



## Course Specifications

<b>Course Title:</b>	Ambulatory Care
<b>Course Code:</b>	AMB5X2
<b>Program:</b>	Bachelor of Medicine, Bachelor of Surgery (MBBS)
<b>Department:</b>	NA
<b>College:</b>	College of Medicine
<b>Institution:</b>	Alfaisal University

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## A. Course Identification

<b>1. Credit hours:</b> 9 (2+14+0)
<b>2. Course type</b>
a. University <input type="checkbox"/> College <input checked="" type="checkbox"/> Department <input type="checkbox"/> Others <input type="checkbox"/>
b. Required <input checked="" type="checkbox"/> Elective <input type="checkbox"/>
<b>3. Level/year at which this course is offered:</b> Sem 9/10, Year 5
<b>4. Pre-requisites for this course (if any):</b> Sem 7 and 8
<b>5. Co-requisites for this course (if any):</b> None

### 6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	36	17%
2	Clinics, ER Shifts, Observation in Operation Room, Skill Lab, Student Presentations	172	83%

### 7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	36
2	Laboratory/Studio	
3	Tutorial	172
4	Others (specify)	
	<b>Total</b>	208

## B. Course Objectives and Learning Outcomes

### 1. Course Description

The ambulatory care clerkship course is designed to offer students a comprehensive overview of the important ambulatory and primary healthcare specialties. Through this clerkship course, students rotate between three specialties: anesthesia, emergency medicine, and family medicine. Students spent one week in anesthesia, three weeks in emergency medicine, and four weeks in family medicine. Through their rotations, students are exposed to the common diseases managed in these specialties and primary health care, their management, related examinations, and procedures.

### 2. Course Main Objective

To achieve a comprehensive understanding of common diseases managed in anesthesia, emergency medicine and family medicine specialties, their management, related examinations, and procedures.

### 3. Course Learning Outcomes

CLOs		Aligned PLOs
<b>1</b>	<b>Knowledge and Understanding</b>	
1.1	Define the place and properties of and identify the instruments and machines used in anesthesiology and airway management. Familiarize with the Anesthesia machine, circuit, vaporizer, and soda lime.	PLO6
1.2	Describe indications for and types of fluids: crystalloid vs colloids.	PLO6
1.3	Describe preoperative assessment and ASA classification.	PLO18
1.4	Describe the pharmacology of: inhalational anesthetics, Muscle relaxant, Opioids, Antiemetics.	PLO4,6
1.5	Describe the principles chronic pain management.	PLO7
1.6	Describe monitoring during anesthesia with invasive and noninvasive monitors.	PLO4,6
1.7	Describe general and regional anesthesia for obstetric patients with indications, monitoring, techniques, and complications.	PLO4,6
1.8	Describe epidural anesthesia for pain relieve for obstetrics with indications, monitoring, techniques, and difference from spinal anesthesia.	PLO4,6
1.9	Develop treatment plans for emergency patients with medical and surgical problems.	PLO17
1.10	Identify acutely ill patients and develop a plan for immediate stabilization.	PLO17
1.11	Identify acute medical symptoms and identify triage priorities.	PLO17
1.12	Define the principles of Family Medicine care and the vital role of the Family Physician within any healthcare system.	PLO18,20,21
1.13	Manage follow-up visits with patients having one or more common chronic diseases and engage in patient education.	PLO7,22,23
1.14	Describe key aspects of health maintenance/preventive care for all ages and both genders.	PLO20,21
1.15	Manage chronic illnesses such as diabetes, high blood pressure, high cholesterol, metabolic syndrome, obesity, and asthma.	PLO7,16,22,23
1.16	Diagnose and manage common acute conditions for which patients commonly present to Family Medicine offices for care. These include, but are not limited to musculoskeletal, infectious, dermatologic, psychiatric, and gynecologic problems.	PLO7,12,16,18,20
<b>2</b>	<b>Skills</b>	
2.1	Monitor patients for: ECG, SaO <sub>2</sub> , BP, T, CO <sub>2</sub> , CVP and IABP.	PLO15
2.2	Perform Insertion of IV, Intubation, LMA insertion.	PLO15
2.3	Perform bag mask ventilation.	PLO15
2.4	Perform and document an accurate history and physical examination.	PLO13,14
2.5	List required orders including laboratory, cardiac and radiographic imaging studies.	PLO5,18
2.6	Demonstrate understanding of and perform basic emergency medicine procedures.	PLO15
2.7	Present patients verbally and by written documentation of outpatient visits.	PLO24
2.8	Identify acute medical symptoms and identify triage priorities.	PLO18

