

Transilvania University of Braşov, Romania

Study program: Medicine

Faculty: Medicine

Study period: 6 years (Bachelor)

1st Year

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Anatomy and embryology 1	M-ANAT 1	7	2		3	
Anatomy and embryology 2	M-ANAT 2	7	2		3	

Course description (syllabus): Anatomy is knowledge of fundamental elements on the structure and functioning of the human body. Anatomy is inherently tied to embryology, comparative anatomy, evolutionary biology, and phylogeny, as these are the processes by which anatomy is generated over immediate (embryology) and long (evolution) timescales. Human anatomy is one of the basic essential sciences of medicine.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Biochemistry 1	M-BIOCH 1	4	1		2	
Biochemistry 2	M-BIOCH 2	5	2		2	

Course description (syllabus): Biochemistry deal with the study of chemical processes within and relating to living organisms. By controlling information flow through biochemical signaling and the flow of chemical energy through metabolism, biochemical processes give rise to the complexity of life. The main focus of pure biochemistry is on understanding how biological molecules give rise to the processes that occur within living cells, which in turn relates greatly to the study and understanding of tissues, organs, and whole organisms. Biochemistry is closely related to molecular biology, the study of the molecular mechanisms by which genetic information encoded in DNA is able to result in the processes of life.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Physiology 1	M-FIZIOL 1	5	2		2	

Course description (syllabus): Description of physiological appliances and systems that make up the human body, the fundamental properties of living matter in conjunction with its structural organization and regulatory mechanisms involved in the operation of these systems which adapt to various internal and external requests

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Cellular and molecular biology	M-BIOCEL	2	1		1	

Course description (syllabus): Acquiring knowledges achieved during fully period of study, about cellular and subcellular components and about their analysis, using molecular diagnostic techniques with practical applicability for diagnosis, according with curricula of this field of study which is also a field of research. **Objectives:** learning by molecular diagnostic techniques and their applicability in routine medical practice, analyzing the structural and ultrastructural components, knowledges evaluating, using the curricula according to the field of study, periodical tests and final exam, objectively noted.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Biophysics	M-BIOFIZ	3	1		1	

Course description (syllabus): Biophysics is an interdisciplinary science that applies the approaches and methods of physics to study biological systems. Biophysics covers all scales of biological organization, from molecular to organismic and populations. Biophysical research shares significant overlap with biochemistry, nanotechnology, bioengineering, computational biology and systems biology. Medical physics is, generally speaking, the application of physics concepts, theories and methods to medicine or healthcare.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Medical sociology. History of medicine	M-SOC-IST	3	1	1		

Course description (syllabus): Medical sociology is the sociological analysis of medical organizations and institutions; the production of knowledge and selection of methods, the actions and interactions of healthcare professionals, and the social or cultural effects of medical practice. The history of medicine covers the study of medicine from its very beginnings to the present day. It focuses on all medical disciplines, whether they are still practiced today or have disappeared entirely from clinical practice. The history of medicine also includes the study of the many evolutions experienced in different countries, belief systems, and cultures.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Medical informatics. Biostatistics	M-INF-MED	3	1		1	

Course description (syllabus): Medical informatics is informatics in health care. It is a multidisciplinary field that uses health information technology to improve health care via any combination of higher quality, higher efficiency (spurring lower cost and thus greater availability), and new opportunities. Biostatistics is the application of statistics to a wide range of topics in biology. The science of biostatistics encompasses the design of biological experiments, especially in medicine, pharmacy, agriculture and fishery; the collection, summarization, and analysis of data from those experiments; and the interpretation of, and inference from, the results. A major branch of this is medical biostatistics, which is exclusively concerned with medicine and health.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Behavioural Sciences. Medical Psychology	M-ST-COMP	2	1	1		

Course description (syllabus): Behavioral science is the systematic analysis and investigation of human behaviour through controlled and naturalistic observation and disciplined scientific experimentation. It attempts to accomplish legitimate, objective conclusions through rigorous formulations and observation. Medical psychology is the application of psychological principles to the practice of medicine, primarily drug-oriented, for both physical and mental disorders.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Medical communication	M-CMM	2	1		1	

Course description (syllabus): Medical communication is the study and practice of communicating promotional health information, such as in public health campaigns, health education, and between doctor and patient. The purpose of disseminating health information is to influence personal health choices by improving health literacy.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Primary healthcare	M-APSS	2	1		1	

Course description (syllabus): Primary healthcare is the day-to-day healthcare given by a health care provider. Typically this provider acts as the first contact and principal point of continuing care for patients within a healthcare system, and coordinates other specialist care that the patient may need.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Laboratory techniques	M-TL	2	1		1	

