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COURSE: : General and Inorganic Chemistry			
ACADEMIC YEAR: 2016-17			
TYPE OF EDUCATIONAL ACTIVITY: Affine			
TEACHER: : <b>Prof. Patrizio Grimaldi</b>			
e-mail: : <a href="mailto:patrizio.grimaldi@unibas.it">patrizio.grimaldi@unibas.it</a>		website:	
phone: <b>0971/205649</b>		mobile (optional):	
Language: Italian			
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ECTS: 8	n. of hours: 72	Campus: <b>Potenza</b> <b>Department of Scienze</b> <b>BIOTECHNOLOGIES</b>	Semester: I ( from 03/10/2016 to 15-31/01/2017

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## EDUCATIONAL GOALS AND EXPECTED LEARNING OUTCOMES

The course aims to give to the students basic chemistry knowledges so that, at the end of the course, they are able to solve simple stoichiometry problems and to understand elementary chemistry literature from atomic theory to acid-base equilibria in aqueous solution

## PRE-REQUIREMENTS

Elementary mathematical knowledges.

## SYLLABUS

Keys to the Study of Chemistry; The Components of Matter; Stoichiometry of Formulas and Equations; Three Major Classes of Chemical Reactions; Gases and the Kinetic-Molecular Theory; Thermochemistry: Energy Flow and Chemical Change; Quantum Theory and Atomic Structure; Electron Configuration and Chemical Periodicity; Models of Chemical Bonding; The Shapes of Molecules; Theories of Covalent Bonding; Intermolecular forces: Liquids, Solids, and Phase Changes; The Properties of Mixtures: Solutions and Colloids; Kinetics: Rates and Mechanisms of Chemical Reactions; Equilibrium: The Extent of Chemical Reactions; Acid-Base Equilibria; Ionic Equilibria in Aqueous Systems; Thermodynamics: Entropy, Free Energy, and the Direction of Chemical Reactions; Electrochemistry: Chemical Change and Electrical Work

## TEACHING METHODS

Theoretical lessons, Classroom tutorials, E-learning

## EVALUATION METHODS

Written examination, Oral examination

## TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

M.S. Silberberg – CHEMISTRY – McGraw-Hill

## INTERACTION WITH STUDENTS

Teacher's office Wednesday 11.30-12.30

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LOGO DELLA STRUTTURA PRIMARIA

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Almost in every moment by e-mail and Skype.

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EXAMINATION SESSIONS (FORECAST)

31-1-17; 1-3-17; 2-5-17; 1-6-17; 4-7-17; 5-9-17

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SEMINARS BY EXTERNAL EXPERTS      NO

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FURTHER INFORMATION

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