

COMM 311

Community Medicine Course Department of Family & Community Medicine

Student/ Faculty Guide

August 2019



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Course coordinators' message

Dear Colleagues and students

Greeting!

I would like to welcome you to the course COMM 311, which is a 4-credit hour course aimed to deliver concepts of Public health and preventive medicine. This course will run throughout the third year and will include a mixture of different teaching methods to deliver concepts of preventive medicine. This course aims to equip the students with the knowledge and skills to work with, and among the community in disease prevention and health promotion. It also aims to provide knowledge regarding how health systems work and play an important role in the overall health care provision.

Kindly walk yourself through this manual, which will help you with important information regarding the conduct of the course and what is expected from you, it also provides you with the contact emails of the faculty that you may want to get in touch with, while you are taking this course.

I would like to thank Drs Hussain, Marwah, Armen, and Rufaidah who have given constructive feedback to enrich the course. I would also like to thank Dr Amr Jamal, Prof Mona and Prof Hamza for their continuous support throughout re-structuring and implementation of the course.

I wish you an enjoyable and happy learning.

All the best!

Dr Hafsa Raheel



General information

Course Title: Community Medicine Course

Code & Number: COMM 311

Credit hours: 4

Course duration: Course will run throughout the academic year 2019- 2020

Lectures: 29

Tutorials: 11

Student led Seminars: 10

TBL: 2

Course Organizer

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Course Learning Outcomes (CLOs-May 2019)

1. KNOWLEDGE

- 1.1 Define the terminologies are used in the preventive medicine and public health
- 1.2 Describe the healthcare system in Saudi Arabia

2. COGNITIVE SKILLS

- 2.1 Apply the principles of disease prevention and control.
- 2.2 Explain the effects of environments and occupations on human health
- 2.3 Discuss the basic infectious cycles and principles of demography.
- 2.4 Estimate different rates and indicators used to quantify the health problems.
- 2.5 Discuss the management of common health problems in the community (Appendix B)

3. INTERPERSONAL SKILLS & RESPONSIBILITY

3.1 Participate effectively as a team member and in delivering a presentation,

4. COMMUNICATION, INFORMATION TECHNOLOGY, NUMERICAL

4.1 Demonstrate appropriate communication skills in patients counseling for common community problems (Appendix C)

5. Psychomotor Skills

5.1 Demonstrate basic skills in taking anthropometric measurement and other skills needed in community health management (Appendix D)



Overview of the course

A. Teaching methods

The course is taught using Lectures, tutorials, and seminars. While lectures will be used to provide students with the knowledge and concepts, they need for the course. Tutorials will contain small exercises elaborating on the concepts delivered in each lectures.

Plan for each mode of teaching:

Lectures:

They will be delivered by the responsible faculty. The objectives of each lecture in this student guide will be used as reference. Kindly refer to the tables below for each lecture objectives.

Tutorials:

They are planned to follow on the concepts delivered in each lecture. The class will be divided into small groups (aprox 20 students in each group). Small scenarios will be given to groups of students and solved/ discussed between faculty and students. The faculty who is to deliver the lecture related to the tutorial, will be responsible to develop the scenarios and conduct the tutorial with other faculty members in the allotted time.

Seminars:

Students will be divided into groups of 8 - 10.

Given a topic and allotted a supervisor. Students are to approach the allotted supervisor/faculty at least 3 - 4 weeks ahead to the scheduled date for the seminar. Incase the student group does not approach the faculty ahead of time, the faculty has every right to refuse to conduct the seminar with the students.



Students are expected to work closely on preparation of the topic with the faculty.

The students are free to make use of presentations, small role plays, and critical article appraisal for the preparation of the topic.

A **short summary** will also be needed to be submitted by each group. It is the responsibility of the assigned faculty to finalize "1" **report** from the 3 groups that have submitted their seminar reports and submit the electronic copy to the course coordinator, within **1 week** of the conduction of the seminar.

This report will serve as a study guide for the topic for the exam (resource for students to study from). This whole exercise will carry 10 marks.

Evaluation of seminars

Each group is to submit 2 things related to their seminar topic.

- 1. Presentation. (7 marks)
- 2. Summary/ brief report, summarising their presentation. (3 marks)

It it advised that each group of students meet at least twice with the concerned faculty. Each student will be evaluated individually on the following:

- 1-Teamwork spirit: punctuality, commitment, and overall outcome.
- 2-Presentation: slides, content, handling of questions, and presentation skills

Please note that teamwork is crucial. Individual delay may affect the whole team evaluation.

The assigned faculty is to **mark each student out of 10** and according to the checklist attached. (Appendix D) the marks are to be submitted to the course coordinator within a week of the seminar.



Team-based learning (TBL)

Outbreak investigation and Cardiovascular diseases will be taught via TBL.

The TBL will carry total **8 marks** in the final grades.

Team-based learning (TBL) is an active learning and small group instructional strategy that provides students with opportunities to apply conceptual knowledge through a sequence of activities that includes **individual work**, **teamwork** and **immediate feedback**.

A method of learning aiming to encourage students to participate in the teaching sessions and not only one group as in student led seminar. The students should be accountable for pre-class preparation.

Team-Based Learning (TBL) is an increasingly-popular form of small group learning.

TBL students report being more motivated and enjoying class more.

The four components of TBL are:

- ❖ Permanent student teams,
- ❖ Readiness assurance test,
- ❖ Application activities,
- *Timely feedback.



How is a typical TBL session will be conducted?

A. Pre-class preparation

Students will be given the assigned materials / learning activities accompanied by a set of learning goals, to study and prepare themselves before the class of **TBL**.

