Course Catalog

American MD Program

Tbilisi State Medical University

2020-2021

Chemistry 1

Core; 5 ECTS

This course aims to provide a student with perception of composition and nature of the physical universe and teach a student the use of the scientific approach for solving and analyzing problems. The course aims to form sound understanding of physical properties of the media in which the processes carry out in living organisms. Students will learn correlations of chemical and physical-chemical indices to biological processes and to assist a student with acquisition of clear vision of chemical and physical-chemical aspects of transformations on the molecular levels. The course gives a student valid knowledge for perception of molecular and sub- molecular mechanisms of chemical processes;

Chemistry 2

Core; 4 ECTS

The main component of Chemistry 2 is an overview of fundamental regularities of chemical processes. The objective of the course is to provide a student with profound understanding of indices and characteristics of chemical reactivity.
Some other significant objectives are as follows: to form sound understanding of mechanisms and regularities of the processes, which carry out in living organisms; to assist a student with acquisition of clear vision of molecular aspects of transformations on the cellular levels; to give a student valid knowledge for perception of molecular mechanisms of biological processes thus allowing one to relevantly interpret numerous phenomena; to present molecular structures and mechanisms of action of components of the live matter with an emphasis on bioregulation.
Therefore, this course provides a student with the fundamental knowledge that is of crucial importance for mastering medical biochemistry, pharmacology, molecular biology, physiology and other medicinal and biological disciplines in accordance with the contemporary scientific level as it is instrumental for a present-day physician in pursuing a successful carrier.

General Physics

Core; 4 ECTS

The course aims to give students the knowledge about the natural phenomena and formulation of their main laws. Laws formulated by physics comprise the most general and fundamental laws of the nature and they should provide principal opportunity to explain the specific laws formulated by the other natural sciences. Of course, this does not imply that all such explanations are al- ready available. Natural sciences – chemistry, biology, physiology, medicine etc. study the certain groups of the objects and phenomena, formulate specific concepts and laws and thus provide to physics vast materials for

stating of the general concepts and laws.
Thorough study of the natural processes and identification of the quantitative relations between the characteristics is one of the main goals of the experimental method of physics. On the other hand, theoretical judgment, linking different phenomena with one another, explains such correlation based on the basic provisions, allows not only formulation of the theories of specific phenomena but it also predicts the new facts and links between the phenomena.
Course of general physics teaches the students to apply the scientific approach to solving of the problems and analysis.

Physics with biophysics

Core; 4 ECTS

The course aims to give students the knowledge about the electro- magnetic phenomena and formulation of their main laws. Laws formulated by physics comprise the most general and fundamental laws of the nature and they should provide principal opportunity to explain the specific laws formulated by the other natural sciences. Of course, this does not imply that all such explanations are already available. Natural sciences – chemistry, biology, physiology, medicine etc. study the certain groups of the objects and phenomena, formulate specific concepts and laws and thus provide to physics vast materials for stating of the general concepts and laws. Thorough study of the electromagnetic processes and identification of the quantitative relations between the characteristics is one of the main goals of the experimental method of physics. On the other hand, theoretical judgment, linking different phenomena with one another and explains such correlation based on the basic provisions, allow not only formulation of the theories of specific phenomena but also predict the new facts and links between the phenomena. Course of physics with biophysics II teaches the students to apply the scientific approaches for problem-solving and analysis. Course includes preparing of the students in such areas of professional activities as medicine, dentistry, pharmacy, organization of public health care, postgraduate study of physics etc.

Academic English

Core; 2 ECTS

The course aims to improve academic writing, reading and research skills. The goal of the course is improving student's academic vocabulary; improving proper understanding of articles, newspaper articles, also online/library Materials; improving writing skills of essays and scientific articles.

Academic Georgian – 1

Core; 3 ECTS

The course aims to introduce students to the practice of writing for academic purposes. This course will provide key techniques, guidelines and suggestions to improve academic written communication in Georgian. It will give hands-on experience in drafting, organizing and revising academic texts.

Academic Georgian - 2

Core; 3 ECTS

The course aims to introduce students to the practice of writing for academic purposes. This course will provide key techniques, guidelines and suggestions to improve academic written communication in Georgian. It will give hands-on experience in drafting, organizing and revising academic texts. Also, the course aims to introduce the students with basic skills of story-telling and its importance for their profession.

Becoming a Doctor 1

Core; 3 ECTS

This course aims to provide students with a "big-picture" introduction to medicine, to develop a great deal of self-motivation, hone personal qualities that are required for becoming a doctor. The course provides students with a deep understanding of important discoveries and developments in the history of medicine. Students will develop important skills in the practice of medicine – including learning how to communicate with patients, take a patient history and perform a basic physical exam and acquire skills how to ask "open-ended and closed-ended questions" and listen to patients' stories of illness, concern, and suffering, elicit chief complaint. The course promotes broad view of Ethical, legal and psychological aspects of being a doctor.

Becoming a Doctor 2

Core; 3 ECTS

This course aims to provide students with a "big-picture" introduction to medicine, to develop a great deal of self-motivation, hone personal qualities that are required for becoming a doctor. The course provides students with a deep understanding of important discoveries and developments in the history of medicine. Students will develop important skills in the practice of medicine – including learning how to communicate with patients, take a patient history and perform a basic physical exam and acquire skills how to ask "open-ended and closed-ended questions" and listen to patients' stories of illness, concern, and suffering, elicit chief complaint. The

course promotes broad view of Ethical, legal and psychological aspects of being a doctor.

Molecular Biology

Core; 5 ECTS

The course aims to give students the knowledge about the influence of genetic and molecular mechanisms on various aspects
of life. The course includes such topics of modern medical biology and essentials of genetics as: the life cycle of the cell; behavior of chromosomes during mitosis and meiosis; karyotype; molecular and chromosomal basis of heredity; DNA as a
genetic material in eukaryotes; human genome - nuclear and mitochondrial DNA; DNA replication and recombination; structural and functional organization of chromosomes; chemical and structural organization of prokaryotic and eukaryotic
genes; gene expression in prokaryotes and eukaryotes; regulation of gene expression in prokaryotes and eukaryotes; epigenetics and chromatin remodeling; human genetic diversity – mutation and polymorphism; DNA repair; cancer and regulation of the cell cycle; recombinant DNA technology; main concepts of genomics, proteomics and bioinformatics.

Medical Genetics

Core; 4 ECTS

The aim of the course is to study the basic principles of molecular and medical genetics and its application in theoretical and practical medicine; to study the patterns of singe-gene inheritance and the complex inheritance of common multifactorial disorders; to study molecular, biochemical and cellular basis and the epigenetic factors underlying many single-gene and multifactorial diseases; to study the main concepts of population genetics and developmental genetics; to
study the main principles of cytogenetic and genome analysis and the manifestations of different chromosomal abnormalities that will enable future clinical doctors to understand the precise genetic mechanisms of many disorders and to elaborate appropriate preventive measures and proper treatment strategies; to study cancer genetics and genomics and apply genomics to individualize cancer therapy.

