Kingdom of Saudi Arabia
Ministry of Education
Jazan University
College of Pharmacy

المملكه العربيه السعوديه
وزاره التعليم
جامعه جازان
كليه الصيدله

Pharmaceutical Analytical Chemistry

Title: Pharmaceutical Analytical Chemistry

Subject code: 222 PHC

Semester: Second level (Second year).

Duration: 2 + 1 Units (5 contact hours) per week.

Aims: To provide information on applications of quantitative and instrumental analysis.

Objectives: At the end of the course the student should be able to understand different techniques of instrumental analysis.

Contents:

Lectures: Introduction, classification and principles of chromatography. General considerations, basic principles and applications of quantitative analysis using both volumetric analysis and different methods of instrumental analysis. These methods include colorimetry, ultra-violet spectroscopy, infrared spectroscopy, fluorometry, flame photometry, atomic absorption spectrophotometry, potentiometry and conductometry. Brief introduction of NMR, mass spectroscopy, polarimetry, and refractometry.

Practical: Drug analysis utilizing the above mentioned methods.

Minimum course requirements: 30 (2 x 15) Unit lectures and 45 practical hours (3 x 15) per level.

Evaluation methods:

-Quizzes	10%
- Mid term examination	25%

- Practical examinations 25% - Final examination (written) 40%
Text Books (latest editions):
1. Analytical Chemistry, Douglas A. Skoog. 2. Quantitative Analysis: Gravimetric and Instrumental Analysis, Larry Wilson.
Recommended books (latest editions): 1- Vogel's Textbook of Quantitative Inorganic Analysis: Including Elementary Instrumental Analysis, Arthur Vogel. 2- Quantitative Analysis, R.A. Day. 3- Analytical Chemistry: Theory and Practice, R.M. Verma. 4- Principles of Quantitative Chemical Analysis, Robert de Levie. 5- Spectrometric Identification of Organic Compounds, Robert M. Silverstein. 6- Chemical Analysis: Modern Instrumentation Methods and Techniques, Francis Rouessac and Annick Rouessac