Course description (syllabus): Basic laboratory skills are the techniques required for conducting experiments. These include pouring, measuring, filtration, and using gas burners and glassware. All laboratory techniques are good and necessary. Working in a laboratory requires carrying out a lot of different procedures, all which require different skills and techniques. Laboratory techniques are important for any person conducting an experiment. They ensure accuracy and precision with every procedure. Lab experiments are also risky, hence techniques help avert these occurrences.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Foreign language for medical domain 1	M-LS 1	2	1	1		
Foreign language for medical domain 2	M-LS 2	2	1	1		

Course description (syllabus): The study of medical language into a foreign language of international circulation.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Physical Training 1	M-EF 1	A/R		1		
Physical Training 2	M-EF 2	A/R		1		

Course description (syllabus): Physical training concentrates on mechanistic goals: training-programs in this area develop specific skills or muscles, often with a view of peaking at a particular time.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Practical training for medical skills and competences sem. II (4 weeks x 8 h/day)	M-PRACT 1	2				

Course description (syllabus): Students will observe and do supervised work in health care services with focus mainly on organizational management and leadership aspects. They will observe services in a variety of settings inpatient unit, operational procedures used in work.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Fundamentals of medical law	M-DM	2	1			

Course description (syllabus): Fundamentals of medical law is a system of moral principles that apply values and judgments to the practice of medicine. As a scholarly discipline, medical ethics encompasses its practical application in clinical settings as well as work on its history, philosophy, and sociology.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
The right to equal opportunities and non-discrimination	M-DESN	2	1			

Course description (syllabus): The right to equality and non-discrimination encompasses both positive and negative obligations - the obligation to refrain from discriminating or eroding equality and the obligation to protect and advance the fulfilment and enjoyment of the rights to equality and non-discrimination for all people.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Marketing and medical technology	M-MTM	2	1			

Course description (syllabus): The courses describe the concept of health services, the research and the strategies of Health Marketing.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Anthropology	M-ANTR	3	1	2		

Course description (syllabus): Medical anthropology studies "human health and disease, health care systems, and biocultural adaptation". It views humans from multidimensional and ecological perspectives.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Nutrition, dietetics and eating behavior	M-NCA	3	1	2		

Course description (syllabus): Nutrition is the science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health and disease of an organism. It includes food intake, absorption, assimilation, biosynthesis, catabolism and excretion.

2nd Year

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Anatomy and embryology 3	M-ANAT 3	3	2		1	

Course description (syllabus): Anatomy is knowledge of fundamental elements on the structure and functioning of the human body. Anatomy is inherently tied to embryology, comparative anatomy, evolutionary biology, and phylogeny, as these are the processes by which anatomy is generated over immediate (embryology) and long (evolution) timescales. Human anatomy is one of the basic essential sciences of medicine.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Clinical and sectional anatomy	M-ANAT- CLIN	3	2		1	

Course description (syllabus): The development of learning skills and understanding the concepts of structure, in order to integrate them in specific clinical situations. The study of topographic and anatomic images, correlation notions of anatomy, normal recognition of anatomical sections and sectional body imaging.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Physiology 2	M-FIZIOL 2	5	2		2	

Course description (syllabus): Description of physiological appliances and systems that make up the human body, the fundamental properties of living matter in conjunction with its structural organization and regulatory mechanisms involved in the operation of these systems which adapt to various internal and external requests.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Immunology	M-IMUNO	3	1		1	

Course description (syllabus): Immunology is a branch of biomedical science that covers the study of immune systems in all organisms. It charts, measures, and contextualizes the: physiological functioning of the immune system in states of both health and diseases; malfunctions of the immune system in immunological disorders (such as autoimmune diseases, hypersensitivities, immune deficiency, and transplant rejection); the physical, chemical and physiological characteristics of the components of the immune system in vitro, in situ, and in vivo.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Histology 1	M-HIST 1	4	2		2	
Histology 2	M-HIST 2	2	1		1	

Course description (syllabus): Histology is the study of the microscopic anatomy of cells and tissues of humans. It is commonly performed by examining cells and tissues under a light microscope or electron microscope, which have

been sectioned, stained and mounted on a microscope slide. Histological studies may be conducted using tissue culture, where live human cells are isolated and maintained in an artificial environment for various research projects. The ability to visualize or differentially identify microscopic structures is frequently enhanced through the use of histological stains.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Microbiology (bacteriology, virology, parasitology) 1	M-BVP 1	4	2		2	
Microbiology (bacteriology, virology, parasitology) 2	M-BVP 2	3	1		1	

