

**DIPARTIMENTO
DI SCIENZE**

ACADEMIC YEAR: 2018/2019

TYPE OF EDUCATIONAL ACTIVITY: Basic

TEACHER: Angela De Bonis

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website:

phone: 0971206249

mobile (optional):

Language: italian

ECTS: 6 (3 lessons + 3
practice)n. of hours: 60 (24 lessons +
36practice)Campus:Potenza
Department of Science
Program:

Semester: I

EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The student will acquire basic knowledge for applying major theoretical principles of physical chemistry

Educational goals:

- Vacuum technology and relative systems
- Mechanical and optical properties
- Thermal and thermodynamic properties
- Chemical kinetics

PRE-REQUIREMENTS

Math 1, Math 2, Physics, Physical Chemistry II

SYLLABUS

The thermodynamic definition of temperature and its applications; The experimental evaluation of the specific gravity of a solution with the purpose of assessing the relative partial molar volume; Introduction to vacuum, vacuum technology and apparatuses; Calorimetry for determining thermodynamic parameters of a reaction; Experimental use of viscosimetry for defining molecular weight and flow activation energy of solutions.

TEACHING METHODS

Theoretical lessons, Laboratory tutorials.

EVALUATION METHODS

Oral examination

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

P.W. Atkins, J. De Paula, Chimica Fisica, Zanichelli 2004 or following editions

INTERACTION WITH STUDENTS

The teacher is open for discussion and additional teaching during the planned weekly colloquia (Tuesday and Thursday 10-12), by email (angela.debonis@unibas.it) or by phone (0971 206249)

EXAMINATION SESSIONS (FORECAST)¹

The same of Physical Chemistry I

SEMINARS BY EXTERNAL EXPERTS YES NO **FURTHER INFORMATION**¹Subject to possible changes: check the web site of the Teacher or the Department/School for updates.

LOGO DELLA STRUTTURA PRIMARIA