

.COURSE: DRUG ANALYSIS II			
ACADEMIC YEAR: 2019-2020			
TYPE OF EDUCATIONAL ACTIVITY: : characterizing			
TEACHER: Prof. Carmela Saturnino			
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Language: ITALIAN			
ECTS: 12 (5 lessons and 7 tutorials/practice)	n. of hours: 124 (40 lessons and 84 tutorials/practice)	Campus: Potenza Dept./School: Department of Sciences Program: Pharmacy (LM-13)	Semester: II (from 1 March 2020 to 31 may 2020-20 June 2020)

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES : *The exercises will be carried out by the teacher on the blackboard also with the direct involvement of the students, and aim to see applied the basic and advanced concepts of qualitative chemical analysis, both through chemical reactions and chemical-physical structural studies. At the end of each topic, the acquired knowledge will be evaluated through the tests carried out.*

Knowledge and understanding

The course will provide students with the chemical and chemical-physical methodologies suitable for the recognition of inorganic, organic and organo-mineral substances, many of which are reported in the Italian Official Pharmacopea..

The student will have to demonstrate to have acquired the knowledge also through the performance of the practical exercises foreseen that have the purpose to see applied the basic and advanced concepts of the qualitative chemical analysis, both through chemical reactions and through structural chemical-physical studies.

The student must be able to know how to evaluate and indicate the correct methodologies to be applied for the recognition of functional groups of drugs and the characterization of their final structure.
The student must demonstrate a good command of the chemical and pharmaceutical language.

The student must be able to keep up to date by consulting specific texts and publications on pharmaceutical chemistry methods and technologies.

PRE-REQUIREMENTS: knowledge of general chemistry of organic chemistry and analytical chemistry.

SYLLABUS

(18h) Safety rules, behavioral standards in the laboratory. The Periodic Table: brief introduction on some metals and metalloids such as Na, B, Sb, As, Bi, Al, Pb, Cr, Pb, Co, Ni, Cu, Fe, Ag, Hg.

(18h) Introduction to laboratory techniques: glassware and its correct use. Separation techniques for homogeneous systems (extraction, distillation, chromatography, electrophoresis) and Heterogeneous (filtration, centrifugation).

(20h) Solubility of salts. Qualitative analysis and dry and wet recognition of cations and anions.

(30h) Analysis of a mixture of inorganic compounds. Organoleptic examination. Calcination behavior. Essays of purity, separation and purification.

(38h) Solubility tests determination of Ph, of pf. Spectroscopic analysis, ir, nmr, uv. Organic and organomineral compounds. Recognition assays of functional groups. FUl essays of organic and organomineral drugs. Essays of purity.

TEACHING METHODS: theoretical and practical lessons both in the class room and in the laboratory.

EVALUATION METHODS: : The verification of learning will take place through at least two written tests that will consist in the administration of a questionnaire with questions to open responses for the analysis of mixtures of inorganic and organic substances. The questionnaires must be completed within a maximum time of 1 hour. The questions will be related to topics related to the program of the course.

The final grade will be expressed in thirtieths and will be the average of the two written tests and attention will also be paid to attendance at the course, practical laboratory exercises and participation in classroom teaching activities through interactive teaching.

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL: All the didactic material (books and other) will be communicated to the students on the first day of the course.

INTERACTION WITH STUDENTS: The contacts will be maintained constantly via telematic platforms

EXAMINATION SESSIONS (FORECAST)

10/02/2020; 9/03/2020; 10/06/2020; 1/07/2020; 2/09/2020; 14/10/2020; 15/12/2020

SEMINARS BY EXTERNAL EXPERTS YESX NO

FURTHER INFORMATION;