Course description (syllabus): Bacteriology is the branch and specialty of biology that studies the morphology, ecology, genetics and biochemistry of bacteria as well as many other aspects related to them. This subdivision of microbiology involves the identification, classification, and characterization of bacterial species. Virology is the study of viruses – submicroscopic, parasitic particles of genetic material contained in a protein coat and virus-like agents. It focuses on the following aspects of viruses: their structure, classification and evolution, their ways to infect and exploit host cells for reproduction, their interaction with host organism physiology and immunity, the diseases they cause, the techniques to isolate and culture them, and their use in research and therapy. Parasitology is the study of parasites, their hosts, and the relationship between them. This means it forms a synthesis of other disciplines, and draws on techniques from fields such as cell biology, bioinformatics, biochemistry, molecular biology, immunology, genetics, evolution and ecology.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Medical genetics. Epigenetics	M-GENET 2	4	2		2	

Course description (syllabus): Medical genetics is the branch of medicine that involves the diagnosis and management of hereditary disorders. Genetic medicine is a newer term for medical genetics and incorporates areas such as gene therapy, personalized medicine, and the rapidly emerging new medical specialty, predictive medicine. Epigenetics is the study of heritable changes in gene function that do not involve changes in the DNA sequence. Epigenetics represent the study, in the field of genetics, of cellular and physiological phenotypic trait variations that are caused by external or environmental factors that switch genes on and off and affect how cells read genes.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Laboratory techniques	M-TL	2	1		1	

Course description (syllabus): Basic laboratory skills are the techniques required for conducting experiments. These include pouring, measuring, filtration, and using gas burners and glassware. All laboratory techniques are good and necessary. Working in a laboratory requires carrying out a lot of different procedures, all which require different skills and techniques. Laboratory techniques are important for any person conducting an experiment. They ensure accuracy and precision with every procedure. Lab experiments are also risky, hence techniques help avert these occurrences.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
First aid. Basic life support	M-PA-BLS	4	2		2	

Course description (syllabus): First aid is the assistance given to any person suffering a sudden illness or injury, with care provided to preserve life, prevent the condition from worsening, or to promote recovery. Basic life support (BLS) is a level of medical care which is used for victims of life-threatening illnesses or injuries until they can be given full medical care at a hospital.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Primary healthcare	M-APSS	2	1		1	

Course description (syllabus): Primary healthcare is the day-to-day healthcare given by a health care provider. Typically this provider acts as the first contact and principal point of continuing care for patients within a healthcare system, and coordinates other specialist care that the patient may need.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Hygiene	M-IG	2	1		1	

Course description (syllabus): Hygiene is a science of the establishment and maintenance of health.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
The methodology of scientific research	M-MET-CS	2	1	1		

Course description (syllabus): Scientific medical research methodology aims to provide students knowledges and skills to achieve biostatistics and interpretation of the results of medical studies.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Foreign language for medical domain 3	M-LS 3	2	1	1		
Foreign language for medical domain 4	M-LS 4	2	1	1		

Course description (syllabus): The study of medical language into a foreign language of international circulation.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Physical Training 3	M-EF 3	A/R		1		
Physical Training 4	M-EF 4	A/R		1		

Course description (syllabus): Physical training concentrates on mechanistic goals: training-programs in this area develop specific skills or muscles, often with a view of peaking at a particular time.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Practical training for medical skills and competences sem. IV (4 weeks x 8 h/day)	M-PRACT 2	2				

Course description (syllabus): Students will observe and do supervised work in health care services with focus mainly on organizational management and leadership aspects. They will observe services in a variety of settings inpatient unit, operational procedures used in work.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Fundamentals of medical law	M-DM	2	1			

Course description (syllabus): Fundamentals of medical law is a system of moral principles that apply values and judgments to the practice of medicine. As a scholarly discipline, medical ethics encompasses its practical application in clinical settings as well as work on its history, philosophy, and sociology.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
The right to equal opportunities and non- discrimination	M-DESN	2	1			

Course description (syllabus): The right to equality and non-discrimination encompasses both positive and negative obligations - the obligation to refrain from discriminating or eroding equality and the obligation to protect and advance the fulfilment and enjoyment of the rights to equality and non-discrimination for all people.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Fundamentals of nutrition and food behavior	M-NCA	2	1	1		

Course description (syllabus): Nutrition is the science that interprets the interaction of nutrients and other substances in food in relation to maintenance, growth, reproduction, health and disease of an organism. It includes food intake, absorption, assimilation, biosynthesis, catabolism and excretion.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Gene Therapies	M-TGEN	2	1	1		

Course description (syllabus): Gene therapy is the therapeutic delivery of nucleic acid polymers into a patient's cells as a drug to treat disease.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Screening in genetic diseases	M-TGEN	2	1		1	

