

Program Specification وصف البرنامج

Introduction

Bachelor of Medicine and Surgery Program is one of the first starting programs in the University of Science and Technology during its establishment in 1994 by a decision of the Ministry of Higher Education and Scientific Research(no.2/94). At that time, it belongs to College of Medical Sciences which also contains Bachelor of Dentistry and Pharmacy. In 2011, a university decision was released to separates these three programs into different faculties. One of them is Faculty of Medicine and Health Sciences which holds the program.

MBBCh is the abbreviation of the Latin words (*Medicine BaccaLaureus, BaccaLaureus Chirurgiae*) which means Bachelor of Medicine and Surgery. This abbreviation is well known and recognized locally, globally and internationally.

The program began similar (*shadow*) to program of Medicine and Surgery at Aljazeera University in Sudan. The adopted teaching strategies or curriculum approaches are quite similar to SPICES model which developed by Harden 1980. This model is an innovative model rather than traditional model. SPICES is abbreviation of Student center, Problem-based, Integrative, Community-oriented, Elective, and Systematic.

Regarding to the Integration in this model, MBBCh program in UST adopts both horizontal and vertical integration. In horizontal integration, all basic medical sciences run around one theme which is one of the body system (e.g. Musculoskeletal, Respiratory, Cardiovascular systems). While in vertical integration, clinical sciences are introduced to enhance students thinking and application toward the most relevant health issues in their professional life during their initial years of study. This is what we called early exposure to clinical sciences. The integration in our program facilitates the adoption of other approaches in that model. Student-centered and Problem-based learning can be easily implemented by such integration. The integrated courses or modules which run around one of the human body system is called "Block", while "Bachelor" that is mentioned the study plan in the curriculum is referred to the final courses in the last years (6th year) that the students should master them and prepare themselves to pass their exams.

Program Identification and General Information:

1	Program Title	Bachelor of Medicine and Surgery (MBBCh)
2	Program Type	Single Program (<input checked="" type="checkbox"/>) Joint Program (<input type="checkbox"/>) Multidisciplinary Program (<input type="checkbox"/>)
3	Number of years needed for completion of the program	6 YEARS+(1 year internship)
4	Total credit hours needed for completion of the program	281 credit hours
5	Award granted on completion of the program	Bachelor of Medicine and Surgery (MBBCh)
6	Name of the university which provide the award	University of Science & Technology
7	Name of the faculty which own the program and provide the award	Faculty of Medicine & Health Sciences
8	Department which own the program	Department of Human Medicine
9	Name of the faculty which participates in teaching some of the program courses	Humanities college
10	Date of program development	2012-2013

University Vision, Mission and Goals:

University Vision:

-To become one of the leading and distinguished universities regionally and internationally

University Mission:

-The University of Science and Technology strives to provide excellent education services, enhancing student knowledge and skills that meet the requirements of the labor market, contributing to community development by providing training, consulting, and research services and continuing education programs through competent administrative and academic staff, stimulating learning environment, and cutting-edge programs. The University shall expand local, regional, and international partnerships according to the comprehensive quality systems, transparency, and the professional ethics.

University Goals:

- Enhance student knowledge and skills in various academic disciplines.
- Contribute to support efforts of practical and scientific research in all different areas.
- Link the learning outcomes with the requirements of the labor market to ensure the graduates are employable
- Provide the necessary infrastructure to support the learning process and students' services and activities.
- Provide opportunities of separate education for male and female students.
- Expand the partnerships and develop the relationships with other peers and institutions of scientific research domestically, regionally, and internationally.
- Enhance the role of the university in the community services by providing training and consulting programs in various aspects of development

Program Mission and Goals

Program Mission:

Provide highly qualified physicians furnished with adequate knowledge, professional and research skills enabled to compete locally and regionally, committed to medical ethics and capable of continuing education, contributing to the improvement of health situation at the local and global level in partnership with pertinent organizations. This is realized by adopting advanced community-oriented curriculum and up-to-date techniques in accordance with the quality standards and academic accreditation.

Program Goals:

- 1) Provide the community with highly qualified physicians furnished with excellent professional and research knowledge and skill.
- 2) Develop the program according to the quality standards and academic accreditation.
- 3) Provide conducive educational and research environment for the faculty members and students to conduct various scientific research to enhance the health situation.
- 4) Contribute to providing distinctive health services for the community.
- 5) Contribute with partners to building and developing a national health system based on scientific foundations methodology.

Program Intended Learning Outcomes (ILOs)

A. Knowledge and Understanding

By the end of the program, the graduate should be able to:

- A1) Describe the normal structure, function, growth and development of the human body and alterations of the various organ system of the body and mind in health and diseases as well as basic knowledge and concepts of other related sciences.
- A2) Identify the determinants of health, natural history of diseases.
- A3) List the clinical, lab features, complications, principles of prevention and management of common and life-threatening illnesses including the traumatic conditions, and identify uses of drugs and their adverse reactions and interactions.
- A4) Describe the population demography, cultural and socioeconomic constitution, circumstances of living, health status, and general culture; and identify how to gather health information about population.
- A5) Recognize the theories and principles that govern ethical issues and decision making and the medico-legal aspects of medical practice.

