’s education is consistent with the class educational goals, orienting the contents of the course to the latter;
• incorporates into the course similar or complementary subjects to make it relevant and appropriate for access to the professional sectors of the law Degree;
• proposes a training project enabling students to profit from the acquired knowledge and skills, and developing them from a technical and methodical perspective;
• provides teachings and methods promoting the acquisition of adequate knowledge and skills with respect to the institutional aspects of legal systems, professional ethics, logic and legal and judicial arguments, legal informatics, legal language in at least one foreign language.

What do you learn?
Graduates in Law are trained and prepared:
• to use the tools and methods of case histories, demonstrating adequate skills for developing, evaluating, and analyzing the principles, institutes, and models of positive domestic and supranational law. They will base their activities on the historical knowledge acquired, necessary for the understanding of the legal institutes, in their process of evolution and transformation, for a “contextualized” assessment of the same;
• to draft legal and procedural texts, and texts designed to negotiate in the general sense, which are clear and comprehensible in terms of language and relevant and appropriate in terms of effectiveness, in the various sectors concerned. They will also do this with the support of computer tools;
• to apply the techniques of law interpretation and analysis of individual cases, arguments and representations for the solution of interpretative problems and the application of legal and regulatory provisions to real cases;
• to develop, refresh and update their knowledge and skills, in the framework of lifelong learning.

What can you do with it?
Jurists traditionally work in legal professions, the judiciary and in the notarial area; they also have the possibility to use their knowledge and skills in national, supranational and foreign top-level private and public companies and institutions.

In addition to the traditional job opportunities offered by a law Master Degree Single Cycle, a graduate from University of Palermo may wish to join international bodies, as “legal expert in Public Authorities” or manager of cultural, scientific, national or supranational national associations, given the specific international orientation of the Master Degree Single Cycle.

Graduates in Trapani may use their knowledge and professionalism in the field of entrepreneurship as “legal experts in business”, in accordance with an educational program aimed at enhancing the relationship with the productive and economic spheres, both through internships, and by focusing on relationships with representative entities such as local authorities, businesses and professional categories.
What is the objective of the course? What is it?

The Master Degree Course in Migration, rights, integration provides a specialized training about contemporary human migrations, and about the problems related to the reception and integration of migrants in European societies. The course aims to train experts on migration and integration issues, with high-level knowledge of the involved legal aspects, and who are able to situate such knowledge in the broader social, geo-historical and economic context. Students will be qualified, on the one hand, to deal with the socio-economic causes of migratory phenomena, and, on the other hand, to focus on their legal regulation, on migrants’ rights and on integration policies, always keeping in sight the multi-level framework of the relevant regulatory sources.

What do you learn?

At the end of the Course, the students:

• will possess advanced (legal, but not exclusively legal) knowledge concerning the analysis, interpretation, evaluation and management of the main issues related to migratory phenomena and to the integration of third-country nationals in the European Union;
• will be able to critically evaluate migratory and integration policies, and to contribute to the definition and implementation of complex operating strategies;
• will be able to analyze the quantitative aspects of migratory dynamics, and to identify their causes and trends;
• will have specific advanced knowledge about the rights of migrants, the rights of foreign minors, anti-discrimination and equal opportunities law and policies;
• will have mastered the legal tools provided for by national and European regulation;
• will be able to develop projects aimed at countering the risk of exploitation and trafficking of women and children;
• will have planning skills in the fields of reception and integration;
• will be able to communicate, in written and oral form, their acquired knowledge in English as well as in Italian, and will have mastered the relevant technical lexicon.

What can you do with it?

Graduates of this course may have access to:

• positions in public institutions, as officials and administrative managers at national, regional and local levels;
• positions with high levels of responsibility in supranational and international institutions, both universal and regional, positions in non-governmental organizations engaged in the areas of migration and the rights to asylum and international protection;
• positions in cooperatives active in the area of reception and integration of migrants, at local, regional and supranational levels, particularly as far as the management of the reception structures provided by the current legislation is concerned (CPRs, hotspots);
• positions in public and private research centres (e.g. think tanks and foundations), trade unions, trade associations, with respect to the analysis of migration policies and the formulation of project proposals;
• partisan or office consultancy in legal disputes.
ECONOMICS AND STATISTICAL SCIENCES

https://www.unipa.it/dipartimenti/seas
ECONOMICS AND BUSINESS ADMINISTRATION

What is the objective of the course? What is it? What does it train you for?

