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**COURSE:** Laboratory of Physical Chemistry I

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**ACADEMIC YEAR:** 2017-2018

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**TYPE OF EDUCATIONAL ACTIVITY:** Basic

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**TEACHER:** Angela De Bonis

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e-mail: [angela.debonis@unibas.it](mailto:angela.debonis@unibas.it)website:

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phone: 0971206249

mobile (optional): 3472330740

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Language: Italian

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ECTS: 6 (3 lessons + 3  
practice)n. of hours: 60 (24 lessons +  
36practice)Campus: **Potenza**  
Dept./School: **Dipartimento di  
Scienze**  
Program:

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Semester: I **from**  
**02/10/2017 to 15-**  
**31/01/2018**

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**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

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**PRE-REQUIREMENTS**Math 1, Math 2, Physics I, Physics II

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**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.

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**TEACHING METHODS**Theoretical lessons, Laboratory tutorials.

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**EVALUATION METHODS**Oral examination

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**TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL**P.W. Atkins, J. De Paula, Chimica Fisica, Zanichelli 2004 or following editions

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**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](mailto:angela.debonis@unibas.it)) or by phone (0971 206249)

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**EXAMINATION SESSIONS (FORECAST)<sup>1</sup>**

20/02/2018,

20/03/2018,

17/04/2018,

22/05/2018,

19/06/2018,

17/07/2018,

18/09/2018,

16/10/2018,

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<sup>1</sup>Subject to possible changes: check the web site of the Teacher or the Department/School for updates.

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20/11/2018,  
18/12/2018

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SEMINARS BY EXTERNAL EXPERTS    YES     NO

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FURTHER INFORMATION

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