UNIVERSITÀ DI PAVIA

Anno Accademico 2021/2022

BIOCHEMICAL-CLINICAL ANALYSIS

Enrollment year	2021/2022
Academic year	2021/2022
Regulations	DM270
Academic discipline	BIO/10 (BIOCHEMISTRY)
Department	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
Course	EXPERIMENTAL AND APPLIED BIOLOGY
Curriculum	Bioanalisi
Year of study	1°
Period	2nd semester (01/03/2022 - 14/06/2022)
ECTS	9
Lesson hours	72 lesson hours
Language	Italian
Activity type	WRITTEN TEST
Teacher	CATRICALA' SILVIA (titolare) - 6 ECTS LAVATELLI FRANCESCA - 3 ECTS
Prerequisites	It is necessary to have already notions about biological chemistry.
Learning outcomes	The aim of this course is to give the student notions in order to work correctly in an analysis lab.
Course contents	Treated arguments: specimen collection, processing and storage. Precision, accuracy. Sensitivity and specificity. Analytical error and quality control. Predictive value of a test. Instrumentation and analytical test: spectrophotometric techniques, chromatography, electrophoresis, immunochemical methods. During this course you will acquire information about technologies and methodological approaches of the common analysis of a routine laboratory that envisage biochemical and clinical analysis. In detail: plasma proteins, lipoproteins and risk of atherosclerosis, diagnostic enzymology, iron metabolism, porphyrins

	and bilirubin, metabolism of carbohydrates, liver and renal function, red blood cell disorders.
Teaching methods	lectures
Reccomended or required readings	Wilson K., Walker J., Biochimica e biologia molecolare - Principi e tecniche, Raffaello Cortina Editore + Course material published in Kiro
Assessment methods	33 Multiple Choice Questions having 5 options as answers (only one right option). Marking Scheme: 1 for the correct answer and no deduction for wrong answers. Duration: 2 hours
Further information	33 Multiple Choice Questions having 5 options as answers (only one right option). Marking Scheme: 1 for the correct answer and no deduction for wrong answers. Duration: 2 hours
Sustainable development goals - Agenda 2030	$lbl_legenda_sviluppo_sostenibile