The interdisciplinary versatility of the field of study attributable to the L18 Degree class and the professional and territorial variety of possible employment opportunities in the long term, call for a qualified generalist approach rather than one referable to a specific reference sector and/or type of agency.

What do you learn?

Planning, implementation and control of organizations within companies and between companies; analysis and evaluation of tasks; articulation of functions, decisions and responsibilities; personnel selection, training and administration; etc. Planning, implementation and control of government in companies and between companies; functions of greater synthesis and coordination between those of organization, management and survey of greater strategic value for the higher levels of administration.

What can you do with it?

- Service Production Technicians;
- Administrative and Technical Secretaries of General Business;
- Accountants;
- Treasurers and Treasurers;
- Production factor organization and management technicians;
- Financial Management Technicians;
- Banking technicians;
- Procurement and Purchasing Managers;
- Sales and distribution technicians;
- Marketing Technicians;
- Tax Controllers.

The basic guidelines of the university system, the qualifying training objectives of the Class and those specific to the Course steer the training path to balance the needs of methodological and content training as best as possible (also however, aiming to potentially afford access to subsequent and higher training: above all first level masters, specialization courses, Master Degrees, followed by second level masters and research doctorates, in addition to lifelong learning) with skills and abilities that are more or less immediately usable in the job market.
What is the objective of the course? What is it? What does it train you for?

The Degree Course in Economic Development, International Cooperation and Migration (SECIM) is offered to young people interested in issues of economic, political-institutional and social development, according to an innovative multidisciplinary approach. The far-reaching economic, social and demographic changes of today’s societies and, more recently, of the European Union require the training of versatile professionals who – by learning cross-sectoral skills – are able to work in multidisciplinary and multilingual contexts at local, national and international levels.

The knowledge and skills acquired are necessary to address issues and decisions in the fields of economic development, socio-economic dualism, international cooperation and migration. SECIM has an important international vocation, highlighted by several agreements with European universities and a didactic partnership with Trinity University in San Antonio Texas (USA). It is unique in Sicily and Southern Italy and one of the very few at national level. The course consists of two curricula: “Development and Cooperation” and “Migration Studies”. The first year has the same disciplines for both curricula. In the second year, the students of Migration Studies explore the topic of migration by participating in specific activities and courses in English, acquiring a set of knowledge useful for understanding one of the phenomena that places Italy among the most important players in the Mediterranean scenario.

What do you learn?

The course is designed to provide the student with multidisciplinary knowledge and skills required in the field of economics, social sciences, demography and ethno-anthropological sciences. The student is encouraged to develop his/her knowledge of:

- the dynamics of development processes and economic convergence through the study of economics;
- the processes of social relations through the anthropological, sociological, historical and demographic disciplines;
- the main concepts of the legal disciplines, with reference to supranational law;
- the social, economic, methodological and statistical tools of inquiry;
- the essential aspects of self-entrepreneurship useful for the planning of European and international projects.

The Migration Studies curriculum offers specific insights into migration flows and the problems of integrating foreign citizens, as well as insights into the economic and political aspects of integration. SECIM also focuses on understanding the realities of underdevelopment, the problems of economic growth and sustainable development, anti-poverty policies and the processes of modelling, democratization, globalization, and international regulation.

A mandatory internship plays an important role in the student’s educational process.

What can you do with it?

SECIM graduates can work as:

- Project Managers for Cooperation and Development;
- Local Development Agents – Community Managers;
- Fundraisers;
- Startup Managers – Social Innovation Entrepreneurs;

SECIM graduates can access the following UNIPA Master Degree Courses:

- Cooperation and Development (LM-81), for those interested in topics related to cooperation and development;
- Economics and Financial Sciences (LM-56) for those who want to expand their knowledge in economics;
- Other Master Degrees.
What is the objective of the course? What is it? What does it train you for?

The Degree provides a broad understanding of economics and finance, focusing on how the single household or producer chooses their budget, plans their consumption, savings and production of goods and services taking into account the interplay with the policymakers’ actions within a globalized world.

The theory is complemented by the acquisition of basic quantitative tools (statistics and econometrics) granting the student the possibility to acquire the strong analytical, empirical and interpretive skills used by professionals working as consultants in economics and finance. This type of profession is able to support the decision regarding the development and growth plans of firms, the local territory, and financial investors.

What can you do with it?

