



### BIOCHEMICAL-CLINICAL ANALYSIS

<b>Enrollment year</b>	2021/2022
<b>Academic year</b>	2021/2022
<b>Regulations</b>	DM270
<b>Academic discipline</b>	BIO/10 (BIOCHEMISTRY)
<b>Department</b>	DEPARTMENT OF BIOLOGY AND BIOTECHNOLOGY "LAZZARO SPALLANZANI"
<b>Course</b>	EXPERIMENTAL AND APPLIED BIOLOGY
<b>Curriculum</b>	Bioanalisi
<b>Year of study</b>	1°
<b>Period</b>	2nd semester (01/03/2022 - 14/06/2022)
<b>ECTS</b>	9
<b>Lesson hours</b>	72 lesson hours
<b>Language</b>	Italian
<b>Activity type</b>	WRITTEN TEST
<b>Teacher</b>	CATRICALA' SILVIA (titolare) - 6 ECTS LAVATELLI FRANCESCA - 3 ECTS
<b>Prerequisites</b>	It is necessary to have already notions about biological chemistry.
<b>Learning outcomes</b>	The aim of this course is to give the student notions in order to work correctly in an analysis lab.
<b>Course contents</b>	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.
<b>Teaching methods</b>	lectures
<b>Reccomended or required readings</b>	Wilson K., Walker J., Biochimica e biologia molecolare - Principi e tecniche, Raffaello Cortina Editore + Course material published in Kiro
<b>Assessment methods</b>	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
<b>Further information</b>	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
<b>Sustainable development goals - Agenda 2030</b>	<a href="#">The goals</a>