Course Specifications

Course Title:	**Fundamentals of medicine (Block 1.1)**
Course Code:	**1000101**
Program:	**Bachelor of Medicine, Bachelor of Surgery (MBBS)**
Department:	**Biomedical Sciences**
College:	**Medicine**
Institution:	**King Faisal University**

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A. Course Identification

1. Credit hours:	**6 credit hours**
2. Course type	
a.	University ☐ College ☑ Department ☐ Others ☐
b.	Required ☑ Elective ☐
3. Level/year at which this course is offered:	**1/first year**
4. Pre-requisites for this course (if any)**:**	**none**
5. Co-requisites for this course (if any)**:**	**Professional development I and progress of knowledge** I **(1000105 & 1000106)**

6. Mode of Instruction (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	**Traditional classroom**	46	38
2	**Blended**		
3	**E-learning**	75	62
4	**Correspondence**		
5	**Other**		

7. Actual Learning Hours (based on academic semester)

No	Activity	Learning Hours
Contact Hours		
1	**Lecture**	45
2	**Laboratory/Studio** practical and workshop sessions	28
3	**Tutorial**	
4	**Others** (specify): patient lectures: 8, response sessions: 6, TG sessions: 34,	48
	Total	121
Other Learning Hours*		
1	**Study**	60
2	**Assignments**	30
3	**Library**	30
4	**Projects/Research Essays/Theses**	
5	**Others** (specify)	
	Total	120

* The length of time that a learner takes to complete learning activities that lead to achievement of course learning outcomes, such as study time, homework assignments, projects, preparing presentations, library times

B. Course Objectives and Learning Outcomes

1. Course Description

Focus on application of basic sciences in some aspects of medicine. Study includes basic concepts of pathology (injury and repair + oncology), anatomy (ankle, colon, breast and uterus), histology (blood, membranes, epithelium & skin, connective tissue, cartilage and bones), physiology (membranes and fluid), pharmacology (pharmacotherapy and 6 steps prescribing), pathology (inflammation, Cell and tissue damage and repair and principles of oncology), biochemistry (energy metabolism and protein sorting) and genetics (Basic aspects of genes, Clinical Genetics diseases, New Genetic Technology and Diagnosis).

2. Course Main Objective

To grasp some core medical knowledge related to normal and disturbed structure/function on the level of main body molecules, cells, tissues, organs and systems of the human body {skin, skeleton, breast, colon, uterus}, in addition to gene synthesis and expression and their abnormalities.
To provide the basis of tutor group dynamics and problem based learning activities.
To practice patient consultation skills and medical history reporting and oral presentation of patient report based on information gathered during patient lectures.
To develop Professional behavior conduct (team working, respect others, collaboration, communication, applying ethics) during all teaching and learning activities.

3. Course Learning Outcomes

	CLOs	Aligned PLOs
1	**Knowledge:**	
1.1	Describe the normal/disturbed structural and biochemical properties of: Proteins, Cells, Tissues and some organs	K1
1.2	Recall the basic biological and physiological processes and their dysregulation related to: blood, Skeletal system development & remodelling, Mechanisms of human inheritance and Cellular adaptation mechanisms.	K1
1.3	Describe the aetiology, and pathophysiological mechanisms of inflammation, Cell and tissue damage and repair and features of tissue damage (ankle injury, skin injuries and burn).	K2
1.4	Describe the etiology, pathogenesis and pathophysiology of neoplasia of the skin, breast, colon and uterine cervix and their epidemiology in Saudi Arabia.	K2
2	**Skills :**	
2.1	Collect and communicate both a complete and focused medical history, as appropriate.	S1
2.2	Integrate the historical, physical and investigative findings into a meaningful differential diagnosis formulation, including identifying the most probable diagnosis in a patient.	S2
2.3	Conduct reflection methodology and demonstrate transparent and efficient reflective attitude.	S3
2.4	Demonstrate effective therapeutic and on-going management of an individual patient and population at large besides drafting of diagnosis and/or treatment plans with description of different therapeutic modalities.	S4
2.5	Communicate with colleagues, tutors, and other staff members in a collaborative, responsive and responsible manner including writing clear and concise medical reports.	S8
2.6	Demonstrate skills of searching for information, organizing information, criticizing the acquired knowledge during preparation of TG assignments.	S9
3	**Competence:**	

CLOs		Aligned PLOs
3.1	Apply the principles of teamwork dynamics and leadership processes to enable and support effective group collaboration in tutor group and workshops.	C4
3.2	Appropriately comply with ethical, Professional and legal aspects in dealing with patients, staff and Colleagues.	C6

C. Course Content

No	List of Topics	Contact Hours
1	Basic concepts of anatomy (skeleton, ankle, colon, breast, uterus)	17
2	Basic concepts of histology (blood, skin, epithelium, connective tissue, cartilage, bone)	14
3	Basic concepts of Physiology (structure and functions of membranes, fluid and blood)	3
4	Basic concepts of Pharmacology (pharmacotherapy and 6 step prescribing)	4
5	Basic concepts of Pathology (inflammation, Cell and tissue damage and repair and features of tissue damage, principles of oncology).	17
6	Basic concepts of biochemistry (energy metabolism and protein sorting)	5
7	Basic concepts of genetics (Basic aspects of genes, Clinical Genetics diseases New Genetic Technology, and Diagnosis).	13
Total		**73**