Career opportunities for economists and financial consultants continue to grow in both private and public sectors (industrial and commercial companies, banks, financial companies and insurance, service companies, businesses that operate in the fields of publishing and telecommunications). Graduates in Economics and Finance will be also able to perform freelance activities in the economic and financial fields, as economic analysts, financial analysts - financial agents and promoters, as well as researchers for many national and international institutions.

What do you learn?

The two curricula (applied economics and economics and finance) share a set of common courses, particularly in the first year, which cover four areas, characterizing more in general a Degree in economics. These areas cover economic theory, business, public and private law, mathematics and statistics. The first year provides a broad introduction, covering all aspects of small scale economic decisions at individual and company level and introducing the main quantitative tools used in the economic analysis. In years 2 and 3 you will consolidate and expand upon this knowledge via a series of core and optional study modules in order to explore in greater detail the field of economics and finance or alternatively to study more closely applied economics issues related to regional economics, law and business.

These two different curricula allow the student to tailor the course to his/her future career path. In addition some courses are also fully taught in English.

There are also opportunities for the students to complete their studies with an internship and to spend time abroad during the course under the Erasmus mobility program.

ECONOMICS AND FINANCE

CLASS L.33
CAMPUS Palermo
TYPE OF ACCESS Free
JOINT DEGREE INSTITUTIONS Dubrovnik (HR)
SEAT OF INTERNATIONAL AGREEMENTS Bratislava (SL)
Las Palmas de Gran Canaria (ES)
Lille (FR)
Lódz (PL)
Nicosia (CY)
Oviedo (ES)
Siviglia (ES)
Valladolid (ES)
Vigo (ES)
Vilnius (LT)
What is the objective of the course? What is it? What does it train you for?

The Bachelor Degree Course in Statistics for Data Analysis (Statistica per l’Analisi dei Dati – STAD - 3 year course) is not only addressed to students who have a scientific or technical high school background, although it is tailored for students who are inclined to practice mathematical thinking. The Course is planned to guide students in their training process to enable them to fully acquire the skills and abilities useful to work as a Statistician (Data Analyst) with some Degree of autonomy and responsibility, and especially to be competitive in the labour market, which is increasingly open and willing to accepting graduates in Statistics. An ad hoc tutoring service will afford students a smooth access to the university environment thanks to qualified teachers and staff who pay great attention to students' needs and maturity. Although there is some focus on the theoretical framework, the Degree Course is mostly devoted to practical aspects, also through the possibility of carrying out internships and experiences abroad. The aim is to train Data Analysts who have the knowledge and skills at an appropriate level to design and carry out analyses useful for understanding the phenomena surrounding them. STAD, therefore, prepares graduates to be qualified Statisticians able to collect, manage, produce, and disseminate information flows with the awareness and rigor of the scientific approach.

What do you learn?

The Course plan is designed to allow students to progress in their studies naturally and smoothly. They are trained gradually, according to a sequential thread of courses that follow one another over time, expanding on and developing the previous ones. The first year is devoted to the solid foundations of a Statistician/Data Analyst: Mathematics, Probability, IT skills, together with the statistical approach to observation, classification, and synthesis (including graphical synthesis) of information. An English language course and some courses in the economic field are included. The main aim of the second year is to study the topics addressed in the first year in more depth, strengthen the knowledge of mathematical and data management, increase the fundamental understanding of Statistics, focus on the analysis of possible relationships among phenomena, and expand the students’ foundations of demography and statistics applied to economics. The third year concludes the basic statistical knowledge, both theoretical and applied to the economic and health fields. In addition, students can personalize their own Study Program during the second and third year. Students can choose some subjects from optional pre-defined subject groups and are free to include some subjects of the University if they are in line with STAD topics. Moreover, together with the Degree certificate, the student acquires certification as a Programmer in SAS, a statistical software very often required by large companies.

What can you do with it?

The professional profile of the graduate in Statistics for Data Analysis can be identified as that of a Data Analyst (or Junior Data Scientist) who combines IT skills, aimed at building and managing databases, with statistical skills for the description, analysis, and interpretation of economic, social, and health data. In addition, STAD graduates will be able to work as statistical technicians in public administrations, companies operating in the biomedical and epidemiological sectors, and in statistical units of medium-large companies, marketing offices, information system management companies, statistical consulting agencies providing external support to companies, and in research organizations. The skills and knowledge acquired by the graduate in the Degree Course are preparatory for continuing their studies in the Master Degree Course in Statistics and Data Science. They also allow students to obtain a joint Degree with the Universidade de Minho (Portugal) and the certification (in an Open Badge form) in Data Science issued by the University of Palermo.
What is the objective of the course? What is it?
The Bachelor Degree in Tourism, Territories And Business offers a Degree program characterized by a smart combination of economic, business and socio-cultural disciplines. It provides students with the general knowledge required to manage tourism businesses (e.g., tour operators, hotels, travel agencies, cruise lines) and promote the historical, natural, and cultural heritage of a destination.