CLOs		Aligned PLOs
2.9	Gather the relevant information, formulate differential diagnoses and propose management plans for patients with common primary care concerns.	PLO18
2.10	Perform Preoperative assessment and ASA classification.	PLO18
2.11	Demonstrate multidisciplinary approach to primary care with available healthcare resources including online resources.	PLO19,25,29,30
2.12	Utilize hospital consultative services appropriately.	PLO25
<b>3</b>	<b>Values:</b>	
3.1	Demonstrate effective interpersonal communication with patient, family, physicians, EMS personnel, OR personnel and ancillary staff.	PLO24
3.2	Adhere to the attendance policy.	
3.3	Demonstrate interpersonal skills necessary to maintain professionalism, communicate appropriately with patients, their families, and other medical and paramedical personnel involved in patient care.	PLO27,28

### C. Course Content

No	List of Topics	Contact Hours
1	General and Regional Anesthesia for Obstetrics	3
2	Invasive and Non Invasive Monitoring in Anesthesia	3
3	Inhalational Anesthetic agents	3
4	Iv anesthetic agents (hypnotics & benzodiazepines)	5
5	Airway Management	5
6	Pre- Anesthetic Assessment	3
7	Opioids for Acute pain relief and their methods of delivery	3
8	ED-History Taking and Clinical Documentation	3
9	Medical Error Prevention (SBAR/Check list etc.)	3
10	Pediatric Emergencies (Croup, Bronchiolitis, Limping Child)	3
11	GU- Emergencies (Stones, urine retention, torsion, AKI)	3
12	BLS/ACLS	3
13	Emergency Triage Systems (START/CTAS/ESI)	3
14	Acute Pain Management (Opioid epidemic/ pain scores/ assessment)	3
15	Oncological Emergencies (SVC/ DIC/Neutropenia/tumor lysis)	6
16	Comatose patient and CNS infections (encephalitis/ meningitis)	3
17	GI Emergences (FB, GI Bleed, Gastroenteritis)	3
18	Orthopedic emergencies (Fractures/joint swellings etc.)	3
19	Environmental Emergencies (cold, hot, bites, water)	3
20	Arrhythmias (SVT, VT, Vfib, Afib, etc.)	6
21	Medical ethics and end of life care (DNR/ Palliative Care)	3
22	ACS (STEMI, NSTEMI, HEART score etc.)	3
23	Endocrine Emergencies (DKA/ hypoglycemia)	3
24	Electrolyte Emergencies (Na/K/Mg/Ca)	6
25	Hepatobiliary Emergencies (SBP, Encephalopathy, Gallstones, Pancreatitis)	3
26	Psychiatric Emergencies (Suicide, aggressive pt., recreation drug abuse, Panic, Schizophrenia)	3
27	Asthma and COPD exacerbations - Adults	3

28	CNS - Emergencies (Stroke, seizures)	3
29	IV fluid management (crystalloids/ blood/ products)	3
30	Allergic Reaction (Anaphylaxis/ Rash/Foods)	3
31	Vascular Emergencies (DVT, PE, AAA, Acute arterial occlusion)	3
32	Ophthalmology/ ENT (FB, Infections, Red eye, OM)	3
33	Toxicology (Toxidromes)	3
34	Emergency Dermatology (picture diagnosis)	3
35	ED Procedure (LP, Chest tube, immobilization, C-Collar, Taps)	3
36	Sepsis- ED management (qSOFA, Bundles, initial management)	3
37	Gyn/OB Emergencies (Ectopic/ US/ PID/ Testing)	3
38	Abdominal Pain (Appendicitis, Perforation, Bowel obstruction, Acute Abdomen)	6
39	Trauma (Primary and secondary survey and adjuncts/ ATLS)	6
40	Patient Consent (Implied/ good Samaritan/ signed consent)	3
41	Management of patient oxygenation (Rate/type of devices/ noninvasive)	3
42	Principles of Family Medicine and the vital role of the family Physician	3
43	An approach to the assessment and management of headache in Primary care	3
44	An approach to the assessment and management of dizziness in Primary Care	3
45	Searching the literature	3
46	Preventive Medicine/ Screening	3
47	A Family Medicine approach to fatigue	3
48	Smoking Cessation	3
49	Assessment of cardiovascular risk, and management of hyperlipidemia	3
50	Irritable Bowel syndrome	6
51	Assessment and management of Asthma	3
52	Mental Health issues in primary care	3
53	Research	3
54	Neurological issues in family medicine	3
55	The Family Medicine Consultation. (Overview of patient-centered consultation models and eliciting ideas, concerns and expectations)	3
56	Critical Appraisal of the literature	3
57	Overview of examination and diagnosis of some common musculoskeletal disorders in Primary Care	3
58	Chronic diseases clinical scenarios (DM, HT, Hyperlipidemia)	3
59	Infections clinical scenarios (URTI, UTI, CAP, Gastroenteritis)	3
60	Chest Pain and shortness of breath Clinical scenarios	3
61	Anesthesia Skill lab	6
<b>Total</b>		<b>208</b>