B.First Part {Readiness Assurance}

- 1. The students are divided into groups/teams according to the number of students.
- 2. The tutor will start the session by distributing **Pre-Test of MCQ, short answers, fill the gap**, ... as a quiz.
- 3. This is called Readiness Assurance Process "**RAP**" and will be answered by **students individually** and collected by the tutor to be marked.
- 4. Then students take the same bald test again as a **team** and answer the questions, coming to consensus on team answers.
- 5. The answers will be discussed among students as **teams**.
- 6. The tutor can use as an example **flip chart**, where the paper will be divided longitudinally according to number of groups to write the answer of each group/team then discuss it, or can be done on **word** by use of **computer**.
- 7. Students receive **immediate feedback** on the team test.

C. Second Part



- 8. The tutor will distribute the **Clinical cases / Scenarios / Problems** related to the objectives of the session; each group/team will be responsible for the same material to have their input.
- 9. A time will be given to the groups to answer the questions related to cases.
- 10. Each group/team will start to **discuss the case and comments** will be raised from all groups (During the discussion the case is presented on screen for all). The tutor may add after exhaustion of all teams' discussion.

D. Third Part

The last part could be a presentation from the tutor for the important points discussed in this session and especially those the students do not understand (This is optional, as all the session could be run by discussion of the MCQs, Problems, Cases,).

Quizzes:

Faculty will conduct small pop-up quizzes throughout the year. These will carry 12 marks all together. If a student is absent, no quiz will be repeated without a valid sick leave or justifiable excuse, approved by the course coordinator.



Mode of Assessment of the course

Students will be assessed 2 times in the academic year. Midterm and Final term.

Mid term n	narks:	60%
0	Exam	. 30
0	Seminars	10
0	TBL	8
0	Quizzes	12
Final term:		40%
Exan	1	20
OSCI	E	20

The OSCE stations will be formulated on the guidelines and format of the examination and assessment guidelines, medical education, KSU. Please refer to Appendix A for further guidelines.



Resources for learning

Main textbook:

o Park's textbook of Social and Preventive medicine. 24rd edition.

Can be accessed through a pdf version:

https://www.medgag.com/book/park-textbook-preventive-social-medicine-pdf-book/

Other resources:

- Oxford handbook of Public health, 3rd edition.
- Maxcy-Rosenau –Last 15th edition. Available on –line.
- Public Health and Community Medicine. Ilyas Ansari. Edition: 8th
- Textbook of Preventive and Social Medicine. Mahajan and Gupta.
- Textbook of Epidemiology. Leon Gordis.
- Textbook of Community medicine and Public helath. Edited by Saira Afzal and Sabeen Jalal.



Introduction to public health

	Session	Objectives	Format
1	Introduction to community and preventive medicine (Course introduction)	 Understand terms; Community medicine, Public health, Preventive medicine. Understand their relevance in global health delivery Understand the overview of the course 311, its resources and assessment strategies Define and understand concepts of basic terminologies used in the field of Community medicine/Preventive medicine, and Public health 	L
2	Natural history of disease and concepts of prevention and control	 Describe theories postulated for the development of diseases Explain the concept of iceberg phenomenon of diseases Understand the relationship between host, environment and agent in disease causation Define the term prevention Identify the level of prevention in relation to stage of disease development Identify the measures applied at each level of prevention with regard to controlling the reservoir, interruption of transmission, and the susceptible host 	L
3	Determinants of Health	 Understand the spectrum of health in relation to health and sickness Define; health, disease, illness and wellbeing Define and understand the detriments' of health; biological, behavioral, socio and cultural, environmental, socioeconomic, health services, and aging and gender Understand the concepts of "right to health " and "health for all" 	L
4	Health indicators	 Explain the need to use "indicators" to measure "health" status State the characteristics of health indicators List the uses of health indicators State with examples the types of health indicators 	L



5	Health indicators	 Compute indicators Interpret the result of the indicator through scenario exercises 	T
6	Global demography concepts & Population Pyramid	 Define the terms; demography and population dynamics Apply demographic concepts in health system Describe major sources of population data Describe features of population pyramid and compare the pyramids of developed and developing countries Describe the concept of demographic equation Describe and understand the theory of demographic transition Describe the effect of population momentum on growth of population Explain the phenomenon of migration and its effect on population size Define, compute and interpret the rates of population increase and population doubling time 	L
7	Demography (Rates & Population Pyramid) National focus	 Understand the current Saudi population pyramid Understand the Saudi demographic transition over the past 3 decades Discuss in detail the implications and future health needs of Saudi Arabia, based on the current population and demographic transition of KSA Describe and compare between different populations using the population pyramid Define, compute and interpret mortality indicators Compute and interpret rates of fertility Compute and interpret dependency ratio Compute the rate of natural increase Compute the population doubling time Through scenario based exercises 	T



8	Screening	 Define the term "screening" Explain the concept of screening and the lead time Explain the difference between "screening", "case finding", "periodic examination" and "diagnosis" State the uses of screening programs State the criteria of health problems amenable for screening Outline the differences between screening and diagnostic test Distinguish between "mass screening" and "high risk screening" State the criteria of an ideal screening test 	L
9	Screening	Compute and interpret	Т
10	Global Health Programs & Policies	Understand what is a health policy Understand why health policies are needed? Differentiate between macro and micro policies Factors that need to be assessed while formulating a health policy	L



11	National Health policies and programs	Discuss how health policies are formulated in KSA	L
	and programs	Discuss and analyze health policies of last 3 years in KSA	
		Discuss in detail health care reforms in vision 2030	
12	Health Education and	Define "health education" and state its aims	L
	Promotion (Concepts)	Explain the role of health education in relation to the stage of disease prevention	
		Identify the factors that influence human behavior	
		Discuss the factors that contribute to behavior change	
		Define learning and identify the domains of learning	
		Outline the Health Belief Model of behavior change Describe the trans-theoretical model of stages of motivation	
		List the direct and indirect methods of communicating health messages	
		State the strength and limitation of each method of communicating health messages	
		State the types and values of audiovisual aids in facilitating the transfer of health message	
13	Health Education in	Apply health education concepts to community setting scenarios by:	L
	Community setting	Providing problem statement	
		Analyze the problem by specifying the behavior and non-behavioral factors	
		 State the objectives of the education session falling in the cognitive, affective and psychomotor domain of learning 	



