**COURSE OUTLINE**

1. **GENERAL**

| **SCHOOL** | School of Health Sciences | | | | |
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| **ACADEMIC UNIT** | Faculty of Medicine | | | | |
| **LEVEL OF STUDIES** | Undergraduate | | | | |
| **COURSE CODE** | ΙΑΥ903 | **SEMESTER** | | 9th (annual course, taught also in 10th semester) | |
| **COURSE TITLE** | **NORMAL CHILD - INTRODUCTION TO PEDIATRICS** | | | | |
| **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 and Clinical Practice | | --- | | * Lecture: daily 09:00-10:00 | | * Clinical visit with faculty member: daily 10:00-13:00 | | * On-call duty | | | | 25 | | 10 |
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| *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* | Scientific Area, Skills Development | | | | |
| **PREREQUISITE COURSES:** | None | | | | |
| **LANGUAGE OF INSTRUCTION and EXAMINATIONS:** | Greek | | | | |
| **IS THE COURSE OFFERED TO ERASMUS STUDENTS** | Yes (in English) | | | | |
| **COURSE WEBSITE (URL)** | <http://ecourse.uoi.gr/course/view.php?id=528> | | | | |

1. **LEARNING OUTCOMES**

| **Learning outcomes** | |
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| *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 purpose of the course is to educate students on the clinical and laboratory approach to the particularities of the developing child, from the neonatal period to adolescence, towards differential diagnosis of basic pediatric problems.  Upon completion of the "Normal Child - Introduction to Pediatrics" course, medical students should be able to:   * Approach the child and parents, taking a full history of the current illness, perinatal, individual, family, and social history. * Perform a clinical examination of a healthy newborn and child. * Conduct differential diagnosis of basic pediatric problems. * Describe the characteristics of a preterm newborn. * Evaluate the growth of a full-term newborn. * Report normal values of basic laboratory parameters in a full-term newborn. * Define fluid, electrolyte, and nutrient needs in a full-term newborn. * Explain the benefits and contraindications of breastfeeding, and the differences between breast milk and cow's milk. * Outline the timeline for introducing solid foods into an infant's diet. * Describe the basic vaccination schedule and the indications for postponing vaccination in children and adolescents. * Use growth charts to evaluate height, weight, and head circumference percentiles of full-term newborns and children. * Explain the Denver II developmental scale and its utility in diagnosing possible underlying major disease categories. * Perform a physical examination of the respiratory system in a healthy child and identify the peculiarities of the examination in children. * Describe the physiological mechanisms of transition from fetal to neonatal circulation. * Outline the physiological changes in circulation from neonatal to adolescent age. * Conduct a proper physical examination of the cardiovascular system in children. * Distinguish "innocent" murmurs (types, frequency, significance). * Recognize a normal ECG in childhood and the age-related changes. * Describe the key milestones in renal function maturation during infancy and childhood. * Assess glomerular and tubular function. * Evaluate urinalysis and 24-hour urine collection findings. * Identify normal fluid and electrolyte needs in children. * Evaluate arterial blood pressure using percentile tables according to gender, age, and height percentile. * Recognize peculiarities of hematopoiesis, hemostasis, and iron metabolism from neonatal to adolescent age. * Identify changes in hemoglobin types during the transition from fetal to neonatal and infant life. * Interpret normal blood test results in healthy children. * Recognize changes in white blood cell types during various phases of childhood. * Understand coagulation times and their normal values in neonates and children. * Describe main sources of vitamin D intake. * Report normal limits and measurement units of vitamin D [25OHD and 1,25(OH)2D]. * Identify indicative signs from history and physical examination of neglected or abused children. | |
| **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, analysis, and synthesis of data and information, using necessary technologies. | | --- | | - Adaptation to new situations. | | - Decision-making. | | - Independent work. | | - Teamwork. | | - Interdisciplinary work. | | - Promotion of free, creative, and inductive thinking. | | |

1. **SYLLABUS**

| The course is annual, and the students form seven groups. Each group is trained for 4 weeks. The course is taught daily in a classroom of the University Hospital, combined with daily educational visits to the Department of Pediatrics, the Neonatal Intensive Care Unit, and the Child Health Laboratory. Concurrently, there is clinical participation in on-call duties of the Deparrtment of Pediatrics. Additionally, students attend educational sessions (case presentations, literature reviews) and postgraduate courses of the Clinic. Students acquire theoretical and practical knowledge under the guidance of faculty members, aiming to approach the developing child, evaluate deviations from normality, and prepare for clinical training in Pediatrics during the 6th year. Basic skills acquired include taking a pediatric history, performing clinical examination of a child, and basic differential diagnostics in pediatric problems.  Detailed Course Content:   1. Taking history in children 2. Clinical examination of newborns and children 3. Thermoregulation and lung development in neonates 4. Normal hematological and biochemical parameters in preterm and full-term neonates 5. Breastfeeding 6. Colic in the first trimester 7. Vaccinations for children and adolescents 8. Evaluation of physical parameters (body weight, body length, head circumference) using growth charts and deviations 9. Evaluation of cranial sutures and fontanelles 10. Definition of macrocephaly, microcephaly, craniosynostosis 11. Primitive reflexes of early infancy 12. Neurological examination in infancy and childhood 13. Psychomotor development from infancy to 6 years 14. Description of the Denver II psychomotor development scale and its utility 15. Spirometry and blood gas analysis 16. Definition of immunogenicity, antigenicity, allergenicity, and immune tolerance 17. Description of fetal and neonatal circulation, physiological changes in circulation from neonatal to adolescent age 18. Functional murmurs, normal ECG 19. Approach to athletic children and adolescents 20. Assessment of glomerular filtration and tubular function in children 21. Calculation of creatinine clearance 22. Concentration and acidification of urine 23. Evaluation of urinalysis 24. Intravenous fluids in children (fluid and electrolyte needs) 25. Assessment of arterial blood pressure in children 26. Peculiarities of hematopoiesis and hemostasis in the developing child 27. Changes in hemoglobin types from fetal to neonatal and infant life 28. Proportions of hemoglobin types in healthy children 29. Evaluation of blood tests XXX. Physiological infant anemia 30. Normal limits of vitamin D metabolites, main sources of intake, skeletal and extra-skeletal effects of vitamin D. |
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1. **TEACHING and LEARNING METHODS - EVALUATION**

| **DELIVERY** *Face-to-face, Distance learning, etc.* | Ιn a classroom of the University Hospital, combined with daily educational visits to the Department of Pediatrics, the Neonatal Intensive Care Unit, and the Child Health Laboratory |
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| **USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY** *Use of ICT in teaching, laboratory education, communication with students* | Support of the Learning Process through the e-course platform of the University of Ioannina |
| **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*** | | --- | --- | | Lectures | 20 | | Clinical Practice Exercises | 80 | | Group Work |  | | Individual Study - Teaching Period | 20 | | Individual Study - Exam Period | 60 | | Examinations | 1 | |  |  | | Total Course Workload(18.1 hours of workload per credit unit) | 181 | |  |  | |
| **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.* | The final evaluation and grading of the student is based on:   1. The written examination (multiple-choice questions - MCQs) at the end of the course |

1. **ATTACHED BIBLIOGRAPHY**

Teaching - study material

1. Assigned textbook: "The Normal Child - Introduction to Pediatrics" by the Child Health Sector, University of Ioannina, Neon Publications, Athens, 2022, ISBN: 978-618-5515-01-0, Eudoxus code: 94642871
2. Lectures by faculty members provided in digital format on the e-course platform