Course description (syllabus): Genetic screening is a type of public health program that is systematically offered to a specified population of asymptomatic individuals with the aim of providing those identified as high risk with prevention, early treatment, or reproductive options.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Neuroscience in clinical practice	M-TGEN	2	1		1	

Course description (syllabus): Neuroscience, also known as Neural Science, is the study of how the nervous system develops, its structure, and what it does. Neuroscientists focus on the brain and its impact on behavior and cognitive functions.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Clinical mycology	M-MICO	2	1		1	

Course description (syllabus): Medical Mycology is the branch of biology concerned with the study of fungi, including their genetic and biochemical properties, their taxonomy and their infections in humans.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Clinical Bacteriology	M-BC	2	1		1	

Course description (syllabus): Clinical Bacteriology is a branch of medical science concerned with the prevention, diagnosis and treatment of infectious diseases. In addition, this field of science studies various clinical applications of microbes for the improvement of health.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Toxicology	M-TOX	3	2	1		

Course description (syllabus): Toxicology is a discipline that involves the study of the adverse effects of chemical substances on living organisms and the practice of diagnosing and treating exposures to toxins and toxicants.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Genomics. Medical Bioinformatics	M-GEN-IM	3	2	1		

Course description (syllabus): Genomics is an interdisciplinary field of biology focusing on the structure, function, evolution, mapping, and editing of genomes. Medical bioinformatics is an interdisciplinary field that brings together computer sciences, the medical sciences and health care, to achieve better health of population.

3th Year

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Medical semiology 1	M-SEMIO-M 1	8	3		6	
Medical semiology 2	M-SEMIO-M 2	8	3		6	

Course description (syllabus): Medical Semiology has been designed for students who are having their first experiences with patients, learning to establish relationship with them, and learning to take histories and do physical examinations.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Surgical semiology 1	M-SEMIO-C 1	4	2		2	
Surgical semiology 2	M-SEMIO-C 2	3	1		2	

Course description (syllabus): Surgical semiology is part of medicine that deals with the description of symptoms and signs of various surgical diseases and methods to put them out and to diagnose.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Allergology and Clinical Immunology	M-ALCLIM	3	1		1	

Course description (syllabus): Allergology, a splinter from clinic immunology, is the branch of medical science that deals with the diagnostic and treatment of allergies. Clinical immunology is the study of diseases caused by disorders of the immune system (failure, aberrant action, and malignant growth of the cellular elements of the system). It also involves diseases of other systems, where immune reactions play a part in the pathology and clinical features.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Pharmacology 1	M-FARM 1	4	2		2	
Pharmacology 1	M-FARM 2	4	2		2	

Course description (syllabus): Pharmacology is the branch of medicine and biology concerned with the study of drug action. Clinical pharmacology is the science of drugs and their clinical use. It is underpinned by the basic science of pharmacology, with added focus on the application of pharmacological principles and quantitative methods in the real world. It has a broad scope, from the discovery of new target molecules, to the effects of drug usage in whole populations.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Physiopathology 1	M-FIZPAT 1	4	2		2	
Physiopathology 2	M-FIZPAT 2	4	2		2	

Course description (syllabus): Physiopathology is a convergence of pathology with physiology. Pathology is the medical discipline that describes conditions typically observed during a disease state, whereas physiology is the biological discipline that describes processes or mechanisms operating within an organism. Pathology describes the abnormal or undesired condition, whereas physiopathology seeks to explain the physiological processes or mechanisms whereby such condition develops and progresses.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Pathological anatomy 1	M-APAT 1	4	2		2	
Pathological anatomy 2	M-APAT 2	3	1		2	

Course description (syllabus): Morphopathology is a medical specialty that is concerned with the diagnosis of disease based on the macroscopic, microscopic, biochemical, immunologic and molecular examination of organs and tissues.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Clinical biochemistry	M-BIOCH-CL	3	2	1		

Course description (syllabus): Clinical biochemistry is the area of clinical pathology that is generally concerned with analysis of bodily fluids for diagnostic and therapeutic purposes.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Practical skills	M-APR	3	1		2	

Course description (syllabus): Students will observe and do supervised work in health care services with focus mainly on organizational management and leadership aspects. They will observe services in a variety of settings inpatient unit, operational procedures used in work.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Medical deontology. Bioethics. Ethics and academic integrity	M-DEONTOL	2	1	1		

Course description (syllabus): *Medical deontology* is a system of moral principles that apply values and judgments to the practice of medicine. As a scholarly discipline, medical ethics encompasses its practical application in clinical settings as well as work on its history, philosophy, and sociology. *Bioethics* is a discipline of applied ethics since the 70s, when medical practices have started eyeing a moral approach to specific medical problems.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Practical training for medical skills and competences sem. VI (4 weeks x 8 h/day)	M-PRACT 3	2				

Course description (syllabus): Students will observe and do supervised work in health care services with focus mainly on organizational management and leadership aspects. They will observe services in a variety of settings inpatient unit, operational procedures used in work.