ETC (Embryology, Tissue, Cell)

Core; 4 ECTS

The course aims to give students the knowledge about the morphology of cells and the arrangement and adaptation of cells in tissues, the morphology of basic types of tissues. Students will acquire a working knowledge and understanding of the relationship between the structure and function of differentiated/specialized cells and tissues. Students will learn the basic principles of the human embryonic development. The course will give a knowledge of some of the Histology techniques; Students will also gain experience in reading and evaluating scientific literature.

Introduction to psychology

Core; 2 ECTS

The course aims to give students the complex theoretical knowledge in some fundamental issues of psychology and to allow them to think critically about their approaches to the different problems.

Georgian Language 1

Core; 3 ECTS

The aim of the course is to provide students with an elementary knowledge of the Georgian language on A1 level. Course aims to develop communicative skills in Georgian (listening and reading comprehension and written and oral expression) at the beginner level and to introduce Georgian language and culture, as well as basic knowledge of the grammar and vocabulary. The course also promotes autonomous learning and self-assessment.

Georgian Language 2

Core; 3 ECTS

The aim of the course is to provide students with an elementary knowledge of the Georgian language on A1 level. Course aims to develop communicative skills in Georgian (listening and reading comprehension and written and oral expression) at the beginner level and to introduce Georgian language and culture, as well as basic knowledge of the grammar and vocabulary. The course also promotes autonomous learning and self-assessment.

Mankind's Creativity 1

Core; the 1st semester of study

6 ECTS

The course aims to introduce students with the history, literature and arts of Western and non-Western societies from the Stone Age to Middle Ages. Students will be introduced to the main historical events, concepts, terms, masterpieces, artists, writers, architects, sculptors, architectural monuments from the given period. After finishing the course the students will have broader understanding of the humanity class necessity in communication with the patients from different cultural background. Students will develop the ability to think and write critically about art.

Mankind's Creativity 2

Core; 6ECTS

The course aims to introduce students with the history, literature and arts of Western and non-Western societies from the Middle Ages to Modern Times. Students will be introduced to the main historical events, concepts, terms, masterpieces, artists, writers, architects, sculptors, architectural monuments from the given period. After finishing the course the students will have broader understanding of the humanity class necessity in communication with the patients from different cultural background. Students will develop the ability to think and write critically about art.

Personal Finances

Elective; 2 ECTS

The course aims to give students awareness in financial literacy, introduce key principles, pillars and instruments of successful personal finance management, responsible financial decision making.

History of American English

Elective; 2 ECTS

The goal of the course is to give students essential knowledge about the history/development of the English language in America and the formation of American English. The course also briefly examines the history of English from its origins in the Germanic branch of the Indo-European language family, through its modern position as the most widely spoken language on the planet. The course emphasizes social, political, and historical events influencing language change. Students are

introduced to the main issues connected with American English. After finishing the course, the students have broader understanding of the history of the English language in general and history of American English in particular. Students will develop the ability to think creatively and better understand the peculiarities of the American English by analyzing selected literary texts in which dialects are used by the author as literary medium.

History of Georgia

Elective; 2 ECTS

The course aims to familiarize students with the heritage of Georgia from ancient times to nowadays from the historical angle. Students define in clear ways the terms civilization, society, culture, religion, literature, and art on each stage of the Georgia`s development as a state. Special accent is placed on ideas of progress concerning different theoretical concepts. Students will examine the reasons of origin, development, and cultural points in retrospective.

History of the United States

Elective, 2 ECTS

The course aims to familiarize students with the main events in the history of the United States. The course emphasizes the trends of political and social development. Students will develop professional communication skills and the ability to analyze historical problems.

Medical Anthropology

Elective, 2 ECTS

The aim of the course is to introduce the basics of Medical Anthropology to non-major undergraduates; to give students knowledge of hot illness and how disease is understood in different cultures, how cultures function in order
to keep their society under the terms of normal and healthy, how biomedicine deals with it and how to use anthropological research methods not only in medical anthropology but in medical sciences as well.

Basics of Management

Elective; 2 ECTS

The course aims to give students a basic knowledge of modern management. Introduce key concepts of managerial decision making, planning, organizing, controlling and leadership, ways and examples of their use in practice.

Basics of Sociology

Elective, 2 ECTS

The aim of this course is to introduce sociology to medical students. The course will explore variety of topics, covered by this academic discipline, ranging from stable and changing patterns of societal life (macro level) to everyday interactions between individuals (micro level).
This course will ask and give answers to following questions: 1) How are different social processes interconnected? 2) How does society shape individual lives? 3) How is social life related to natural processes?
Different sociological theories answer this questions in different ways, thus each perspective will be explored separately. During course, we will discuss problems encountered by representatives of medical profession and suggest sociological explanation to these problems.

Organic Chemistry (Mechanisms of Reactions in vivo)

Elective; 2 ECTS

The main objective of the course is to assist students in deeper understanding mechanisms of reactions and in adopting the core course of Chemistry 2 to in vivo processes.

Module: Prologue 1 - Basics of Medicine

Core; 7 ECTS

This module aims to provide students with deep knowledge and understanding of human functions in a good health, interconnection of those functions, regulations of the human body and physiological integration of the organ systems; healthy human tissues, organs and organ systems taking into account the peculiarities of their historical and individual development; physiological function of the body

and its parts to achieve life sustaining effect that refers to the cellular metabolism, exchanges of matter, energy or information with the environment. Cellular functions (excitability, conductivity, contraction, transmission) in healthy body; anatomical structure of musculoskeletal, skull and muscles and clinical correlations related to each of the part of the body; structural-functional relation of various families of proteins; composition of enzymes and their mechanism of action; to promote critical thinking of the clinical consequences of structural changes of the human body systems, organs, cells, molecules, genes; to develop interest in and appreciation of scientific literature.

Module: Neural Control

Core; 7 ECTS

This module aims to provide students with a deep understanding of structural building and functional working of nervous system; organization, micro and macrostructure and function of the neural system including special sense organs; development/embryology in association with clinical applications. The course provide students with a deep understanding of how neural system controls the body and how organ systems are related with each other on the light of clinical correlations; peculiarities of integration of central and peripheral nervous system, organization and structural functional correlation. The course promotes critical thinking of the clinical consequences of morphological and functional disturbances of neural systems, and helps to develop interest in and appreciation of scientific literature.

Introduction to Research

Core; 2 ECTS

The course aims to equip students with knowledge in research methodology and design, introduce them to the methods and instruments of data collection, train them in drafting a research proposal, critically reviewing scientific literature using the principles of Evidence based medicine, considering the main concepts related to the ethical and legal aspects of scientific research. The course helps students to acquire knowledge and skills for evidence-based medicine. Concepts covered in this course will help them to use aspects of evidence-based medicine that will be applied to help solving clinical problems.