		 Identify the health messages in line with the objectives Select the appropriate method(s) of health education to communicate health message suitable for the group and the problem addressed Select the appropriate health education aids State the predisposing, enabling and reinforcing factors to adopt the intended behavior 	
14	Health Education in Clinical settings	Demonstrate counseling skills in clinical settings through clinical scenarios	T
15	Global School Health Services	 Define school health services List components of school health Define responsibilities of school health team members Define functions of school health programs and preventive services that can be provided in school setting Define School health services in KSA, scope and structure. List the common conditions school health deals with in KSA 	S
16	Health of People with Disabilities	 Distinguish between health and quality of life Portray with a diagram the spectrum of health Develop an understanding to the concept of disability 	L



		 Compare between the medical model and social model of disability Explain the strengths of the ICF in mapping disabilities, prevention and interventions Distinguish between capacity and performance State the main health conditions associated with disability List the disabling barriers Outline the interventions for prevention of disabilities and rehabilitation Understand the burden (morbidity, mortality, cost) of disabilities in KSA Reflect on the policies in KSA addressing limitation of disabled people in KSA Enlist and understand community services available for disabled people in KSA 	
17	Global Geriatric Health	 Differentiate between Geriatrics and Gerontology Describe physiological and pathological aging Understand health problems of elderly globally Explain the demographic changes associated with ageing of the population Discuss existing Global and national programs for elderly care Explain the demographic changes associated with ageing of the population in KSA 	S



		 List the health and social problems associated with ageing in KSA Describe the interaction between physical ill-health, social problems, psychological problems and functional limitations State the top ten causes of years lived with disability, disability adjusted life years lost and death among elderly 70+ years in KSA 	
18	Global Maternal Health	 Understand the maternal health issues globally Understand the causes of maternal deaths and mortality Understand the interventions done globally to decrease maternal deaths and morbidly Discuss and understand what preventive services for maternal health are delivered in KSA 	L
19	Global Adolescents & Child Health	 Understand what are adolescent and children health issues globally and the burden of diseases in this age group Discuss major global interventions that are to address mortality and morbidity in adolescents and children Discuss and understand what preventive services for adolescent, and child health are delivered in KSA 	L



20	Maternal & child health	 Demonstrate counseling skills for an antenatal session with focus on brief history taking, and counseling regarding nutrition and vaccination of pregnant mothers Demonstrate counselling skills for promotion of breast feeding (focused on benefits of breast feeding for the mother and child, and correct way of breast feeding, advise on prevention on breast engorgement and breast abscesses) Demonstrate skills to plot growth charts of children 	T
21	Mental Health	 Understand the definition and etiology of mental health Discuss the global magnitude of mental illnesses based on GBD List and classify the factors contributing to the occurrence of mental illnesses Define stigma and explain its consequences on mentally ill patients, their families and treatment outcome Understand the principals of preventing mental illness Describe the public health importance of mental health in the kingdom (burden, morbidity, mortality, cost effectiveness) Name national mental health care services, programs, and efforts. 	S
22	International Health Regulations	 What are International health regulations? Why are they needed? What strategies are globally adopted to control public health related diseases? what are the challenges faced by different countries while implementing IHR? INR in Saudi context. 	L



Communicable Diseases

1	Introduction to Communicable Disease Epidemiology	 Define communicable disease, control, elimination and eradication Draw the cycle of infection Give examples of different types of infectious agents associated with diseases in humans List types of reservoir of infection Classify carriers and explain their public health importance in disease transmission Illustrate with examples the different modes of transmission of communicable diseases Define incubation period Classify and differentiate types of immunity Outline the measures for prevention and control of communicable diseases 	L
2	Principles of Immunization	 Understand the types of acquired immunity Differentiate between the different types of vaccines used in preventing illness Understand the type of vaccine, its mode of delivery, and schedule for important immunizable diseases; TB, Pertussis, Rubella, Diphtheria, Measles, Tetanus, Hepatitis, Meningitis, Rabies, Polio Define and understand the cold chain and its importance List the vaccines in the current National compulsory vaccination schedule For each disease, briefly describe epidemiology and mode of transmission To identify the type of vaccine (live vs. inactivated), and route of administration 	L
3	Vaccination /immunization	Demonstrate counseling skills for vaccination /immunization in clinical and community settings through scenarios	T



	(counseling)		
4	Emerging Infectious Diseases (part 1)	Understand the viral antigenic variations of influenza virus	L
	Respiratory Tract Diseases: Influenza, MERS-Cov, SARS	 List the different hosts for influenza (according to influenza type), MERS-Cov and SARS Be familiar with the famous pandemics for each of these viral infections, and measures used to contain spread Identify the different elements in the infection cycle for these viral infections 	
		 Provide appropriate prevention and control measures for each of these viral infections Outline how to take history of risk factors, and how to give preventive advise 	
5	Tuberculosis	 Understand the epidemiology and global burden of TB List the sign and symptoms and risk factors of different types of TB, with particular emphasis on pulmonary TB 	L
		 Outline how to take history of risk factors of TB, and how to give preventive and control advise 	
		 Describe trends and state reasons for resurgence of pulmonary TB 	
		 List population subgroups at risk for pulmonary TB 	
		Draw the cycle of infection of pulmonary TB	
		 Outline procedures for community diagnosis of pulmonary TB with emphasis on the limitation of each procedure 	
		 Describe measures for prevention and control for pulmonary TB 	
		 To decide on the best measures for prevention and control of pulmonary TB and to prevent spread to susceptible population 	
		Describe the role of WHO to address the global burden of TB, particularly directly observed	



