UNIVERSIDADE ESTADUAL DE CAMPINAS
INSTITUTO DE QUÍMICA

PROGRAMS AND BIBLIOGRAPHY

Subject	
Code	**Name**
QG107	Chemistry for Biology students

Vector
OF:S-1 T:002 P:000 L:004 O:000 D:000 HS:006 SL:006 C:006 AV:N EX:S FM:75%

Without pré requirements

Pre requirement	

Summary

Reaction Stoichiometry, Chemical Bond, Organic chemistry Functional groups, Scientific Method, Mol, Chemical Equilibrium, pH, Acids and Bases, Titration, Substances purification methods.

Program

Chemistry: an experimental science. Aqueous solutions; mixtures of solutions; dilution of solutions; concentrations units; stoichiometry; chemical equilibrium (constant nature and external effects). Ionic equilibrium in water (acids and bases, strong and weak, neutralization reaction, hydrolysis, buffer solution).
Obs. Emphasis in : pH and buffer solution. Thermodynamics (applications in biological systems). Oxidation and-reduction reactions (concepts, balancing and application in biological systems). Organic Chemistry (functional groups and basic reactions).
Presentation and handling of basic laboratory materials. PH measurements. Preparation of solutions. Acid-base titration

Bibliography

" Química Geral Superior" - W.L. Masterton & E.M. Slowinsky Ed. Interamericana (1977) R. Morrison & R. Boyd "Química Orgânica" Trad. 3o Edição. Ed. Kalouske Gulbekian, Lisboa

Evaluation criteria
For grading policy, see: Regimento Geral de Graduação, Seção I – Normas Gerais, Capítulo V – Da Avaliação do Aluno na Disciplina. Students are required to attend 75 % of the lectures. For further details, see: Regimento Geral de Graduação, capítulo VI, seção X, artigo 72.