DIPARTIMENTO DI SCIENZE

COURSE: **Organic Chemistry / Mod A**			
ACADEMIC YEAR: **2019-2020**			
TYPE OF EDUCATIONAL ACTIVITY: **Basic**			
TEACHER: **Prof. Rocco Racioppi**			
e-mail: **rocco.racioppi@unibas.it**		website:	
phone: **0971-205494**		mobile (optional): **3383512003**	
Language: **Italian** (English on request)			
ECTS: **6** (6 of lessons)	n. of hours: **48** (48 of lessons)	Campus: **Potenza**/Matera Dept./School: **Department of Science** Program:**Pharmacy (M13)**	Semester: **I** (from October 1st 2019 to December 20th 2019 - January 20th 2020)

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The aim of the course is to acquire the knowledge of organic chemistry/Mod A by the study of common reaction mechanisms. The final goal is to give to the student the basic knowledge of organic chemistry necessary for subsequent study of biochemistry and pharmaceutical chemistry.

After having completed the course, the student should:

1) Demonstrate knowledge of fundamental contents in the basic areas of organic chemistry;
2) Understand the relationship between structure and function of molecules, the major classes of reactions, reaction energetics and mechanisms;
3) Integrate knowledge with critical thinking to solve synthetic problems;
4) Articulate scientific information through oral communication;
5) Articulate scientific information through written communication.

PRE-REQUIREMENTS

In order to understand Organic Chemistry, the student should have good knowledge of the basic principles of General Chemistry and Physics.

SYLLABUS

1. Fundamentals. Recall of General Chemistry.
2. Main classes of organic compounds.
3. Introduction of organic reactions.
4. Nomenclature and conformations of alkanes and cycloalkanes.
5. Stereochemistry
6. Reactions of nucleophilic displacement and elimination in alkyl halides.
7. Additions to alkenes and alkynes.
8. Radical reactions.
9. Alcohols and ethers.
10. Aromatic compounds
11. Heterocyclic compounds.

TEACHING METHODS

Theoretical lessons.

EVALUATION METHODS

The aim of the final examination is to evaluate the level of achievement of the educational goals.
The final exam consists of a written and oral test concerning the contents of Mods A and B.
Both tests must be successful for the exam to be recorded.
The written exam consists of five questions to be completed in 1 hour generally on acidity/basicity/nucleophilicity/relative reactivities; functional groups reactivity; carbonil condensation reactions; reaction mechanisms; structure and properties of aminoacids, peptides, carbohydrates, nucleic acids.

Oral exam: it can only be taken if the written test has been successful (minimum mark: 18/30)

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

- G. Solomons, Chimica Organica; Zanichelli

INTERACTION WITH STUDENTS

At the beginning of the course the teacher will describe the educational goals, the syllabus and the examination methods to the students and ask for the institutional emails of the attending students. All course information will be send to the provided email addresses.

Office hour: by email appointment

EXAMINATION SESSIONS (FORECAST)[1]

10/02/2020; 2/03/2020; 8/06/2020; 6/07/2020; 7/09/2020; 5/10/2020; 7/12/2020

SEMINARS BY EXTERNAL EXPERTS YES □ NO x

FURTHER INFORMATION

Students are strongly encouraged to attend all lessons.

[1]Subject to possible changes: check the web site of the Teacher or the Department/School for updates.