		therapy short course (DOTS) for pulmonary TB	
6	Emerging infectious diseases HIV/AIDS	 Describe the epidemiology and global burden of HIV/AIDS infection Describe how people get infected with HIV Understand the global initiatives to combat the rising burden of the disease Learn the features which characterize the pandemic in the EMR Recognize the epidemiology, burden of disease, and National measures to prevent spread of viral hepatitis in KSA 	S
		 Differentiate what could work best, as far as prevention and control efforts are concerned, in our region Outline how to take history of risk factors of HIV, and how to give preventive advise 	
7	Hepatitis	 Understand classification of viral hepatitis Recognize global burden, epidemiology, and risk factors of viral hepatitis infections (Outline how to take history of risk factors of Hepatitis, and how to give preventive advise) Enumerate modes of transmission of different serotypes Provide measures of prevention and control Recognize the epidemiology, burden of disease, and National measures to prevent spread of viral hepatitis in KSA 	S
8	Malaria	 Understand the epidemiology and global burden of malaria Understand the cycle of infection of malaria Define modes of transmission, clinical features, risk factors, community diagnosis and treatment for malaria (Outline how to take history of Malaria patient, and how to give preventive advise) Enlist the factors responsible for antimalarial drug resistance 	L



		. Understand the role and management also by WHO to combet the bundon of Malaria alchally	
		Understand the role and measures taken by WHO to combat the burden of Malaria globally	
		Enlist the global measures of prevention and elimination for Malaria	
		Understand the epidemiology and risk factors related to Malaria in KSA	
9	National Zoonotic Diseases	• To understand the most important zoonotic diseases of public health significance in Saudi Arabia:	L
		o Brucellosis	
		o Bovine TB	
		 Mers-Cov (transmitted from camels) 	
		To understand the burden (globally and nationally) of these diseases	
		Understand the epidemiology of these infections in Saudi Arabia	
		To define the modes of transmission for the infectious agents responsible for these diseases	
		To list factors for acquiring these infections	
		To enumerate the global measures needed for prevention and control of these diseases	
		 To describe the measures taken by the government (health sector and agricultural sector) to prevent and control these infections 	
		 Outline how to take history of risk factors of these diseases, and how to give preventive advise 	
10	Outbreak investigation	Understand what constitutes to an outbreak	TBL
		Distinguish between endemic and epidemic	
		Learn the importance of investigating an outbreak	
		List the steps of an outbreak investigation	
		Describe types of studies used to investigate an outbreak	
		Read an epidemic curve and use it in estimating the incubation period	



		Calculate the attack rate from outbreak investigation data	
		 To collect information about important indicators needed to solve an outbreak (history, physical examination and laboratory testing) 	
		To form a line list for the outbreak using the information collected during the practical session	
		To conduct a quick epidemiologic investigation using information collected from the line- list	
11	Hajj and health	Enlist the diseases and health risks related with gathering of Hajj	L
		 Understand the sing and symptoms and prevention of these diseases (particular emphasis on meningitis) 	
		 Understand the importance of surveillance and reporting of these diseases at the national and International level 	
		Appreciate KSA's efforts to address and recognize the health risks and diseases during Hajj	
		Enlist what medicines and precaution/prevention should be advised for a pilgrim	
12	Reporting and	Define surveillance	L
	Surveillance	Know aims and uses of surveillance system	
		Understand the different types of surveillance systems	
		Recognize the elements of surveillance system	
		Be able to assist in establishing and evaluation a surveillance system	
13	Notification/ Reporting and Surveillance	Through scenario-based exercises, work on how to notify diseases and enlist elements of a surveillance system	T
14	Counselling for infectious diseases and prevention	 Demonstrate counselling skills using scenarios, on how to take risk factor history for infectious diseases; TB, Malaria, Hepatitis, influenzas, Mers Cov, SARS, brucellosis, HIV, meningitis, person going to Hajj 	T



Non- Communicable diseases

1	Introduction to Non-	Definition of non-communicable diseases	L
	communicable Disease (NCDs)	Epidemiology of non-communicable diseases	
	Prevention and Control	Disability as a consequence of NCDs	
		Goals of NCD prevention and control	
	(Methods of prevention and	Current challenges in NCD control	
	control in NCDs)	• Discuss and understand the global frame work of prevention and control of NCDs	
		• Interventions for NCD control	
		Intrapersonal approaches for NCD control	
		Interpersonal approaches	
		Organizational level interventions	
		Community factors in NCD control	
		Health Policy and Legal Interventions	
2	Risk factors for NCDs	• Define selected NCD risk factors, such as, Tobacco use, Diet and Nutrition, Physical	L
		activity, Obesity and Overweight	
		• Present the epidemiology and significance of those risk factors globally and in KSA	
		• Discuss causes, high risk populations and consequences of the NCD risk factors	
		Screening of the selected risk factors for NCD	
		• Examples of evidence-based interventions to prevent and control those risk factors	
3	Tobacco Use and cessation	Discuss epidemiology of smoking in Saudi Arabia	S
		• Enumerate types of smoking.	
		• Enumerate and elaborate on risks of smoking (morbidity /mortality).	
		• Effect of passive smoking (children /pregnant).	
		Describe the public health measures to control tobacco use globally and in KSA	
		• How to help smokers to Quit. (dealing with withdrawal effects) (demonstrate counseling skills)	



