LOGO DELLA STRUTTURA PRIMARIA

COURSE: Oganic Chemistry I			
ACADEMIC YEAR: 2016-2017			
TYPE OF EDUCATIONAL ACTIVITY: (Basic, Characterizing, Affine, Free choice, Other) Basic			
TEACHER: Maurizio D'Auria			
e-mail: maurizio.dauria@unibas.it		website:	
phone: +39 0971 205480		mobile (optional): +39**3204371120**	
Language: Italian			
ECTS: (lessons e tutorials/practice) 6	n. of hours: (lessons e tutorials/practice) 48	Campus: Potenza Dept./School: Dipartimento di Scienze Program: Chemistry (L27)	Semester: first

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The course wants to give basic information on the principal properties of the organic compounds, allowing the student to understand the physical properties and the chemical behavior of every organic compounds.

PRE-REQUIREMENTS

General and inorganic chemistry

SYLLABUS

Electronic configuration. Bonds. Representing molecules. Hydtocarbons: alkanes, alkenes, arenes, alkynes. Compounds containing nitrogen: sp3 nitrogen, amines, sp2 nitrogen, s nitrogenp. Compounds containing oxygen: sp3 oxygen, alcohols, ethers, sp2 oxyen, aldehydes and ketones, carboxylic acids and their derivatives. Compounds containing sulfur. Alkyl halides (15 hours). Sterochemistry: conformations, chirality (10 hours). The organic reactions. Reaction mechanisms: bimolecular nuclephilic substitution, electrophilic addition, monomolecular nucleophilic substitution, radicalic halogenation. Nucleophilic substitution at sp3 carbon. Eliminations. Oxidation of an alcohol. Addition to carbon-carbon multiple bonds: electrophilic additiom ofi HCl, HBr and H2O, addition to conjugated dienes, electrophilic addition to alkynes, halogen addtioni, radical addition, hydroboration-oxidation, epoxidation, oxidation with osmium tetroxide, ozonization and ozonolysis, hydrogenation. Aromatic elctrophilic substitutiona. Addition and nucleophilic substitution to the carbonyl group. Susbstitution alpha to carbnyl groups (23 ore).

TEACHING METHODS

Theoretical lessons

EVALUATION METHODS

Oral examination

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

Botta B. (Ed.) Chimica Organica, II ed., Edi-Ermes,Milano, 2016

INTERACTION WITH STUDENTS

Starting the course, after the dsecription of the objectives, syllabus and evaluation methods, the teacher gives to the students the electronic available material. The All'inizio del corso, dopo aver descritto obiettivi, programma e metodi di verifica, il docente mette a disposizione degli studenti il materiale didattico. It collects a list of students who intend to enroll in the course, together with name, serial number and email.

Office hours: Monday from 15 to 16 at the study and Tuesdays from 15 to 16 at the study

In addition to weekly reception, the instructor is available at all times for a contact with the students, through their e-mail

EXAMINATION SESSIONS (FORECAST)[1]

14.2.2017; 14.3.2017;16.5.2017; 13.6.2017; 11.7.2017; 10.10.2017; 12.12.2017.

SEMINARS BY EXTERNAL EXPERTS YES □ NO x

FURTHER INFORMATION

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