

PHYSIOLOGY II

| PHYSIOLOGY II | | | |
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| FACULTY | HEALTH SCIENCES | | |
| DEPARTMENT | NURSING | | |
| LEVEL OF EDUCATION | UNDERGRADUATE | | |
| COURSE CODE | 0805.2.004.0 | SEMESTER OF STUDIES | 2nd |
| COURSE TITLE | PHYSIOLOGY II | | |
| SELF-ENDED TEACHING ACTIVITIES | | | |
| SELF-ENDED TEACHING ACTIVITIES | | TEACHING HOURS / WEEK | CREDIT UNITS |
| Theory | | 2 | |
| Coaching school | | | |
| Laboratory | | | |
| Clinical exercise | | | |
| Total | | 2 | 3 |
| COURSE TYPE: | COMPULSORY | | |
| PREREQUISITE COURSES: | NO | | |
| LANGUAGE OF TEACHING and | GREEK | | |
| EXAMINATIONS: | NO | | |
| THE COURSE IS OFFERED TO ERASMUS STUDENTS: | https://eclass.hmu.gr/courses/NURS182/ | | |
| Learning results | | | |
| <p>The purpose of the course is to introduce the students to the physiological arrangement and function of the human body, especially the function of the tissues and organs of the respiratory, digestive, cardiovascular, urinary and reproductive systems.</p> <p>After completing the course students will be able to understand the:</p> <ul style="list-style-type: none"> • hemodynamic of the cardiovascular system and the factors that contribute to cardiac regulation. • elements of the vascular system and their functions. • ventilation of the lungs and the process of inhalation and exhalation. • transport of O₂ and CO₂ in the human body through blood and body fluids. • principles of acid-base balance and recognize its disturbances. • basic functions of the digestive system (digestion, secretion, absorption and excretion). | | | |

- nervous and hormonal regulation of the digestive system.
- contribution of the supporting organs (liver, pancreas, gallbladder) to the functioning of the digestive system.
- process of chewing, swallowing and defecation.
- functions of organs of the urinary system (kidneys, ureters, bladder, urethra).
- process of the basic functions of the elements of the kidney (filtration, reabsorption, secretion and excretion).
- regulation of electrolytes and water.
- functions of the male and female genital organs.
- processes of spermatogenesis, erection and ejaculation.
- process of ovum production and the phases of the menstrual cycle.
- hormonal control of male and female reproduction.
- pregnancy process.

General Skills

Decision making, Freelance work, Teamwork, Working in an interdisciplinary environment, Demonstrating social, professional and ethical responsibility

Course content - Theory outline

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| 1st week | Introduction to the physiology of individual systems |
| 2nd week | Elements of physiology of the organs of the circulatory system (hematopoietic and lymphatic). Function of the heart. |
| 3rd week | The functions of the blood and lymphatic circulatory system. |
| 4th week | Physiology of the organs of the respiratory system (nasal cavities, pharynx, larynx, trachea, bronchus, bronchial tree, lungs) |
| 5th week | The function of breathing. Ventilation of the lungs (air movement between atmosphere-alveolus). Diffusion of O ₂ and CO ₂ between alveolus – blood. Transport of O ₂ and CO ₂ by blood and body fluids to and from cells. The regulation of acid-base balance |
| 6th week | Physiology of the organs of the digestive system (Oral cavity, pharynx, esophagus, stomach, small and large intestine) |
| 7th week | Supporting organs of the digestive system (liver, pancreas, gallbladder) |
| 8th week | The functions of digestion, secretion, absorption and excretion |
| 9th week | Physiology of the organs of the urinary system (kidneys, ureters, bladder, urethra) |
| 10th week | Filtration, reabsorption, secretion and excretion by the urinary system |
| 11th week | Elements of female genital physiology |
| 12th week | Elements of male genital physiology |
| 13th week | Physiology of reproduction - pregnancy |

Course content – Outline of Clinical Practice

| TEACHING METHOD | Traditional lectures using PowerPoint software. Questions and answers for students. | | | | | | |
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| USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES | Use of the e-class electronic platform to store presentations in digital format for easy access by students. Communication with students on issues related to the educational process through the same platform. View video in digital format. Using powerpoint slides. | | | | | | |
| TEACHING ORGANIZATION | <table border="1"> <thead> <tr> <th>Activity</th> <th>Semester Workload</th> </tr> </thead> <tbody> <tr> <td>Lectures (total: 13X2)</td> <td>90</td> </tr> <tr> <td>Total Course Hours: 26</td> <td></td> </tr> </tbody> </table> | Activity | Semester Workload | Lectures (total: 13X2) | 90 | Total Course Hours: 26 | |
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| Total Course Hours: 26 | | | | | | | |
| EVALUATION OF STUDENTS | Theoretical part of the course 100% from a written final exam. | | | | | | |
| RECOMMENDED BIBLIOGRAPHY (into Greek language) | | | | | | | |
| <ul style="list-style-type: none"> ● Φυσιολογία, Έκδοση: 4^η /2012. L. Costanzo. ISBN: 978-960-7875-75-4, Εκδότης: ΛΑΓΟΣ ΔΗΜΗΤΡΙΟΣ ● Φυσιολογία, BERNE AND LEVY Έκδοση: 6η/2012. KOEPPEN, STANTON. ISBN: 978-960-394-894-0, Εκδότης: ΠΑΡΙΣΙΑΝΟΥ ΑΝΩΝΥΜΗ ΕΚΔΟΤΙΚΗ ΕΙΣΑΓΩΓΙΚΗ ΕΜΠΟΡΙΚΗ ΕΤΑΙΡΙΑ ΕΠΙΣΤΗΜΟΝΙΚΩΝ ΒΙΒΛΙΩΝ ● Vander's Φυσιολογία του Ανθρώπου, Έκδοση: 2η έκδ./2016. Widmaier E, Raff H, Strang K. ISBN: 978-996-3274-03-1, Εκδότης: BROKEN HILL PUBLISHERS LTD | | | | | | | |