		Enlist Nicotine replacement treatments (any updates)	
4	Obesity (prevention)	• Describe burden of disease of obesity, causation factors, in Saudi Arabia	S
		Present global strategy on diet, physical activity, and health	
		• Identify the programs for prevention and control for those problems in Saudi Arabia	
		• Demonstrate counseling skills for dietary advise, and obesity reduction using scenarios	
5	Diabetes	Understand Global prevalence of diabetes	L
		Understand the Epidemiology of diabetes in KSA	
		List the risk factors of diabetes	
		List complications of diabetes	
		 Discuss preventive measures within the framework of NCDs 	
		Screening of Diabetes	
		Know preventive programs in KSA towards DM	
		Outline how to take history of risk factors of diabetes, and how to give preventive	
		advise	
6	Cancer	Appreciate the Global impact of cancer	L
		 Identify the most prevalent cancers world wide, in the region and in KSA 	
		Identify the leading causes of cancer deaths	
		 Understand the cancer control continuum and explain its implication to public health 	
		• Screening for cancer	
		 Understand and reflect the Kingdoms efforts to control the rising burden of Cancers 	
		in KSA	
		Explain important factors and trends affecting cancer control and directions for	
		future research	
		Outline how to take history of risk factors of cancer, and how to give preventive	
		and screening advise	
7	Cardiovascular Diseases	Recognize the Public health significance of CVD	TBL
		Describe CVD Epidemiology	



		 Identify the risk factors, high risk groups and complications of CVDs Recognize Screening strategies for CVDs 	
8	Injury epidemiology and prevention	 Explain measures of CVD Prevention and control globally and in the local context Describe the concepts of injuries, why do they occur and their epidemiology Describe important differences between various types of injuries (Intentional and 	L
		 unintentional) Understand principles of injury prevention and control Appreciate the burden of injuries in KSA 	
9	Road traffic accidents epidemiology and prevention	 Apply injury epidemiology principles to road traffic incidents (RTAs) Describe the epidemiology and the magnitude of road traffic accidents globally and in Saudi Arabia Present global perspective on road traffic accidents Identify the programs for prevention and control for RTA prevention in Saudi Arabia 	S
10	NCD prevention (counselling for NCD prevention and smoking cessation)	 Demonstrate history taking and counselling skills regarding NCDs risk factors and prevention. Demonstrate counselling skills for smoking cessation 	Т
11	Travel medicine	 Define travel medicine and identify its components List the groups of travelers who are at a special risk (infant's children, pregnant women, elderly, pre-existing illnesses, diabetics) State the responsibilities of travelers to prevent ill-health List the risk associated with international travel and related health problems 	L
		• Outline the specific preventive measures for international travelers in relation to the	



	destination	
	Enlist contents of travel kit	
	Outline how to take travelers history and give advice regarding vaccination and other health precautions related to the travel destination	

Environment and occupational health

	who in the fit and occupation	na nearth	
1	Introduction to environmental	By the end of the session students should be able to;	L
	heath issues and diseases	• Enlist and elaborate on the common environmental problems (Global warming,	
	related to environmental health	Ozone depletion, Green house effects)	
	issues	 Understand the effects of Environmental pollution and degradation on health 	
		 Enlist and understand causes and diseases related to Air, Water, soil, and food contamination 	
		Comprehend the water cycle and the WHO criteria for water quality	
		 Understand different measures of water, noise, and air pollution 	
		 Understand role of international and the national agencies in environmental safety and regulations 	
		• Enlist and understand diseases related to environmental changes; Internationally and Nationally	
		Respiratory diseases (asthma, allergies, respiratory problems)	
		Cancers and chronic diseases	
		 Vector-borne diseases and zoonotic diseases 	
		o Water born, water related diseases	
		Food born and nutrition related diseases	



2	Introduction to occupational	By the end of the session students should be able to;	L
	health and diseases related to	• Enlist and understand the effects of exposure of a worker to	
	occupational health	 Physical hazards 	
	The state of the s	 Heat and cold 	
		■ Light	
		Noise	
		Vibration	
		 UV light 	
		Ionizing radiation	
		Chemical hazards	
		 Local effects of chemicals 	
		 Inhalation of partials, fumes, and gases 	
		 Absorption of various metals and their compounds 	
		Ingestion	
		Biological hazards	
		Infectious and parasitic agents	
		Mechanical hazards	
		Physiological hazards	
		Fatigue, Depression, and anxiety	
		Enlist and understand major diseases related to occupational hazards	
		Physical hazards, heat, light, pressure, noise, radiation, electricity, mechanical factors	
		Chemical agents	
		Gases, fumes, dust, metals and their	
		• compounds, solvents	
		Biological agents	
		Occupational cancers	
		Occupational dermatosis	



3	Mass gathering and related hazards	To be finalized by the faculty	L
4	Heat Stroke and heat exhaustion	 Define and classify heat stress and its types (heat stroke, heat exhaustion) Define the clinical presentation of each (symptoms, signs, complications, and investigations) Describe the public health importance of heat stroke and heat exhaustion (morbidity, mortality, and cost effectiveness) Explain the distribution (place, person, time) in the global, regional, and local contexts, including the incidence rate during Hajj. Explain the determinants (risk factors) of heat stress and its types Explain preventive (1ry, 2ry, 3ry) and control (treatment) measures, including the MOH device for Hajjis with heat stroke Recall the Ministry of Labor regulations regarding heat stroke. 	S
5	Counselling, history taking/data interpretation regarding environment and occupational diseases, and pre- travel counselling	Demonstrate history taking and counselling skills regarding environmental and occupational diseases, and pre- travel advise according to the travel destination	T



Appendix A:

Students' Guides for the Objective Structured Clinical Examination (OSCE) for the Community Medicine Course (**COMM 311**)

Prepared by: Dr. Hafsa Raheel; Course organizer

Approved by: Dr Hussein Amin

Dr. Afnan Younus

Dr Marwah Hassounah

Dr Irfan Saeed

Dr Farhana Irfan

Dr Armen Torchayan

Dr Hamza Abdulghani

Dates for the OSCE: Males: 1st April 8 am – 4 pm (2 batches)

Females: 2nd April 1 pm – 4 pm (1 batch)

Venue: OSCE rooms second floor, the College of medicine western wing

Introduction:



Dear students, this is a brief guide to your OSCE stations which have been scheduled and explained to you from the beginning of the course. OSCE stations are very straight forwards cases.