Basics of Public Health

Core; 2 ECTS

The course aims to introduce students to basic concepts of Public Health. Public health is the science of protecting and improving the health of people and their communities. This work is achieved by promoting healthy lifestyles, researching disease and injury prevention, and detecting, preventing and responding to infectious diseases. Overall, public health is concerned with protecting the health of entire populations. These populations can be as small as a local neighborhood, or as big as an entire country or region of the world.

Module: Human Development, Aging and Dying

Core; 3 ECTS

The course aims to introduce students to the central issues in the basic areas in human development and explain relationships between biological, cognitive, social, and cultural aspects of development and provides an in-depth discussion of theoretical perspectives and research findings that have helped to increase our knowledge and understanding of factors that influence our physical, cognitive, and psycho-social development, as well as an in-depth discussion of factors that may affect our overall health and sense of wellness.

Medical Microbiology and Introduction to Infectious Diseases 1

Core; 4 ECTS

This course aims to introduce students to the microbial world with the emphasis on human microbial infectious diseases, epidemiology, mechanism, clinical course, treatment and prevention. It helps to understand the importance of microbiology in everyday medical life.

Host Defense and Virology

Core; 6 ECTS

The course offers introduction to the viral world with the emphasis on human viral disease, epidemiology, mechanism, clinical course, treatment and prevention; understanding of importance of microbiology in everyday medical life; underlying principles of immunology.

Becoming a Doctor 3

Core; 4 ECTS

This course aims to improve important skills (Communication, HT, PE, Write-up) in the practice of medicine; to help students have a broad overview of the ethical, social and other aspects that determines the development of diseases; to help students to develop clinical reasoning skills; to develop a great deal of stress management capacity and self-motivation, hone personal qualities that are required for becoming a doctor; to expand view of Ethical, legal and psychological aspects of being a doctor; to provide students with the first aid skills in emergency medical situations (trauma management).

Becoming a Doctor 4

Core; 4 ECTS

This course aims to improve important skills in the practice of medicine – including learning how to communicate with patients, take a patient history and to develop performing a basic physical exam of a different organ system; to help students understand the range of symptoms that patients can experience; to develop students' medical recording skills; to develop a great deal of Professional goals, self-motivation, time management, hone personal qualities that are required for becoming a doctor; to develop students' ability to interpret physical examination/lab investigation results (ECG, Heart sounds, Lung sounds); to expand view of Ethical, legal and psychological aspects of being a doctor, to provide students with the first aid skills in emergency medical situations (CPR, Basic Respiratory Support).

Module: Endocrine Control

Core; 3 ECTS

This module aims to introduce the foundations and basic language of modern endocrinology and reproductology integrating molecular, biochemical, cell biological, tissue and organ organization, as well as physiology. These foundations would provide the basis to understand endocrine and reproductive systems pathology. The course promotes critical thinking of the clinical consequences of changes of metabolism in different physiological and pathological conditions and helps to develop interest in and appreciation of scientific literature.

Module: Exercise and Movement

Core; 9 ECTS

This module aims to provide students with deep understanding of tight relation of structural changes to the functional disturbances; to promote critical thinking of the clinical consequences of morphological and functional disturbances of circulatory, hematopoietic, respiratory and urinary systems; to develop interest in and appreciation of scientific literature.

Module: Nutrition and Metabolism

Core; 6 ECTS

This module aims to provide students with deep understanding of the principles of nutrition and metabolism on the molecular level; to promote critical thinking of the clinical consequences of changes of metabolism in different physiological and pathological conditions; to develop interest in and appreciation of scientific literature.

Georgian Language 3

Core; 2 ECTS

Course aims to help students develop communicative skills in Georgian (listening and reading comprehension and oral expression) at the A2 level in order to use this language in their professional and everyday activities; to introduce them with the basic grammar of Georgian language in order to help them have more efficient communication with native speakers and to promote autonomous learning and self-assessment.

Georgian Language 4

Core; 2 ECTS

The course aims to provide the student with a basic knowledge of the Georgian language on B1 level in order to use this language in their professional activities to communicate with Georgian patients during their clinical clerkships and to promote autonomous learning and self-assessment.

German 1

Elective; 2 ECTS

The aim of the course is to teach students elementary German language vocabulary and grammar rules at relevant A1.1 level. That implies mastering of general and particular communicative competences

(spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A1.1 level

German 2

Elective; 2 ECTS

The aim of the course is to teach students elementary German language vocabulary and grammar rules at relevant A1.2 level. That implies mastering of general and particular communicative competences (spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A1.2. level

Spanish 1

Elective; 2 ECTS

The aim of the course is to teach students elementary Spanish language vocabulary and grammar rules at relevant A1.1 level. That implies mastering of general and particular communicative competences (spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A1.1 level

Spanish 2

Elective; 2 ECTS

The aim of the course is to teach students elementary Spanish language vocabulary and grammar rules at relevant A1.2 level. That implies mastering of general and particular communicative competences (spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A1.2 level

Module: Skin, Bones, Muscles and Joints

Core; 4 ECTS

This module aims to allow students to develop proficiency in evaluation of patients with a defined set of problems in the field of connective tissue, skin, muscles, bones and joints; to provide students with a deep understanding of physiological and pathological processes underlined the above-mentioned diseases; to promote critical thinking of the clinical consequences of morphological and functional

disturbances in the field of diseases of skin, muscles, bones and joints; to promote clinical reasoning skills, to develop interest in and appreciation of scientific literature.

Module: Respiratory/Pulmonary System

Core; 6 ECTS

This module aims to provide students with a deep understanding of the theoretical aspects of the mechanisms and functions of human respiratory system; to provide students with a profound knowledge in etiology and pathogenesis of respiratory disorders on the light of clinical aspects; to develop practical skills for timely identification of signs and symptoms of lung diseases; to develop main principles of management of various pulmonary diseases; to develop critical thinking and clinical reasoning of the clinical consequences of morphological and functional disturbances of pulmonary system; to develop interest in and appreciation of scientific literature.

Module: Renal And Genito-Urinary system

Core; 7 ECTS

The aim of the course is to teach students the basic anatomy and physiology of the genitourinary system, the pathophysiological mechanisms underlying clinical symptoms and signs of major disease and to correlate pathophysiology with clinical features and laboratory studies, formulate differential diagnosis based on laboratory studies and pathophysiological principles, and appreciate management principles.

Module: Gastrointestinal System

Core; 5 ECTS

This module aims to provide students with a deep understanding of physiological and pathological processes of gastrointestinal system; pathophysiology, pathology, etiologies, epidemiology and treatment of gastrointestinal/hepatobiliary diseases. Students acquire essential skills required for recognition of patient histories and physical examination findings suggesting gastrointestinal/hepatobiliary disease. The course promotes the development of the basic principles of pharmacotherapy of typical forms of GI diseases and assimilation of the basic principles of prevention.

