**COURSE OUTLINE**

1. **GENERAL**

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| **SCHOOL** | HEALTH OF SCIENCES | | | | |
| **ACADEMIC UNIT** | FACULTY OF MEDICINE | | | | |
| **LEVEL OF STUDIES** | UNDERGADUATE (Elective) | | | | |
| **COURSE CODE** | IAE711 | **SEMESTER** | | **G’** | |
| **COURSE TITLE** | Molecular Immunology | | | | |
| **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 | | | 2 | | 2 |
|  | | |  | |  |
|  | | |  | |  |
| *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* | Special background | | | | |
| **PREREQUISITE COURSES:** |  | | | | |
| **LANGUAGE OF INSTRUCTION and EXAMINATIONS:** | Greek | | | | |
| **IS THE COURSE OFFERED TO ERASMUS STUDENTS** | Yes | | | | |
| **COURSE WEBSITE (URL)** | <http://ecourse.uoi.gr/course/view.php?id=1388> | | | | |

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* | |
| The course is essential for linking basic immunological knowledge with Clinical Pathology and a variety of specialties. The course syllabus aims to introduce students to the basic principles of immunology, the immunological mechanisms involved in infections and autoimmune rheumatic diseases and mechanisms of breakdown of immune tolerance. In addition, immune mechanisms involved in lung, haematological and endocrine diseases are taught. It also addresses topics related to immune mechanisms, kidney diseases and inflammatory bowel diseases, as well as immune mechanisms for multiple sclerosis. Additional immunological phenomena and rheumatological manifestations from the use of checkpoint inhibitor drugs are presented. The course therefore aims to highlight the central role of the immune system in physiological and numerous pathological conditions studied by Clinical Pathology and its specialties. Finally, the students' understanding of the basic immunological pathogenic mechanisms marks and introduces new therapeutic trends.  Upon successful completion of the course the student will be able to:   * Have an understanding of the basic principles of immunology and the role of epigenetic changes in the manifestation of diseases * Have knowledge of the pathogenic mechanisms involved in autoimmune and nonautoimmune diseases. * Recognises and analyses the aetiopathophysiological models of autoimmune diseases * Understands the current and future therapeutic targets of autoimmune and other diseases | |
| **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 * Working in an international environment * Production of new research ideas | |

1. **SYLLABUS**

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| * Introduction to the Immune System (I) * Introduction to the Immune System (II) * Netosis * Immune mechanisms in infections * Immunological mechanisms in autoimmune rheumatic diseases * Mechanisms of breakdown of immune tolerance * Immunological mechanisms in lung diseases * Autoimmune endocrine diseases * Idiopathic thrombocytopenic purpura. Immunological mechanisms * Immunological mechanisms of kidney diseases * Immunological mechanisms in multiple sclerosis |

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

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| --- | --- |
| **DELIVERY** *Face-to-face, Distance learning, etc.* | Face to face |
| **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 | 26 | |  |  | |  |  | |  |  | |  |  | |  |  | | Student’s study hours | 26 | |  |  | |  |  | | ***Course total*** | ***52*** | |
| **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.* | I. Written examination:   * Multiple choice questionnaires |

1. **ATTACHED BIBLIOGRAPHY**

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| *- Suggested bibliography:*  *- Related academic journals:*   * **Immunology** *(Textbooks via “EVDOXOS” system)*   *Authors: David Male, Jonathan Brostoff, David B. Roth, Ivan Roith*  *Book Code in “EVDOSOS” system: 41765*  *Edition: 7th/2010*  *ISBN: 978-960394-672-4*  *Provider (Publisher): PARISIANOU SA*   * **Immunology**   *Authors: Goldsby R, Kindt T, Osborne B, Kuby J*  *Edition: 2nd/2012*  *ISBN: 978-9963-716-14-2*  *Provider (Publisher): Broken Hill Publishers Ltd* |