4th Year

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Internal medicine 1 (includes Diabetes and nutrition disorders)	M-MI 1	13	4		9	

Course description (syllabus): Internal medicine is the branch and specialty of medicine concerning the diagnosis and nonsurgical treatment of diseases in adults, especially of internal organs. Diabetes is a group of metabolic disorders in which there are high blood sugar levels over a prolonged period. Nutrition disorders are diseases that occur when a person's dietary intake does not contain the right amount of nutrients for healthy functioning, or when a person cannot correctly absorb nutrients from food. Nutrition disorders can be caused by undernutrition, overnutrition or an incorrect balance of nutrients.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
General surgery	M-CHIR	11	4		8	

Course description (syllabus): General surgery is a surgical specialty that focuses on abdominal contents including esophagus, stomach, small bowel, colon, liver, pancreas, gallbladder and bile ducts. They also deal with diseases involving the skin, breast, soft tissue, trauma, peripheral vascular surgery and hernias.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Plastic Surgery and Reconstructive Microsurgery	M-CHIR-PL	2	1		1	

Course description (syllabus): Plastic Surgery and Reconstructive Microsurgery is defined as a surgical specialty dedicated to reconstruction of facial and body defects due to birth disorders, trauma, burns, and disease. Plastic surgery is intended to correct dysfunctional areas of the body and is reconstructive in nature. Though cosmetic or aesthetic surgery is the most well-known kind of plastic surgery, plastic surgery itself is not necessarily considered cosmetic and includes many types of reconstructive surgery, craniofacial surgery, hand surgery, microsurgery, and the treatment of burns.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Orthopedics and Traumatology	M-OR-TR	4	2		3	

Course description (syllabus): Orthopedic surgery is the branch of surgery concerned with conditions involving the musculoskeletal system. Orthopedic surgeons use both surgical and nonsurgical means to treat musculoskeletal trauma, degenerative diseases, infections, tumors. Traumatology is the study of wounds and injuries caused by accidents or violence to a person, and the surgical therapy and repair of the damage.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Pneumology	M-PNEUMOL	3	1		2	

Course description (syllabus): The main purpose of respiratory medicine through its courses and lab hours is to share knowledge about diagnosis, treatment and prevention of diseases and conditions of the lung. Lab hours focus mainly to develop not only student's abilities to perform and to interpret specific pulmonary tests, but to perform and improve physical examination skills too.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Urology	M-UROL	4	2		3	

Course description (syllabus): Urology is the branch of medicine that focuses on surgical and medical diseases of the male and female urinary tract system and the male reproductive organs. The organs under the domain of urology include the kidneys, adrenal glands, ureters, urinary bladder, urethra, and the male reproductive organs (testes, epididymis, vas deferens, seminal vesicles, prostate, and penis).

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Radiology. Medical imaging	M-RX	4	2		2	

Course description (syllabus): *Radiology* is a medical specialty that uses imaging to diagnose and treat diseases seen within the body. A variety of imaging techniques such as X-ray radiography, computed tomography (CT), nuclear medicine including positron emission tomography (PET), and magnetic resonance imaging (MRI) are used to diagnose and/or treat diseases. *Medical imaging* is the technique and process of creating visual representations of the interior of a body for clinical analysis and medical intervention, as well as visual representation of the function of some organs or tissues (physiology). Medical imaging seeks to reveal internal structures hidden by the skin and bones, as well as to

diagnose and treat disease. Medical imaging also establishes a database of normal anatomy and physiology to make it possible to identify abnormalities.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Hygiene	M-IG	2	1		1	

Course description (syllabus): Hygiene is a science of the establishment and maintenance of health.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Occupational health and related diseases	M-MEDMUNC	2	1			

Course description (syllabus): Occupational health is the branch of clinical medicine most active in the field of occupational health. Occupational health specialists work to ensure that the highest standards of occupational health and safety can be achieved and maintained.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Palliative care	M-IP	3	1		2	

Course description (syllabus): Palliative care is a multidisciplinary approach to specialized medical and nursing care for people with life-limiting illnesses. It focuses on providing people with relief from the symptoms, pain, physical stress, and mental stress of the terminal diagnosis. The goal of such therapy is to improve quality of life for both the person and their family.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Scientific medical research methodology	M-MET-CS	3	1		1	

Course description (syllabus): Scientific medical research methodology aims to provide students knowledges and skills to achieve biostatistics and interpretation of the results of medical studies.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Clinical pharmacology	M-FARMCL	2	2	1		