No	Activity	Learning Hours
Contact Hours		
1	**Lecture** (online)	**45**
2	**Laboratory/Studio** practical and workshop sessions (onsite)	**28**
3	**Tutorial**	
4	**Others** (specify): patient lectures: 8 (online), response sessions: 6 (online), TG sessions: 34, (onsite)	48
	Total	121
Other Learning Hours*		
1	**Study**	60
2	**Assignments**	30
3	**Library**	30
4	**Projects/Research Essays/Theses**	
5	**Others** (specify)	
	Total	120

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**		
1.1	Describe the normal/disturbed structural and biochemical properties of: Proteins, Cells, Tissues and some organs	Theme lecture and practical + DSL	MCQ and practical exam
1.2	Recall the basic biological and physiological processes and their dysregulation related to: blood, Skeletal system development & remodelling, Mechanisms of human inheritance and Cellular adaptation mechanisms.	Theme lecture and practical + DSL	MCQ and practical exam
1.3	Describe the aetiology, and pathophysiological mechanisms of inflammation, Cell and tissue damage and repair and features of tissue damage (ankle injury, skin injuries and burn).	Theme lecture and practical + DSL	MCQ and practical exam
1.4	Describe the etiology, pathogenesis and pathophysiology of neoplasia of the skin, breast, colon and uterine cervix and their epidemiology in Saudi Arabia.	Theme lecture and practical + DSL	MCQ and practical exam
2.0	**Skills**		
2.1	Collect and communicate both a complete and focused medical history, as appropriate.	Patient lecture, tutor sessions	Patient reporting, tutor assignment and final oral exam
2.2	Integrate the historical, physical and investigative findings into a meaningful differential diagnosis formulation, including identifying the most probable diagnosis in a patient.	Patient lecture, tutor sessions	Patient reporting, tutor assignment and final oral exam
2.3	Conduct reflection methodology and demonstrate transparent and efficient reflective attitude.	Patient lecture, tutor sessions	Patient reporting, tutor assignment and final oral exam
2.4	Demonstrate effective therapeutic and on-going management of an individual patient and population at large besides drafting of diagnosis and/or treatment plans with description of different therapeutic modalities.	Patient lecture, tutor sessions	Patient reporting, tutor assignment and final oral exam
2.5	Communicate with colleagues, tutors, and other staff members in a collaborative, responsive and responsible manner including writing clear and concise medical reports.	Patient lecture, tutor sessions	Patient reporting, tutor assignment and final oral exam
2.6	Demonstrate skills of searching for information, organizing information, criticizing the acquired knowledge during preparation of TG assignments.	Tutor sessions	Tutor assignments and final oral exam
3.0	**Competence**		

Code	Course Learning Outcomes	Teaching Strategies	Assessment Methods
3.1	Apply the principles of teamwork dynamics and leadership processes to enable and support effective group collaboration in tutor group and workshops.	Workshop and tutor sessions	Patient reporting, tutor assignment and final oral exam
3.2	Appropriately comply with ethical, Professional and legal aspects in dealing with patients, staff and Colleagues.	Patient lecture, tutor sessions, workshops	Patient reporting, tutor assignment and final oral exam
3.3			

2. Assessment Tasks for Students

#	Assessment task*	Week Due	Percentage of Total Assessment Score
1	Tutor group assignments	Weekly (Weeks 1 – 8)	**10%**
2	Practical and workshop assignments	Weekly (Weeks 1 – 7)	**10%**
3	Midterm exam	First day of fifth week	**12.5%**
4	Practical exam: (practical histology + practical cell biology)	Seventh and eight weeks respectively	**10%**
5	Final written exam	Ninth week	**37.5%**
6	Oral exam (case presentation + video consultation)	Ninth week	**20%**

***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 :

Students in need of academic accommodations may consult the faculty during office hours and are required to give reasonable notice prior to requesting an accommodation.

Office hours of faculty are available for student's counseling and advise as follows:
A. Online office hours through blackboard ultra (2 sessions/ week). The link of each session is sent to all students. Anyone can join the session at any time within the period of the session (from 8:45 – 10:15 am).
B. Onsite office hours:
Male and female students (in male section):
Dr. Mohammad Bahgat Ali: Sunday, Monday and Tuesday (from 11:30 to 1:30).
Female students only (in female section):
Dr. Asmaa Fathi Abdel Mola: Sunday, Monday and Tuesday (from 11:30 to 1:30).
* Many faculty members are required to teach the course.
Many lecturers, tutors and lab staffs are available for conduction of patient lectures, theme lectures, practical, workshops and tutor sessions. They are available to clarify queries of any student. The office hours of each staff member is pasted on his or her office door.
For female doctor, time is arranged for males (in male section) when this requested by male students.
* Academic guidance of all students is organized and distributed by academic affair committee.

