



UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Biomedicine, Neurosciences and Advanced Diagnostics

A.Y. 2023/2024

DEGREE COURSE IN BIOMEDICAL LABORATORY TECHNIQUES - BIOMEDICAL LABORATORY TECHNIQUES - TRAPANI -

Characteristics



Class of Bachelor's Degree (BSc) on Technical health professions (L/SNT3)



3 YEARS



TRAPANI



PLANNED ACCESS



2301

Educational objectives

The degree course lasts three years. Full time students should acquire 60 credits per year, i.e. 180 credits in total. The learning work, including individual study, needed to acquire knowledge and skills is expressed in educational credits (CFU). One credit is equal to 25 hours of activity. The

The fraction of time reserved for personal study or other individual activities will not be less than 50% of the value of the credit, except for highly experimental or practical educational activities.

The Degree Course has the objective of training professionals competent in the technical procedures necessary for the execution of diagnostic methods on biological materials or on the person, or of technical healthcare activities. Graduates in the class must be equipped with adequate preparation in core disciplines, enabling them to better understand the most important elements at the basis of the pathological processes that develop in the years of growth, as well as in the adult and geriatric age, on which they carry out their diagnostic activity. The mission of the Degree Course in " Biomedical Laboratory Techniques " is the training of biomedical laboratory technicians , healthcare professional of the technical-diagnostics and technical assistance area able to perform with professional autonomy, the technical procedures necessary for the execution of diagnostic methods on biological materials or on the person, viz technical healthcare activities in accordance with the provisions of the Minister of Health. Graduates must also be able to use at least one European Union language, other than Italian, in the specific field of expertise and to exchange information.

The attainment of professional skills is accomplished through a theoretical and practical training including also the acquisition of behavioral skills that is achieved in the context of each specific job profile, in a way to ensure, to the end of the course, the full mastery of all the necessary skills and their immediate marketability in work contexts

Practical educational activities and clinical internship are an integral part of vocational training; they are carried out under the supervision and guidance of professional tutors, coordinated by a professor with the highest position for each professional profile and corresponding to the rules defined at European level where they exist.

The educational objective of the Master of Science in Biomedical Laboratory Techniques is to provide students with the basic knowledge of biological and pathological phenomena, with the operating mechanisms of analytical equipment, with the methodological bases of the analytical process for the clinical chemical, microbiological and clinical pathology tests, including pharmaco-toxicological and pharmaceutical compounding analysis, biotechnological, immunohaematological tests, immunometric tests by radio immunological methods, the genetic and anatomical and histopathological and autopsy room tests, as well as the principles of laboratory safety and radiation protection.

Students' assessment is carried out through examinations and mid-term tests.

Mid-term tests are designed solely to verify the effectiveness of the learning and teaching processes in relation to specific content and objectives. The examinations aim at evaluating and attributing a mark certifying the individual students skills and competences. In addition, within the health care profession of biomedical laboratory technician, graduates carry out the activities assigned to them by DM of Health September 26, 1994, nr. 745 and subsequent amendments and additions; for this reason, the course aims at promoting students' ability to acquire knowledge on the responsibility of the acts of their competence and to carry out laboratory analysis and research activities related to biomedical and biotechnological analysis and in particular of biochemistry, microbiology and virology, pharmacology , immunology, clinical pathology, hematology , cytology and histopathology.

Graduates in biomedical laboratory diagnostic techniques carry out autonomous technical and professional activity in direct collaboration with other graduate laboratory staff in charge of different activities; they must therefore be responsible, within the laboratory, of the proper performance of analytical procedures and of their work as part of their duties in accordance with

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the protocols defined by the senior executives; they must verify the correspondence of the activities to the indicators and standards set by the manager of the facility and check and verify the correct operation of the equipment used, they must also provide routine maintenance and the possible elimination of downsides; participate in the planning and organization of work within the structure in which they operate; they must carry out their activity in both public and private laboratories, authorized in accordance with the legislation in force, as professionals or private practitioners; they must help to train support staff and contribute directly to updating their professional and research profile.

Professional opportunities

freelancer

Employee in the public sector

Employee in the private sector.

Graduates in Biomedical Laboratory Techniques carry out laboratory activities in public or private health care facilities, or as freelancers and may work in different specialist areas of Hospital and outpatients Laboratories belonging to the National Health Service and in similar private/credited facilities, in institutes for Research, Hospitalization and Health Care (IRCCS), in Structures of Research (CNR), in Experimental Zooprophyllactic Institutes (IZS); in particular:

-In the laboratories of: clinical biochemistry, clinical pathology, clinical microbiology, parasitology and virology, pathology, drug toxicology, immunology, hematology, cytology and histopathology, and blood transfusion services;

-In the laboratories of quality control in the biomedical and pharmaceutical industry;

-In the laboratories for analysis and control of regional agencies for the prevention and protection of the environment;

-In the manufacturing industry and marketing agencies operating in the field of laboratory diagnostics;

In-university and extra-university research laboratories in the biomedical sector.

Final examination features

The final examination consists of: 1) a practical qualifying test, in the context of the graduation session, where the student must demonstrate practical knowledge related to the professional profile 2) a short paper to verify the acquired skills of the student on a topic related to the disciplines provided in the educational programme (Clinical Biochemistry, Clinical Pathology, Clinical Microbiology, Pathological Anatomy). The examination consists of the presentation and discussion of a short written paper consistent with the educational objectives of the Degree course in the manner specified in the regulations approved by the Board of the Degree Course on 11 February 2013.