Module: Endocrine and Reproductive System

Core; 7 ECTS

This module aims to provide students with a deep understanding of the theoretical and clinical aspects of the mechanism and function of human endocrine and reproductive system It provides students with a profound knowledge in etiology and pathogenesis of endocrine and reproductive disorders on the light of clinical aspects. The course helps to develop practical skills for timely identification of signs and symptoms of endocrine/reproductive diseases and principles of diagnosis and management of various endocrine/reproductive diseases. The course facilitates the development of critical thinking and clinical reasoning of the clinical consequences of morphological and functional disturbances of endocrine/reproductive system.

Module: Basics of Pathology

Core; 7 ECTS

The aim of the course is to teach students common reactions of cells and tissues to injurious stimuli; reversible and irreversible functional and structural responses to changes, mechanisms of the two principal pathways of cell death: apoptosis and necrosis as the pathway of cell death in many commonly encountered injuries, such as those resulting from ischemia, exposure to toxins, various infections, and trauma; general pharmachological principles, pharmakokinetics and pharmacodynamics; ways of drug interaction; how the interaction between microbes and the human host can be both beneficial and detrimental; how the defense mechanisms of the human body operate and how they are coordinated to prevent infection; how inflammatory responses can be both protective and cause injury; how disturbances in blood flow disrupt hemostasis and cause vascular injury; the factors that determine if a compound can be an effective drug and how it is prescribed.

Epidemiology and Biostatistics

Core; 3 ECTS

This module aims to introduce students to general principles of epidemiology and biostatistics and provide fundamental skills needed to interpret and critically appraise medical literature relevant to health professionals. The course also introduces methods for organizing and analyzing data using appropriate statistical tests;

Medical Microbiology and Introduction to Infectious Diseases 2

Core; 3 ECTS

This course offers introduction to the microbial world with the emphasis on human parasitic and fungal disease epidemiology, mechanism, clinical course, treatment and prevention. Students will acquire knowledge of fungi and protozoa in general, their characteristics and clinical significance. Students will learn antifungal and anti-parasitic drugs, mechanism of action.

Module: Cardiovascular system

Core; 6 ECTS

This module aims to allow students to develop proficiency in evaluation and diagnosis of patients with a defined set of cardiac problems. Module represents essential problems and related core content areas students will be expected to master. The course provides students with a deep understanding of cardiovascular system functioning in physiological and pathological conditions and promotes critical thinking of the clinical consequences of morphological and functional disturbances of circulatory system.

Becoming a Doctor 5

Core; 4 ECTS

Course aims to profound important skills in patient consulting process (HT, PE, recording of findings) and acquire skills of basic first aid and resuscitation and performance of some practical procedures. The module provides students with skills to use evidence-based information, patient care principles and skills. Students will acquire the knowledge and skills of ethical and judicial affairs in medical practice. Students will gain the knowledge in setting out healthcare measures, involvement in public healthcare issues, performing effective actions in healthcare system.

Becoming a Doctor 6

Core; 4 ECTS

Course aims to profound important skills in patient consulting process (HT, PE, recording of findings) and acquire skills of basic first aid and resuscitation and performance of some practical procedures. The module provides students with skills to use evidence-based information, patient care principles and skills. Students will acquire the knowledge and skills of ethical and judicial affairs in medical practice. Students will gain the knowledge in setting out healthcare measures, involvement in public healthcare issues, performing effective actions in healthcare system.

Georgian Language – 5

Core; 2 ECTS

The course aims to provide the student with a basic knowledge of the Georgian language on B1 level in order to use this language in their professional activities: to communicate with Georgian patients during their clinical clerkships.

Georgian Language – 6

Core; 2 ECTS

The course aims to provide the student with a basic knowledge of the Georgian language on B2 level in order to use this language in their professional activities: to communicate with Georgian patients and colleagues during their clinical clerkships.

Principles of Laboratory Genetics and Genomics

Elective; 2 ECTS

This course aims to introduce students to the principles of laboratory genetics and genomics. Students will become familiar with basic genetic concepts and methodologies to understand the role of genetic and epigenetic analysis in diagnosis of human diseases. Methods for genetic analysis of single-gene Mendelian, non-Mendelian as well as complex multifactorial traits will be discussed.

Hygiene and Medical Ecology

Elective, 2 ECTS

The course aims to prepare target oriented environmental health practitioners. Environmental health comprises those aspects of human health, including quality of life, that are determined by physical, chemical, biological, social and psychosocial factors in the environment. It also refers to the theory and practice of preventing those factors in the environment that can potentially affect adversely the health of present and future generations. The deep knowledge of environmental health issues gives the possibility to future doctors and health care professionals of thinking in a wider scale and protects health of population.

Foreign Language 3 (German 3)

Elective; 5th semester of study

2 ECTS

The course aims to teach students elementary foreign language vocabulary and grammar rules at relevant A2.1 level. That implies mastering of general and particular communicative competences (spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A2.1.level.

Foreign Language 4 (German 4)

Elective; 2 ECTS

The course aims to teach students elementary foreign language vocabulary and grammar rules at relevant A2.2 level. That implies mastering of general and particular communicative competences (spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A2.2.level.

Foreign Language 3 (Spanish 3)

Elective; 2 ECTS

The course aims to teach students elementary foreign language vocabulary and grammar rules at relevant A2.1 level. That implies mastering of general and particular communicative competences (spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A2.1.level.

Foreign Language 4 (Spanish 4)

Elective; 2 ECTS

The course aims to teach students elementary foreign language vocabulary and grammar rules at relevant A2.2 level. That implies mastering of general and particular communicative competences (spelling, listening, reading, writing) in accordance with the requirements of the Common European Framework of Reference for Languages at A2.2.level

Becoming a Doctor 7

Core; 3 ECTS

Course aims to profound important skills in patient consulting process. Students will acquire/profound skills of basic first aid and resuscitation and performance of some practical procedures. The course will provide students with usage of evidence-based principles, skills and knowledge and with usage of ethical and judicial affairs in medical practice. The module will profound knowledge in setting out healthcare measures, involvement in public healthcare issues, performing effective actions in healthcare system.

Becoming a Doctor 8

Core; 3 ECTS

Course aims to profound important skills in patient consulting process. Students will acquire/profound skills of basic first aid and resuscitation and performance of some practical procedures. The course will provide students with usage of evidence-based principles, skills and knowledge and with usage of ethical and judicial affairs in medical practice. The module will profound knowledge in setting out healthcare measures, involvement in public healthcare issues, performing effective actions in healthcare system.

Module: Hematology

Core; 5 ECTS

The course aims to ensure deep understanding of the basics of blood evaluation in clinical medicine, knowledge of blood and lymphoid tissue disorders, therapeutic approaches to different hematologic abnormalities. The course improves knowledge in etiology and pathogenesis of hematologic disorders. The module helps to develop practical skills for timely identification of hematologic diseases. The course promotes critical thinking of the clinical consequences of morphological and functional disturbances of circulatory, hematopoietic, respiratory and urinary systems. To develop interest in and appreciation of scientific literature.

