**COURSE OUTLINE**

1. **GENERAL**

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| **SCHOOL** | School of Health Sciences | | | | |
| **ACADEMIC UNIT** | Faculty of Medicine | | | | |
| **LEVEL OF STUDIES** | Undergraduate | | | | |
| **COURSE CODE** | IAE919 | **SEMESTER** | | **10TH** | |
| **COURSE TITLE** | PAIN TREATMENT | | | | |
| **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** |
|  | | | 2 | | 2 |
|  | | |  | |  |
|  | | |  | |  |
| *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* | SKILLS DEVELOPMENT | | | | |
| **PREREQUISITE COURSES:** | ANATOMY, PHYSIOLOGY, PATHOPHYSIOLOGY, PHARMACOLOGY, NOSOLOGY, NEUROLOGY | | | | |
| **LANGUAGE OF INSTRUCTION and EXAMINATIONS:** | HELLENIC, ENGLISH | | | | |
| **IS THE COURSE OFFERED TO ERASMUS STUDENTS** | YES | | | | |
| **COURSE WEBSITE (URL)** | <https://anaesthesiology.med.uoi.gr/>  <https://ecourse.uoi.gr/enrol/index.php?id=782> | | | | |

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* | |
| Pain is the most usual symptom in human diseases and the commonest presenting symptom in health services. Some advocate it to be the fifth vital sign! Despite this, inadequate pain treatment is still a problem worldwide. More than 20% of the world population suffer from some kind of pain, including 200,000,000 people with back pain, 9,000,000 with end stage cancer and even more people suffer from persistent pain after undergoing a surgical operation. Improper education and lack of guided experience are probably the main reasons for pain under-treatment. Even in developed countries there are doctors who withhold opioid treatment in end stage cancer patients because of the fear of addiction and perhaps accelerated death.  This course aims at changing such attitudes in the treatment of either benign or cancer pain.  With the completion of the course, student would be able to:   1. Describe the anatomy of pain pathways, the physiology of pain and the pharmacology of analgesic medications 2. To recognise various pain syndromes 3. To approach, examine and evaluate a patient with either acute or chronic pain 4. To develop analgesic regimens for their patients 5. To familiarise with the prescription process of these agents 6. To understand the team work in pain teams and to co-operate with other health care specialties 7. To psychologically support a patient with pain together with his carrying relatives | |
| **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  Adapting to new situations  Decision-making  Working independently  Team work | |

1. **SYLLABUS**

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| 1. Introduction. Evolution of algology. – Pain measurement and evaluation 2. Neuroanatomy and neurophysiology of pain 3. Pharmacological agents in pain management: Basic principles of pharmacology 4. Chronic benign pain 5. Neuropathic pain: Pathophysiology, diagnosis, treatment 6. Treatment of acute pain. Multimodal analgesia for postoperative pain. 7. Cancer pain 8. Palliative care in cancer pain 9. Prevention and treatment of adverse events of pain therapy 10. Invasive techniques for pain management 11. Alternative techniques for pain management: Acupuncture, TENS, Magnetic therapy 12. Principles of analgesic drugs prescription. Computer simulation. 13. Organisation and structure of a multipotent Pain Practice. Education, curriculum and professional potentials in algology. 14. Hands-on practice at Pain Clinics |

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

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| **DELIVERY** *Face-to-face, Distance learning, etc.* | Lecturing, face to face live teaching and hands on learning |
| **USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY** *Use of ICT in teaching, laboratory education, communication with students* | PC and projector for presentations, 4 PCs for simulations on pain scenarios following strict clinical protocols |
| **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*** | | Formal lecturing | 26 | | Simulations | 4 | | Practice in pain clinic | 8 | | Personal studying during the course | 20 | | Personal studying in preparation for the examination | 10 | | Duration of the examination process | 2 | |  |  | |  |  | |  |  | | Course total | 70 | |
| **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.* | Students are evaluated based on:   * Their contribution during the formal teaching * Their contribution and performance at the simulations * Their contribution and performance during their practice in the pain clinic * Grades achieved at the final written (multiple choice questions) examination |

1. **ATTACHED BIBLIOGRAPHY**

*Teaching - study material*

**Τίτλος: Αντιμετώπιση οξέως και χρόνιου πόνου.**

Συγγραφέας: Ε. Αργύρα, Α. Βαδαλούκα, Ι. Σιαφάκα, Γ. Παπαδόπουλος.

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