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| **Course title** | **Code** | **Semester** | **Type of course** | **Course volume (Contact hours)** | **ECTS** |
| **Hematology and Oncology** | **MED****2002** | **IV** | **Mandatory** | **67** | **5** |
| **Faculty, the educational program and level of education** | * School of Medicine and Health Sciences
* Higher Medical Educational Program “Medicine”
* One cycle 6-year
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| **Learning Course Content** |
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| * **BIOCHEMISTRY** Biochemical aspects of anemia; Nucleic acid metabolism

Nucleic acid metabolism; Biochemistry of Tumor markers* **CL. MICROBIOLOGY** Riketsia, Borelia, Leptospira
* MMR; Arbovirus; Arenavirus-Bunyavirus (Togavirus, Flavivirus, Arenavirus-Bunyavirus, Reovirus), HCV, HBV

Papovavirus-HPV; Herpesviruses; Adenoviruses; Parvovirus B19.Blood protozoa.* **Hematology/Internal Medicine** Coagulation Factors & The Coagulation System. Coagulation cascades,
* **Hematology/Pathology** Introduction, function of the blood cells. Normal Structure & Function; Stem cells and hematopoiesis. White Blood Cell Disorders;Non-neoplastic disorders of white blood cells;

Reactive (inflammatory) proliferation of white blood cells and lymph nodes (I); Myelodysplastic Syndromes .Acute and chronic leukemias;Lymphoid Neoplasms (I); Lymphoid Neoplasms (II); Hodgkin Disease; Chronic myeloprolipherative disorder; Follicular lymphoma/Mantle cell lymphoma; Multiple myeloma and related plasma cell tumors; Disorders of spleen and thymusRed Blood Cells. Hemolytic Anemias, Anemias of diminished erythropoiesis, Erythrocyte disorders; Thrombosite disordersHodgkin Lymphoma, Diffuse large B cell lymphoma/Burkitt lymphoma; Myeloid and histiocytic neoplasms I; Bleeding disorders-Disseminated intravascular coagulation;* **Pharmacology** Drugs Used in Disorders of Coagulation (chapter 34)

Agents Used in Cytopenias; Hematopoietic Growth Factors (chapter 33)Cancer Chemotherapy: Alkylating Agents; Antimetabolites; Antitumor Antibiotics, Natural Product; Growth Factor Receptor Inhibitors,Tyrosine kinase inhibitors;Immunopharmacology (chapter 55) - Immunosupressive antibodies (IGIV), RH (D) Immune globulin, Monoclonal antibodies. Immune checkpoint inhibitor mabs, Mabs used to deliver isotops & toxins to tumors.* **TOPOGRAPIC ANATOMY** Gluteal region: Gluteal muscles; Hip joint
* Thigh: Femoral triangle,femoral canal, anterior compartment of thigh
* Thigh: Posterior compartment of thigh ; muscles, blood vessels, fascias
* Knee region; popliteal fossa; Anterior compartment of the leg; Posterior compartments of leg; foot; sole; arch of foot
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| **Textbooks and Materials** |
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| * Hematology

Harrison's Hematology and Oncology-Longo,Dan; Harrison,Tinsley Randolph; McGraw Hill Education; 2nd ed. 2013;* Pathology

Elsevier's Integrated Pathology- King C. Thomas; Mosby Elsevier; 2007;Robbins Basic Pathology-Vinay Kumar; Abul K. Abbas; Elsevier; 10th. ed. 2018;* Immunology

Cellular And Molecular Immunology- Abbas, K. Abul; Elsevier Sounders; 10th.ed. 2022.* Topographic Anatomy

Clinically Oriented Anatomy- Moore,Keith L; Wolters Kluwer; 9th.ed. 2023;* Medical Microbiology

Medical Microbiology- Murray, Patrick R; Rosenthal, Ken S; 9th ed. Elsevier Sounder; 2021.Case Studies in Infectious Disease- Peter Lydyard; Garland Science; 2010;* Pharmacology

Basic & Clinical Pharmacology: A lange medical book- Katzung, Bertram G; Mc- Graw Hill Education. 15th. ed; 2021.Lippincott Illustrated Reviews: Pharmacology- Karen Whalen; Wolter Kluwer; South Asian ed. 2019;* Biochemistry

Biochemistry: Lippincott's illustrated Reviews- Ferrier Denice R; Wolters Kluwer; 7th ed. 2017.Color Atlas of Biochemistry-Jan Koolman; Klaus-Heinrich Roehm; Thieme; 3rd.ed. 2013;* Radiology

Grainger & Allison's diagnostic radiology: a textbook of medical imaging-AndyAdam;Churchill Livingstone; 6th ed; 2015Introduction to Radiologic imaging sciences &patient care-Arlene M.Adler;Richard R.Carlton; Elsevier Saunders; 6th ed; 2016;* Clinical skills- Nursing skills

clinical Nursing skills&techniques- Anne Griffin Perry, Patricia A. Potter; Elsevier Mosby; 10th ed;2022Taylor’s Clinical Nursing Skills: a nursig process approoach-Pamela Lynn; Wolters Kluwer ;9th ed.; 2023. |
| * Introduction to Pharmacology-Mary K.Asperheim;Justin Favaro; Elsevier Sounder. 12th.ed; 2012;
* Essentials of Medical Pharmacology-KD Tripathi; Jaypee Brothers Medical Publishers; 5th ed. 2003;
* Roitt’s Essential Immunology- Delves, Peter J; Martin,Seamus J; Wiley –Blackwell; 12th.ed. 2011;
* Medical Microbiology: A guide to microbial infections:Pathogenesis,Immunity,Laboratory Diagnosis and Control- David Greenwood;Mike Barer; Churchill Livingstone; 18th.ed. 2012;
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