Module: Neuroscience 1

Core; 8 ECTS

This module aims to provide you with a comprehensive overview of the field of neuroscience, with a focus on neuroanatomy that will serve as a solid foundation for future study. We will explore how the nervous system functions under conditions of normal health, as well as conditions of disease. During the course student will be able to acquire the knowledge about targets of CNS drugs,

pharmacokinetics and pharmacodynamics of drugs used for treatment of some diseases of CNS, as well as for general and local anesthesia.

Module: Neuroscience 2

Core; 7 ECTS

This module aims to provide a comprehensive review of the etiology and pathogenesis of cerebral disorders which present clinically with either neurological, neurocognitive, psychiatric or a mixture of symptoms. Students will receive a solid foundation in the fundamentals of the evaluation, diagnosis and treatment of patients with neurological conditions (neurological infectious disease, pediatric tumors of the nervous system, dementing diseases, movement disorders) and mental disorders (affective disorders, anxiety disorders, psychotic disorders, alcohol and substance abuse disorders, geriatrics disorders, child and adolescent disorders, somatization disorders, oppositional defiant disorder, autism, pervasive developmental disorder, and personality disorders). The course promotes critical thinking of the clinical consequences of morphological and functional disturbances of circulatory, hematopoietic, respiratory and urinary systems that is caused by neurological, neurocognitive, psychiatric disorders.

Summation Module - Interdisciplinary Correlations

Core; 4 ECTS

This module aims to help students in the summarization of the preclinical knowledge with an overview of physiology and pathology of systems on the molecular level, fundamental and modern treatment methods on the highlights of the clinical correlation. The module will prepare students for a successful transition to clinical learning.

Core Clerkship -Surgery

Core; 7 ECTS

The course aims to teach students the basic principles of surgical diagnosis and management, both operative and non-operative. Students should learn the indications for appropriate and timely referral of patients for surgical consultation.

Core Clerkship - Pediatrics

Core; 7 ETCS

The pediatric clerkship addresses issues unique to childhood and adolescence by focusing on human developmental biology and by emphasizing the impact of family, community, and society on child health and well-being. Additionally, the clerkship focuses on the impact of disease and its treatment on the developing human, and emphasizes growth and development, principles of health supervision, and recognition of common health problems. The role of the pediatrician in prevention of disease and injury and the importance of collaboration between the pediatrician and other health professionals is stressed.

Core Clerkship -Internal Medicine

Core; 15 ECTS

The aim of Internal Medicine Clerkship is the development of an understanding of adult patient illnesses and the treatment of those illnesses. The emphasis of the clerkship is directed toward the integration of basic science with clinical skills. An important component of the student's approach to the patient is an awareness of the patient as an individual in an unfamiliar and stressful setting. Specific objectives that the students need to attain include skill in history taking, physical examination, written and oral case presentations, clinical judgment and establishing priorities.

Core Clerkship - Psychiatry

Core; 7 ECTS

The Clinical Clerkship in Psychiatry aims to provide an opportunity for the introduction of students to the practice of psychiatry. The clerkship emphasizes the evaluation of the mental state of patients diagnosed with common mental disorders. The clerkship process is designed to increase clinical skills and your psychiatric knowledge base. Your clinical experience with patients will be supervised and reviewed by psychiatry attendings and residents. This clerkship will be an active learning experience, emphasizing opportunities for interaction with patients, as well as, fostering a better understanding the physician-patient relationship. Both understanding your own feelings and evaluating the ways in which your feelings can affect your patient relationships is a major desired outcome of this clerkship.

Core Clerkship - Adult Primary Care and Family Medicine

Core, 7 ECTS

The aim of the course is to acquaint V year students with the essence of family medicine, distinctive features of family medicine as a specialty and its role in primary care and overall health care system; to help students in understanding comprehensive, bio-psycho-social approach within this specialty and specific qualities of family physicians in problem solving related to prevention and management of acute and chronic health problems, also to help them in developing skills for carrying out medical consultations in primary care and formulating disease management plans for common health conditions in primary care.

Core Clerkship - Obstetrics and Gynecology

Core, the 9th semester of study

7 ECTS

The aim of the clerkship is to introduce students to the Gynecology/Obstetrics practice. A student will spend two weeks during obstetrics with the labor teams in different clinics in two weeks periods to get experience from the labor department, as well as from gynecology and outpatient departments.

Radiology

Core; 4 ECTS

The aim of the Clerkship is to develop an understanding of possibilities of different diagnostic radiology modalities and interventional radiology concept and possibilities. The emphasis of the clerkship is directed toward the integration of radiology science with clinical skills.

Emergency Medicine

Core; 4 ECTS

The goal of the Emergency Medicine Clerkship is to provide students with development of the knowledge, skills, and attitudes necessary to recognize, diagnose and manage patients who need urgent help in emergency situations. Students will receive fundamental knowledge base of emergency diseases. The course provides an understanding of the approach to acute care clinical problem solving. The course promotes the acquisition of simple basic skills for the diagnosis and management of common simple emergencies. The clerkship provides the initial competency-based skills assessment for ABG, IV start, IM injection, and laceration repair.

Neurology

Core; 5 ECTS

The goal of the neurology clerkship is to provide students with the fundamental skills required by all physicians to recognize, diagnose, and formulate an initial treatment plan for patients with common neurologic disorders. As such, a principal objective of the clerkship is to help students to refine skills in taking a neurologic history and performing a thorough neurologic examination.

Urology

Core; 4 ECTS

The clerkship aims to provide direct exposure to our specialty for medical students during their rotations. Medical students spend time functioning as members of the urology team. Students are assigned patients who are admitted to the service through the emergency department or in the post-operative period. Students should follow at least one patient at all times. They should familiarize themselves with all aspects of the patient's history and physical examination findings either through chart review or preferably through direct interaction with the patient/family members. Students should present patients on morning and afternoon rounds in a formal fashion. However, a full presentation of the history and physical is required when the patient is initially "picked-up" or admitted.

Becoming a Doctor 9

Core; 4 ECTS

Students will be able to perform a patient-centered medical interview in a logical and organized manner, a FOCUSED history and physical exam on a patient, take a FOCUSED patient history and perform a Relevant physical exam on a patient Students will document the history and physical exam in an appropriate format, and be able to give an oral presentation of the patient's history and physical exam. They will also understand symptoms and signs and how they relate to disease pathophysiology. Students will discuss current medical issues and methods of solving, and demonstrate ACLS skills.

Becoming a Doctor 10

Core; 2 ECTS

Course aims to help students find, develop these personal qualities that are required for becoming a doctor. The course also helps to fulfil skilled focused patient examination and to use and have ability to interpret clinical guidelines. Student will understand how to research/ to look up relevant clinical info, perform pediatric examination, and improve skills in gynecological exam. The course helps student to be qualified in PALS.

