

UNIVERSITY OF ZAGREB SCHOOL OF MEDICINE

Plan of the course

Clinical Biochemistry

Academic year **2016/2017**

prof. dr. sc. Sveltana Kalanj-Bognar

I. COURSE AIMS

Clinical biochemistry is a biomedical discipline which uses knowledge and understanding of chemical principles, methods and analyses in clinical medicine. The advances in laboratory medicine and clinical biochemistry enable development of various laboratory tests necessary for clarifying normal and pathological conditions in body fluids and tissues. A modern physician should use interdisciplinary approach in his work, and have the knowledge of available laboratory tests and methods helpful in diagnosis of disease in individual patients. Laboratory medicine is useful for both monitoring the course and treatment of the disease as well as in estimating disease prognosis. Clinical biochemistry is involved and has the same importance in final diagnostics, prognostics and therapeutic decisions within each clinical branch.

The *Clinical biochemistry* course is intended to give an overview of recent advances in laboratory medicine and to present state-of-art methodology used for diagnostics in different clinical fields, such as internal medicine, neurology, pediatrics, gynecology etc. The *Clinical biochemistry* course will also provide students with knowledge on organization of clinical laboratory and guidelines for rational selection of diagnostic tests in clinics. The course is focused on giving insight into principles, methods and importance of clinical biochemistry in variety of clinical branches.

II. COURSE STRUCTURE

Course hours:

Lectures: 6

Seminar: 8

Practicum: 11

Total hours: 25

Lectures (L): 6 (7 h)

Seminars (S): 6 (7 h)

Practical (P), including clinical cases: 7 (8 h)

Student presentations/cases: 2 h

Exam: 1 h

Total: 25 hours

III. PLAN OF THE COURSE AND COURSE SCHEDULE

BLOCKS OF THE COURSE

Number of blocks: 1

Block number	Start	End
1.	10.10.2016	14.10.2016

BLOCKS OF THE COURSE SCHEME

Block 1

Date	Time	Group	Course hours type	Theme	Teaching staff
Monday 10.10.2016.	09:30-10:15; MEF Nova vijećnica		Lectures	Introduction to clinical biochemistry - basic characteristics of laboratory tests and their use in clinical decision	prof. dr. sc. Svjetlana Kalanj-Bognar
	10:15-11:00; MEF Nova vijećnica		Seminar	Modern genomic approaches in translational medicine	izv. prof. dr. sc. Fran Borovečki
	11:00-11:45; MEF Nova vijećnica		Practicum	Microchip analysis in genomics	dr. sc. Kristina Gotovac
	12:00-12:45; MEF Nova vijećnica		Lectures	Molecular genetics and diagnostics of inherited diseases	prof. dr. sc. Jadranka Sertić
	12:45-13:30; MEF Nova vijećnica		Seminar	Genomics and proteomics of risk factors for atherosclerosis and cardiovascular diseases	prof. dr. sc. Jadranka Sertić
Tuesday 11.10.2016.	09:30-10:15; MEF Nova vijećnica		Lectures	Advances in biochemistry and genetics of hypercholesterolemia and lipoprotein metabolism disorders	izv. prof. dr. sc. Daria Pašalić
	10:15-11:00; MEF Nova vijećnica		Seminar	Laboratory diagnostics of hepatic and gastrointestinal disorders	izv. prof. dr. sc. Daria Pašalić
	11:15-12:00; MEF Nova vijećnica		Seminar	Therapeutic drug monitoring, pharmacogenomics and clinical toxicology	izv. prof. dr. sc. Nada Božina
	12:15-13:00; MEF Nova vijećnica		Lectures	Nutrition and malnutrition – a clinical approach	prof. dr. sc. Željko Krznarić
Wednesday 12.10.2016.	09:00-09:45; KBC, Klinički zavod za laboratorijsku dijagnostiku		Lectures	Laboratory diagnosis of coagulation disorders	prof. dr. sc. Renata Zadro
	10:00-10:45; KBC, Klinički zavod za laboratorijsku dijagnostiku		Seminar	Biochemical approach to diagnosis of inherited metabolic disorders	prof. dr. sc. Ksenija Fumić
	11:00-11:45; KBC, Klinički zavod za laboratorijsku dijagnostiku		Practicum	Laboratory methods in coagulation and thrombosis monitoring	prof. dr. sc. Renata Zadro
	11:45-12:30; KBC, Klinički zavod za laboratorijsku dijagnostiku		Practicum	Laboratory diagnostics of metabolic disorders	Karmen Bilić
	12:30-13:15; KBC, Klinički zavod za laboratorijsku dijagnostiku		Practicum	Neurobiochemistry	dr. sc. Željka Vogrinc

Date	Time	Group	Course hours type	Theme	Teaching staff
Thursday 13.10.2016.	09:00-09:45; KBC, Klinički zavod za laboratorijsku dijagnostiku		Lectures	Laboratory endocrinology	prof. dr. sc. Vesna Kušec
	10:00-10:45; KBC, Klinički zavod za laboratorijsku dijagnostiku		Seminar	Laboratory endocrinology	prof. dr. sc. Vesna Kušec
	11:00-11:45; KBC, Klinički zavod za laboratorijsku dijagnostiku		Practicum	Laboratory diagnostics of acute intoxication – chromatographic techniques	dr. sc. Mila Lovrić
	11:45-12:30; KBC, Klinički zavod za laboratorijsku dijagnostiku		Practicum	Laboratory diagnostics of rheumatic autoimmune diseases	dr. sc. Ana Kozmar
	12:30-13:15; KBC, Klinički zavod za laboratorijsku dijagnostiku		Practicum	Laboratory diagnostics of renal diseases	dr. sc. Željka Vogrinc
Friday 14.10.2016.	09:00-10:30; MEF Nova vijećnica		Seminar	Clinical cases - Student presentations with discussion	prof. dr. sc. Svjetlana Kalanj-Bognar
	13:00-13:00; MEF Nova vijećnica	SVI	Exam	Exam	prof. dr. sc. Svjetlana Kalanj-Bognar

IV. EXAMINATIONS

B. Types of examination and examination dates

Examination includes written exam - Multiple choice written test (30 questions) (1).

Regular terms

Date

Winter

17th October 2014

Summer

July 2015

Autumn

September 2015

V./I. LIST OF LECTURERS AND TEACHING STAFF

1. prof. dr. sc. Svjetlana Kalanj-Bognar
2. prof. dr. sc. Jadranka Sertić
3. izv. prof. dr. sc. Daria Pašalić
4. izv. prof. dr. sc. Fran Borovečki

5. izv. prof. dr. sc. Nada Božina

6. prof. dr. sc. Željko Krznarić

V./II EXTERNAL ASSOCIATES:

1. prof. dr. sc. Renata Zadro

2. prof. dr. sc. Ksenija Fumić

3. dr. sc. Mila Lovrić

4. dr. sc. Željka Vogrinc

5. dr. sc. Ana Kozmar

6. Kamen Bilić

7. dr. sc. Kristina Gotovac

V./III UNTENURED LECTURERS:

1. prof. dr. sc. Vesna Kušec

VI. LITERATURE

A. Obligatory

- Clinical Biochemistry - an Illustrated Colour Text“, 3rd ed, Allan Gaw et al, Churchill Livingstone, 2004 (Selected chapters)

B. Additional

Handouts and references from the field.