

## English Dentistry Division

I. Course coordinator: Marcin Ufnal, MD, PhD, e-mail: mufnal@wum.edu.pl

II. Forms of classes

Lectures (30hrs), seminars (55hrs), exercises (45hrs).

Classes will take place at the Department of Experimental Physiology and Pathophysiology, Pawlinskiego 3c.

Subject topics (winter)

1. Introduction to physiology. Membrane and action potentials.
2. Blood – physiology and pathophysiology.
3. MCQ I.
4. Hemodynamic cycle of the heart. Principles of blood flow in the cardiovascular system.
5. Regulation of cardiovascular function. Pathophysiology of arterial hypertension.
6. The conducting system of the heart. Electrocardiography.
7. Coronary circulation. Ischemic heart disease. Myocardial infarction. Heart failure
8. Microcirculation and the lymphatic system. Circulatory Shock.
9. MCQ II.
10. Physiology of the respiratory system.
11. Pathophysiology of the respiratory system.
12. Physiology and pathophysiology of the kidneys.
13. Regulation of water-electrolyte and acid-base balance.
14. Physiology and pathophysiology of the gastrointestinal tract.
15. Physiology and pathophysiology of the pancreas and liver.

Obligatory literature:

1. Guyton AC, Hall AC. Textbook of Medical Physiology, 12th edition, 2010, W.B. Saunders's Co., Philadelphia.
2. McPhee SJ, Hammer GD. Pathophysiology of Disease: An Introduction to Clinical Medicine, 7th edition, 2014, McGraw-Hill.

Supplementary literature:

1. Koepfchen B.M., Stanton B.A. Berne & Levy Physiology, 6th edition, 2009, Mosby Co.