

ACADEMIC YEAR: **2017-2018**COURSE: **CHIMICA ANALITICA**TYPE OF EDUCATIONAL ACTIVITY: **Fundamental**TEACHER: Prof. Dr. **Antonio Guerrieri**e-mail: **antonio.guerrieri@unibas.it**

Web site:

<http://docenti.unibas.it/site/home/docente.html?m=000966>phone: **0971/205460**

mobile:

Language: **ITALIANO**ETCS: **7**

(5 lessons /2 practical lab activities)

n. of hours: **64**

(40 for lessons and 24 for practical lab activities)

Campus: **Potenza**Dept/School: **Dipartimento di Scienze**CdS: **Laurea in Biotecnologie (L2)**Semester: **II**

(from 05/03/2018 to 15-30/06/2018)

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

- **The knowledge of fundamentals in analytical chemistry is the main goal of this unit. An introduction on the main instrumental techniques in analytical chemistry will be given as well.**

PRE-REQUIREMENTS

- ✓ **attendance of lectures: HIGHLY suggested**
- ✓ **attendance of lab activities: COMPULSORY**
- ✓ **preparatory exams : Istituzioni di Matematica, Fisica, Chimica generale e inorganica**

SYLLABUS

Electrochemical reactions and equilibria.
Potentiometry. pHmeters. Ion selective electrodes.
Spectroscopy. Emission. Absorption. Fluorescence.
Instrumentation in spectroscopy.

Lab activities

- The pH meter
- Potentiometric titrations
- Spectrophotometry with Lambert Beer applications to cytochrome c determination

TEACHING METHODS

- **Lectures and Practical Lab Activities**

EVALUATION METHODS

oral examination with discussion about lab activities

TEXTBOOKS AND ON LINE EDUCATIONAL MATERIALS

- **lecture notes; lesson slides; lab activity notes**
- **Suggested Textbooks**

Title:Fondamenti di chimica analitica

Authors:Skoog Douglas A.,West Donald M.,Holler James F.

Editor:Edises

Publication date:1998

ISBN:887959138X

ISBN-13:9788879591386

- **Title:**Chimica analitica strumentale
- **Authors:**Skoog Douglas A.,West Donald M.
- **Editor:**Edises
- **Publication Date:**1995
- **ISBN:**8879590669
- **ISBN-13:**9788879590662

INTERACTION WITH STUDENT

Conventional approaches (e.g. student welcome) as well as internet ones (e.g. email) for discussions and deepening of lectures and lab activities .

TIMETABLE FOR STUDENT WELCOME

<i>DAY</i>	<i>FROM</i>	<i>TO</i>	<i>LOCATION</i>
MONDAY	17.30	20.30	Professor Office
TUESDAY	17.30	20.30	Professor Office
WEDSNEDAY	18.00	20.30	Professor Office
THURSDAY	15.00	18.00	Professor Office

CALLS FOR EXAMINATION (exact dates to be defined)¹

Month	Year	Expected Call
July	2018	10
September	2018	25
October	2018	23
December	2018	18

EXAMINATION PANEL:President: **prof. dr. Antonio Guerrieri**Member: **prof.ssa Anna Maria Salvi**Member: **dr.ssa Rosanna Ciriello**Member: **dr.ssa Giuliana Bianco**

SEMINARS BY EXTERNAL EXPERTS YES NO

ALTRE INFORMAZIONI
