



Course Specifications

Course Title:	Foundation Block
Course Code:	FON111
Program:	Bachelor of Medicine, Bachelor of Surgery (MBBS)
Department:	NA
College:	College of Medicine
Institution:	Alfaisal University

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A. Course Identification

1. Credit hours: 2 (1+0+2)
2. Course type
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"/>
3. Level/year at which this course is offered: Sem 1, Year 1
4. Pre-requisites for this course (if any): None
5. Co-requisites for this course (if any): None

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	22	45%
2	Labs, TBL, Student Seminars	27	55%

7. Contact Hours (based on academic semester)

No	Activity	Contact Hours
1	Lecture	22
2	Laboratory/Studio	27
3	Tutorial	
	Total	49

B. Course Objectives and Learning Outcomes

1. Course Description

This comprehensive course is developed to provide a solid basic core foundation of Human Anatomy, Histology, Embryology, and Physiology to first-year medical students. The goals of the block are to understand the structural and functional organization of the human body and control of the “Internal Environment” and homeostasis and understand how cells, organs, and systems function together to maintain homeostasis. The study of common histologic methods, the principles of staining, cell structure, cell organization, and cell function help strengthen the knowledge of the basic structure of the human body. Further topics include the transport of substances through the cell membrane and the basic physics and development of membrane and action potentials.

The study of the human body is a basic foundation for the profession of medicine. The course introduces students to the language used to describe the human body. By the use of both lectures and laboratories, it provides an understanding of the dynamic three-dimensional organization of the human body that is a prerequisite for performing a competent physical examination of any patient; by demonstrating normal and abnormal physical signs and interpreting image data that reveal internal structures. To provide a basis for effective clinical reasoning, a good understanding and knowledge of the body's systems and regions, including their development and function is required.

In addition to the didactic aspects of learning anatomy, General Anatomy offers important intangible educational benefits. For most medical students, this course is their first exposure to working with a cadaver. Students learn to deal with some of the realities of death, such as demonstrating respect for the dead, working on a dead body, and appreciating the texture and relative strengths of tissues of the body.

The goals of human embryology are to develop an understanding and acquire knowledge of (i) prenatal, especially embryonic, human development (ii) the biological principles that govern developmental phenomena (iii) the factors that may lead to developmental disorders and (iv) more thorough understanding of human anatomy through knowledge of its development. Topics for study include morphogenesis and histogenesis of the embryo and fetus and the cellular and molecular mechanisms involved in development. With the current knowledge explosion in developmental biology and genetics, this information is gaining importance for diagnostics, genetic counseling, treatment, etc.

2. Course Main Objective

By the end of the course the student should acquire basic understanding of the normal function, structure and systems of the human body. The course aims to prepare the student for long term understanding of the human body and through this knowledge be able to understand disease states in the future.

3. Course Learning Outcomes

CLOs		Aligned PLOs
1	Knowledge and Understanding	
1.1	Understand the functional organization of the human body and control of the “Internal Environment”, the cell and its functions including transport across cell membranes, and action potentials.	PLO3
1.2	Know the histology of different cell structures and organelles.	PLO3

CLOs		Aligned PLOs
1.3	Understand that failure of an organ system can contribute to homeostasis and can affect the function of the whole body.	PLO1
1.4	Learn fundamental concepts relating to the physics of membrane potentials, action potential, and its initiation and propagation.	PLO3
1.5	Understand basic terminology of anatomy, body planes, and movements.	PLO3
1.6	Classify muscles, bones and joints of the human body.	PLO3
1.7	Understand the structure and functions of the vascular system and its organization.	PLO3
1.8	Understand the structure and functions of the nervous system, its organization, and the formation of a typical spinal nerve.	PLO3
1.9	Know the methods of cell study and differentiate between light and electron microscopy.	PLO3
1.10	Classify basic tissues (epithelium and connective tissue) based on their structure, function and location.	PLO3
1.11	Understand the processes of gametogenesis, fertilization, implantation and development of human embryo until the second week.	PLO3
2	Skills :	
2.1	Become familiar with cadavers.	PLO3
2.2	Demonstrate anatomical terms & structures on cadavers.	PLO3
2.3	Demonstrate the actions of muscles & joints.	PLO3
2.4	Demonstrate different cell structures, basic tissues, organization of tissues under microscope and relate structures with their functions, while understanding their function.	PLO3
3	Values:	
3.1	Adhere to the attendance policy.	
3.2	Maintain professional conduct with colleagues, faculty and staff.	