What does it train you for?
The training course program provides a coherent and complete training combining theoretical knowledge with practical skills.

At the end of the Degree course, students will be able to analyse the demand and supply of the tourism product. Demand for the tourism product concerns the motivations for travel, the process that determines the choice of a service, consumer behaviour, and the segmentation of demand for the tourism product. The supply of the tourist product concerns the valorisation of the natural, artistic and historical-cultural resources of an area, the management of the accommodation sector and attractions of a destination, the differentiation of tourist products and the quality of services. By acquiring this knowledge, students will be able to develop entrepreneurial activities in the tourism sector or assist policy makers for the promotion of an area.

What do you learn?
The training program includes studies in economics, business, history, sociology, statistics, mathematics and law.

In the subject of Applied Micro- and Macroeconomics and Economics of the Tourism Sector, students will learn economic principles. They will recognize and interpret business facts in the subject of Business Economics and Accounting of Tourism Enterprises.

They will use these skills to organize resources in the development processes of enterprises in the tourism sector by attending the courses of Management of Tourism Firms. The courses in Geography, Sociology of Tourism and Economic Statistics will extend the above general knowledge to better interpret the socio-economic phenomena. Students will acquire knowledge of spoken and written English and a second European Union language from French, Spanish, and German.

Finally, students will be able to use IT tools for the management and analysis of statistical data. An integral part of the course is a 300-hour internship in companies and other organizations in Italy or abroad. Within the framework of Erasmus projects, the course offers programs abroad with the University ULP.C. de Gran Canaria, the Escola Universitaria del Maresme, the University of Malaga, the University of Oviedo, A Coruña, DHBW MANNHEIN, the University of Vilnius, and the Haute Ecole Charles Magne in Liège.

What can you do with it?
First, graduates can work as tourism sector experts in private companies and in organizations of the various public sectors. The knowledge acquired will enable them to deal with economic, managerial and organizational aspects of companies in the tourism sector, as well as to carry out qualitative and quantitative analyses of tourism supply and demand. During the training, special attention will be paid to the acquisition of relational and problem-solving skills.

Second, graduates in Tourism, Territories And Business, who wish to advance their knowledge, can apply for a Master Degree course. They will have direct access to various Master Degree Courses offered by the Department of Economics and Statistical Sciences while those who wish to enhance their competences in the tourism sector can choose the Master Degree Course in Tourism Systems and Hospitality Management (LM49), offered in Palermo in partnership with Chaplin School of Hospitality and Tourism Management of Florida International University (Miami, USA).
What is the objective of the course? What is it? What does it train you for?

The educational program of the Master Degree course in Economic and Financial Sciences aims at providing students with advanced knowledge of economic and financial subjects, through the completion and refinement of competences acquired in the Bachelor Degree (L-33) and the achievement of qualitative standards comparable with those of the other European Union Countries.

What do you learn?

Courses related to the economic-financial ambit are mostly centred in the quantitative aspects of the financial sector, on specializing economic subjects analysing the functioning of financial markets, and on the functioning of the banking and credit sector. Courses related to the economic-regional ambit entail further economic subjects in the field of applied economics and economic policy, statistical subjects in the public-regional field and company-oriented subjects in the field of administration and management of public agencies and services.

What can you do with it?

• Economist at Economic and financial research offices of public entities and private companies;
• Expert in regional development programs and tourism systems management policies;
• Expert in the field of risk management and Asset Liabilities Management;
• Administrative officer for central and local administrations;
• Accountant expert who provides professional and tax consultancy activities to individuals or private companies and/or public and non-profit organizations.
What is the objective of the course? What is it? What does it train you for?

The basic guidelines of the university system, the qualifying educational objectives of the Class and those specific to the Course orient the training path towards the acquisition of a more in-depth knowl-

dge of the contents, which can also serve for subsequent higher level training (second level masters and research doctorates, plus the permanent one), and towards the development of skills for high segments of the labour market, also through the continuous monitoring of quality and constant interaction, in the best interest of studies, with the social and institutional interests considered paramount. In addition, the extreme versatility of today’s corporate affairs and the variety of possible employment opportunities call for highly articulated training courses that can properly develop the functional sub-areas of the administrative macro-areas.

