

Hemopoietic and Lymphatic System Module 2020-2021

Histology & Anatomy: 7 Lectures and 2 Labs

1. Histology of RBCs and Platelets. (1)
2. Histology of Granular Leukocytes I. (2)
3. Histology of Granular Leukocytes II. (3)
4. Histology of hemopoiesis. (4)
5. Spleen, lymph nodes of the body and thoracic duct. (Anatomy)
6. Histology of thymus and lymph nodes. (5)
7. Histology of spleen and tonsil. (6)

Physiology: 9 Lectures and 2 Labs

1. Blood: composition, function, volume, and viscosity.
2. RBCs: characteristics and functions.
3. Hemoglobin: structure and function, Iron metabolism.
4. Erythropoiesis.
5. WBCs.
6. Bone marrow.
7. Blood groups.
8. Blood transfusion and bone marrow transplantation.
9. General overview of homeostatic process.

Biochemistry: 7 Lectures

1. Erythrocytes metabolism
2. Heme structure and synthesis
3. Hemoglobin catabolism
4. Hemoglobinopathies, Hb electrophoresis and globin chain synthesis
5. Biochemistry of blood coagulation
6. Plasma proteins
7. Porphyrins and biochemical basis of porphyria I & II

Microbiology: 7 Lectures, 1 Lab

1. Salmonella typhi, enteric fever and Brucellosis.
2. Yersinia pestis and plague.
3. Q fever and other rickettsia.
4. Plasmodium and babesiosis.
5. Trypanosomiasis & visceral leishmaniasis.
6. Toxoplasmosis and Filariasis.
7. EBV and parvovirus.

Pharmacology: 8 Lectures

1. Drugs used for macrocytic anemia.
2. Drugs for iron deficiency anemia.
3. Growth factors-drugs for aplastic anemia & polycythemia.
4. Drugs used in coagulation disorders.
5. Anti-neoplastic drugs I.
6. Anti-neoplastic drugs II.
7. Anti-neoplastic drugs III.
8. Immunomodulators.

Pathology: 13 Lectures, 2 Labs

1. Introduction to anemia, classification and strategies for diagnosis and nutritional anemias.
2. Thalassemia and hemoglobinopathies and hemolytic anemias.
3. Congenital bleeding disorders, DIC and thrombophilic disorders.
4. ITP, TTP and inherited disorders of platelets functions
5. Leukemia I
6. Leukemia II
7. Lymphadenopathy and Non-Hodgkin lymphoma I
8. Lymphadenopathy and Non-Hodgkin lymphoma II
9. Hodgkin disease
10. Chronic lymphoproliferative disorders
11. Plasma cell tumors and monoclonal gammopathies
12. Chronic myeloproliferative disorders and MDS I
13. Chronic myeloproliferative disorders and MDS II

Community medicine: 1 Lecture Community health aspect of anemia I

Internal medicine: 1 Lecture: Anemia

Surgery: 1 Lecture: Spleen