



JUST Jordan University of
Science and Technology

Faculty of Medicine

Introduction to medicine and medical terminology

Med1 73

Course Title	Introduction to Medicine, Dentistry and Medical Terminology
Course Coordinator	Dr. Ahmed Al-Dwairi; e-mail: andwairi7@just.edu.jo
Semester	First - 2023/2024
Office Hours	To be arranged by each instructor
Reference	Lecture Handouts
Exams	TBD
Make-up Exam Policy	<p>Excused absences from examinations normally will be given only in cases of serious illness and should be reported on exam dates to the course coordinator.</p> <p>Only students with a valid excuse will be allowed to take a “make-up” exam (an essay exam) within one week of holding the scheduled exam.</p> <p>An un-excused absence will result in a grade of zero for that exam.</p>
Course Description	<p>This asynchronous online course serves as a comprehensive introduction to the foundational concepts of medicine and the essential language vital for effective communication within the medical and dental domains. Specifically designed for first-year medical and dental students, this course aims to equip learners with a fundamental understanding of the human body, medical principles, and the vocabulary necessary for successful engagement in the healthcare field. Students will embark on a self-paced exploration of the human body, delving into its structure, functions, and various systems. Understanding the physiological and anatomical foundations will provide the basis for comprehending diseases, treatments, and healthcare</p>

	<p>management. A significant focus will be placed on developing proficiency in medical terminology. Learners will become adept in utilizing the lexicon used by healthcare professionals, covering prefixes, suffixes, and root words to decipher and construct medical terms. The course will also emphasize etymology, enabling students to grasp the origin and structure of medical vocabulary for easier comprehension and retention.</p> <p>The course materials will be delivered through multimedia resources, including pre-recorded video lectures, PowerPoint slides and handouts. Throughout the course, students will have access to online forums and discussion boards to interact with instructors and peers, fostering a collaborative learning environment. Instructors will be available to provide guidance and support via virtual office hours, email, or other communication channels.</p>
Attendance Policy	<p>The lectures will be delivered online through video recordings.</p> <p>Communications, announcements, and supplementary materials will be provided via E-learning or supplemented by e-mail to a class representative.</p>

JoMEDs Domain	Program Learning outcomes (PLOs)	
Knowledge and skills	PLO1	Demonstrate medical knowledge of the basic and clinical sciences, including anatomy, physiology, pathology, and pharmacology, etc.
	PLO2	Conduct a comprehensive medical history and physical exam and make a diagnosis and form a management plan.
	PLO3	Recognize and respond appropriately to emergencies and urgent situations, including cardiopulmonary resuscitation (CPR) and life-threatening illnesses.
	PLO4	Identify and manage non-communicable chronic diseases.
	PLO5	Perform medical procedures safely and accurately, including basic surgical procedures and diagnostic tests.
Community and public health	PLO6	Understand and apply principles of public health and epidemiology, including disease prevention and health promotion.

	PLO7	Demonstrate cultural competence and sensitivity to diverse patient populations, including those from different ethnic and socioeconomic backgrounds.
	PLO8	Understand and apply principles of healthcare quality and safety, including patient safety and risk management.
Research and evidence-based practice	PLO9	Practice evidence-based medicine, using critical thinking skills to evaluate the quality and relevance of medical literature and research.
	PLO10	Practice lifelong learning and engage in ongoing professional development to enhance clinical knowledge and skills.
Professional and ethical practice	PLO11	Practice patient-centered care, including shared decision-making and respect for patient autonomy, privacy, and confidentiality.
	PLO12	Demonstrate professionalism and ethical behavior, including integrity, honesty, and responsibility.
Communication	PLO13	Communicate effectively with patients, families, and healthcare professionals, demonstrating empathy, cultural sensitivity, and professionalism.
	PLO14	Use technology effectively and ethically to support patient care and clinical decision- making.

Course learning outcomes (CLOs):

CLO1: Demonstrate a comprehensive understanding of basic and clinical sciences, encompassing anatomy, physiology, pathology, and pharmacology to explain medical conditions and treatments.

CLO2: Demonstrate proficient use of medical terminology, incorporating prefixes, suffixes, and root words to construct and decode medical terms in clinical contexts.

CLO4: Recognize the significance of etymology in medical terminology, enabling easier retention and understanding of complex medical terms.

CLO5: Engage with multimedia resources to self-learn and explore medical concepts, enhancing understanding of foundational medical principles and terminologies.

CLO6: Understand and apply principles of healthcare quality and patient safety, including patient safety measures and risk management within a simulated clinical environment.

CLO7: Demonstrate professional conduct by adhering to ethical standards in a simulated clinical environment, respecting patient autonomy, privacy, and confidentiality.