Course description (syllabus): Clinical pharmacology is the science of drugs and their clinical use. It is underpinned by the basic science of pharmacology, with an added focus on the application of pharmacological principles and quantitative methods in the real world. It has a broad scope, from the discovery of new target molecules to the effects of drug usage in whole populations. Clinical pharmacology connects the gap between medical practice and laboratory science.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Ultrasonography	M-US	2	1		1	

Course description (syllabus): Ultrasonography is a diagnostic imaging technique, or therapeutic application of ultrasound. It is used to create an image of internal body structures such as tendons, muscles, joints, blood vessels, and internal organs.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Practical training for medical skills and competences sem. VIII (4 weeks x 8h/day)	M-PRACT 8	2				

Course description (syllabus): Students will observe and do supervised work in health care services with focus mainly on organizational management and leadership aspects. They will observe services in a variety of settings inpatient unit, operational procedures used in work.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Neurosurgery	M-NEUROCHIR	2	1			

Course description (syllabus): Neurosurgery is the medical specialty concerned with the prevention, diagnosis, surgical treatment, and rehabilitation of disorders which affect any portion of the nervous system including the brain, spinal cord, peripheral nerves, and extra-cranial cerebrovascular system.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Minimally Invasive Surgery Techniques	M-CHIR-INV	2	1			

Course description (syllabus): Minimally invasive procedures encompass surgical techniques that limit the size of incisions needed and so lessen wound healing time, associated pain and risk of infection.

5th Year

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Internal medicine 2 (includes Rheumatology and Nephrology)	M-MI 2	9	4		9	

Course description (syllabus): Internal medicine is the branch and specialty of medicine concerning the diagnosis and nonsurgical treatment of diseases in adults, especially of internal organs. Rheumatology is a sub-specialty in internal medicine, devoted to diagnosis and therapy of rheumatic diseases. Nephrology is a specialty of medicine and pediatrics that concerns itself with the kidneys: the study of normal kidney function and kidney problems, the preservation of kidney health, and the treatment of kidney problems, from diet and medication to renal replacement therapy (dialysis and kidney transplantation).

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Pediatrics. Infant care	M-PEDIATR	11	5		8	

Course description (syllabus): This course is dealing with general pediatrics. Main issues: Neonatal pathology, Malnutrition, Respiratory pathology and its particularities at this age group, Digestive pathology, Liver disease at children its particularities both in diagnostic and treatment, Hemato-oncology at children, Renal disease, convulsion and coma, sepsis, Cardiac pathology both congenital and acquired. Infant care - branch of medicine that deals with the methods and means of growth and harmonious development of children in first years of life.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Neurology	M-NEUROL	5	2		4	

Course description (syllabus): Neurology is a branch of medicine dealing with disorders of the nervous system. Neurology deals with the diagnosis and treatment of all categories of conditions and disease involving the central and peripheral nervous system (and its subdivisions, the autonomic nervous system and the somatic nervous system); including their coverings, blood vessels, and all effector tissue, such as muscle.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Ophthalmology	M-OFTA	4	1		2	

Course description (syllabus): The objectives of ophthalmology: to assimilate the fundamental notions of: ophthalmic semiology, practical examination of people with eye illnesses, diagnose and appropriate treatment of the main ocular affections.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
ENT	M-ORL	4	1		2	

Course description (syllabus): Otorhinolaryngology or ENT is the area of medicine that deals with conditions of the ear, nose, and throat region. The specialty is often treated as a unit with surgery of the head and neck.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Endocrinology	M-ENDOCR	4	2		2	

Course description (syllabus): Endocrinology is the medical specialty that deals with the diagnosis and treatment of disorders of the endocrine system. In the endocrinology are investigated thyroid, pituitary, adrenal, gonadal and calcium metabolism disorders.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Pediatric surgery. Pediatric orthopaedics	M-CHIR-PED	4	2		2	

Course description (syllabus): Pediatric surgery and orthopaedics is a subspecialty of surgery involving the surgery of fetuses, infants, children, adolescents, and young adults. Aims of the Discipline: Recognize and acknowledge the diagnostic elements and the specialized treatment indications for the principal surgical and orthopedical conditions of the child and adolescent.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Oro-maxillo-facial surgery. Dentistry	M-BMF	3	1		2	

Course description (syllabus): Oro-maxillofacial surgery specializes in treating many diseases, injuries and defects in the head, neck, face, jaws and the hard and soft tissues of the Oral (mouth) and Maxillofacial (jaws and face) region. Dentistry is a branch of medicine that is involved in the study, diagnosis, prevention, and treatment of diseases, disorders and conditions of the oral cavity, commonly in the dentition but also the oral mucosa, and of adjacent and related structures and tissues, particularly in the maxillofacial (jaw and facial) area.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Primary healthcare	M-APSS	2	1		1	

