

Thi-Qar College of Medicine (TCM)

Intended Learning (Educational) Outcomes "ILOs"

The cognitive domains that characterize what students of Thi-Qar College of Medicine (TCM) can achieve upon graduation are:

A- What the doctor is able to do ?

Cognitive domain key number	Cognitive domain	A doctor as	Knowledge , skill , and attitude and behavior (KSA)
1	Clinical skill	Practitioner	Skills
2	Practical procedures	Practitioner	Skills
3	Patient investigation	Practitioner	Knowledge
4	Patient management	Practitioner	Knowledge
5	Health promotion and disease prevention	Professional Conduct	Knowledge
6	Communication	Communicator	Skills
7	Medical informatics	Manager	Skills



B- How the doctor approaches their practice ?





Cognitive domain key number	Cognitive domain	A doctor as	Knowledge , skill , and attitude and behavior (KSA)
8	Basic, social and clinical sciences and underlying principles	Scholar and Scientist	Knowledge
9	Attitudes, ethical understanding and legal responsibilities	Professional Conduct	Attitude and behavior
10	Decision making skills and clinical reasoning and judgment	Practitioner	Skills




C- The doctor as a professional





Cognitive domain key number	Cognitive domain	A doctor as	Knowledge , skill , and attitude and behavior (KSA)
11	The role of the doctor within the health service	Professional Conduct	Attitude and behavior
12	Personal development	Professional Conduct	Attitude and behavior
13	Participate in teaching assistant programs	Teacher	Skills

Medical Knowledge (Integration of the Basic ,social and clinical Sciences in Medicine)

Learning Outcomes		Educational Course/ Activities																									Evaluation									
Cognitive Domains (KSA)		Domain Key number	Anatomy / F M/Embrvologv	Chemistry	Biology	Physics	Neuroscience	Medical terminology	Computer science	Physiology	Anesthesiology	Histology	Human rights	Biochemistry	Pharmacology	Parasitology	Pathology	Surgery	Medicine	Paediatric	Gynecology	Community medicine	Behavioral science	Medical ethics	Orthopedics	Dermatology	Radiology	Psychology	FNT	Ophthalmology	Written Exam	Practical	Observation			
K1	Knowledge and understanding of the principles of evidence based medicine.	8	x	x	x	x	x			x	x	x		x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x			
K2	Knowledge and understanding of the normal structure, function and development of the human body and mind at all stages of life and body-mind interactions. <ul style="list-style-type: none"> Basic science 	8	x		x	x	x			x		x			x		x	x	x	x	x	x	x			x	x			x	X	x	x			





K3	<p>Knowledge and understanding of the genetic developmental, metabolic, toxic, microbiologic, neoplastic, autoimmune degenerative, and traumatic noxious effects on the body and mind.</p> <ul style="list-style-type: none"> • Basic science 	8	x		x		x		x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
K4	<p>Knowledge and understanding of the etiology, pathogenesis, pathology and prognosis of disorders in all age groups- mostly the common disorders</p> <ul style="list-style-type: none"> • Basic science 	8			x							x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
K5	<p>Knowledge and understanding of the most frequent clinical (symptoms and signs), laboratory ,radiologic, and pathologic manifestations of common diseases</p> <ul style="list-style-type: none"> • Clinical science 	8			x							x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
K6	<p>Knowledge and understanding of common diagnostic procedures (laboratory and radiological), (listed in the App. 2.) Their indications, contra-indications and limitations and interpret the results .</p> <ul style="list-style-type: none"> • Clinical science 	3			x																																								




K7	Knowledge of the appropriate use of laboratory techniques and hygiene and sanitation, asepsis, infection control, transmission,	3				x																								x	x	x		
K8	Knowledge and understanding of the basic principles of the management of common conditions and disease : General principles of patient management , Drugs Surgery, Therapy services, Nutrition. Emergency medicine, Acute care, Chronic care, Intensive care, Palliative care, Pain control Rehabilitation, Complementary therapies, Patient referral, Blood Transfusion Services Radiotherapy, Psychological therapy • Clinical science	4																																
K9	Knowledge and understanding of the action, metabolism, and toxic effects of drugs and their therapeutic applications, indications, contraindications and side effects.	8																																

