COURSE OUTLINE

(1) GENERAL

SCHOOL	NATURAL SCIENCES		
ACADEMIC UNIT	DEPARTMENT OF BIOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	BIO_ΔΥ01	SEMESTER	4
COURSE TITLE	CELL BIOLOGY II		

INDEPENDENT TEACHING ACTIVITIES *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*	WEEKLY TEACHING HOURS	CREDITS
Lectures	3	8
Practical exercises	3	
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	Scientific specialized background
PREREQUISITE COURSES:	Formally there are no prerequisites. However, knowledge of Biochemistry and Cell Biology I are recommended
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek
IS THE COURSE OFFERED TO ERASMUS STUDENTS	
COURSE WEBSITE (URL)	

(2) LEARNING OUTCOMES

Learning outcomes

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.

Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

Students will understand a) the structure and potential of cytoskeleton constituents and movement systems which concern cell movements and subcellular structures b) mechanisms and regulation of cell proliferation, ageing and death c) cell-cell interaction cell-matrix interaction and communication mechanisms among cells d) cancer cells e) structure and function of immune system and fundamental principles of immune response and innate immunity.

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

Search for, analysis and synthesis of data and information, with the use of the necessary technology
Decision-making

(3) SYLLABUS

Cytoskeleton. Cellular movements. Cellular interactions and cell-matrix interaction.
Cellular recognition and fundamental principles of cell communication.
Cell cycle regulation. Cell proliferation.
Ageing, cell death, apoptosis.
Cancer.
Cell and molecular base of immune responses.

(4) TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Face to face lectures in classroom and lab
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	

TEACHING METHODS

The manner and methods of teaching are described in detail.
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.

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

Activity	*Semester workload*
Lectures	39
Lab practice	15
Lab reports	15
Course study	131
Course total	***200***

STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *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* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	For every lab exercise students are asked to make a report based on the procedure and the techniques they have been trained. The final examination of the course includes 4 general questions, 4 overall questions to proceed and 2 practical problems to solve with the use of the techniques they have learned in lab practice The evaluation criteria are mentioned at the e-class of the course.

(5) ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

Molecular biology of the cell. Alberts et al. Garland science 1995

- Related academic journals: