

COURSE TITLE
INORGANIC CHEMISTRY WITH LABORATORY
(Bachelor in Chemistry)

Prof. Giuseppe Gennaro (e-mail: giuseppe.gennaro@unipa.it)
Classroom site: Viale delle Scienze Edificio 17 (Building 17) L. Sacconi Room
Laboratory site: Viale delle Scienze Edificio 17 (Building 17), Inorganic Chemistry Lab.

Credits (CFU) = 10

COURSE PROGRAM

face-to-face lectures (6 CFU, 48 hrs)

laboratory (4 CFU, 60 hrs)

General introduction to transition metal chemistry.

- Coordination complexes.
- Crystal field (CF) theory.
- Molecular orbital (MO) theory for transition metal complexes.
- CF or MO theory to explain magnetism and UV-Visible absorption and emission spectra.
- Reaction mechanisms for (a) substitution reactions and (b) electron transfer.
- Organometallic compounds

Laboratory: synthesis, reactivity and characterization of transition metal complexes.

All experiments must be performed (and submitted before the end of the course) in order to pass.

TEXTBOOKS

J.E. Huheey, E.A. Keiter, R.L. Keiter, “*CHIMICA INORGANICA, principi, struttura, reattività*”, II ed., PICCIN

G.L. Miessler, D.A. Tarr, “*Inorganic Chemistry*” third edition, Prentice Hall

Z. Szafran, R. M. Pike, M. M. Singh “*Microscale Inorganic Chemistry*” J. Wiley, Inc., New York, N. Y. 1991.