General Aims of the OSCE:

To assess the competencies which were covered during our teaching sessions according to your course learning outcomes (CLOs), and to determine the ability of the student to practice public health principals and theory in a clinical and community setting.

Specific Objectives of the OSCE in COMM 311:

Students should be able to:

- 1. Educate a normal person or a patient with specific problems like:
 - i. Diabetes, obesity, hypertension, cancer
 - ii. Tuberculosis, Malaria, hepatitis, zoonotic diseases, HIV
 - iii. Smoker
 - iv. Breast feeding
 - v. Child health/growth chart plotting
 - vi. Healthy life styles
 - vii. Vaccinations
 - viii. Travelling and going for Hajj
 - ix. Occupation and environmental diseases
- 2. Provide advice for risk factors and prevention of diseases
- 3. Interpret health indicators and other data resources that may impact decision making relevant to prevention and control of diseases in the clinical and community settings.



The OSCE stations will accomplish assessment of students in the following competencies:

Cognitive skills: Health promotion and disease prevention, decision making and problem solving; Risk identification, screening, diagnosis and management of common public health diseases in the Saudi community.

Interpersonal skills: Communication, counselling and health education of patients and community personals.

General instructions:

The OSCE in the Community Medicine course will have graded stations, each will be for 6 minutes encounter. Extra half minute will be provided to read the scenario of the station and move from one to another station.

The stations will be a mix of observed (by an examiner) and unobserved stations.

Tasks can be a combination of focused history taking, assessment of risk factors and education / counselling for behavioral modifications as needed for health promotion and disease prevention, taking into account that an individual's age, sex, current health status, occupation, exposure to risk factors, and lifestyle. Advice on protective screening, (e.g., immunization etc). Sscenarios, may contain; pictures, charts, health related data, indicator calculation as task assessment. A specific student's instruction will be added for each station where tasks by students to be performed will be described clearly.

All stations shall be designed to assess integrated practical/clinical /community encounters. Each OSCE station will be assessed with a predetermined performance scored checklist.



NOTE:

All OSCE stations are prepared and will be conducted under the specific guidelines laid down by the Medical Education Department, Assessment & Evaluation Centre College of Medicine, to cover the COMM 311 CLOs.

The possible topics that could be included in the OSCE preparation:

a. Public health concepts:

- Health indicators
- Demography rates and principals
- Screening

b. Infectious diseases:

- Tuberculosis (TB)
- Malaria
- Emerging infectious diseases
- National zoonotic diseases
- Immunisable diseases, childhood vaccines
- Hepatitis
- Outbreak investigations
- Hajj

c. Non communicable diseases

- Diabetes
- Cancer
- Cardiovascular Diseases
- Tobacco use



- Physical activity, obesity, and nutrition
- Risk factors, Prevention and control of NCDs
- d. Environmental and occupational diseases
- Others:
- Health education and communication in clinical and community settings
- Maternal and child Health
- Travel medicine



SAMPLE CASE AND CHECKLIST

College of Medicine Department of Family and Community Medicine Objective Structured Clinical Examination Course 311

(Information for student)

Patient Brief Record / Brief Scenario:

Ahmed is a 36-year-old taxi driver, consults you with his laboratory results.

Fasting plasma glucose: 8.0 mmol/L (144 mg/dl)

HbA1C: 8 %



TASK: (What is expected from a student)

- 1. Take a **brief focused** history
- 2. **Educate** the patient regarding lifestyle modification and secondary prevention of Diabetes.

NOTE: EXAMINATION IS NOT REQUIRED



College of Medicine Department of Family and Community Medicine Objective Structured Clinical Examination

Candidates Name:		
Marking schedule		
DOMAINS	<u>Mark</u>	<u>s</u>
I Professional hehavi	our	

DOMAINS	<u>Marks</u>	Done	Partially done	Not Done
I. Professional behaviour Builds rapport. Polite and meets and greets Good posture with appropriate body language of encouragement. Shows empathy, Good eye contact, Avoids interruption as far as possible II. Data Gathering				
 Personal Hx (Name - Age - Marital status Occupation) Symptoms patient has (duration of symptoms, frequency of urine, thirst, weight loss, appetite,, etc) Risk factor history: any other chronic illnesses, medications, hypertension, smoking, hypercholesterolemia, dyslipidaemia, Any other symptoms Past history Family history of DM or any other chronic diseases and risk factors 				
III. Management/advise/education - education and emphasis on regular medication intake, self-monitoring - Explains the importance of healthy diet fruits, vegetables, nuts,to control DM				



~ avoid harmful diets such as red meat, sweetened drinks,,		
- - <u>Educates regarding physical activity; 150 minutes of moderate intensity aerobic physical activity</u>		
Confirm if patient understood given information Plan for next visit		
Thank him and say good buy		
TOTAL		

Examiner's feedback for the student:



Appendix B

List of common health problems in the community

- Vaccine preventable /immunizable diseases
- Tuberculosis
- Malaria
- HIV/AIDS
- Hepatitis
- Mers Co-v
- Brucellosis
- Influenza
- SARS
- Meningitis
- Diabetes
- Obesity
- Cancer
- Cardiovascular diseases
- Injuries (intentional and unintentional)
- Smoking
- Environmental related diseases
- Occupation related diseases
- Heat stress and exhaustion