B. Intellectual Skills

By the end of the program, the graduate will be able to:

- B1) Integrate basic biomedical sciences with clinical conditions and care.
- B2) Integrate the result of history, physical, laboratory tests and diagnostic procedures findings into a meaningful diagnostic formulation.
- B3) Formulate a plan for management and discharge, according to the established and evolving principles and evidence, in partnership with the patient, their relatives, and other health professionals as appropriate.
- B4) Recognize his function as a mentor and teacher including contributing to the appraisal, assessment and review of colleagues

C. Professional and Practical Skills

By the end of the program, the graduate will be able to:

- C1) Perform and document an accurate medical history and perform complete organ system and mental examination and request appropriate and relevant laboratory investigations to determine differential diagnosis.
- C2) Develop appropriate management plans for patients with common conditions, both acute and chronic, including medical, psychiatric, and surgical conditions, and those requiring short- and long-term rehabilitation.
- C3) Perform routine technical and therapeutic procedures needed for daily medical practice under supervision and start appropriate initial therapy for patients with immediate life threatening conditions taking into account the patient safety and cost effectiveness of care.
- C4) Provide promotive and preventive care, and counseling to the patient and his relative as well as community.
- C5) Write research proposal, conduct descriptive research under supervision, and present data.
- C6) Recognize own personal and professional limits and seek help from colleagues and supervisors when necessary.
- C7) Respect patients' rights, cultural believes, values and privacy and involve them in decisions, and treat all patients equally regardless their believes, culture or behaviors

D. General Skills

By the end of the program, the graduate will be able to:

- D1) Work effectively in a team through systems, collaborate with other members of the health care team, and accept appropriate responsibility for the health of populations & participate in community activities directed at improving health.
- D2) Determine his/her learning needs for personal and professional development; demonstrate an enthusiasm to take up opportunities for effective learning new things on their own.
- D3) Use computer-based instructional tools, including electronic tutorials and patient simulations.
- D4) Effectively, communicate verbally and non-verbally with patients and their families and his/her colleagues taking in his/her consideration difficult circumstances and sensitive issues.

Study Plan

First Year : First Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Islamic Culture	الثقافة الإسلامية	BUST05	4	-	-	4	
2	English Language(1)	اللغة الإنجليزية(1)	BUST02	-	8	-	4	
3	Introduction to community medicine & environment	مقدمة طب المجتمع والبيئة	BMD01	2	2	-	3	
4	Psycho-social sciences	علوم سلوكية واجتماعية	BMD02	1	-	-	1	
5	Communications Skills	مهارات الاتصال	BUST07	1	-	-	1	
6	Introduction to Embryology	مقدمة علم الأجنة	BMD07	3	-	-	3	
7	Introduction to Biochemistry	مقدمة في الكيمياء الحيوية	BMD04	2	2	-	3	
8	Introduction to Physiology	مقدمة علم وظائف الأعضاء	BMD08	3	-	-	3	
Total of Credit Hours				16	12	-	22	

First Year : Second Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Arabic Language	اللغة العربية	BUST03	2	4	-	4	
2	Medical English	الانجليزي الطبي	BMD05	2	-	-	2	
3	Computer Skills	مهارات الحاسوب	BUST09	-	6	-	3	
4	English Language (2)	اللغة الإنجليزية (2)	BUST06	-	8	-	4	E1
5	Skills of Holy Quran Recitation & Tajweed	مهارات تلاوة القرآن الكريم وتجويده	BUST01	-	2	-	1	
6	Critical Thinking	التفكير الناقد	BUST08	1	-	-	1	
7	Introduction to cytology & Histology	مقدمة علم الخلية والأنسجة	BMD03	2	2	-	3	
8	Introduction to Anatomy	مقدمة علم التشريح	BMD06	2	2	-	3	
Total of Credit Hours				9	24	-	21	

Second Year : First Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Pharmacology	علم الأدوية	BMD09	3.5	0.5	-	4	-
2	Nutrition and Nutritional Biochemistry	التغذية و كيمياء التغذية الحيوية	BMD10	3	1	-	4	-
3	Primary Health Care and Family Medicine(1)	الرعاية الصحية الأولية وطب الأسرة (1)	BMD11	2	1	-	3	-
4	Introduction to Pathology	مقدمة علم الأمراض	BMD15	6	2	-	8	Introduction to cytology & Histology
5	Biostatistics.	الاحصاء الطبي	BMD16	2	1	1	4	
Total of Credit Hours				16.5	5.5	1	23	