With these premises, although this Master Degree Course is the only one in its Class, it achieves the maximum constancy allowed for non-corporate training activities and, conversely, the maximum differentiation for those of the corporate sphere. In particular, the teaching structure of the Course (in the curriculum, subjects, training packages and the like) is designed to be traced back to some fundamental strands of knowledge and skills of particular relevance today: for example, the governance of corporate systems, corporate communication and the management of businesses.

What do you learn?

Graduates are able to:
- take, independently or as a group, strategic, managerial and operational decisions regarding the processes of acquisition, transformation and sale of resources in the various classes of companies;
- identify and solve, independently or in a group, the ordinary and extraordinary administrative problems relating to the various classes of companies.

Methods of achievement: training in critical personal study, in independent judgment but in dialectical confrontation with others.

Didactic tools for verification: interim and final reports, individual and group.

Graduates are able to:
- relate and communicate at a level consistent with the professional profiles in which they will have to operate;
- write a medium-high complexity written work in Italian adequately focused and structured on the chosen theme;
- write and speak an EU language (in addition to Italian) at an internationally recognized intermediate level, with a good knowledge of the specialized lexicons of the disciplines studied.

What can you do with it?

- Management specialists in the Public Administration;
- Control specialists in the Public Administration - Management and control specialists in private companies;
- Work organization specialists;
- Accounting Specialists;
- Fiscalists and tax specialists;
- Financial Asset Specialists;
- Specialists in the acquisition of goods and services;
- Specialists in the marketing of goods and services (excluding the ICT sector);
- Market Analysts;
- Business Economics Specialists.
STATISTICS AND DATA SCIENCE

What is the objective of the course? What is it? What does it train you for?

The Master Degree Course in Statistics and Data Science (Statistica e Data Science – STAT - 2 year Course) aims at providing postgraduate students with a full higher education in the field of mathematics, probability, statistics, and computer science, enabling them to work autonomously and responsibly in different areas, and to enter the labour market as qualified experts, capable of developing, managing, and analysing various information flows. The teaching activity has the aim of training two different professional profiles: the first focuses on statistical methods for biostatistics, and the second on quantitative methods for risk management.

What do you learn?

The Master Degree Course is characterized by:

- a package of common, advanced-level courses in mathematics, probability, statistics and computer science;
- many opportunities for students to personalize their own Study Program (approximately 40 credits);
- a special focus on teaching methodologies, which provide a balanced mix of a full theoretical training with applied laboratories, in which Statistics is used as a crucial tool in real case studies;
- a special focus on language skills, insofar as some courses are taught entirely in English;
- the laboratory activities are also intended to contribute to the development of communication skills.

What can you do with it?

Students graduating in the Master Degree Course in Statistics and Data Science have sound professional skills in statistical data management, data analysis and data modelling, they also develop the ability to solve complex problems using appropriate computational methods. In the field of finance, graduates will be able to perform analysis (of business and financial data), forecasting, planning and decision-making tasks in public, private and research positions. In the field of biostatistics, graduates will be able to work in research centres, pharmaceutical companies and hospitals, thanks also to the integration of their training with some basic background in biology and genetics.
The course aims to:
• analyse territorial contexts;
• plan and manage projects for local tourism development;
• foster the necessary communication for the development and sustainable management of tourism systems, hospitality and food and wine traditions;
• disseminate advanced socioeconomic research methods in order to analyse the different components of the tourism system from both the demand and the supply perspectives.

What do you learn?
About 30% of the Credits (ETCS) are taught by Professors from the Chaplin School of Hospitality and Tourism Management, Florida International University, Miami, USA

Details about the study program at following link bit.ly/3mpwKHX

What can you do with it?
High employment rates and several internship opportunities in more than 300 accredited firms in Tourism and Hospitality markets.