C. Course Content

No	List of Topics	Contact Hours
1	General Anatomy – Classification of Bones and Joints	1
2	General Anatomy – Muscles.	1
3	Bones of the upper limb	1
4	General Anatomy - Nervous System	1
5	General Anatomy - Organization of vascular & Lymphatic systems	1
6	Histology- Cell	1
7	Histology- (Simple epithelium & Glands)	1
8	Histology- (Stratified Epithelium)	1
9	Histology- Connective tissue	1
10	Histology- Nervous Tissue.	1
11	Embryology- Gametogenesis	2
12	Embryology- 1st week of development	1
13	Embryology- 2nd week of development	1
14	Embryology - 3rd week of development	1
15	Functional organization of human body	1
16	The Cell & its Functions	1

17	Cell membrane structure	1
18	Transport across cell membrane	1
19	Membrane potential	2
20	Action potential	1
21	Student Seminar: Membrane cell surface specializations and intercellular junctions & others (Histology)	2
22	Student Seminar: Chromosomal anomalies & other birth defects & others (Embryology)	2
23	Lab Sessions and TBL	23
Total		49

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		
1.1	Understand the functional organization of the human body and control of the “Internal Environment”, the cell and its functions including transport across cell membranes, and action potentials.	Lectures, Labs, TBLs	Formative and summative assessments
1.2	Know the histology of different cell structures and organelles.	Lectures, Labs, Student Seminars, TBLs	Formative and summative assessments
1.3	Understand that failure of an organ system can contribute to homeostasis and can affect the function of the whole body.	Lectures, Labs, TBLs	Formative and summative assessments
1.4	Learn fundamental concepts relating to the physics of membrane potentials, action potential, and its initiation and propagation.	Lectures, Labs, TBLs	Formative and summative assessments
1.5	Understand basic terminology of anatomy, body planes, and movements.	Lectures, Labs, TBLs	Formative and summative assessments
1.6	Classify muscles, bones and joints of the human body.	Lectures, Labs, TBLs	Formative and summative assessments
1.7	Understand the structure and functions of the vascular system and its organization.	Lectures, Labs, TBLs	Formative and summative assessments
1.8	Understand the structure and functions of the nervous system, its organization, and the formation of a typical spinal nerve.	Lectures, Labs, TBLs	Formative and summative assessments
1.9	Know the methods of cell study and differentiate between light and electron microscopy.	Lectures, Labs, TBLs	Formative and summative assessments

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
1.10	Classify basic tissues (epithelium and connective tissue) based on their structure, function and location.	Lectures, Labs, TBLs, Student Seminars	Formative and summative assessments
1.11	Understand the processes of gametogenesis, fertilization, implantation and development of human embryo until the second week.	Lectures, Labs, TBLs, Student Seminars	Formative and summative assessments
2.0	Skills		
2.1	Become familiar with cadavers.	Labs	Summative assessment
2.2	Demonstrate anatomical terms & structures on cadavers.	Labs	Summative assessment
2.3	Demonstrate the actions of muscles & joints.	Lectures, Labs, TBLs	Formative and summative assessments
2.4	Demonstrate different cell structures, basic tissues, organization of tissues under microscope and relate structure with their functions understand their function.	Lectures, Labs, TBLs, Student Seminars	Formative and summative assessments
3.0	Values		
3.1	Adhere to the attendance policy.		Continuous assessment
3.2	Maintain professional conduct with colleagues, faculty and staff.		Continuous assessment

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	TBL	2,3	5
2	Final Exam	4	95

*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, and advice on course drop or withdrawal, study skills, and time management.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	<ol style="list-style-type: none"> 1. Clinical Anatomy by Regions; Richard S. Snell, 9th edition. 2. Last's Anatomy, Regional & Applied; 12th edition. 3. Clinically oriented Anatomy by Keith L. Moore, 6th edition. 4. Wheater's Functional Histology; A text and color Atlas 6th edition. 5. Chapters 1-6, Histology by Ross and Pawlina, Sixth Edition, Lippincott Williams and Wilkins, 2011. 6. Langman's Medical Embryology, T. W. Sadler, Twelfth Edition, Published by Lippincott Williams and Wilkins, 2011. 7. Before we are born; Essential of embryology and birth defects by Keith L. Moore, 8th edition. 8. The Developing Human; Clinically Oriented Embryology by Keith L. Moore, 9th edition. 9. Textbook of Medical Physiology, Guyton & Hall, Twelfth Edition, Published by Saunders Elsevier, 2011.
Essential References Materials	Team-based learning: A practical guide: AMEE guide No. 65
Electronic Materials	<ol style="list-style-type: none"> 1. Integrated medical curriculum: http://imc.meded.com 2. http://anatomy.med.umich.edu/ 3. PowerPoint presentations uploaded on Alfaisal eLearning portal
Other Learning Materials	<ol style="list-style-type: none"> 1. Cunningham's manual of practical anatomy. 2. Color atlas by Grant's 3. Netter's Atlas of Anatomy

2. Facilities Required

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

G. Course Quality Evaluation

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

Evaluation Areas/Issues	Evaluators	Evaluation Methods

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	
Reference No.	
Date	