Teaching and learning strategies with evaluation criteria				
CLO#	Learning objectives	Teaching and learning approach	Assessment & Evaluation	Targeted weight (%)
CLO# 1-3	Knowledge and Understanding: Information	Lectures; Pre-recorder video lectures	Multiple choice questions	40%
CLO# 4-5	Knowledge and understanding- Comprehension	Lectures; Pre-recorder video lectures	Multiple choice questions	30%
CLO# 6-7	Cognitive and Intellectual Skills- Application	Lectures; Pre-recorder video lectures	Multiple choice questions	30%

Week	Date	#	Title	Lecture Objectives	Lecturer
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1	8/10		Introduction	Introduction to the course	Staff
2	15/10	1	Medical terminology I	<p>Identify, spell, and pronounce the common medical terminology related to the main body systems.</p> <p>Understand the meaning of medical words and phrases frequently used in the medical field.</p> <p>Define the prefixes, suffixes and word roots common to body organization.</p> <p>List and interpret the commonly used medical abbreviations and symbols.</p> <p>Learn the basic rules of constructing medical terms using the correct word roots, prefixes and suffixes.</p> <p>Gain practice in word analysis</p> <p>Define and identify the prefixes, suffixes and combining forms related to respiratory, cardiovascular, and endocrine systems.</p> <p>Identify the the main structures and functions of the respiratory system.</p> <p>Define the heart in terms of chambers, valves, heartbeat, heart sounds, blood flow and blood supply.</p> <p>Describe the major components of blood and the types of blood vessels.</p> <p>Name and describe the major organs of the endocrine system and their roles.</p> <p>Describe the major hormones secreted by each of the endocrine glands and their functions.</p> <p>Learn the abbreviations associated with respiratory, cardiovascular, and endocrine systems.</p>	Dr. Doaa Al Udatt dgaludatt@just.edu.jo

				Understand, pronounce, and spell the terms related to respiratory, cardiovascular, and endocrine systems.	
		2	Medical Terminology II	<p>Define and identify the prefixes, suffixes and combining forms related to integumentary, musculoskeletal, and nervous systems.</p> <p>Identify the layers and the accessory organs of the skin and their functions.</p> <p>Describe the main organs of the musculoskeletal system and the types of muscle tissue and their functions.</p> <p>Define the structures and the functions of the nervous system.</p> <p>Learn the abbreviations associated with integumentary, musculoskeletal and nervous systems.</p> <p>Understand, pronounce, and spell the terms related to integumentary, musculoskeletal, and nervous system.</p> <p>Define and identify the prefixes, suffixes and combining forms related to digestive, urinary and reproductive systems.</p> <p>Identify the main structures and functions of the digestive, urinary and reproductive systems.</p> <p>Understand the processes of digestion, absorption, and metabolism.</p> <p>Learn the abbreviations associated with digestive, urinary and reproductive systems.</p> <p>Understand, pronounce and spell the terms related to digestive, urinary and reproductive systems.</p>	Dr. Doaa Al Udatt dgaludatt@just.edu.jo
3	22/10	3	Introduction to Physiology	<p>Understand the definition of Human Physiology and enumerate the main subcategories of Physiology.</p> <p>Introduce the concept of a control system</p>	Dr. Doaa Al Udatt dgaludatt@just.edu.jo

				<p>Introduce the concept of Homeostasis and how it relates to Human Health</p> <p>Understand the functional organization of human body</p> <p>Identify, pronounce, spell, and build words related to control systems and homeostasis.</p> <p>Understand how all the different body organ systems contribute to homeostasis.</p>	
		4	Introduction to Anatomy	<p>Define the Science of Anatomy, its branches and Methodology used to study Anatomy</p> <p>Understand organization of the human body including different planes and sections</p> <p>Describe in brief the different organ body systems</p> <p>Enumerate organs of each system and its relationship to different body cavities</p>	Dr. Nour Erekat nserekat@just.edu.jo
4	29/10	5	Introduction to Histology	<p>Define the topic of Histology</p> <p>Understand different methods of histological preparation for the different types of microscopes</p> <p>Understand modern techniques used in different histological sections</p>	Dr. Qasim El-Dwairi eldwairi@just.edu.jo
		6	Introduction to Embryology	<p>Define the topic of embryology including male and female gametogenesis</p> <p>Understand the process of fertilization and embryo implantation</p>	Dr. Nabil A. Khouri nakhouri@just.edu.jo
5	5/11	7	Introduction to Biochemistry	<p>Understand the chemical structure, properties and major functions of the four main Macromolecules in the cell (Carbohydrate, Proteins, Nucleic acids, Lipids)</p> <p>Understand what is meant by a metabolic pathway including differences between anabolic and catabolic pathways</p>	Dr. Aya Al Smerat MsC aaalsmerat@just.edu.jo

