

COURSE OUTLINE

(1) GENERAL

SCHOOL	NATURAL SCIENCES		
ACADEMIC UNIT	DEPARTMENT OF BIOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	BIO_ΣTE2	SEMESTER	6/8
COURSE TITLE	CLINICAL CHEMISTRY		
INDEPENDENT TEACHING ACTIVITIES <i>if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits</i>	WEEKLY TEACHING HOURS	CREDITS	
Lectures and practical exercises	5	6	
<i>Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).</i>			
COURSE TYPE <i>general background, special background, specialised general knowledge, skills development</i>	Scientific specialized background		
PREREQUISITE COURSES:	Formally there are no prerequisites. However, knowledge of Human Physiology and Immunology are recommended		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek		
IS THE COURSE OFFERED TO ERASMUS STUDENTS			
COURSE WEBSITE (URL)			

(2) LEARNING OUTCOMES

<p>Learning outcomes <i>The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.</i></p> <p><i>Consult Appendix A</i></p> <ul style="list-style-type: none"> • <i>Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area</i> • <i>Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B</i> • <i>Guidelines for writing Learning Outcomes</i>
<p>The students will learn how basic clinical analyses (general blood tests, biochemical tests, immunological analyses etc) are performed in a Clinical Laboratory, and how they can check and give reliable results.</p>

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	Project planning and management
Adapting to new situations	Respect for difference and multiculturalism
Decision-making	Respect for the natural environment
Working independently	Showing social, professional and ethical responsibility and sensitivity to gender issues
Team work	Criticism and self-criticism
Working in an international environment	Production of free, creative and inductive thinking
Working in an interdisciplinary environment
Production of new research ideas	Others...

Quest, analysis and synthesis of data and information, using necessary technologies. Final conclusion.

(3) SYLLABUS

Clinical Laboratory techniques, Anemia-General blood tests, Renal function tests, Myocardial infarction biochemical tests, Hypertension, Liver function tests, Glucose and lipid metabolism check, Thyroid function tests, Hormones, Viral infections, Laboratory aspects of cancer, Immunological disorders, Drug determination, Reliability of results, Clinical lab accreditation.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY <i>Face-to-face, Distance learning, etc.</i>	Face to face lectures in classroom and lab	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY <i>Use of ICT in teaching, laboratory education, communication with students</i>		
TEACHING METHODS <i>The manner and methods of teaching are described in detail.</i> <i>Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc.</i> <i>The student's study hours for each learning activity are given as well as the hours of non-directed study according to the principles of the ECTS</i>	Activity	Semester workload
	Lectures	26
	Lab practice	15
	Tutorials	4
	Educational visits	3
	Course total	48
STUDENT PERFORMANCE EVALUATION <i>Description of the evaluation procedure</i> <i>Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other</i> <i>Specifically-defined evaluation criteria are given, and if and where they are accessible to students.</i>	<p>Every lab exercise is followed by a test with questions of short answers and mathematical problems. The average of these tests consists of 20% of the final degree.</p> <p>The final examination of the course includes questions of judgement and table filling which combine analyses of results and biological fluids.</p> <p>The grade of the final test consists of 80% of the final rating, along with the 20% of the lab tests.</p> <p>The evaluation criteria are mentioned at the class of the course.</p>	

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

Skorilas A. Principles of Clinical Chemistry and Molecular Diagnostics. Symmetria Editions
Kaplan A. Clinical Chemistry. Paschalidis Editions

- Related academic journals:

Tietz Textbook of Clinical Chemistry and Molecular Diagnostics (TIETZ TEXTBOOK OF CLINICAL CHEMISTRY) Carl A. Burtis, Edward R. Ashwood, David E. Bruns