K10	<p>Knowledge and understanding of the epidemiology of common diseases and conditions and the systematic approaches in reducing the incidence and prevalence of those diseases.</p> <ul style="list-style-type: none"> • Basic Science 																																							
K11	<p>Knowledge and understanding of the principles of health promotion (maintenance) , disease prevention, education , and screening programs.</p> <ul style="list-style-type: none"> • Clinical science 	5																																						
K12	<p>Knowledge and understanding of the principles of management of suffering and disability, rehabilitation and the care of dying , palliative and hospice care , basic pain mechanisms and basic strategies for pain management.</p> <ul style="list-style-type: none"> • Clinical science 																																							
K13	<p>Knowledge and understanding of normal growth and development.</p> <ul style="list-style-type: none"> • Science 	8																																						

K14	<p>Knowledge and understanding of the principles and concepts of normal behavior and mental illness.</p> <ul style="list-style-type: none"> Behavioral sciences: 	8																																													
K15	<p>Basic knowledge and understanding psychological, cultural and spiritual well-being of patients and their families, and the interactions between humans and their social and physical environment.</p> <ul style="list-style-type: none"> Social science :psychology 	8																																													
K16	<p>Knowledge and understanding of health care provision systems in a culturally diverse society, their advantages and limitations, the principles of efficient and equitable allocation and use of finite resources, and of local and national needs in health care and the delivery of service.</p> <ul style="list-style-type: none"> Public health 	8																																													
K17	<p>Knowledge and understanding of the ethical principles of health care and the legal issues in medicine.</p> <ul style="list-style-type: none"> Medical ethics 																																														

S5	<p>The ability to make management strategy (treatment, and prevention) for diseases and other health problems.</p> <p>The ability apply evidence-based medicine in the management strategy of health care.</p>	1				X												X	X	X	X	X					X	X		X	X	X	X	X	X	X	X	X	
S6	<p>The ability to perform routine technical procedures (see App 1) to entail accurate observation and make critical analyses of data.</p>	2				X												X	X	X	X	X					X	X			X	X	X	X	X				
S7	<p>The ability to document the clinical encounter. Collecting, storing and using information : ranging from simple record-keeping to accessing and using computer-based data</p>	7																X				X				X						X	X						
S8	<p>The ability to apply the principles and concepts underlying normal behavior and mental illness.</p>	1																																					

S13	The ability to apply non biological (psychosocial, cultural, ethnic) principles and concepts in the delivery of health service																					X			X			
S14	The ability to apply preventive and health maintenance principles and techniques in the delivery of health care											X													X			
S15	The ability to apply the appropriate use of laboratory methods in identifying diseases or health problems.	2																							X	X	X	
S16	The ability to recognize patients with immediately life threatening conditions and perform suturing of lacerations and BCLS (CRP)	1											X												X	X	X	




S17	The ability to apply the concepts and principles of primary care and apply cost.	10																	X										X	X	
S18	Ability to understand ethical and cultural differences and to demonstrate awareness of how patient culture, ethnicity, gender, sexual orientation, socio-economic status and other non-medical issues affect to the clinical encounter.																		X									X	X		
S19	The ability to critically appraise the medical literature.	13																	X									X	X		




Interpersonal and Communication Skills




Learning Outcomes	Educational Course/ Activities	Evaluation
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Cognitive Domains (KSA)		Objectives																																
		Cognitive Domain key	Anatomy/EM/embryology	Chemistry	Biology	Physics	English language	Medical terminology	Computer science	Physiology	Anesthesiology	Histology	Human rights	Biochemistry	Pharmacology	Parasitology	Pathology	Surgery	Medicine	Paediatric	Gynecology	Community medicine	Behavioral science	Medical ethics	Orthopedics	Dermatology	Radiology	Psychology	ENT	Ophthalmology	Written Exam	Practical	Observation	
IC1	Effective and honest exchange of information, communication and collaboration with patients, their families, public and health professionals, using active listening and appropriate verbal, nonverbal and written skills.	6	x														x	x	x	x	x		x		x	x	x	x	x				x	
IC2	The ability to utilize appropriate communication skills with patient and relatives to obtain a history, diagnosis, and to suggest an effective management and treatment plan to patients.																																	





