

**Code: 1751 General Chemistry****Degree:** 1<sup>st</sup> cycle - Biology**Curricular Year:** 1<sup>st</sup>**Credits:** 6 ECTS**Semester Course:** 1<sup>st</sup>**Compulsory****Language:** Portuguese/English**Responsible:** Fernanda Maria Miranda Cabral**Other lecturer(s):** Henrique Manuel Filipe Ribeiro**Web Site:** <http://www.isa.utl.pt/home/node/3943>**1. Contact hours:****Lecture/Practicals 70 Others 14 Total 84****2. Objectives:**

General Chemistry aims to cover key aspects of chemistry (inorganic, organic, and physical chemistry) relevant to improve student's knowledge and comprehension of biological systems behaviour.

**3. Programme:**

1. Mass relationships and Chemical Reactions
2. Chemical Kinetics
3. An Introduction to Chemical Equilibrium
4. Chemical Thermodynamics
5. Electrochemistry
6. Acids and Bases: properties and acid-base equilibrium.
7. Aqueous state, solubility and pH
8. Structure of organic molecules and stereochemistry
9. Chemical Bonding: structure and bonding at carbon
10. Nomenclature of organic compounds
11. Intermolecular Forces, Liquids and Solids
12. Reactivity of functional groups present on biological molecules

**4. Bibliography:****Main Bibliography**

R. Chang (2005) – Química. Ed. Mac-Graw-Hill

Campos, L ; Mourato, M (1999) – Nomenclatura dos Compostos Orgânicos. Ed. Escolar-Editora

**Other Bibliography**

Fisher, J ; Arnold. JRP (1999) – Instant notes in Chemistry for Biologists. Ed. Instant Notes Séries (séries editor: B.H. Hames)

**5. Assessment:**

Assessment through 4 written tests, or a final exam if the students did not achieve in the continuous. Assessment a mark equal or higher than 10.

**6. Estimated Workload:**

168	Hours
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**7. Last Update:**

8/7/2010
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