Career and Internship Opportunities:
• Planning, management and marketing of tourism systems;
• Events organization, management and marketing;
• Planning and marketing of territorial tourism systems;
• Territorial economic analysis and research on the tourism market;

Food and wine Tourism: Internship opportunities in more than 300 accredited companies in the Tourism and Hospitality sectors.
# Political Sciences and International Relations

[www.unipa.it/dipartimenti/dems](http://www.unipa.it/dipartimenti/dems)

## Bachelor Degree and Master Degree Single Cycle

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<tr>
<th>Code</th>
<th>Course Title</th>
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<tr>
<td>L-16</td>
<td>Administrative Science, Labour Consulting and Social Innovation</td>
<td>PA</td>
</tr>
<tr>
<td>L-36</td>
<td>Political Sciences and International Relations</td>
<td>PA</td>
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## Master Degree

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<tr>
<th>Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LM-52</td>
<td>International Relations</td>
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<td>LM-52</td>
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<td>LM-67</td>
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</tr>
<tr>
<td>LM-63</td>
<td>Complex Administrations and Organizations Science</td>
<td>PA</td>
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</table>
What is the objective of the course? What is it?
What does it train you for?

The Bachelor Degree in "Administrative Science, Labour Consulting and Social Innovation" offers a multidisciplinary knowledge in different fields, such as law and economics, social matters, political and historical issues, thus allowing graduates to spend their skills in such as field as labour consulting, human resources, digitalization and innovation in Public Administration (both local and national), complex organizations (both private and public bodies) and business administration. By means of this multidisciplinary approach, graduates will be able to analyse public policies in different frameworks as well as to contribute in developing firms' organization and administration. Moreover, graduates will be able to promote innovation and economic, social and civil development of communities.

What do you learn?

Accordingly with the interdisciplinary spirit of the two curricula ("Management of Private and Public Administrations" and "Employment Consultancy"), and to successfully facilitate the employment of its participants, teaching will have a broad scope. Firstly we will deal with the legal issues, studying a spectrum of subjects dealing with aspects of private business (private, commercial and employment law) as well as the public ones (public administration and tax law). There will be also the historical-philosophical-political aspect, which will prioritise disciplines such as the modern European Constitutional History, political philosophy and the political though. Finally we will look at the area of business-finance, where we will study the political-economy, the business-economy and the historical aspects of the economic thought.

What can you do with it?

The main professional fields that can be accessed are the following:
- officials of administrations, companies, businesses and public bodies;
- officers, managers and administrators of banking and/or insurance institutions;
- condominium administration experts;
- consultants in the management of small and medium-sized companies;
- consultants for management, tourism and related activities;
- labour consultants, company consultants;
- experts on labour problems and trade union activities;
- officials or experts in matters relating to the trade union and labour world.

The Bachelor Degree is also fully enriched by partnerships with local firms, stakeholders, seminars, workshops, educational events, internships, etc., thus allowing a direct and continuous contact with professionals, enterprises and public and private bodies.

Students will acquire English linguistic skills and could pursue an internship in public and private companies. Students will also acquire linguistic skills by studying English and can take the experience of an internship in firms and public and private bodies. It follows that those learning paths will depend upon the chosen curriculum.

What can you do with it?

The main professional fields that can be accessed are the following:
- officials of administrations, companies, businesses and public bodies;
- officers, managers and administrators of banking and/or insurance institutions;
- condominium administration experts;
- consultants in the management of small and medium-sized companies;
- consultants for management, tourism and related activities;
- labour consultants, company consultants;
- experts on labour problems and trade union activities;
- officials or experts in matters relating to the trade union and labour world.
What is the objective of the course? What is it? What does it train you for?

The course is structured in two different curricula: “Political Sciences” and “International Relations”. Its main objective is to provide a highly qualified and updated background knowledge of all the basic pillars of a traditional “political science” faculty. All major fields of knowledge are adequately and evenly represented in both curricula: law, economics, politics, general and specialized history, sociology, languages. Moreover, the course aims to provide a highly diversified education in an international perspective – regarding different theoretical, applied and methodological approaches – useful for future specializations in the fields of the social sciences.

What do you learn?

Given its broad background, the course has a strong multi-disciplinary bent – both in its contents and methodologies. The following are some common features regarding different courses:

• The historical construction of contemporary Europe;
• The history, nature and recent trends of international relations;
• The role and powers of international organizations;
• The varieties of capitalism and contemporary societies;
• The history of international economic policy and regimes;
• The relevance of transnational comparisons in applied legal and economic systems.

Students are also required to learn methodologies typical of the social sciences and acquire fluent knowledge in at least two languages.

What can you do with it?

