

COURSE TITLE

CHIMICA ORGANICA II CON LABORATORIO
ORGANIC CHEMISTRY II WITH LABORATORY

(Laurea Triennale in Chimica)

Credits (CFU) = 8+6

MODULE 1 TITLE

CHIMICA ORGANICA II

ORGANIC CHEMISTRY II

Prof. Michelangelo Gruttadauria (e-mail: michelangelo.gruttadauria@unipa.it)

Classroom site: Viale delle Scienze Ed. 17, L. Sacconi Room

MODULE PROGRAM

face-to-face lectures (64 hrs, 8 CFU)

Short description of Organic Chemistry II course:

- Protecting groups.
- Oxidation.
- Reduction.
- C-C coupling reactions: Heck, Suzuki, metathesis.
- Enols and enolates.
- Wittig reaction.
- Enamines.
- Aldol reaction.
- Claisen reaction.
- Mannich reaction.
- Michael reaction
- Heterocycles
- Pericyclic reactions.
- Stereoselective synthesis.
- Carbohydrates, aminoacids, proteins, lipids, nucleic acids.

MODULE 2 TITLE

LABORATORIO CHIMICA ORGANICA II

LABORATORY OF ORGANIC CHEMISTRY II

Prof. Antonella Maggio

Classroom site: Viale delle Scienze Ed. 17, Organic Chemistry Laboratory

MODULE PROGRAM

Laboratory: 6 CFU, 90 hrs

Safety.

Melting point determination.

Bibliographic research (Sci-Finder, Scopus, Isiweb)

Separation techniques: extraction, crystallization, chromatography.

Reactions: reduction, oxidation, halogenation, dehydrohalogenation, Diels-Alder, aldol, benzoin condensation.

TEXTBOOKS:

W. H. Brown, C.S. Foote, B. L. Iverson, "Chimica Organica", IV Ed., EdiSES (Napoli), 2009.

G. A. Pagani, A. Abbotto, "Chimica Eterociclica", Piccin (Padova) 1995.

G. Procter, "Sintesi Asimmetrica", EdiSES, 2000.

S. Warren, "Organic Synthesis. The Disconnection Approach", J. Wiley, 1996.

T. L. Gilchrist, "Heterocyclic Chemistry", 2nd Edition, T. Lonsdale, 1992.