**COURSE OUTLINE**

1. **GENERAL**

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| **SCHOOL** | School of Health Sciences | | | | |
| **ACADEMIC UNIT** | Faculty of Medicine | | | | |
| **LEVEL OF STUDIES** | PREGRADUATE | | | | |
| **COURSE CODE** | **ΙΑΥ503** | **SEMESTER** | | **Ε** | |
| **COURSE TITLE** | PHARMACOLOGY I | | | | |
| **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** | | | **4** | |  |
| **LABORATORY EXERCISES** | | | **1** | |  |
|  | | |  | | **5** |
| *Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (4).* | | |  | |  |
| **COURSE TYPE**  *general background,  special background, specialised general knowledge, skills development* | GENERAL BACKGROUND | | | | |
| **PREREQUISITE COURSES:** | - | | | | |
| **LANGUAGE OF INSTRUCTION and EXAMINATIONS:** | GREEK | | | | |
| **IS THE COURSE OFFERED TO ERASMUS STUDENTS** | NO | | | | |
| **COURSE WEBSITE (URL)** | http://ecourse.uoi.gr/course/view.php?id=769 | | | | |

1. **LEARNING OUTCOMES**

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| **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* | |
| Pharmacology I is a basic course for the medical students, linked to all the basic courses (Physiology, Biological Chemistry and Biology), as well as to courses taught later-on, such as Pathology, Internal Medicine and Therapeutics.  In Pharmacology I, the students acquire comprehension of the theoretical background and the principles governing the fate of drugs in the organism (Pharmacokinetics), as well as the effects of biologically active substances on the body (Pharmacodynamics)and the understanding in depth of the mechanisms of drug actions, their properties and their main applications, indications and side effects.  Students should be able to recognize and interpret pharmacological actions, indications, contraindications, drug-specific adverse reactions by system or group of drugs (e.g. autonomous nervous system drugs, respiratory & GI systems, native bioactive molecule drugs, CNS drugs). Successful completion of this course prepares the student for the clinical use of drugs taught in courses, such as Pathology, Internal Medicine and Therapeutics. | |
| **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, using the necessary technologies  - Independent work  - Teamwork  - Promoting free, creative and inductive thinking  - Respect for diversity  - Production of new research ideas | |

1. **SYLLABUS**

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| General principles of Pharmacology (Introduction, Pharmacokinetics, Metabolism, Pharmacodynamics, Side Effects-Toxicity, Development of New Drugs)  - Autonomic nervous system  Cholinergic drugs, anticholinergics, muscle relaxants, adrenergic, antiadrenergic  - Respiratory system  Drugs against bronchial asthma  - Gastrointestinal system  Drugs against peptic ulcer and diseases related to the motility of the intestine  - Urinary system  Drugs against urolithiasis and disorders of urination  - Bioactive Molecules (Histamine-Antihistamines, Serotonin-Anti-Serotoninergics, Kinines-Prostaglandins)  - Analgesics and Anti-inflammatory drugs (Narcotic analgesics, Non-narcotic analgesics, Gout)  - CNS drugs (Antipsychotics, Anxiolytics, Antidepressants, Sedatives, Anticonvulsants, drugs for Parkinson's, Alzheimer's)  - General and Local Anesthetics  - Substances of abuse - Stimulants  **Laboratory Exercises**  - Pharmacokinetics  - Drug Synergy and Antagonism  - Autonomic Nervous System - Langendorff Heart  - Inflammation - Analgesics  - CNS Drugs - Antipsychotics  - Drugs in General Anesthesia – muscle relaxation |

1. **TEACHING and LEARNING METHODS - EVALUATION**

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| **DELIVERY** *Face-to-face, Distance learning, etc.* | In the classroom / laboratory |
| **USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY** *Use of ICT in teaching, laboratory education, communication with students* | - Teaching using PowerPoint  - Posting information/teaching material to the e-course e-learning platform  - Announcements on the course website  - Show Educational Videos / Tutorials / Pharmacokinetic / Pharmacodynamic Data Analysis Programs  - Direct communication with the faculty by e-mail |
| **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*** | ***Workload of each students group (two groups per semester)*** | | Lectures | 52 | | Laboratory Exercises | 12 | | Non-directed study | 86 | |  |  | |  |  | |  |  | |  |  | |  |  | |  |  | | Total | ***150*** | |  |  | |
| **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.* | Written examination at the end of the semester:  - Multiple choice questionnaires  - Short-answer Questions (YES-NO)  Written Examination after Each Lab Exercise:  - Multiple choice questionnaires  - Short-answer Questions |

1. **ATTACHED BIBLIOGRAPHY**

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| *Teaching - study material:*  - "Basic and Clinical Pharmacology", Edition: 11/2009 Authors: Bertram Katzung, Susan Masters, Anthony Trevor, Eudoxus code: 12867027  - "Pharmacology" by Rang, Dale, Ritte, Moore, Greek translation, Scientific Publications Parisianos, Athens 2007, Eudoxus code: 41692-  - Pharmacology I - Synopsis (http://ecourse.uoi.gr/course/view.php?id=769)  - Pharmacology I – Drug cards (http://ecourse.uoi.gr/course/view.php?id=769) |