IC3	<p>Establish therapeutic relationships with patients that will take into account their socioeconomic and cultural backgrounds, and demonstrate the respect, empathy, honesty and emotional support as needed and always follow ethical principles of the medical profession.</p>	6																																												
IC4	<p>In challenging situation, including delivering bad news, issues related to death, end of life, adverse events, disclosure of medical errors etc, demonstrate sensitivity, honesty, and compassion.</p>	6																																												
IC5	<p>Keep accurate, comprehensive, timely, legible and reliable medical records, write the notes , write admission workups, hospital follow-ups, focused outpatient workups, outpatient follow-ups etc. in a thorough and focused manner.</p>	7																																												




IC6	<p>The ability to effectively utilize appropriate communication skills to effectively cooperate with colleagues , peers and members of the healthcare team in the care of patients and their families</p>	6																																												
IC7	<p>Recognize the importance of patient preferences when selecting among diagnostic and therapeutic options; appreciate the impact of the disease on the quality of life, well-being, ability to work, and the family</p>																																													
IC8	<p>After taking a history and physical examination, present the results in the forms of short oral presentation of the findings that will include chronologically organized development of the present illness, medication list, past history, and pertinent positives and negatives from the family history, social history, and physical examination.</p>	7																																												




IC9	In written, oral, interpersonal, or group presentations, show the effectiveness, critical thinking, creativity, and analytical ability.																																					
IC10	Always demonstrate the respect towards others , reliability, responsibility, and honesty in communication with the patients, their relatives, colleagues, peers, medical staff and all other members of the health care team.	6																																				
IC11	By showing appropriate listening and verbal skills to communicate empathy , they will elicit information related to the patient's preferences and provide basic information to the patient, explain the diagnosis, prognosis and treatment plan.	6																																				




IC12	<p>Establish the rapport with patients that will help in the identification of the hidden agendas and the recognition of the psychosocial issues, and take an active role in patient education and compliance issues.</p>	6																																												
IC13	<p>Exhibit teamwork and respect toward all members of the health care team, and perform as an effective member of the team by showing adequate interprofessional communication skills.</p>	6																																												
IC14	<p>Listen, give and receive feedback.</p>	6																																												


Medical Attitude and behavior

Learning Outcomes		Educational Course/ Activities																				Evaluation												
Cognitive Domains (KSA)		Cognitive Domain Key	Anatomy/FM/ Embryology	Chemistry	Biology	Physics	English language	Medical terminology	Computer science	Physiology	Anesthesiology	Histology	Human rights	Biochemistry	Pharmacology	Parasitology	Pathology	Surgery	Medicine	Paediatric	Gynecology	Community medicine	Behavioral science	Medical ethics	Orthopedics	Dermatology	Radiology	Psychology	ENT	Ophthalmology	Written Exam	Practical	observation	
AB1	The ability to apply humanistic values in the delivery of health care, to demonstrate responsibility toward the health interests of the patient and the community. The ability to recognize and accept ethical and moral aspects of the profession.	9 11															x									x							x	
AB2	The ability to cooperate with other health care providers, patients and their families from diverse cultural backgrounds	9 11															x										x							

AB3	The ability to respect the patients' dignity, privacy, and confidentiality in the delivery of health care as well as the compassion.	9 11																									x	
AB4	The ability to effectively communicate effectively, both orally and in writing, with patients, patients' families, colleagues, health care workers and the others with whom he/she must exchange information in carrying out their responsibilities.	9 11																						x	x			
AB5	The ability to seek help, when needed, to deal with academic, personal, or interpersonal problems, openness to the feedback.	11																						x	x			

AB6	The ability to demonstrate the awareness of the personal manners, dress, grooming, speech, and interpersonal skills expected by the community of a medical professional.	11		
AB7	The ability to consistently carry out one's duties with honesty, personal integrity, self-motivation, and self-discipline.	12		
AB8	Recognize the need to engage in lifelong learning and the commitment to engage in lifelong learning in order to maintain sufficient familiarity with scientific advances to ensure they are integrated appropriately with patient care.	12	<div style="display: flex; justify-content: space-between;"> x x x </div>	

AB9	The ability to recognize personal educational needs , to select and utilize appropriate learning resources, apply principles of evidence based medicine, the capacity to recognize and accept limitations in one's knowledge and clinical skills, and a commitment to continuously improve one's knowledge and ability.	12																											
AB10	A commitment to advocate the interests of the patients over own selfish interests, willingness to provide care to patients who are unable to pay and to advocate for access to health care for members of traditionally underserved populations.	12																								x			
AB11	The ability to demonstrate personal responsibility, reliability, dependability, open-mindedness, and curiosity.	12																								x			

AB12	Effective communication skills: besides Arabic language proficiency, to demonstrate the capability to utilize verbal and non-verbal communication specific to culture, gender, and patient understanding.	12																												x	
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Professionalism:

Everything from clinical decision-making and patient communication to interpersonal relationships with colleagues, adherence to ethical standards, and commitment to continuous learning and improvement