Students holding a Degree in L.36 have – as a natural follow up – the possibility of entering a Master Degree (both in Italian and English) in International Relations, International Cooperation, Development, Politics, Sociology. Our statistical records show that our students have, on average, a very positive post-graduate career in all these fields. If we look at the job market after the undergraduate Degree, the Course opens opportunities in several fields:

• social services in national and international organizations;
• international careers in the fields of cooperation, non-governmental organizations;
• political careers;
• journalism;
• private and public corporations.
What is the objective of the course? What is it?
The Master Degree consists in two curricula: International Trade and International Studies. The International Trade curriculum (MAIT) offers students from all over the world the unique opportunity of studying the fundamental dynamics of international business from diverse and multidisciplinary perspectives. The International Studies curriculum (MAIS) offers students the opportunity to study the complexities of the international context and to understand the global political system and its organization, changes, and challenges.

What do you learn?
MAIT: Students will develop an in-depth understanding of socio-economics and international business law, as well as in business cultures, obtaining advanced knowledge in planning, operating and implementing import/export operations and foreign trade activities and investments.

MAIS: Students are expected to obtain advanced knowledge in the analysis of international processes and policies, to gather and analyse data concerning global political processes and international crises and to understand complex decision-making.

What can you do with it?
MAIT: The placement opportunities run widely in the international trade sector: export managers, logistics managers, freight and custom forwarders/broker, maritime agents, international commercial agents, international marketing experts, financial internationalization program managers.

MAIS: Students may find placement opportunities in international or multicultural environments, including global or regional intergovernmental organizations, multinational corporations, think tanks, internationally oriented nongovernmental organizations, public administrations, third-sector organizations and the diplomatic and consular career.
What is the objective of the course? What is it? What does it train you for?

The Course offers students from all over the world the unique opportunity of studying the fundamental dynamics of international business from diverse and multidisciplinary perspectives. The complexity of doing business globally is addressed by academics from a legal, historical, economic and political perspective. Suitable knowledge of the English language at level B2 is compulsory and a pre-requisite for enrolment.

What do you learn?

Achieving an in-depth understanding of socio-economics and international business law, as well as of business cultures, is one of the main purposes of the Master’s Degree. Students are expected to obtain advanced knowledge in planning, operating and implementing import/export operations and foreign trade activities and investments, in being able to draft an international contract, manage international transactions, also from a custom and fiscal point of view, and analyse country risk profiles for foreign investments.

What can you do with it?

The placement opportunities run widely in the international trade sector: export managers, logistics managers, freight and custom forwarders/broker, maritime agents, international commercial agents, international marketing experts, financial internationalization program managers.
The course offers students the opportunity to learn about:
- the law governing the sport system;
- the relationship between the State and the sport system and their interaction;
- the economic principles and the dynamics governing the companies which operate and work in the sport system;
- the actual laws in the sport system governing the national federations to operate at the managerial level;
- the actual laws operating in the sport system regarding health, work safety, anti-doping regulation and the safety of the infrastructures.

What can you do with it?
The course prepares graduates:
- to be a Sport Manager;
- to complete projects and organize different services and institutions devoted to sport activities;
- to lead and coordinate specific programs within sport organizations, with a specific focus on the economic management of sport enterprises;
- to set up and manage national as well as international sport events;
- to work as consultant and active supporter of sport law institutions;
- to be able to lead, coordinate and set up a team working on different sport disciplines, and employed from sport agencies, organizations or groups operating in the sport system;
- to develop administrative, legal and economic sets related to sport activities.
What is the objective of the course? What is it? What does it train you for?

The Master Degree is structured in two curricula: (1) Compliance, Business Development and Crime Prevention, and (2) Public Management (taught in English with the possibility to obtain a joint Degree with the Corvinus University of Budapest). In particular, the first curriculum aims to train new professionals able to design and implement management control systems oriented to combine performance improvement and crimes prevention strategies.

What do you learn?

In the curriculum Compliance, Business Development and Crime Prevention, students learn how to design and implement management control systems and Organizational Models (based on Italian Legislative Decree 231/2001) to improve public and private organizations performance and crimes prevention measures.

In the Public Management curriculum, students learn to understand and put into practice through a learning methodology based on case studies, the tools and mechanisms for managing public organizations and systems related to the generation of value through the design and assessment of policies and strategies in different areas of the public sector.

What can you do with it?

In the curriculum Compliance, Business Development and Crime Prevention, graduates may work as expert consultants in risk analysis, compliance officers in private and public organizations, and pursue careers as managers in private and public organizations.