* In the tutor group sessions, continuous evaluation and feedback is given to students including points to be improved. The students should express their written reflection including plan for improvement. The tutor follows up the students to ensure their improvement.
* The students' representatives are assigned as members in the block 1.1. Committee. They attend the Committee meetings and explain any students' problem to be discussed and solved in appropriate time.

F. Learning Resources and Facilities

1. Learning Resources

Required Textbooks	1. Alberts, B. (2019): *Essential Cell Biology*. Fifth edition. [S.l.]: W W NORTON & COMPANY. 2. Jorde, L., Carey, J. and Bamshad, M. (2016): Medical Genetics 5th edition. Elsevier 3. Mescher, A. (2018) Junquiera's Basic Histology 15th edition. McGraw-Hill Education 4. Kumar, V, Abbas, A. and Aster, J. (2018): Robbins basic pathology 10th edition. Elsevier 5. Gilroy, A., MacPherson, B, Ross, L, (2012): Atlas of Anatomy second edition. Thieme, New York· Stuttgart 6. Hall, A. (2016): Guyton and Hall Textbook of Medical Physiology 13th edition. Elsevier 7. Joint Formulary Committee (2019): British National Formulary 77th edition. London, United Kingdom: Pharmaceutical Press. https://vnras.com/wp-content/uploads/2017/06/BNF-73-2017.pdf https://pharm.reviews/images/statyi/british-national-formulary-2015.pdf 8. H P Rang. H., Ritter, J., Flower, R. and Henderson, G. (2015): Rang & Dale's Pharmacology 8th edition. Elsevier (Printed in China) 9. The World Health report 2000, Health Systems: Improving Performance. 10. Veening, E., Gans, R. and Kuks, J. (2009): Medische Consultvoering, first edition. Houten: Bohn Stafleu van Loghum. **Held by University of Groningen** 11. WHO Guide to Good Prescribing: A Practical Manual (Geneva, WHO, 1995). Free available: http://apps.who.int/medicinedocs/pdf/whozip23e/whozip23e.pdf 12. Skolnik, R. (, 2016): Essential of Global Health, 3rd edition. Burlington, MA: Jones & Bartlett Learning 13. Moore, K., Dalley, A. and Agur, A. (2017): Clinically Oriented Anatomy, 8th edition. Wolters Kluwer
Essential References Materials	**Manuals:** 1. Tutor manual. 2. Student manual. 3. Working in tutor group. 4. Practical and workshop part I. 5. Practical and workshop part II.
Electronic Materials	The Merck Manual of Diagnosis and Therapy Publisher: Merck & Co, most recent edition can be found on internet (http://www.merckmanual.nl/) **Elective material:** Primal Pictures Anatomy (via CMB) https://vnras.com/wp-content/uploads/2017/06/BNF-73-2017.pdf https://pharm.reviews/images/statyi/british-national-formulary-2015.pdf

	https://ia801207.us.archive.org/2/items/MedicalGenetics5e2015/Medical%20Genetics%2C%205e%202015.pdf
Other Learning Materials	

2. Facilities Required

Item	Resources
Accommodation (Classrooms, laboratories, demonstration rooms/labs, etc.)	**For patient Lectures:** Auditorium: For patient lectures for all students at the same time. It is equipped with computer and data show and all requirements for lecturing. **For theme lectures, concluding lectures and response sessions:** Auditorium: For theme lectures for all students at the same time. It is equipped with computer and data show and all requirements for lecturing. **For tutor group sessions:** 13 small rooms (in male section) for male students and 13 small rooms (in female section) for female students. Each room is equipped with the following: 1. A big table. 2. 14 chairs. 3. White board and related required material. 4. Computer and data show. 5. Internet facilities. 6. Flip chart. 7. Small table. 8. Cupboard, blank papers, pens, pencils. **For workshop and practical sessions:** Labs (anatomy, histology, pharmacology and computer) equipped with microscopes and computers. Study material: Anatomy specimens, Histological sections (slides) ….etc.
Technology Resources (AV, data show, Smart Board, software, etc.)	All requirements for lecturing: Computers, data show equipment, white boards, microphones and pointers are ready for use in auditorium, labs (6) and lecture halls (4). Also tutor rooms (26), are equipped with computers, data show equipment, white boards and tables.
Other Resources (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 Objectives, Content and Learning Outcomes	Curriculum Committee and subject experts	Course Review Course Report
Effectiveness of teaching	Faculty, Students, Program Leaders, Peer Reviewer	Classroom Observation Course Evaluation Survey

Evaluation Areas/Issues	Evaluators	Evaluation Methods
Achievement of course learning outcomes	Course Faculty	Moderation
Assessment	Course faculty	Verification
Learning Resources and Facilities	Students, Faculty, Program Leaders, Peer Reviewer	Course Evaluation Survey Course Report
Student Academic Counseling and Support	Students	Course Evaluation Survey
Course Quality Management	Program Coordinator	Course Report Review

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	College Council
Reference No.	2
Date	September, 24 2019