Course description (syllabus): Primary healthcare is the day-to-day healthcare given by a health care provider. Typically this provider acts as the first contact and principal point of continuing care for patients within a healthcare system, and coordinates other specialist care that the patient may need.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Recovery, physical medicine and balneology	M-BALNEOL	2	1		1	

Course description (syllabus): Physical medicine and rehabilitation is a branch of medicine that aims to enhance and restore functional ability and quality of life to those with physical impairments or disabilities. Balneotherapy is the treatment of disease by bathing, usually practiced at spas. Balneotherapy may involve hot or cold water, massage through moving water, relaxation, or stimulation. Physical therapy or physiotherapy is a physical medicine and rehabilitation specialty that remediates impairments and promotes mobility, function, and quality of life through examination, diagnosis, prognosis, and physical intervention (therapy using mechanical force and movements).

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Emergency medicine	M-MU	2	1		1	

Course description (syllabus): *Emergency Medicine* – evaluating, managing, and providing treatment to the patients with unexpected injury and illness (medical or surgical). First aid and resuscitation techniques are the assistance given to any person suffering a sudden illness or injury following sudden-onset disasters or accidents resulting from natural, technological or human-induced factors, or a combination of these, that causes or threatens to cause severe environmental damage as well as loss of human lives and property.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Medical communication	M-CMM	2	1	1		

Course description (syllabus): Medical communication is the study and practice of communicating promotional health information, such as in public health campaigns, health education, and between doctor and patient. The purpose of disseminating health information is to influence personal health choices by improving health literacy.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Practical training for medical skills and competences sem. X (4 weeks x 8 h/day)	M-PRACT 10	2				

Course description (syllabus): Students will observe and do supervised work in health care services with focus mainly on organizational management and leadership aspects. They will observe services in a variety of settings inpatient unit, operational procedures used in work.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Phytotherapy	M-FIT	2	1			

Course description (syllabus): Phytotherapy is the study of botany and use of plants intended for medicinal purposes or for supplementing a diet. Plants have been the basis for medical treatments through much of human history, and such traditional medicine is still widely practiced today

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Occupational therapy	M-TEROCUP	2	1			

Course description (syllabus): Occupational therapy is the use of assessment and treatment to develop, recover, or maintain the daily living and work skills of people with a physical, mental, or cognitive disorder. Occupational therapists also focus much of their work on identifying and eliminating environmental barriers to independence and participation in daily activities.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Endourology	M-ENDOUROL	2	1			

Course description (syllabus): Endourology deals with genitourinary operative procedures (diagnostic and therapeutic) performed through instruments; may be cystoscopic, pelviscopic, celioscopic, laparoscopic, percutaneous, or ureteroscopic.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Psychosomatic medicine	M-PSIHOSOM	2	1			

Course description (syllabus): Psychosomatic medicine is an interdisciplinary medical field exploring the relationships among social, psychological, and behavioral factors on bodily processes and quality of life in humans.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Sleep medicine	M-MEDSOMN	2	1			

Course description (syllabus): Sleep medicine is a medical specialty or subspecialty devoted to the diagnosis and therapy of sleep disturbances and disorders.

6th Year

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Obstetrics-gynecology 1	M-OG 1	6	2		4	
Obstetrics-gynecology 2. Neonatology	M-OG 2	8	2		6	

Course description (syllabus): *Obstetrics and Gynecology* is the medical specialty that deals with the health of the female reproductive systems (vagina, uterus and ovaries) and the breasts. This combined course training prepares the practicing Obstetrics and Gynecology to be adept at the care of female reproductive organs' health and at the management of pregnancy. *Neonatology* is a subspecialty of pediatrics that consists of the medical care of newborn infants, especially the ill or premature newborn infant. The principal patients of neonatologists are newborn infants who are ill or requiring special medical care due to prematurity, low birth weight, intrauterine growth retardation, congenital malformations (birth defects), sepsis, pulmonary hypoplasia or birth asphyxias.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Infectious diseases	M-BI	5	3		3	

Course description (syllabus): *Infectious diseases* is a medical specialty dealing with the diagnosis, control and treatment of infections. An infectious disease specialist's practice may consist largely of managing nosocomial (hospital-acquired) infections, or it may be out-patient based, in which case it focuses more on community-acquired infections. Infectious diseases specialists help ensure the timely diagnosis and treatment of acute infections by recommending the appropriate diagnostic tests to identify the source of the infection and by recommending the appropriate antibiotic to treat the infection. Infectious diseases specialists can provide long-term care to patients with chronic infections such as HIV. They may also follow-up with patients being treated for an acute infection to monitor their response to therapy.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Psychiatry	M-PSIH	5	2		4	

