

COURSE OUTLINE "RESEARCH METHODOLOGY"

1. GENERAL

SCHOOL	NATURAL SCIENCES AND HEALTH SCIENCES		
ACADEMIC UNIT	CHEMISTRY AND MEDICINE		
LEVEL OF STUDIES	POSTGRADUATE (MSc)		
COURSE CODE	REM 201	SEMESTER	SECOND
COURSE TITLE	RESEARCH METHODOLOGY		
INDEPENDENT TEACHING ACTIVITIES		WEEKLY TEACHING HOURS	CREDITS
	Seminars	2	5
COURSE TYPE	Special Background (Semi-optional course)		
PREREQUISITE COURSES:	There are not prerequisite courses.		
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek. Teaching may be performed in English in case of foreign students participate in the postgraduate program.		
IS THE COURSE OFFERED TO ERASMUS STUDENTS	Yes		
COURSE WEBSITE (URL)	-		

2. LEARNING OUTCOMES

Learning outcomes
<i>At the end of this course student should be able to:</i> Combine knowledge through selected scientific and research seminars from the sciences of Chemistry and Medicine (interdisciplinary) and which includes the application of techniques and tools applied to research for the development of innovative bioactive compounds for pharmaceutical interest.
General Competences
<i>By the end of this course the student will, furthermore, have developed the following skills (abilities):</i> <ul style="list-style-type: none"> • Ability to demonstrate knowledge and understanding of the essential facts, concepts, theories and applications related to the Medicinal Chemistry and Chemical Biology, an area of research in which chemical, medicine and biological concepts and tools interact synergistically in the pursuit of new discoveries and/or technologies. • Ability to apply this knowledge and understanding to solve problems related to Medicinal Chemistry and Chemical Biology of non-familiar nature • Study skill needed for continuous professional development • Ability to interact with others in solving problems of chemical/biochemical or multidisciplinary nature <i>Generally, by the end of this course the student will have developed the following general abilities:</i> <ul style="list-style-type: none"> • Search for, analysis and synthesis of data and information, with the use of the necessary technology • Adapting to new situations • Decision-making • Working independently • Team work • Criticism and self-criticism

- Production of free, creative and inductive thinking
- Working in an interdisciplinary environment

3. SYLLABUS

Presentation of selected seminars, research topics and techniques related to Medical Chemistry and Chemical Biology (development of pharmaceutical products):

- Chemical information in the internet.
- Clean rooms in the pharmaceutical industry: theory and practice – regulations.
- Ethics for clinical trials.
- Clean rooms in the pharmaceutical industry: Application: standard production line for aseptic injectors in a clean room.
- Pharmaceutical technology: Lyophilization.
- Quality assurance analysis.
- Preclinical evaluation towards to clinical trials.
- Epidemiology principles and research plans.
- Methodology for writing and presenting research results.
- Chemical Risk Assessment.

4. TEACHING and LEARNING METHODS – EVALUATION

DELIVERY	Face to face	
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY	Use of ICT (powerpoint) in teaching and in the communication with the students.	
TEACHING METHODS	<i>Activity</i>	<i>Semester workload</i>
	Lectures	32
	Private study of the seminars throughout the lecturing period.	93
	Course total <i>(25 work load for each ECTS credit)</i>	125
STUDENT PERFORMANCE EVALUATION	<p>The final grade is in conjunction with the Student's Postgraduate Thesis (course group) and is determined by the three-member Examination Committee designated by the Interdepartmental Committee of the program.</p> <p>Greek grading scale: 1 to 10. Minimum passing grade: 5.</p> <p>Grades ≤ 3 correspond to ECTS grade F.</p> <p>Grade 4 corresponds to ECTS grade FX.</p> <p>For the passing grades, the following equivalence normally holds with the ECTS passing grades:</p> <p>5 = E, 6 = D, 7 = C, 8 = B and $\geq 9 = A$</p> <p>Examination is delivered normally in Greek. Examination may be given in English, if foreign students attend the course.</p>	

5. ATTACHED BIBLIOGRAPHY (*apart from the literature provided during each lecture*)

In each lecture-seminar, bibliography is suggested by the Teachers to the Postgraduate Students.