				Understand why ATP is the energy currency of the cell	
		8	Introduction to Cell Biology and Genetics	Undertake a panoramic view of the cell including the structural organization and functions of the following organelles: Nucleus, Ribosomes, Endomembrane system, Lysosomes, Peroxisomes, Mitochondria, Cytoskeleton)	Dr. Aya Al Smerat MSc aaalsmerat@just.edu.jo
6	12/11	9	Introduction to Microbiology	This lecture introduces the basic principles of microbiology examining major the classes of microbes and covers information on the history of microbiology, evolution of microorganisms, classification, and nomenclature. It covers information about the structure, metabolism reproduction, function and diseases caused by bacteria, viruses, bacterial viruses, animal viruses, and mycoplasma.	Dr. Ziad Elnasser znasser@just.edu.jo
		10	Introduction to Immunology	<p>Gain a historical background of the evolution of the science of immunology.</p> <p>Compare and contrast between Innate and adaptive immune systems.</p> <p>Enumerate different antigen recognition molecules in immunology.</p> <p>Differentiate between primary and secondary immune responses</p> <p>Understand the different applications of immunology in Medicine</p>	Dr. Ziad Elnasser znasser@just.edu.jo
7	19/11	11	Introduction to Pathology	<p>Define the topic Pathology including its History.</p> <p>Compare and contrast between Surgical and Clinical Pathology</p> <p>Understand the differences between general and systemic pathology.</p> <p>Introduce the students to modern and new methodologies in Pathology including digital pathology and liquid biopsies</p>	Dr. Mohammed Alorjani msalorjani@just.edu.jo
		12	Introduction to Pharmacology	Understand the definition of “drugs”, “pharmacology”	Dr. Rama Alawneh Dr. Ahmad Altarifi aaaltarifi@just.edu.jo

				<p>Differentiate between different purposes of administering drugs</p> <p>Differentiate between natural Vs. synthetic sources of drugs</p> <p>Understand the difference between chemical, generic and brand names of drugs</p> <p>Understand the following terms:</p> <ul style="list-style-type: none"> • Desirable effects of drugs • Drug indications • Mechanism of action • Adverse drug reactions • Toxic dose • Contraindications • Antidote • Onset and duration of action <p>Enumerate the different routes of drug administration</p> <p>Compare and contrast between pharmacokinetics and pharmacodynamics</p>	
8	26/11	Midterm exam			
9	3/12	13	Introduction to Public Health	<p>Define Public Health and its key terms;</p> <p>Identify the different determinants of health (biophysical, social, health inequities and inequalities, ethics, globalization and ageing) including how they impact disease burden</p> <p>Understand the differences between communicable and non- communicable diseases</p>	Dr. Abdulhakeem Okour aokour@just.edu.jo
		14	Introduction to First Aid	<p>Define what is meant by First Aid</p> <p>Understand the responsibilities of the professional who delivers First Aid including priorities that govern First Aid delivery</p>	Dr. Liqaa Raffee laraffee5@just.edu.jo
10	10/12	15	Introduction To Dentistry I	<p>Introduce a general outline of the History of Dentistry</p> <p>Compare and contrast between different Dental Specialties:</p> <p>Brief description of the dental curriculum</p>	Dr. Aladdin A. Al-Qudah aqudah@just.edu.jo

		16	Introduction to Dentistry II	<p>Understand functions of teeth</p> <p>Understand different classifications of teeth (Maxillary Vs. Mandibular, Anterior Vs. Posterior, Primary Vs. Permanent)</p> <p>Understand dental chronology</p> <p>Understand differences between Macro and Micro anatomy of teeth</p> <p>Understand the differences between the different dental notation systems (Palmar, Universal and FDI)</p>	Dr. Aladdin A. Al-Qudah aqudah@just.edu.jo
11	17/12	17	Professionalism	<p>Define the doctor's duties towards self, colleagues, patients (and families), the profession, and the community in general.</p> <p>Describe the relationship a doctor has with others during the provision of health care.</p> <p>Appreciate the significance of maintaining professional relationships with colleagues in order to achieve the best health care</p>	Dr. Ahmed Barakat ahbarakat@just.edu.jo
		18	Introduction to Medical Ethics	<p>Understand the principles of ethical practice in:</p> <ol style="list-style-type: none"> 1. Health care. 2. Clinical and Basic Research 	Dr. Abdulhakeem Okour aokour@just.edu.jo
12	24/12	19	Smoking: The Facts, the Myths, and the Way Out	<p>To explain the health effects of smoking on various organs and systems of the body, such as the lungs, heart, brain, skin, and reproductive system.</p> <p>To debunk some common myths and misconceptions about smoking, such as "smoking helps me relax", "smoking is not addictive", "smoking only harms me, not others", and "smoking is cool and fashionable".</p> <p>To provide evidence-based and practical strategies for quitting smoking, such as setting a quit date, using nicotine replacement therapy, seeking</p>	Dr. Ahmad Altarifi aaaltarifi@just.edu.jo

				<p>professional help, joining a support group, and avoiding triggers.</p> <p>To motivate and inspire the audience to quit smoking by highlighting the benefits of quitting, such as improved health, appearance, mood, finances, and quality of life.</p>	
		20	Communication skills	<p>To define the concept and importance of communication skills in the medical profession, such as establishing rapport, building trust, conveying empathy, and ensuring patient safety .</p> <p>To identify the components and principles of effective communication skills, such as verbal, non-verbal, written, and listening skills, as well as clarity, accuracy, relevance, and feedback .</p> <p>To demonstrate the application and practice of communication skills in various medical scenarios, such as taking a medical history, breaking bad news, obtaining informed consent, and dealing with difficult patients .</p> <p>To evaluate the strengths and weaknesses of one's own communication skills and develop a personal action plan for improvement .</p>	TBD
15	14/1		Period of final exams		