Discovery Phase –Principles and Practice of Medical Research

Core course; 5 ECTS

The aim of the course is to provide students with knowledge about modern approaches and basic principles of different types of medical research and with understanding of ethical aspects, methods of statistical analyses and governance issues of medical research. Student will acquire practical skills to turn a scientific idea into a specific research project, and to get involved into various clinical research programs and research communities. The course also provides students with skills to prepare research project – project proposal.

Ophthalmology

Elective; 3 ECTS

The aim of the clerkship is to teach/train the students (future MD): Clinical anatomy, functions and physiology of the eye. Gathering anamnesis. Methods of examination and diagnostics. Measurement intraocular pressure by palpation. Determination of visual field by confrontation method. Clinic of pathologies and make differential diagnosis. Determination of the complexity of diseases. Correct assessment of information; conclusion formation, ophthalmologic care in multidisciplinary situation, definition of demand in filed specialist's consultation. Documented definitions of obtained data at emergency situations. First aid care and determination of tactics for further management. Using ophthalmologic symptomatic for diagnostics of general somatic diseases. Target utilization of opthalmo-pharmaco-therapeutic preparations. Instillation of local preparations, ointment application, conjunctive sac washing and eye bandaging (patches).

Oto-Rhino-Laryngology

Elective; 3 ECTS

The main goal of the rotation is to provide students with understanding of the medical problems diagnosed and treated in the areas of otology, rhinology, and pediatric otolaryngology; knowledge and skills of surgical treatments of the above areas, including maxillofacial trauma. Students will become

familiar with the examining the head and neck region, using indirect laryngoscopy and other diagnostic techniques. Students will improve history taking skills regarding the symptoms and findings encountered in patients with ENT pathology.

Cardiac Surgery

Elective; 3 ECTS

The goals for the Cardiac surgery clerkship are to provide students with an exposure and clinical experience in the practice of this specialty; with learning experiences in the clinical care of cardiac surgery patients. Students will take history and use clinical reasoning to form diagnoses and differential diagnoses. They will learn about and become comfortable with discussing clinical management of cardiac surgery patients.

Pediatric Surgery

Elective; 3 ECTS

The goal of pediatric surgery clerkship is to ensure the development of skills and education of students on the level, on which they can provide the adequate help to the patient before placing him/her in the pediatric surgery department, to conduct obligatory clinical – laboratory examinations, first aid, to observe the results of conducted treatment.

Traumatology/Orthopedics

Elective; 3 ECTS

The main goal of the program is to gain the basic knowledge to evaluate, diagnose and manage common disorders seen in orthopedics; to develop the skills to manage common trauma/orthopedic disorders; to communicate effectively with physicians, staff, and patients concerning the evaluation and management of trauma/orthopedic medicine conditions; to appraise and utilize the best evidence in caring for patients with or at risk for various orthopedic medicine conditions; to work well within the Health System to provide optimum care for patients with orthopedic medicine conditions; to demonstrate commitment to carrying out professional responsibilities, adherence to ethical principles and sensitivity to diversity when dealing with orthopedic medicine problems.

Vascular Surgery

Elective; 3 ECTS

The goals of the vascular surgery clerkship are to understand the basic pathophysiology and treatment options for patients with cerebrovascular, arterial occlusive, aneurysmal and venous disease; to become familiar with non-invasive testing for vascular disease; to appreciate the critical decision-making involved in the management of patients with vascular disease; to enhance physical examination skills with particular attention to the vascular system. Students will gain experience with and basic understanding and interpreting non- and interventional vascular studies, including vascular lab studies (ultrasound and noninvasive physiologic studies), CT scan, MRI, and angiography.

Neurosurgery

Elective; 3 ECTS

The clinical clerkships allow students with an interest in neurological surgery to assist faculty and the current residents/physicians in all aspects of the neurosurgery service. These clerkships are intended to give students an insight into the types of patients and problems that may be seen in a typical Neurological Surgery Department. They will have the opportunity to be involved in all aspects of neurosurgical care. We hope this clerkship will be enjoyable and stimulating. An elective rotation is highly recommended for students interested in applying residency program in Neurosurgery.

Pediatric respiratory medicine – pulmonology

Core; 3 ECTS

The goals of this rotation are to prepare the student to recognize common acute and chronic child respiratory disorders. The student should further understand the causes, prevention, and appropriate treatment options for those disorders. Students will become familiar with the diagnosis and management of most inpatients and outpatients seen by the pediatric pulmonologist. Students will be able to perform with an increased level of independence and responsibility in the clinical setting. Students will be able to manage more patients and more complex patients than they did on their pediatric clerkship. Students will be able to examine the patient with respiratory problems, provide a differential diagnosis and determine the most likely diagnosis based on patient presentation. Students will be able to select imaging or diagnostic testing that will help evaluate the differential diagnosis. Students will be able to counsel families about major respiratory diseases.

Pediatric neurology

Core; 3 ECTS

The goals of this rotation are to prepare the student to recognize common acute and chronic child neurological disorders. The student should further understand the causes, prevention, and appropriate treatment options for those disorders. The student should also develop skills of prescribing routine basic procedures for diagnostic purposes. Students will become familiar with the diagnosis and management of most inpatients and outpatients seen by the Child Neurologist. Students will be able to manage more patients and more complex patients than they did on their pediatric clerkship. All patient care is directly supervised by attending. Students will be able to examine the patient with neurological problems, provide a differential diagnosis and determine the most likely diagnosis based on patient presentation. Students will be able to select imaging or diagnostic testing that will help evaluate the differential diagnosis. This includes a basic understanding of the uses of neurological diagnostic tests, electrophysiological and neuro-radiological techniques, metabolic tests, muscle biopsy. The student will gain exposure to neurosurgery, neuro-oncology, pediatric rehabilitation and child psychiatry. The student will develop a basic understanding of the uses of psychometric and neuropsychological testing in child neurology.

Pediatric nephrology

Core; 3 ECTS

The goals of this rotation are to prepare the student to recognize common acute and chronic child nephrological disorders. The student should further understand the causes, prevention, and appropriate treatment options for those disorders. Students will become familiar with the diagnosis and management of most inpatients and outpatients seen by the pediatric nephrologist. Students will be able to perform with an increased level of independence and responsibility in the clinical setting. Students will be able to manage more patients and more complex patients than they did on their pediatric clerkship. Students will be able to examine the patient with nephrological problems, provide a differential diagnosis and determine the most likely diagnosis based on patient presentation. Students will be able to select imaging or diagnostic testing that will help evaluate the differential diagnosis. Students will be able to counsel families about major nephrological diseases.

