Study programme: **PhD in Biology**

Level: Doctoral degree

Course title: Biochemical markers of diseases

Lecturer: dr Gordana Grubor Lajšić, dr Danijela Kojić

Status: elective

ECTS: 15

Requirements:

Learning objectives

The aim of this course is to introduce the students with the basics of molecular medicine, biochemical markers of diseases as well as molecular mechanisms and etiology of the most common disorders.

Learning outcomes

Students should be able to understand the molecular basis of disfunctions of various organs, importance of the use of biomarkers for diagnosis of disease as well as monitoring and prognosis during treatment

Syllabus

Theoretical instruction

Lectures will cover following topics: Introduction to molecular medicine. Biomarkers of cardiovascular, hematologic, immunological, pulmonary, gastroenterological and neurological disease and dysfunction. Molecular mechanisms and biochemical markers in cancer, AIDS, viral and bacterial infections. Biochemical methods and molecular biology techniques in clinical biochemistry. Biomarkers in transplantation and toxicology.

Practical instruction

Student research paper with application in the field of molecula medicine, cancer research, pharmacy, toxicology.

Literature

Trull A.K., Price C., Demers L. (2002): Biomarkers of diseases, Cambridge University Press

Auxiliary literature:

Weekly teaching load				Other:
Lectures:	Exercises:	Other forms of teaching:	Student research:	

Teaching methodology

Grading method (maximal number of points 100)

Oral exam 50
Student's research 50