UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Chemistry and Propaedeutic Biochemistry II

2122-1-H4102D006-H4102D017M

Aims

Chemistry and Propaedeutic Biochemistry II : Practical laboratory activities useful for medical students. Practical laboratory activities with computers and personal applications. Group discussion of scientific papers useful for medical students.

Contents

Chemistry and Propaedeutic Biochemistry II : To learn basic practical laboratory activities useful for medical students, including basic knowledge and practical aspects of clinical proteomics.

Basic computer science: Practise the knowledge on computer related methodologies and technologies employed in medical informatics and to apply those methods in solving problems arising in different areas of medicine and the health-care system (starting from personal use).

Cell and Molecular Biology: To learn the new advances in cell and molecular biology techniques, and critically evaluate their use in a clinical setting

Detailed program

Chemistry and Propaedeutic Biochemistry II : To become acquainted with safety rules for laboratory activities. To

learn basic activities useful for medical students, such as: prepare solutions, measure the pH, modify the pH, prepare buffers, make correct aliquots and make dilutions. To learn basic knowledge and practical aspects of protein identification strategies and of tissue molecular imaging done by mass spectrometry oriented to clinical applications.

Basic computer science: Using the Computer and Managing Files. Word processing. Spreadsheets. Using Databases. Presentation. Web Browsing and Communication

Cell and Molecular Biology: Evaluation of cellular therapy. GMP (good manufacturing procedure) techniques. Transgenic animals and their use as models for human diseases. New therapeutic approaches based on Crisp_CAS9

Prerequisites

The attended Chemistry, cell biology and propedeutical biochemistry courses. Basic knowledge in the use of computers. Attendance of the basic computer science course

Teaching form

Chemistry and Propaedeutic Biochemistry II : Laboratory activity and lectures done during the Clerkship.

Basic computer science: Laboratory activity and lectures done during the Clerkship

Cell and Molecular Biology: Supervised group discussion

Textbook and teaching resource

Basic computer science: Basic computer science: Flora R. Heathcote, O.H.U Heathcot, Pat M. Heathcote, R.P. Richards, Pass ECDL 5 Units 1-7 Paperback, Editor Alex Sharpe

Semester

First semester

Assessment method

Chemistry and Propaedeutic Biochemistry II : Assignments will be given based on discussion of the laboratory activity.

Basic computer science: Final exam (test and exercises) together with the basic computer science module.

Cell and Molecular Biology: Supervised group discussion

Office hours

Upon appointment