Cognitive domains	AB 1
	AB2
	AB3
	AB4
	AB5
	AB6
	AB7
	AB8
	AB12
	S21
	K21

Organization and Systems-Based Approach to Medicine (System Based Practice)

Cognitive domains	S17
	K16
	K22

Practice-Based Learning and Self-Improvement: Life-Long Learning and personal Improvement

Cognitive domains	AB 8
	AB 9
	S 19
	AB 10
	AB 11

App 1 - Practical procedures

The following are suggested procedures that the new graduate **should be able to carry out unsupervised.** *This could include:*

- **Measuring and recording:**

- radial pulse rate
- blood pressure,
- body temperature.
- peak expiratory flow rate .
- bed side measurement of blood glucose using Reagent sticks with and without a glucometer,.
- urinalysis using Multistix dip-sticks
- fecal occult blood testing
- pregnancy testing,
- interpret a 12 lead ECG,.
- manage an ECG monitor
- interpretation of common and emergency disease by native x ray-(chest-abdomen-trauma)
- Write safe and concise prescriptions and medical orders
- **Administering and doing: (Basic practical skills)**
 - First Aid, basic resuscitation and basic life support for adults and children/infants (BLS)
 - administration of oxygen therapy with different devices.
 - Using nebulizers and other inhalation devices
 - venipuncture and collection of blood samples (Prepare simple blood tests such as complete blood count, blood groups, bleeding time, clotting time and erythrocyte sedimentation rate).
 - take a blood culture. - Perform common bacterial cultures
 - establish intravenous access and set up a giving set(- Cannulation of veins- Administer intravenous therapy and use infusion devices)
 - male and female urinary catheterization,
 - Prepare samples for routine urine (MSU) and stool examination and identify common abnormalities.
 - arterial puncture,
 - scrub up and gown for surgical and sterile procedures;
 - Skin and subcutaneous abscess incision and drainage
 - skin suturing,
 - wound care and basic wound dressing,
 - make up drugs for parenteral administration,

- administration of intravenous, intramuscular and subcutaneous injections,
- Administer local anesthetics
- dosage and administration of insulin and use / prescribing of sliding scales,
- use iv infusion and volumetric pumps,
- take nose, throat and skin swabs
- Insert nasogastric tubes
- perform a 12 lead ECG,.
- Thoracocentesis
- Paracentesis
- Safe blood transfusion
- Manage normal labor
- Perform tuberculin test
- Perform pulse oximetry and bedside respiratory function tests

App 2 -Patient Investigation

As with practical procedures there are different categories of patient investigation depending on whether or not we would expect a new graduate to be able **to undertake the task themselves or simply to know how the investigation is carried out and when it is appropriate to use it.** Competency in the general principles of patient investigation is essential. *This could include:*

- **General principles of patient investigation:** Appropriate choice and use of investigation. Requesting/ordering of investigations according to local protocols / guidelines. Obtaining informed consent for investigations. Preparing patients for investigations practically and with adequate information.
- **Laboratory-based investigations:** Demonstrable knowledge of the circumstances in which the commoner laboratory-based investigations are indicated and the procedures required to obtain the necessary material for investigation. Include: Biochemistry, Hematology Microbiology, Pathology ,Cytology, Genetics ,Immunology, Virology.
- **Radiological investigations:** Demonstrable knowledge of the range of radiological investigations available

and their appropriate use in different circumstances.

- ***Clinical investigations: A number of system-specific investigations which the graduate should know about and may have observed, but would not routinely be expected to perform (c.f. Practical Procedures)***
.Exercise tolerance test, Pleural tap/biopsy, Upper and lower GI endoscopy, EEG, Lumbar puncture, Cystoscopy, Cervical smear, Colposcopy, Skin biopsy, Joint aspiration.

FEEDBACK FORM

As well as reading through this document when you first receive it, we hope that you refer back to it and use it over the next year.

We would welcome your comments and suggestions regarding the content of the document at any time during this period.

You can either write your comments in the space below, and send it to the e-mail reply facility on the Thiqa medical college web site

or send an e-mail message to Ass. prof. Dr Riyadh del J. abzulazeez (riyadhmasar@gmail.com) You may remain anonymous if you wish but it would be helpful to have some basic information regarding your geographical location, your specialty and grade of post.

Thank you.

26-3-2023

Your name :

Where do you work?:

What is your specialty?:

What position do you hold?:

COMMENTS: