

COURSE TITLE

Esercitazioni di preparazioni chimiche con laboratorio

Practice in Chemical Synthesis with Laboratory

(Chemistry Bachelor)

Prof. Marta Airoidi (e-mail: marta.airoidi@unipa.it)

Classroom site: Lecture room "M. Ruccia", Building 17, Viale delle Scienze

Laboratory site: Viale delle Scienze Edificio 17 (Building 17), Inorganic Chemistry Lab.

Credits (CFU) = **1+3+4**

COURSE PROGRAM of "Instrumental analytical chemistry"

face-to-face lectures (8 hrs, 1 CFU)

Rules and safety in the chemical laboratory. Properties and handling of chemical reagents. Description of the experiments. Use of the laboratory instruments.

Classroom exercises (48 hrs, 4 CFU)

Basic concepts of stoichiometry. Balance of chemical reactions. Solutions and their properties. Chemical equilibrium for gases and solutions. Acid-base equilibrium. pH. Buffer solutions. Hydrolysis. Precipitation. Electrochemistry.

Laboratory (45 hrs, 3 CFU)

Planned experiments on: precipitation, reaction yield, acid-base titration, redox reactions, solubility product, iodometric titration, electrolysis.

TEXTBOOKS

Kotz e Treichel "Chimica" EdiSES

M. Consiglio V. Frenna S. Orecchio "Il Laboratorio di chimica" Edises

P. Michelin Lausarot, G.A. Vaglio "Stechiometria per la Chimica Generale" Piccin Editore

F.Cacace, M. Schiavello, "Stechiometria" Bulzoni Editore