Second Year : Second Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Field Training (1)	تدريب ميداني(1)	BMD17	1	3	-	4	Biostatistics
2	Musculoskeletal system	الجهاز الهيكلي العضلي	BMD20	5	2	-	7	Introductory courses
3	Research Methodology	مناهج البحث العلمي	BUST10	1	1	-	2	
4	Leadership skills development	تنمية المهارات القيادية	BUST04	1	-	-	1	
Total of Credit Hours				8	8	-	14	

Third Year: First Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Cardio respiratory system	الجهاز القلبي التنفسي	BMD21	12	2	-	14	Introductory courses
2	Primary Health Care and Family Medicine(2)	الرعايه الصحيه الاوليه وطب الاسره (2)	BMD12	2.5	0.5	-	3	Primary Health Care and Family Medicine(1)
Total of Credit Hours				14.5	2.5	-	17	

Third Year : Second Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Gastrointestinal System.	الجهاز المعدي المعوي	BMD22	12	2	-	14	Introductory courses
2	Field Training (2)	تدريب ميداني (2)	BMD18	1	3	-	4	Biostatistics and research methodology
3	Primary Health care and Family medicine (3)	الرعايه الصحيه الاوليه وطب الاسره (3)	BMD13	2.5	0.5	-	3	Primary Health Care and Family Medicine(2)
Total of Credit Hours				15.5	5.5	-	21	

Fourth Year : First Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Medical Ethics	اخلاقيات الطبيب	BMD23	1	-	-	1	
2	Central Nervous System	الجهاز العصبي المركزي	BMD24	9	1	-	10	Introductory courses
3	Hematology and Blood diseases	الدم وامراضه	BMD25	3	1	-	4	Introductory courses
4	Primary Health Care and Family Medicine (4)	الرعايه الصحيه الاولى وطب الاسرة (4)	BMD14	2.5	0.5	-	3	Primary Health Care and Family Medicine (2) and (3)
5	Principle skills	المهارات الاساسية	BMD26	0	3	-	3	Introductory courses
Total of Credit Hours				15.5	5.5	-	21	

Fourth Year : Second Semester

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical	Tutorial		
1	Urogenital System	الجهاز البولي التناسلي	BMD27	8	2	-	10	Introductory courses
2	Endocrinology and Metabolism	الغدد الصم والإستقلاب	BMD28	7	1	-	8	Introductory courses
3	Field Training (3)	تدريب ميداني (3)	BMD19	1	3	-	4	Biostatistics and research methodology
Total of Credit Hours				16	6	-	22	

Fifth Year

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical (clinical)	Tutorial		
1	Pediatrics (block)	أمراض الاطفال (مجموعه تعليميه)	BMD29	8	4	-	12	Introductory courses + Body systems
2	Neurology and psychiatry.	الامراض النفسيه والعصبية	BMD31	3	2	-	5	Introductory courses + Body systems
3	Dermatology	الامراض الجلديه	BMD32	3	2	-	5	Introductory courses + Body systems
4	Ophthalmology	أمراض العيون	BMD33	3	2	-	5	Introductory courses + Body systems
5	Ear Nose and Throat	أمراض الانف والاذن والحنجره	BMD34	3	2	-	5	Introductory courses + Body systems
6	Forensic Medicine *	الطب الشرعي	BMD35	4	1	-	5	Introductory courses + Body systems
7	Gynecology and Obstetrics (Block)	أمراض النساء والولاده (مجموعه تعليميه)	BMD36	8	4	-	12	Introductory courses + Body systems
Total of Credit Hours				32	17	-	49	

*This course is longitudinal. هذا المقرر طولاني يدرس خلال العام الجامعي.

Sixth Year

	Courses Titles	اسم المقرر	Code / No	Credit Hours			Total C.H.	Pre-Requested
				Lecture	Practical (clinical)	Tutorial		
1	Medicine (block)	أمراض الباطنه (مجموعه تعليميه)	BMD38	12	3	-	15	Introductory courses + Body systems
2	Medicine (Bachelor)	أمراض الباطنه (نهائي)	BMD39	5	5	-	10	Introductory courses + Body systems + Medicine (block)
3	General Surgery (Block)	الجراحة العامه (مجموعه تعليميه)	BMD40	12	3	-	15	Introductory courses + Body systems
4	General Surgery (Bachelor)	الجراحة العامه (نهائي)	BMD41	5	5	-	10	Introductory courses + Body systems + General Surgery (block)
5	Pediatrics (Bachelor)	أمراض الأطفال (نهائي)	BMD30	4	4	-	8	Introductory courses + Body systems + Pediatrics (block)
6	Gynecology & Obstetrics (Bachelor)	أمراض النساء والولادة (نهائي)	BMD37	4	4	-	8	Introductory courses + Body systems + Gynecology & Obstetrics (block)
7	Community Medicine	طب المجتمع	BMD42	1	4	-	5	Biostatistics + Research Methods + Primary Health Care and Family Medicine 2 & 3
Total of Credit Hours				43	28	-	71	