Course title	**Physiology**				
Course Code	**MEDI101**				
Course Type	**Theoretical and Laboratory**				
Level	**Diploma**				
Year / Semester	**1st Year / 2nd Semester**				
Teacher's Name	**Dr. Andreou Savanna**				
ECTS	8	**Lectures / week**	3	**Laboratories / week**	1
Course Purpose and Objectives	The aim of the course of Physiology is the in-depth understanding of the physiological processes of the human body and the familiarization with the physiological functions of cells, organs and systems of the human body.				
Learning Outcomes	Upon completion of the course, students are expected to: **Knowledge** 1. **Recall** and describe the general and basic elements of human physiology. 2. **Describe** the main processes of physiology: 1. Circulatory and lymphatic system 2. Respiratory tract congestion 3. Nervous system 4. Endocrine System 5. Digestive System 6. Liver and pancreas 7. Reproductive and urinary system 8. Sensory organs of the human body. 3. **Explain** the mechanism that each organ and system of the human body uses to achieve its functions 4. **Describe** how each system of the human organism relates to the others and how each affects the others 5. **Explain** the basic physiological mechanisms that take place in humans at all levels, from the subcellular to that of the integrated organism, and the laws governing the organization of individual systems into a functional whole. **Skills** 6. **Illustrate** the functional characteristics of the systems and organs discussed in the lecture and **demonstrate skills** in microscopic observation. **Competences** 7. Be able to **combine** the knowledge and skills acquired in previous courses (see Human Anatomy) with those presented in this course and 8. appreciate the importance and relationship that Physiology has with the profession of Medical Representative.				
Prerequisites	**MEDI103 Human Body Anatomy**	**Required:**	-		
Course Content	• The **circulatory system**: Heart and blood circulation. The main blood vessels. Names and locations of the major arteries. The main veins. • Blood: Blood pressure, shaped and amorphous blood components. The lymphatic system and the spleen.				

	• The **respiratory system**/respiratory tracts. The lungs. The physiology of breathing. Rhythm and control of breathing. • The **nervous system**. Cerebrospinal nervous system (CNS and PNS). The autonomic nervous system (sympathetic and parasympathetic). • The **endocrine system**: Pituitary. Parathyroid gland. The adrenal glands. The pancreas (exocrine and endocrine gland). • The **digestive tract** and digestion of food: Oral cavity (salivary glands and saliva). The pharynx and the esophagus. The stomach and gastric digestion. The small intestine and intestinal digestion. Small intestine glands. The large intestine and defecation. The peritoneum. Liver, gallbladder and pancreas. • The **urinary tract** and kidney function. • The organs of the **reproductive system**: The male and female reproductive organs. Breast gland. The genitourinary tract. • **Special sensory organs**: Olfactory mucosa – Olfactory. Eye – Vision. Ear – Hearing. Skin – Touch, pressure, pain. Taste buds – Flavour. **Laboratory Exercises:** Microscopy Laboratory: • Blood vessels o Aortic, haematine-eosin observation and staining for elastic tissue o Artery and vein with staining for elastic tissue • Endocrine system o Incision of pancreatic gland and thyroid gland. • Reproductive system: o Observation of testicular incision and ovarian incision, human uterine horn, ampoule incision, transverse incision of testicle, sperm smear and prostate. • Digestive system: o Observation of the esophagus and trachea, Stomach wall, Bowel, blind ileal process. • Nervous System and Muscles: o Observation of skeletal muscle, cardiac muscle incision, spine, motor nerve and smooth muscle • Special sensing instruments o Observation of the skin from the axillary glands and hair follicles, scalp with hair follicles and sebaceous glands and nails.
Teaching Methodology	The course content will be taught through: Power Point presentations, guided discussions with the active participation of students, individual and team work by students and the use of a variety of audiovisual media and other teaching tools as required for the delivery of each module. The lectures are accompanied by various laboratory exercises, carried out in the Laboratory of Microscopy of the College.
Bibliography	***Greek Bibliography*** • Βαρσαμίδης, Κ. (2016). *Φυσιολογία του ανθρώπου*, University Studio Press, Θεσσαλονίκη, ISBN: 978-960-12-2269-1. • Hall, J. E., and Guyton, A. C. (2016). *Ιατρική Φυσιολογία*. 13η Έκδοση. Επιστημονικές Εκδόσεις Παρισιάνου Α.Ε. ISBN: 978-960-583-175-2 • Schmid, R. F. (2010). *Συνοπτική φυσιολογία του ανθρώπου*, Εκδόσεις Π. Χ. Πασχαλίδης, ISBN: 978-960-489-078-1.

	English Bibliography • McKinley, M., O'Loughlin, V., and Bidle, T. (2016). *Anatomy and Physiology: An Integrative Approach*. McGraw-Hill Education, ISBN: 9781259255076. • Waugh, Anne (2010). *Ross and Wilson anatomy and physiology in health and disease*. Churchill Livingston, Edinburgh, ISBN: 978-0-7020-3227-1. • Vipula, Ms., Atula, Ms. 2018). Human Anatomy and Physiology: For Undergraduate Students of Pharmacy, Nursing, Physiotherapy and Other Paramedical Sciences. 1st Edition. Bengaluru: Laxmi Publications Pvt Ltd ISBN: 9789386202550. **EBSCOHost**. • Marshall, P., Gallacher, B., Jolly, J., Rinomhota, S. (2017). *Anatomy and Physiology in Healthcare*. Banbury, UK: Scion Publishing. ISBN: 9781904842958. **EBSCOHost**. • Hall, John E. (2016). *Guyton and Hall textbook of medical physiology*, 13th Edition, Saunders, ISBN: 9781455770052.
Assessment	• Attendance and participation: 10% • Assignments / Essays: 10% • Laboratory Exercises 10% • Midterm Written Examination: 20% • Final Written Examination: 50%
	Written examination has two parts that are examined as part of one exam paper. The first part includes closed-ended questions, such as multiple choice questions, true or false, matching exercises, complete the gaps exercises, etc. The first part is usually worth 40% - 50% of the total marks of the exam paper. The second part includes open-ended questions that are meant to assess the students' abilities to analyse, reflect, explain, recall etc. The second part is usually worth 50% - 60%. The total marks of the exam paper are 100.
Language	Greek or English