Subjects 1° year	CFU	Sem.	Val.	SSD	TAF
17558 - BIOCHEMISTRY AND PHYSICS - INTEGRATED COURSE	6	1	V		
- APPLIED PHYSICS Collura(PC)	3	1		FIS/07	A
- CHEMISTRY AND INTRODUCTORY BIOCHEMISTRY Proia(PA)	3	1		BIO/10	A
01618 - BIOLOGY AND GENETICS - INTEGRATED COURSE	6	1	V		
- BASIC TECHNICAL SCIENCES OF LABORATORY MEDICINE Gaggianesi(RD)	3	1		MED/46	B
- BIOLOGY AND GENETICS Pucci(RD)	3	1		BIO/13	A
17668 - BASIC PROFESSIONAL WORKSHOP	3	1	G		F
21908 - CLINICAL BIOCHEMISTRY - INTEGRATED COURSE	7	2	V		
- APPLIED CLINICAL BIOCHEMISTRY Scazzone(PA)	3	2		BIO/12	A
- CLINICAL BIOCHEMISTRY Gambino(RD)	4	2		BIO/12	A
19801 - LABORATORY MEDICINE TECHNICAL SCIENCES Di Franco(RD)	6	2	V	MED/46	B
03347 - PHYSIOLOGY Caldara(PC)	3	2	V	BIO/09	A
07558 - PROFESSIONAL PRACTICE I YEAR	20	2	V	MED/46	B
01192 - OTHER EDUCATIONAL ACTIVITIES	6	2	G		F
04731 - FOREIGN LANGUAGE (ENGLISH)	3	2	G		E
ADO Group of subjects	6				D

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Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
05554 - GENERAL PATHOLOGY AND PATHOPHYSIOLOGY - INTEGRATED COURSE	6	1	V		
- GENERAL PATHOLOGY AND PATHOPHYSIOLOGY	3	1		MED/04	B
- TECHNICAL SCIENCES OF LABORATORY MEDICINE 1 Noto(PA)	3	1		MED/46	B
19314 - MICROBIOLOGY AND CLINICAL PARASITOLOGY - INTEGRATED COURSE	8	1	V		
- MICROBIOLOGY AND CLINICAL PARASITOLOGY	5	1		MED/07	B
- VIROLOGY AND SPECIAL VIROLOGY	3	1		MED/07	B
09551 - CLINICAL MICROBIOLOGY - INTEGRATED COURSE	6	2	V		
- LABORATORY MEDICINE TECHNICAL SCIENCES 2	3	2		MED/46	B
- MICROBIOLOGY AND CLINICAL MICROBIOLOGY	3	2		MED/07	B
08456 - CLINICAL PATHOLOGY - INTEGRATED COURSE	12	2	V		
- CLINICAL PATHOLOGY	6	2		MED/05	B
- IMMUNOHAEMATOLOGY	3	2		MED/05	B
- INFORMATION PROCESSING SYSTEMS	3	2		ING-INF/05	B
07580 - PROFESSIONAL PRACTICE II YEAR	20	2	V	MED/46	B

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Subjects 3 ° year	CFU	Sem.	Val.	SSD	TAF
15505 - OCCUPATIONAL AND PREVENTIVE MEDICINE - INTEGRATED COURSE	9	1	V		
- GENERAL AND APPLIED HYGIENE Maida(PA)	3	1		MED/42	C
- MEDICAL STATISTICS	3	1		MED/01	A
- OCCUPATIONAL MEDICINE	3	1		MED/44	C
09747 - PATHOLOGICAL ANATOMY - INTEGRATED COURSE	9	1	V		
- MOLECULAR PATHOLOGY Modica(RD)	6	1		MED/46	B
- PATHOLOGICAL ANATOMY Florena(PO)	3	1		MED/08	B
17574 - ETHICS AND MANAGEMENT IN HEALTHCARE - INTEGRATED COURSE	6	2	V		
- BIOETHICS	2	2		MED/02	B
- BUSINESS ORGANISATION	2	2		SECS-P/10	B
- GENERAL PSYCHOLOGY	2	2		M-PSI/01	A
15230 - INTERNAL MEDICINE AND IMAGE DIAGNOSTICS - INTEGRATED COURSE	6	2	V		
- IMAGE DIAGNOSTICS AND RADIOTHERAPY	3	2		MED/36	B
- INTERNAL MEDICINE	3	2		MED/09	A
09538 - PROFESSIONAL PRACTICE III YEAR	20	2	V	MED/46	B
13669 - SYSTEMATIC PATHOLOGY - INTEGRATED COURSE	6	2	V		
- ENDOCRINOLOGY	3	2		MED/13	B
- GASTROENTEROLOGY	3	2		MED/12	B
05917 - FINAL EXAMINATION	6	2	G		E

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PROPAEDEUTICAL TEACHINGS

07580 - PROFESSIONAL PRACTICE II YEAR

07558 - PROFESSIONAL PRACTICE I YEAR

09538 - PROFESSIONAL PRACTICE III YEAR

07580 - PROFESSIONAL PRACTICE II YEAR

09551 - CLINICAL MICROBIOLOGY - INTEGRATED COURSE

19314 - MICROBIOLOGY AND CLINICAL PARASITOLOGY - INTEGRATED COURSE