Appendix C

BMI assessment

CVD risk assessment

Breast feeding /positioning/counselling

Childhood growth monitoring and growth chart plotting



Appendix D

Seminar evaluation form:

Seminar title: Group:		
On the state of th	Group:	
Students' names:		
Evaluation of student: Date: Assessor:	Date: Assessor:	
Criterion Done Partially done Comments	· · · · · · · · · · · · · · · · · · ·	
1 1/2 0	1 1/2 0	

Criterion	Done	Partially	Not done	Comments
	1	done 1/2	0	-
Was present in all meetings with the seminar instructor and	1	1/2		
was keen to communicate and participate				
Presentation covered the seminar objectives				
Adequate participation in the seminar				
Presentation slides were clear, well organized				
Presenter was clear, using simple language, and confident				
Question handling was appropriate and presenter was well- prepared				
Updated references and authentic resources have been used				
for preparation				
Out of 7 Marks		,	•	///
Report Submitted and student has participated Out of 3 Marks				/ 10



Schedule COMM 311 2019-2020

Male Group A	Male Group B	FEMALE	Lectures/Tutorials Part I	Instructors	Lecture/ Seminar/ Tutorial
03/09/2019 8:00~9:00AM	02/09/2019 3:00-4:00	02/09/2019 10:00-11:00	Introduction to Community Medicine (Course introduction)	Drs Hafsa, Hussain	L
			INTRODUCTION TO PUBLIC HELATH		
08/09/2019 1:00~2:00PM	04/09/2019 10:00~11:00	04/09/2019 8:00~9:00	Natural history of disease and concepts of prevention and control	Dr. Shatha	L
11/09/2019 8:00 – 9:00	08/09/2019 11:00 –12:00	08/09/2019 10:00~11:00	Determinants of Health	Dr. Alamro	L
16/09/2019 3:00~4:00PM	15/09/2019 11:00 –12:00	08/09/2019 10:00~11:00	Health indicators	Dr Alamro	L
17/09/2019 8:00~9:00AM	18/09/2019 11:00 –12:00	15/09/2019 1:00-2:00	Health indicators	Drs Alamro, Armen	Т
17/09/2019 3:00~4:00PM	22/09/2019 11:00 –12:00	18/09/2019 8:00~9:00	Global demography concepts & Population Pyramid	Dr Rufaidah	L
25/09/2019 11:00 –12:00	25/09/2019 10:00~11:00	22/09/2019 10:00~11:00	Demography (Rates & Population Pyramid) National focus	Drs Rufaidah, Abdulaziz Mezzam	Т
30/09/2019 3:00~4:00PM	30/09/2019 8:00 – 9:00	26/09/2019 8:00 – 9:00	Screening	Dr Afnan (female side) Dr Ali (male sides)	L
03/10/2019 9:00 – 10:00	01/10/2019 9:00 – 10:00	29/09/2019 2:00~3:00	Screening	Drs Afnan, Abdulaziz Mezam	T
03/10/2019 10:00~11:00	10/10/2019 9:00~10:00	30/09/2019 10:00~11:00	Global Health Programs & Policies	Dr Alamro	L
03/10/2019 1:00~2:00	10/10/2019 11:00-12:00	02/10/2019 8:00-9:00AM	National health policies and programs	Dr Alamro	L
46 08/10/2019 2:00~3:00	14/10/2019 10:00-11:00	07/10/2019 1:00-2:00	Health Education and Promotion (Concepts)	Dr Ali Alhazmi (male side) Dr Afnan (female side)	L



08/10/2019 3:00~4:00	16/10/2019 10:00~11:00	13/10/2019 8:00~9:00	Health Education in Community setting	Drs Afnan, AA Mezzam	T
17/10/2019 10:00~11:00	16/10/2019 11:00~12:00	15/10/2019 9:00~10:00	Health Education in Clinical settings	Dr Irfan , Dr Armen	T
17/10/2019 2:00~3:00	21/10/2019 2:00~3:00	29/10/2019 8:00 – 9:00	School Health Services	Dr AbdulAziz mezam	S
17/10/2019 3:00~4:00PM	21/10/2019 3:00~4:00	29/10/2019 9:00 – 10:00	Health of People with Disabilities	Dr Ali Alhazmi (male side) Dr Afnan (female side)	L
22/10/2019 11:00 –12:00	28/10/2019 3:00~4:00	31/10/2019 8:00~9:00	Geriatric health	Dr Saad	S
29/10/2019 2:00~3:00	30/10/2019 10:00~11:00	31/10/2019 9:00~10:00	Global Maternal Health	Dr Hafsa	L
31/10/2019 1:00~2:00	05/11/2019 10:00~11:00	11/11/2019 10:00~11:00	Global Adolescents & Child Health	Dr Hafsa	L
06/11/2019 2:00~3:00	06/11/2019 10:00-11:00	11/11/2019 11:00-12:00	Maternal, & child health Focus on breast feeding positioning, counseling, growth chart	Drs Nada, Hafsa, Armen	T
06/11/2019 3:00~4:00	11/11/2019 3:00~4:00	18/11/2019 1:00~2:00	Mental Health	Dr Armen	S
13/11/2019 11:00 –12:00	13/11/2019 10:00~11:00	19/11/2019 3:00~4:00	International Health Regulations	Dr Ali Alhazmi (male side) Dr Noura (female side)	L
			COMMUNICABLE DISEASES		
14/11/2019 10:00~11:00	17/11/2019 9:00~10:00	24/11/2019 1:00~2:00	Introduction to Communicable Diseases	Dr Noura (female side) Dr Ali (male side)	L
18/11/2019 1:00~2:00	18/11/2019 8:00~9:00	24/11/2019 2:00~3:00	Principles of Immunization	Dr. Shatha	L
18/11/2019 2:00~3:00	26/11/2019 1:00~2:00	01/12/2019 1:00~2:00	Vaccination\immunization (counselling)	Drs Noura Alrowais, AA mezzam	T
19/11/2019 10:00~11:00	26/11/2019 2:00~3:00	01/12/2019 2:00~3:00	Emerging infectious disease (Respiratory)	Dr.Rufaidah	L