Pediatric hematology

Core; 3 ECTS

The goals of this rotation are to prepare the student to recognize common acute and chronic child hematology disorders. The student should further understand the causes, prevention, and appropriate treatment options for those disorders. The student should also develop skills of prescribing routine basic procedures for diagnostic purposes. Students will become familiar with the diagnosis and management of most inpatients and outpatients seen by the Child hematologist. Students will be able to manage more patients and more complex patients than they did on their pediatric clerkship. Students will be able to examine the patient with hematological problems, provide a differential diagnosis and determine the most likely diagnosis based on patient presentation. All patient care is directly supervised by attending. Students will be able to select imaging or diagnostic testing that will help evaluate the differential diagnosis. This includes a basic understanding of the uses of specific tests, diagnostic procedures, imaging. Students will be able to counsel families about major hematological diseases.

Pediatric gastroenterology

Core; 3 ECTS

The goals of this rotation are to prepare the student to recognize common acute and chronic child GI tract disorders. The student should further understand the causes, prevention, and appropriate treatment options for those disorders. The student should also develop skills of prescribing routine basic procedures for diagnostic purposes. Students will become familiar with the diagnosis and management of most inpatients and outpatients seen by the Child gastroenterologist. All patient care is directly supervised by attending. This includes a basic understanding of the uses of diagnostic tests for GI tract diseases, endoscopy and surgical intervention. The student will gain exposure to pediatric abdominal surgery.

Anesthesiology and Critical Care

Mandatory; 5 ECTS

The aim of the course is to make each student aware of essence of anesthesiology and critical medicine, to give medical students a brief understanding of acute, in-hospital care. Also the student is supposed to be able to conduct basic life support (BLS).

This clerkship provides experience managing adult patients in critical care unit. Students learn how to optimize care for the acutely ill patient and the multidisciplinary approach to complex patients. Teaching emphasizes the review of basic organ physiology, the ability to determine the pathophysiologic mechanisms involved in critical illness, and the formulation of a physiologic based treatment plan. Students gain experience with the implementation of monitoring and therapeutic

devices used in the intensive care units and begin to become adept at the evaluation, stabilization and management of the most critically ill patients.

Becoming a Doctor 11

Core; 2 ECTS

The course aims to help student refining focused history and physical exam skills, to provide students improving skills in developing a focused patient note with complete assessment and plan. The course provides students using reflective writing to explore personal issues related to becoming a doctor. The module helps students developing strategies for post graduate education.

Becoming a Doctor 12

Core; 2 ECTS

The course aims to help student refining focused history and physical exam skills, to provide students improving skills in developing a focused patient note with complete assessment and plan. The course provides students using reflective writing to explore personal issues related to becoming a doctor. The module helps students developing strategies for post graduate education. During the course student will develop the community project.

Adult Primary Care/ Family Medicine subinternship

Elective; 6 ECTS

The aim of the course is to help students to understand and apply principles of family medicine to practice in primary care, develop the compendium of skills needed to be a successful family medicine intern, Learn the role of the family physician in the community.

Clinical Geriatrics

Mandatory; 4 ECTS

The goal of the course is to teach students main principles of Gerontology and Geriatrics, features of diseases diagnostics and treatment in elderly patients.

Obstetrics and Gynecology

Elective; 5 ECTS

During the Obstetrics and Gynecology sub-internship students will get experience of working in a Labor,

Gynecology and Antenatal care unit. Each session lasts for one weeks and provides students with basic to deep understanding of general Ob/GYN conditions, disease process. Students will actively participate (under supervision) in diagnosing and work-up plan.

Oncology

Core; 5 ECTS

The aim of the course is to provide an overview of the principles of cancer care to medical students; principles of prevention, screening and treatment of oncology, pathology, timely diagnosis of complications and adequate management of oncology emergencies, Cancer patient psycho-social assistance and rehabilitation;

Oncology clerkship is intended to provide the student with hands on experience in the evaluation and treatment of various and oncological conditions. The clinical experience will emphasize the diagnosis and management of acute and chronic oncology diseases and the management of the risk factors associated with each disease.

Psychiatry subintership

Elective; 5 ECTS

The course allows students to actively participate in the management of patients with common mental disorders encountered in mental health inpatient services. Each student will have the opportunity to experience a broad range of mental health problems severity and presentations. Students will have the opportunity to improve their basic clinical skills, learn new inpatient procedures and examination techniques, and assess the effectiveness of their clinical interventions. The student will have increasing responsibility for the care of patients while this clerkship.

Surgery Sub-Internship

Core; 6 ECTS

The primary goal of the sub-internship is further surgical training of students who have already completed the core surgery clerkship course. The aim of the sub-internship is to enable students to work with patients having higher degree of independence, enhance the knowledge gained during surgical clerkship. During the sub-internship period surgical (mainly abdominal) pathologies, commonly found in general surgery clinics will be studied. The spectrum of diseases to be studied during sub-internship period is greater than during the clerkship. The program includes complications of major diseases, their differential diagnosis and management using modern approaches. If a student during the clerkship was studying the behavior at surgical clinic, the basics of surgery aseptic, commonly used surgical manipulations, medical records keeping, indications for surgical referral, during sub-internship they will have more opportunity for practical activity and greater degree of independence to manage pre- and postoperative period od surgical patients.

Public health, Leadership, Health law

Core Clerkship; 3 ECTS

This course is designed to introduce the basic tenets, applications, and foci of public health and is composed by three major concentrations: public health, leadership in public health and health law.

First concentration – Public health is intended to serve as an introduction to the major issues of public health with a focus on the United States, Georgia and other countries, although global health issues are considered as well. The aim of the concentration is to introduce students to the discipline of public health, give an overview of the methods of prevention and health promotion, understand the determinants and measures of disease and health related states and understand the status of health and disease at global and national levels.

Second concentration- Core Principles in Public Health Leadership introduces students to major theories and concepts of leadership, ways of applying these to public health issues requiring leadership, and provides an opportunity for students to develop skills and resources for further developing their own and others' leadership. Students will be introduced to the essence of leadership, team management, types and models of leaders; charismatic leaders; leadership skills and qualities; leaders and conflict classification and the forms of conflict resolution.

Third concentration - The central theme of this course is the legal framework concerning health care. The course aims to introduce the students the basic human rights in the field of health care, provisions under International Law, agreements, basic rights and obligations of patients and providers, modern trends and international regulations in health care.

Internal Medicine – Subinternship

Core Clerkship; ECTS - 6 credits

Overall aim of the IM sub internship for the students is to take responsibility (under supervision) for patients' care and understand the importance of that responsibility along with the moral and ethical underpinnings of being a physician. Students will acquire skills to care for the total patient with an emphasis on all patient problems, history taking and physical examination. By interacting with the resident and attending and discussing cases, the student will learn a rational approach to assessing the problems of the patient; putting together a differential diagnosis; learning to select appropriate laboratory, radiologic and other tests in a way that makes a diagnosis in a cost effective way. Student will learn about the specific internal medicine diagnoses of their patients by interacting with their residents and attendings and going to the literature and reading about those problems and diagnoses.

Sports Cardiology

Elective; 4 ECTS

Course aims to provide the student with clinically applicable knowledge and practical skills regarding clinical aspects of cardiovascular functioning, cardiac adaptation to physical exercise, screening of athletes, and evaluation of athlete's individual cardiovascular risk for the implementation of evidence-based practice, considering ethical and professional values. Emphasis is placed upon clinical aspects of structural and functional adaptation of cardiovascular system, clinical evaluation of the "Athlete's heart", cardiovascular causes of sudden death in sport, pathogenesis, diagnostics and prevention strategies, among them safety and eligibility issues, peculiarities of sport participation of individuals with cardiovascular diseases/cardiac abnormalities and appropriate clinical management, and sports overreaching, monitoring and management of athletes with overtraining syndrome.

Preventive Cardiology

Elective; 4 ECTS

This particular elective aims to provide students with the knowledge and skills necessary to identify, evaluate patients with heart disease and providing them basic care. Major emphasis of the training program will be on helping patients prevent cardiovascular disease. This training program seeks to alleviate a perceived shortage of doctors with skills to prevent and treat the leading cause of death "cardiovascular disease"- in Georgia and in the World.

Program provides with teaching and self - guided learning opportunities in cardiovascular diseases with emphasis on prevention.

Students will be encouraged to participate actively in the cardiologist offices and can perform cardiac consultations under attending supervision. Intensive instructions on the physical examination of the cardiac patient are a key element of the course.

Intensive Cardiology

Elective; 4 ECTS

The aim of the course is to provide medical students with a broad overview of cardiology, cardiac subspecialties, and cardiovascular procedures. This elective aims to teach the student about the diagnosis and management of common cardiac disorders. The importance of history taking and physical examination in clinical evaluation of the patient is emphasized. Students are exposed to non-invasive testing (exercise tests, echocardiography with Doppler flow studies, electrocardiography, and invasive testing (cardiac catheterization, coronary angioplasty). These goals are achieved through the students' participation in inpatient rounds with the designated staff cardiologist.

Students will also be encouraged to participate actively in the cardiologist offices and can perform cardiac consultations under attending supervision. Intensive instructions on the physical examination of the cardiac patient are a key element of the course.

Clinical Cardiology

Elective; 4 ECTS

The Cardiology rotation aims to provide the student with an understanding of cardiovascular physiology and its broad systemic manifestations. The student will have the opportunity to evaluate and manage patients across a spectrum of cardiovascular disorders in both the inpatient and outpatient venues. The goal is to familiarize them with basic mechanisms, clinical manifestations, diagnostic strategies and management of cardiovascular disease as well as disease prevalence and prevention. Depth of exposure should be such that they can develop competency in the prevention of cardiovascular disease, indications for procedures, management of common disease, management of the acutely ill patient, and appropriate indications for referral.

Forensic Medicine

Elective; 4 ECTS

The purpose of subject is to provide the student with optimal modern information about above-named medical and biological topics; to able the student: to form correct and competent medical

documentation, correctly and precisely describe injuries and pathologic processes to support further forensic medical and legal investigations; to avoid possible medical negligence and malpractice cases; to provide legal organs with correct consultation and support as a professional medical witness; to participate in complex forensic investigations and form adequate documentation.

Nephrology

Elective; 4 ECTS

The Nephrology Rotation provides supervised clinical education in nephrology, including clinical diagnosis and management, technical and procedural skills, interpretation of diagnostic data, patient education, and inter-professional communication. The rotation is designed to provide students with evidence and guidelines-based competency in the diagnosis and management of inpatient and outpatient nephrology related conditions and primary prevention of renal disease. This rotation will refine and expand on skills developed in the Internal Medicine clerkship to provide advanced preparation for the practice of the diverse specialties involved in the care of adult patients with renal disease.

The nephrology rotation is intended to provide the student with hands on experience in the evaluation and treatment of various conditions related to nephrology.

Rheumatology

Elective; 4 ECTS

The purpose of these rotations is to provide the student with a solid foundation in the diagnosis and management of rheumatic conditions. Under supervision, students are expected to assist in the management of acute and chronic rheumatologic diseases. The student should also develop fundamental psychomotor skills by performing routine basic procedures under direct supervision.

Phthisiology

Elective; 4 ECTS

The aim of the course is to provide students with a broad overview of tuberculosis; Study of the elements of primary medical care for patients with TB; deepen the knowledge of the principles of etiology, pathogenesis and treatment during TB; Educational Course aims to improve knowledge and practical skills of students in TB Prevention, Diagnosis and Treatment and ensure their appropriate

involvement in early detection and quality management of Pulmonary (PTB) and Extra pulmonary Tuberculosis (EPTB).

Infectious Diseases

Elective; 4 ECTS

The aim of the course is to provide students with a broad overview of Infectious Diseases. The program is based on the requirements that are faced nowadays by physicians and is oriented on optimal fulfillment of the functions of each postgraduate doctor: detection of patients with acute and chronic transmissible infectious diseases; Primary diagnostics of the syndromes; study of the elements of primary medical care for patients with infectious diseases; deepen the knowledge of the principles of etiology, pathogenesis and treatment during bacterial and viral infections; study of the diagnostic and treatment principles of the parasitic diseases and helminthiases prevailed worldwide.

Endocrinology

Elective; 4 ECTS

The overall goal of this medical student elective is to teach evidence-based, high quality care for patients who have diabetes mellitus, thyroid, metabolic bone, pituitary and adrenal disease. This course provides supervised clinical education in endocrinology. Expected competencies include clinical management, interpretation of diagnostic data, patient education, development of diagnostic and management plans, and inter-professional communication.

This rotation will refine and expand on skills developed in the Internal Medicine clerkship to provide advanced preparation for the practice of the diverse specialties involved in the care of adult patients with endocrine disease.

Dermatology

Elective; 4 ECTS

The purpose of these rotations is to provide the student with a solid foundation in the diagnosis and management of dermatological conditions. Under supervision, students are expected to assist in the management of acute and chronic Dermatological diseases. The student should also develop fundamental psychomotor skills by performing routine basic procedures under direct supervision.

Allergy and Clinical Immunology

Elective; 4 ECTS

The aim of the rotation is to familiarize the student with the patient with allergic (atopic) disorders, such as asthma, hay fever, urticaria and angioedema; as well as a variety of immunologic disorders, such as vasculitis, collagen-vascular disorders, including Lupus Erythematosus, organ-specific diseases associated with autoantibodies, dysgammaglobulinemias, and a variety of immune deficiency diseases. Students will become part of a medical team, including staff physicians, residents, nurses and technicians. Teaching is one-on-one and largely out-patient in nature (clinics). In addition, in-patient and emergency room consultations will be covered, as the needs arise. There is also the opportunity to attend out-patient specialty clinics. Students will have the opportunity to learn to perform common technical procedures, such as allergy skin testing and some of the laboratory procedures essential to the practice of the specialty. Students will be required to participate in the regular teaching/learning activities of the Division, including seminars and journal clubs.