

Degree in Biomedical Laboratory Techniques

Teaching: Clinical practice 1

SSD: MED/46

CFU: 20

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PREREQUISITES

Are not expected

LEARNING OBJECTIVES

These are essential goals

knowledge of physical, chemical and biological risk in order to guarantee operator safety in the context of laboratory medicine. Another important objective is the knowledge of the pre-analytical phase for the processing of biological samples

These objectives will be achieved through a limited number of lectures and in large part practical activities in the clinical microbiology, transfusion medicine, pathological anatomy, molecular biology and clinical biochemistry laboratories. The practical part foresees an interaction with the professional tutors in order to facilitate learning and to improve the ability to face and resolve the main ones diagnostic questions of laboratory medicine

LEARNING OUTCOMES

(knowledge and understanding)

At the end of this teaching the student will need to know:

- Know and correctly apply the current legislation on physical, chemical and biological risk
- Know and apply the correct management on the disposal of laboratory waste
- Know the main equipment placed in laboratory medicine
- Knowledge of the main diagnostic kits used in laboratory investigations
- Knowledge and application of the correct management of the reagents warehouse
- Knowledge of tubes used in laboratory investigations
- Knowledge and correct management of the pre-analytical phase, aimed at assessing the suitability of biological samples

Applying knowledge understanding

At the end of the course the student will be able to:

Use the preliminary laboratory knowledge acquired for the in-depth study of aspects relating to the field of laboratory diagnostics, to which the student will dedicate himself in the professional activity;

Communications skills

At the end of the course the student must know:

Use scientific terminology, specific in the field of laboratory medicine, in a manner consistent with various laboratory contexts

Making judgements

At the end of the course the student must know:

carry out rough assessments relating to the topics covered in laboratory medicine

These expected learning outcomes are measurable with the final assessment

COURSE SYLLABUS

CLINICAL BIOCHEMISTRY

- Knowledge of behavioral norms regarding physical, chemical and biological risk
- Knowledge of personal protective equipment based on Legislative Decree 81/2008 and correct application of the same
- Knowledge and management of waste disposal
- Knowledge of the equipment in force in the laboratory
- Knowledge of diagnostic kits used in laboratory investigations
- Knowledge on the correct management of the reagent warehouse
- Knowledge of tubes used in laboratory investigations
- Knowledge and correct management of the pre-analytical phase, aimed at assessing the suitability of biological samples.

CLINICAL MICROBIOLOGY

- Knowledge of behavioral rules regarding physical, chemical and biological risk
- Knowledge of personal protective equipment based on Legislative Decree 81/2008 and correct application of the same
- Knowledge and management of waste disposal
- Knowledge of the equipment in force in the laboratory
- Knowledge of diagnostic kits used in laboratory investigations
- Knowledge on the correct management of the reagent warehouse
- Knowledge and correct management of the pre-analytical phase, aimed at assessing the suitability of biological samples.

PATHOLOGICAL ANATOMY

- Knowledge of behavioral rules regarding physical, chemical and biological risk
- Knowledge of personal protective equipment based on Legislative Decree 81/2008 and correct application of the same
- Knowledge and management of waste disposal
- Knowledge of the equipment in force in the laboratory
- Knowledge of diagnostic kits used in laboratory investigations
- Knowledge on the correct management of the reagent warehouse
- Knowledge and correct management of the pre-analytical phase, aimed at assessing the suitability of biological samples.

TRANSFUSION MEDICINE

- Knowledge of personal protective equipment based on Legislative Decree 81/2008 and correct application of the same
- Knowledge and management of waste disposal
- Knowledge on the equipment in force in the laboratory
- Knowledge of diagnostic kits used in laboratory investigations
- Knowledge on the correct management of the reagent warehouse
- Knowledge and correct management of the pre-analytical phase, aimed at assessing the suitability of biological samples.

MOLECULAR BIOLOGY

- Knowledge of personal protective equipment based on Legislative Decree 81/2008 and correct application of the same
- Knowledge and management of waste disposal
- Knowledge on the equipment in force in the laboratory
- Knowledge of diagnostic kits used in laboratory investigations
- Knowledge on the correct management of the reagent warehouse
- Knowledge and correct management of the pre-analytical phase, aimed at assessing the suitability of biological samples

COURSE STRUCTURE

The course is structured in 500 hours of practical activities, divided into daily 7-hour laboratory activities and scheduled according to the academic calendar. Students will rotate in the microbiology and virology laboratories, transfusion medicine, pathological anatomy, clinical biochemistry and molecular biology. In the aforementioned activities each student will be supported in training by a professionalizing tutor

COURSE GRADE DETERMINATION

The verification of the preparation of the students will take place with a practical exam structured as follows: for each student, there will be an evaluation form in the various training areas, which will contribute to a final evaluation with a minimum score of 12 and a maximum of 20. The 10 points remainder they will be awarded by the examination committee, through the practical test in the respective areas. The passing of the exam will be obtained with a score of 18/30 and a maximum of 30/30 with possible praise attributed by the commission with unanimous opinion. The final score derives from the sum of the score on the evaluation form and the practical test. To enter the exam, the student must have totaled at least a minimum of 12 points in the evaluation form. During the test, the examining commission will assess the student's ability to apply the knowledge and ensure that the skills are adequate to support and solve laboratory problems related to medicine laboratory. The following will also be assessed: making judgments, communication skills (communication skills) and learning skills (learning skills) as indicated in the Dublin descriptors. In the evaluation of knowledge and understanding it has a weight equal to 40%, knowledge and applied understanding ability of 40% and judgment autonomy of 20%

OPTIONAL ACTIVITIES

If the student finds difficulty in acquiring knowledge in laboratory activities, additional exercises are planned in order to allow the achievement of the objectives of the degree course

READING MATERIALS

The student will be provided with educational material, such as notes and presentations

RESPONSABILE RESORITY

The student reception takes place by appointment by writing or phoning the following contact details:

Prof. Fabbio Marcuccilli

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Tel. 3408209841