26/11/2019 3:00~4:00	27/11/2019 10:00~11:00	03/12/2019 10:00-11:00	Tuberculosis	Dr Hafsa (female) Dr Hussain (male side)	L	
27/11/2019 9:00 – 10:00	02/12/2019 3:00~4:00	05/12/2019 10:00~11:00	Emerging infectious diseases HIV/AIDS	Dr. Noura	S	
02/12/2019 9:00 – 10:00	03/12/2019 10:00~11:00	03/12/2019 9:00~10:00	Hepatitis	Dr. Noura	S	
02/12/2019 10:00~11:00	03/12/2019 11:00 –12:00	05/12/2019 11:00 –12:00	Malaria	Dr Shatha	L	
02/12/2019 1:00~2:00	04/12/2019 9:00 – 10:00	29/12/2019 11:00~12:00	Regional zoonotic diseases (Brucellosis)	Dr Abdulaziz Mezzam	S	
MID-YEAR VACATION						
02/12/2019 2:00~3:00	22/01/2020 9:00 – 10:00	20/01/2020 8:00~9:00	Hajj and health (meningitis, prophylaxis)	Dr Alamro	L	
29/01/2020 1:00~3:00	10/02/2020 2:00~4:00	13/02/2020 9:00-11:00	Outbreak Investigation	Drs Armen , Rufaidah	TBL	
02/02/2020 9:00 – 10:00	03/02/2020 8:00~9:00	10/02/2020 8:00 – 9:00	Reporting & Surveillance	Dr Shatha	L	
04/02/2020 8:00~9:00	05/02/2020 8:00~9:00	16/02/2020 8:00 – 9:00	Notification/Reporting & Surveillance	Drs Shataha, Abdulaziz Mezzam	Т	
05/02/2020 9:00 – 10:00	11/02/2020 8:00~9:00	17/02/2020 8:00~9:00	Counselling for infectious disease prevention	Drs Hussain, Irfan	T	
NON-COMMUNICABLE DISEASES						
05/02/2020 11:00 –12:00	12/02/2020 8:00-9:00	18/02/2020 8:00-9:00	Introduction to Non-communicable Disease (NCDs) Prevention and Control (Methods of prevention and control in NCDs)	Dr Hafsa	L	



09/02/2020 8:00~9:00	12/02/2020 10:00~11:00	19/02/2020 1:00~2:00	Risk factors for NCDs	Dr Armen	L	
09/02/2020 9:00 – 10:00	12/02/2020 2:00~3:00	19/02/2020 2:00 -3:00	Tobacco use and cessation	Dr Abdulaziz Mezzam	S	
11/02/2020 9:00 – 10:00	16/02/2020 11:00 –12:00	20/02/2020 9:00~10:00	Obesity (Prevention)	Dr. Armen	S	
11/02/2020 10:00~11:00	18/02/2020 1:00~2:00	23/02/2020 9:00~10:00	Diabetes	Dr. Hussain	L	
11/02/2020 11:00 –12:00	19/02/2020 10:00-11:00	27/02/2020 10:00 – 11:00	Cancer	Dr. Haithum	L	
16/02/2020 8:00~10:00	24/02/2020 2:00~4:00	03/03/2020 10:00~12:00	Cardiovascular Diseases	Drs Hussain, Armen	TBL	
12/02/2020 9:00 – 10:00	19/02/2020 11:00 –12:00	27/02/2020 11:00~12:00	Injury epidemiology and prevention	Dr. Noura (female side), Dr Ali (male side)	L	
16/02/2020 11:00 –12:00	20/02/2020 1:00-2:00	05/03/2020 10:00 11:00	Road traffic accidents epidemiology and prevention (particular focus on KSA)	Dr Abdul Aziz Mezzam	S	
23/02/2020 11:00 –12:00	24/02/2020 8:00~9:00	11/03/2020 1:00~2:00	NCD Prevention (Counseling for NCDs prevention and smoking cessation)	Drs Hussain, Irfan	T	
01/03/2020 8:00~9:00	26/02/2020 9:00 – 10:00	12/03/2020 9:00~10:00	Travel Medicine	Dr Noura (female side), Dr Ali (male side)	L	
ENVIRONMENT AND OCCUPATIONAL HELATH						
01/03/2020 11:00 –12:00	03/03/2020 8:00~9:00	12/03/2020 10:00 – 11:00	Introduction and diseases related to Environmental Health and hazards	Dr. Rufaidah	L	
02/03/2020 8:00~9:00	04/03/2020 1:00-2:00	15/03/2020 1:00-2:00	Introduction and Diseases related to to occupational health	Dr. Hafsa	L	



08/03/2020 11:00 –12:00	05/03/2020 8:00~9:00	16/03/2020 1:00~2:00	Mass-gathering and related hazards	Dr. Ali Alhazmi (male side) Dr Noura (female side)	L
10/03/2020 8:00~9:00	09/03/2020 8:00~9:00	16/03/2020 2:00~3:00	Heat stroke & Heat exhaustion	Dr. Abdulaziz Mezzam	S
12/03/2020 8:00~9:00	11/03/2020 9:00 – 10:00	17/03/2020 9:00 – 10:00	Counselling, history taking /data interpretation regarding environment and occupational diseases, and pre-travel counselling	Drs Hussain, Irfan, Hafsa	Т

Total number of contact hours: 54

Lectures: 29

Tutorials: 11

Student led Seminars: 10

TBL: 2



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