In the Public Management curriculum, graduated students may undertake an international career in performance management, planning, public policy design, and sustainability analysis in the public domain (e.g., managers, experts, and advisors with abilities to plan, organize, assess, and design public policies and public service delivery processes).
• ACADEMIC YEAR
Twelve month period of lessons, exams and graduation sessions beginning on 1 October and ending on 30 September of the subsequent year.

• BACHELOR DEGREE
Course of study lasting three years (180 ECTS). Access to these is via a five-year high school diploma course or a recognised foreign equivalent.

• COURSES OF STUDY
These comprise Bachelor Degree, Master Degree and Master Degree Single Cycle courses as well as PhD and first and second level Master’s.

• DEGREE CLASS
Course of the same level, with the same educational objectives and leading to qualifications of identical legal value.

• DEGREE THESIS
A document written by students regarding a course theme or subject area with the support of a member of teaching staff chosen by the former.

• DEPARTMENT
The structure which fosters the academic work of its teaching staff and provides the relevant academic activities.

• EDUCATIONAL PROGRAMMES
Including course contents and educational materials and the types of exams required.

• E-LEARNING
University of Palermo e-learning platform supplies subject content for its students.

• ENROLMENT AND REGISTRATION
First year enrolment and registration on years after the first year of a course of study within the education time frames.

• EXAM SESSIONS
Access to limited number courses involves sitting and passing a selection test. This test also applies to Additional Educational Obligation (OFA) checks.

• EXEMPTION
Partial or total exemption from university tuition fees and grants to students with specific income needs or merit.

• FREE ACCESS
Students can enrol on free access courses without sitting a selection test. Students will subsequently have to sit a test to check their Additional Educational Obligations (OFAs).
• **INTERNSHIP**
  During their course of study, individual students must undertake a period of curricular work experience as set out in their course of study. A post lauream internship is also possible.

• **ISEE (EQUIVALENT ECONOMIC STATUS INDICATOR) AND ISEE PARIFICATO FOR FOREIGN STUDENTS**
  To enrol at UNIPA and pay the correct university fees, it is important that students have a valid ISEE (equivalent economic status indicator) certificate valid for university enrolment purposes.

• **JOINT OR DOUBLE OR MULTIPLE QUALIFICATION**
  There are international programmes in which multiple, including international, universities are involved in integrated courses of study.

• **LIMITED NUMBER COURSES**
  Access to limited number courses involves sitting and passing a selection test. This test also applies to Additional Educational Obligation (OFA) checks.

• **MASTER**
  These are further academic and higher education courses which require a Bachelor Degree (level 1 Master’s) and/or a Master Degree or Single Cycle Master Degree Single Cycle (level 2 Master’s).

• **MATRICULATION NUMBER**
  Identification number given to a registered student.

• **MYUNIPA**
  The university app for registered students and those planning to enrol at University of Palermo.

• **OFA (Additional Educational Obligations)**
  OFAs are educational deficiencies in specific areas of learning revealed in entrance tests to limited number courses and assessment exams for free access courses.

• **OFFICE HOURS**
  Teaching staff show the days and times they are accessible to students on the various websites.

• **PAGOPA**
  Entrance exam tests, tuition fees and taxes can be paid on the PagoPA system (at recognised tobacconists, post offices, banks and online banks, etc.).

• **MASTER DEGREE SINGLE CYCLE**
  Course of study lasting five or six years (300 or 360 ECTS). Access to these is via a five-year high school diploma course or a recognised foreign equivalent.

• **SPID**

• **STUDENT MOBILITY**
  The university encourages student mobility and fosters cultural exchange between Italian and foreign universities.

• **STUDENT REPRESENTATIVES**
  Students take part in university life, electing their own representatives whose role is to monitor and put forward new initiatives to improve education and services.

• **STUDENT REGISTRAR’S OFFICE**
  The office which monitors and manages students’ courses of study from enrolment to graduation.

• **SEMESTER**
  The academic year is divided up into two semesters within which lessons and exams take place.

• **UNIVERSITY TUITION FEES**
  Students planning to enrol on the first year of a course or register for a subsequent year are liable to pay these within the deadline, with the exception of exempted students.

• **UNIVERSITY EDUCATION CREDITS SYSTEM (CFUs)**
  This measures the learning, including individual study, required by students to acquire knowledge and skills in the various educational activities: one credit corresponds to an average total of twenty-five study hours.

• **UNIVERSITY PROSPECTUS**
  A list of university courses of study held annually.
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