## D. Teaching and Assessment

### 1. Alignment of Course Learning Outcomes with Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.0	Knowledge and Understanding		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.1	Define the place and properties of and identify the instruments and machines used in anesthesiology and airway management. Familiarize with the Anesthesia machine, circuit, vaporizer, and soda lime.	Lectures, Clinics, Observation in Operational Room	Continuous and summative assessment
1.2	Describe indications for and types of fluids: crystalloid vs colloids.	Lectures, Clinics, Observation in Operational Room	Continuous and summative assessment
1.3	Describe preoperative assessment and ASA classification.	Lectures, Clinics, Observation in Operational Room	Continuous and summative assessment
1.4	Describe the pharmacology of: inhalational anesthetics, Muscle relaxant, Opioids, Antiemetics.	Lectures, SGD, Student Presentations, Clinics, Observation in Operational Room	Continuous and summative assessment
1.5	Describe the principles chronic pain management.	Lectures, SGD, Student Presentations, Clinics. Observation in Operational Room	Continuous and summative assessment
1.6	Describe monitoring during anesthesia with invasive and noninvasive monitors.	SGD, Clinics, Observation in Operational Room	Continuous and summative assessment
1.7	Describe general and regional anesthesia for obstetric patients with indications, monitoring, techniques, and complications.	SGD, Clinics, Observation in Operational Room	Continuous and summative assessment
1.8	Describe epidural anesthesia for pain relieve for obstetrics with indications, monitoring, techniques, and difference from spinal anesthesia.	SGD, Clinics. Observation in Operational Room	Continuous and summative assessment
1.9	Develop treatment plans for emergency patients with medical and surgical problems.	Lectures, SGD, ER Shifts	Continuous and summative assessment
1.10	Identify acutely ill patients and develop a plan for immediate stabilization.	Lectures, SGD, ER Shifts	Continuous and summative assessment
1.11	Identify acute medical symptoms and identify triage priorities.	Lectures, SGD, ER Shifts	Continuous and summative assessment
1.12	Define the principles of Family Medicine care and the vital role of the Family Physician within any healthcare system.	Lectures, SGD, Student Presentations, Clinics	Continuous, formative, and summative assessment
1.13	Manage follow-up visits with patients having one or more common chronic diseases and engage in patient education.	Lectures, SGD, Student Presentations, Clinics	Continuous, formative, and summative assessment



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.14	Describe key aspects of health maintenance/preventive care for all ages and both genders.	Lectures, SGD, Student Presentations, Clinics	Continuous, formative, and summative assessment
1.15	Manage chronic illnesses such as diabetes, high blood pressure, high cholesterol, metabolic syndrome, obesity, and asthma.	Lectures, SGD, Student Presentations, Clinics	Continuous, formative, and summative assessment
1.16	Diagnose and manage common acute conditions for which patients commonly present to Family Medicine offices for care. These include, but are not limited to musculoskeletal, infectious, dermatologic, psychiatric, and gynecologic problems.	Lectures, SGD, Student Presentations, Clinics	Continuous, formative, and summative assessment
<b>2.0</b>	<b>Skills</b>		
2.1	Monitor patients for: ECG, SaO <sub>2</sub> , BP, T, CO <sub>2</sub> , CVP and IABP.	Clinics. Skill Lab, Observation in Operational Room	Continuous and summative assessment
2.2	Perform Insertion of IV, Intubation, LMA insertion.	Clinics. Skill Lab, Observation in Operational Room	Continuous and summative assessment
2.3	Perform bag mask ventilation.	Clinics. Skill Lab, Observation in Operational Room	Continuous and summative assessment
2.4	Perform and document an accurate history and physical examination.	SGD, ER Shifts	Continuous and summative assessment
2.5	List required orders including laboratory, cardiac and radiographic imaging studies.	SGD, ER Shifts	Continuous and summative assessment
2.6	Demonstrate understanding of and perform basic emergency medicine procedures.	SGD, ER Shifts	Continuous and summative assessment
2.7	Present patients verbally and by written documentation of outpatient visits.	SGD, Clinics	Continuous and summative assessment
2.8	Identify acute medical symptoms and identify triage priorities.	SGD, Clinics	Continuous and summative assessment
2.9	Gather the relevant information, formulate differential diagnoses and propose management plans for patients with common primary care concerns.	SGD, Clinics	Continuous and summative assessment
2.10	Perform Preoperative assessment and ASA classification.	SGD, Clinics	Continuous and summative assessment



Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
2.11	Demonstrate multidisciplinary approach to primary care with available healthcare resources including online resources.	SGD, Clinics	Continuous and summative assessment
2.12	Utilize hospital consultative services appropriately.	SGD, ER Shifts	Continuous and summative assessment
<b>3.0</b>	<b>Values</b>		
3.1	Demonstrate effective interpersonal communication with patient, family, physicians, EMS personnel, OR personnel and ancillary staff.	Student Presentations, SGD, Clinics, Skill Lab, Observation in Operational Room	Continuous, formative, and summative assessment
3.2	Adhere to the attendance policy.		Continuous assessment
3.3	Demonstrate interpersonal skills necessary to maintain professionalism, communicate appropriately with patients, their families, and other medical and paramedical personnel involved in patient care.		Continuous assessment

## 2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Student presentations	1-9	20%
2	OSCE	4-9	40%
2	Final Exam	9	40%

\*Assessment task (i.e., written test, oral test, oral presentation, group project, essay, etc.)

## E. Student Academic Counseling and Support

### Arrangements for availability of faculty and teaching staff for individual student consultations and academic advice:

The CoM program established its own mentorship program that employs all full-time faculty as mentors. Through this program, every medical student in the program is assigned a mentor at the beginning of their first semester of studies. The program has a broad scope covering academic advising and counseling. The mentors handle all aspects related to academic advising, including academic planning, academic performance review, advice on course drop or withdrawal, study skills, and time management.

## F. Learning Resources and Facilities

### 1. Learning Resources

<b>Required Textbooks</b>	
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<b>Essential References Materials</b>	<ul style="list-style-type: none"> <li>• First Aid for the Emergency Medicine Clerkship 3rd Edition (First Aid Series)</li> <li>• Case Files Emergency Medicine, Second Edition</li> <li>• Tarascon Adult Emergency Pocketbook, 4E</li> <li>• Tintinalli's Emergency Medicine Manual 7/E</li> <li>• The Ultimate Emergency Medicine Guide; 2016</li> <li>• Essentials of Family Medicine by Philip D Sloane</li> <li>• Textbook of Family Medicine by Ian McWhinney</li> </ul>
<b>Electronic Materials</b>	<p>PowerPoint presentations uploaded on Alfaisal E-learning Portal</p> <ul style="list-style-type: none"> <li>• <a href="http://www.uptodate.com">www.uptodate.com</a></li> <li>• PubMed: <a href="http://www.ncbi.nlm.nih.gov/PubMed/">http://www.ncbi.nlm.nih.gov/PubMed/</a></li> <li>• TRIP Database: <a href="http://www.tripdatabase.com/">http://www.tripdatabase.com/</a></li> <li>• Centre for Evidence-Based Medicine: <a href="http://ktclearinghouse.ca/cebm/intro/whatisebm">http://ktclearinghouse.ca/cebm/intro/whatisebm</a>&gt;</li> <li>• Centre for Evidence-based Medicine: <a href="http://www.cebm.net/">http://www.cebm.net/</a></li> <li>• USPSTF. Guidelines for screening and preventive interventions: <a href="http://www.ahrq.gov">http://www.ahrq.gov</a></li> <li>• Canadian Task Force on Preventive Health Care: <a href="http://canadiantaskforce.ca/">http://canadiantaskforce.ca/</a></li> </ul>
<b>Other Learning Materials</b>	<p>American Family Physician Canadian Family Physician</p>

## 2. Facilities Required

Item	Resources
<b>Accommodation</b> (Classrooms, laboratories, demonstration rooms/labs, etc.)	Classrooms
<b>Technology Resources</b> (AV, data show, Smart Board, software, etc.)	AV (Audio-Visual), Smartboard, Moodle (E-learning Management)
<b>Other Resources</b> (Specify, e.g. if specific laboratory equipment is required, list requirements or attach a list)	

## G. Course Quality Evaluation

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Course and Faculty Evaluation Survey	Students	Survey

**Evaluation areas** (e.g., Effectiveness of teaching and assessment, Extent of achievement of course learning outcomes, Quality of learning resources, etc.)

**Evaluators** (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

**Assessment Methods** (Direct, Indirect)

## H. Specification Approval Data

Council / Committee	
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<b>Reference No.</b>	
<b>Date</b>	