



PROGRAMS AND BIBLIOGRAPHY

Subject	
Code	Name
QO422	Organic Chemistry II (Chemical Engineering)

Vector
OF:S-2 T:002 P:000 L:006 O:000 D:000 HS:008 SL:008 C:008 AV:N EX:S FM:75%

Pre requirement
QO323/QO421

Summary
Laboratory Techniques in Organic Chemistry. Differences between hydrocarbons. Preparation of alkenes, ketones, esters, alkyl halides, phenols and amines. Aldol condensation. Polymers. Dyes. Soap. Introduction to chromatography and absorption spectroscopy.

Program
<ol style="list-style-type: none">1. Safety in the laboratory.2. Laboratory techniques used in Organic Chemistry: recrystallization, melting point, distillation, and solvent extraction.3. Differentiation between hydrocarbons.4. Obtaining alkene.5. Obtaining symmetrical ether.6. Obtaining alkyl halide.7. Obtaining Ester.8. Characterization reactions.9. Aldol condensation.10. Polymers.11. Introduction to chromatography: Use in the identification and separation of organic compounds.12. Introduction to absorption spectroscopy: use of infrared spectroscopy for the characterization of organic compounds.

Bibliography
-Vogel, A. I., "A Text-book of Practical Organic Chemistry Including Qualitative Organic Analysis", Prentice Hall Press; 3rd edition (1974).
-Morrison, R. & Boyd, R., "Organic Chemistry", Pearson; 6th edition (July 19, 1992)
- D. L. Pavia, G. M. Lampman, G. S. Kriz, R. G. Engel, "Introduction to Organic Laboratory Techniques: A Microscale Approach", Thompson Brooks/Cole, 4 th edition, 2007.

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.