

SYLLABUS

Program	Medicine
TRACK	MEDICAL DIAGNOSIS
COURSE	BASIC PATHOLOGY
CODE AND CREDITS	33901-08
HOURS	120
TERM:	Starting in 2015/1

OBJECTIVES: At the end of the course, students will:

Be introduced to general pathology, a term that designates the structural and functional alterations of organs and tissues, of the most prevalent diseases in humans.

COURSE DESCRIPTION:

This course will address the study of structural and functional changes common to all known diseases in human organs and systems. Professors will use an interdisciplinary approach, bringing together insights of pathological anatomy, microbiology, immunology, parasitology, internal medicine, surgery and bioethics.

METHODOLOGY:

The course meets four times a week. In one of the classes, students will have practicum work. The following topics will be addressed:

- Introduction to the course, introduction to pathology and cellular homeostasis;
- Cellular stress responses I: cellular adaptations;
- Cellular stress responses II: hypoxia, ischemia, reversible cell injury and ischemia-reperfusion injury;
- Cellular stress responses III: cellular death;
- Intracellular accumulations, calcification and cell aging;
- Inflammation (generalities) and acute inflammation;
- Chronic inflammation (including chronic granulomatous disease);
- Chemical mediators of inflammation and systemic effects of inflammation;
- Regeneration and repair;
- Amyloidosis;
- AIDS and other immunodeficiencies;
- Hemodynamic disorders I: congestion, hyperemia, edema and hemorrhage;
- Hemodynamic disorders II: thrombosis, embolism and infarction;
- Hemodynamic disorders III: shock and sepsis;
- Vascular diseases I: degenerative vascular diseases (arteriosclerosis, aneurysms and dissections);
- Vascular diseases II: vasculitis;
- Cardiac pathology I: hypertensive heart disease and ischemic heart disease;
- Cardiac pathology II: pathology of the pericardium and cardiac and pericardial tumors;
- Cardiac pathology III: cardiomyopathies and myocarditis;
- Cardiac pathology IV: valvulopathies;

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- Cardiac pathology V: Cardiac insufficiency;
- Neoplasms: generalities and nomenclature;
- Neoplasms: characteristics of benign and malignant neoplasms;
- Neoplasms: molecular bases of cancer I (oncogenes);
- Neoplasms: molecular bases of cancer II (tumor suppressor genes);
- Neoplasms: epidemiology of malignant neoplasms;
- Neoplasms: metabolic disorders, unlimited replication potential and genomic instability;
- Neoplasms: carcinogenesis;
- Neoplasms: immune evasion and angiogenesis;
- Neoplasms: invasion and metastasis;
- Neoplasms: clinical aspects;
- Nutritional and environmental diseases I: pollution, smoking, alcoholism and drugs;
- Nutritional and environmental diseases II: radiation, malnutrition and obesity;
- Pulmonary pathology I: atelectasis, pulmonary edema and diffuse alveolar damage;
- Pulmonary pathology II: restrictive diseases, including pneumoconiosis;
- Pulmonary Pathology III: COPD;
- Pulmonary pathology V: neoplasms;
- Pulmonary pathology IV: infections;
- Mediastinal Pathology;
- Pathology of the Pleura;
- Liver diseases I: hepatitis;
- Liver diseases II: non-alcoholic fatty liver disease and metabolic diseases;
- Liver diseases III: cirrhosis, nodules and neoplasms;
- Gallbladder and extrahepatic biliary diseases.

BIBLIOGRAPHY:

• **BASIC:**

- COTRAN, R. S.; ABBAS, A.; FAUSTO, N. Robbins and Cotran Pathologic Basis of Disease. 8. ed. Philadelphia: Elsevier Saunders, 2005.
- BOGLIOLO, G. Patologia geral. 5. ed. Rio de Janeiro: Guanabara Koogan, 2013;
- MONTENEGRO, M. R. Patologia: Processos Gerais. 5. ed. Rio de Janeiro: Atheneu, 2010.

• **COMPLEMENTARY:**

- BATES, B. Propedêutica Médica. 10. ed. Rio de Janeiro: Guanabara Koogan, 2010.
- NELSON, R. M. Kliegman. Textbook of Pediatrics. 19 th. Ed. Philadelphia: Saunders, 2011.
- BEREK, J. S.; ADASHI, E. Y.; HILLARD, P. A. Novak's gynecology. 13 ed. Philadelphia: Lippincott Williams & Wilkins, 2002.
- GOLDMAN, L.; SCHAFER, A. I. Goldman's Cecil medicine. 24. ed. Philadelphia: Elsevier Saunders, 2012.
- TOWNSEND, C. M., (Ed.) et al. Sabiston Textbook of Surgery: the biological bases of modern surgical practice. 19th ed. Philadelphia: Elsevier Saunders, 2012.

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