212033 – MEDICINAL CHEMISTRY

CREDITS: 04 (four) – 60 hours/class

CONTENT:

The course is offered to postgraduate chemistry students whose research is aimed at the study and development of biologically active compounds. The discipline emphasizes the interdependence of the biology, medicine, pharmaceutical and chemical sciences in order to teach the concepts and techniques used in the rational development of new drugs.

SYLLABUS:

1. Origin of drugs and the process of discovery and development of new active principles;
2. Pharmacokinetics, bioavailability and metabolism;
3. The action mechanism;
4. Relation between structure and activity;
5. Modern concepts, strategies and techniques in drugs development;
6. Combinatorial chemistry/HTS, and molecular modeling;
7. The chemical-pharmaceutical industry in practice: the synthesis of active principles and medicines and regulatory affairs.

BIBLIOGRAPHY:

1. BARREIRO, Eliezer J.; FRAGA, Carlos Alberto Manssour. Química medicinal: as bases moleculares da ação dos fármacos. 2.ed. Artmed, 2008.
2. BRUNTON, Laurence. As bases farmacológicas da terapêutica de Goodman e Gilman. 12.ed. McGraw Hill-Artmed, 2012.