Course description (syllabus): Psychiatry is the branch of medicine devoted to the diagnosis, prevention, study and treatment of mental disorders. As a modern medical specialty, it integrates behavioral neuroscience, neurobiology and genetics which are transforming actual medical practice.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Oncology	M-ONCO	4	2		2	

Course description (syllabus): Oncology is a branch of medical disciplines studying malignant diseases - incidence and prevalence, positive diagnosis, evaluation stage, specialized multidisciplinary treatment: surgery, radiotherapy, chemotherapy, hormonal and molecular therapy.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Epidemiology	M-EPID	3	2		1	

Course description (syllabus): Epidemiology: understanding the concept of disease prevention of infectious diseases by accumulating epidemiological basics on processes related to sources, pathways and mechanisms of transmission, responsiveness, predisposing factors and manifestations thereof.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Family medicine	M-MEDFAM	5	2		3	

Course description (syllabus): *Family medicine* is a specialty devoted to comprehensive health care for people of all ages. The discipline is often referred to as general practice and a practitioner as a General Practice Doctor or GP; this name emphasises the holistic nature of this speciality, as well as its roots in the family. It is a division of primary care that provides continuing and comprehensive health care for the individual and family across all ages, genders, diseases, and parts of the body. It is based on knowledge of the patient in the context of the family and the community, emphasizing disease prevention and health promotion

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Public health and management	M-SP-MS	3	2		1	

Course description (syllabus): Health policy and management is the field relating to leadership, management, and administration of public health systems, health care systems, hospitals, and hospital networks. Health care administrators are considered health care professionals

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Intensive care and anesthesia	M-ATI	4	2		2	

Course description (syllabus): *Anaesthesia/ Anesthesiology* – assessment and preparation of patients for anesthesia, relief and prevention of pain during and following surgical, obstetric, therapeutic, and diagnostic procedures, monitoring and maintenance of normal physiology during perioperative period

Intensive/ Critical Care Medicine – deals with potentially life-threatening illnesses – marked exacerbation of an existing disease, severe acute new problems, or severe complications from disease or treatment

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Forensic medicine	M-MED-LEG	3	1		2	

Course description (syllabus): Forensic medicine is pathology that focuses on determining the cause of death by examining a corpse. The post mortem is performed by a medical examiner, usually during the investigation of criminal law cases and civil law cases in some jurisdictions. Coroners and medical examiners are also frequently asked to confirm the identity of a corpse.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Dermatology	M-DERMATOL	4	2		2	

Course description (syllabus): Dermatology is the branch of medicine dealing with the skin, nails, hair and its diseases. It is a specialty with both medical and surgical aspects. Venereology is a branch of medicine that is concerned with the study and treatment of sexually transmitted diseases.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Dermato-cosmetology	M-DERCOS	2	1			

Course description (syllabus): Dermato-cosmetology includes cosmetic and aesthetic aspects of dermatology. Dermato-cosmetology is part of dermatology associating specific procedures: skin protection from harmful factors, repair after aggression, treatment of skin diseases.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Andrology	M-ANDR	2	1			

Course description (syllabus): Andrology is the medical specialty that deals with male health, particularly relating to the problems of the male reproductive system and urological problems that are unique to men.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Tropical diseases	M-BTROP	2	1			

Course description (syllabus): Tropical diseases are diseases that are prevalent in or unique to tropical and subtropical regions.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Minimally invasive joint surgery	M-CHIR-MIN-INV	2	1			

Course description (syllabus): Minimally-invasive surgery refers to surgical techniques that limit the size of incisions needed and so lessens wound healing time, associated pain and risk of infection.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Basics of complementary medicine	M-BAZ-MED-COMP	2	1			

Course description (syllabus): Complementary medicine consists of a wide variety of practices, products, and therapies – ranging from those that are biologically plausible but not well tested, to those with known harmful and toxic effects. Complementary therapies or diagnoses are not part of medicine or science-based healthcare systems.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Maternofetal medicine	M-MMF	2	1			

Course description (syllabus): Maternal–fetal medicine is a branch of medicine that focuses on managing health concerns of the mother and fetus prior to, during, and shortly after pregnancy.

Course title	Code	No. of credits	Number of hours per week			
			course	seminar	laboratory	project
Fundamentals of medical law	M-DM	2	1			

Course description (syllabus): Fundamentals of medical law is a system of moral principles that apply values and judgments to the practice of medicine. As a scholarly discipline, medical ethics encompasses its practical application in clinical settings as well as work on its history, philosophy, and sociology.