Self-Evaluation Study
Faculty of Medicine
Mu’tah University
May 2010
Preface

Letter of the Dean of the Faculty

The Faculty of Medicine of Mu'tah University was founded in the 2001; in accordance with the vision of His Majesty King Abdullah II Bin Al-Hussein, the Fourth King of the Hashemite Kingdom of Jordan of the need of the Kingdom to have more doctors and to have a medical school in the southern part of the country, so this part of the country has its share of the development plan, resulted in the creation of this medical school.

The establishment of this Medical School was a necessity, so with its fellow sisters' medical schools at Jordan University in Amman, Jordan University of Science and Technology in Irbid and recently Hashemite University in Zarqa they form the only places for undergraduate medical educations. Those medical schools compliment each other and geographically they spread all over the country.

The Faculty recently moved to the main campus of Mutah University and the old building now houses offices and lecture halls of the students and staff in the clinical departments. The number of students enrolled at this medical school has increased tremendously over the last 9 years. The number admitted in the academic year 2001/2002 was 27 students while in the academic year 2009/2010 the number is 185.

The number of staff in both clinical and basic sciences has, also, increased from 12 in the academic year 2001/2002 to 47 Full-time staff members and 85 part-time staff members in the academic year 2009/2010. We tremendously rely on the staff and hospitals of the Ministry of Health and Royal Medical Services for training our undergraduate students. Now a sizable number of our Faculty staff is Jordanians sent for their postgraduate training in both basic and clinical sciences to western countries such as United Kingdom, United States of America, Australia, Canada and Western Europe.

So far, three groups of students graduated from our young medical school, the total number of graduated doctors is 157. They joined various health sectors in Jordan and abroad and the feedback from the places they work at, showed that they are of high
quality and they match their fellow graduates from other medical schools in Jordan. Many of our students passed international exams such as USMLE with very high scores.

In this short period of the life of our medical school, we had seven scientific conferences hosted by our medical school and this year the Faculty hosted the seventh conference which was a successful international meeting.

So far we only offer one undergraduate medical degree, bachelor of medicine & bachelor of surgery (M.B, B.S). We are currently working to have other programs and postgraduate studies in various basic and clinical disciplines.

I wish a bright future to our Faculty, my colleagues, administration staff and students.

Professor Adel Abu-Heija (FRCOG),
Dean of the Faculty of Medicine,
Mutah University, Al-Karak,
Jordan
24th May 2010
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SELF-ASSESSMENT ACCREDITATION COMMITTEES

Supreme Accreditation Committee

The committee was established by the Dean on 25/10/2009 (Annex 1A: Dean Order No. 18/2009)

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<td>Professor Mahmood H. Hammash</td>
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<tr>
<td>Professor Amal A. Mashali</td>
<td>Head of Dept of Pathology, Community Medicine &amp; Forensic Medicine</td>
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<tr>
<td>Associate Professor Waleed R. Ezzat Al-Shaikhly</td>
<td>Head of Dept of Physiology, Biochemistry &amp; Microbiology</td>
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<tr>
<td>Assistant Professor Mohammed Al-Sbou</td>
<td>Dean's Assistant</td>
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The committee was modified on 31/3/2010 (Annex 1A: Dean Order 11/2010) after submission of the self-assessment study to the HEAC

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# SELF-ASSESSMENT ACCREDITATION COMMITTEES

The committees were established by the Dean on 2/11/2008 (Annex 1A: Document 1) and modified on 25/10/2009 (Annex 1A: Dean Order 18/2009)

| 1. MISSION AND OBJECTIVES | Prof Salah Al-qaryoti  
|                          | Prof Imad Farju  
|                          | Prof Waffa Mosalamy  
|                          | Associate Prof Abdulla Rawi  
|                          | Associate Prof Saad Azzawi  |
| 2. EDUCATIONAL PROGRAMME | Prof Nather FathAlla  
|                          | Prof Amal Jabri  
|                          | Assist Prof Abdull-Qager  
|                          | Dr Nasrin Mwafi  
|                          | Prof Hossam Jarmokli  |
| 3. ASSESSMENT OF STUDENTS | Assist Prof Mamon Ahram  
|                          | Prof Erian Akladius  
|                          | Prof Mohammed Al-Ani  
|                          | Dr Enas Al-Zaidna  
|                          | Prof Hani Azzawi  |
| 4. STUDENTS | Assist Prof Raed Shatnawi  
|              | Assist Prof Aymen Qutaitat  
|              | Dr Kalid Abu-Arquob  
|              | Ass Prof Mohammed Al-Souob  
|              | Prof Aziza Ibrahim  |
| 5. ACADEMIC STAFF/FACULTY | Ass Prof Basam Nishewat  
|                         | Assist Prof Omar Nafi  
|                         | Dr Esmai Omari  
|                         | Prof Salim M Hassan  
|                         | Prof Salwa Metwali  |
| 6. EDUCATIONAL RESOURCES | Associate Prof Walled Ezzat  
|                          | Dr Jamal Madloum  
|                          | Dr Souad Jaafra  
|                          | Dr Nidal Nuyassa  
|                          | Assist Prof Fadi Hadidi  |
| 7. PROGRAMME EVALUATION | Ass Prof Mohammed Al-Sbou  
|                         | Prof Myyad Abboud  
|                         | Assist Prof Mahmood Faquih  
|                         | Dr Dhmia Al-Rahal  
|                         | Assist Prof Khitam Roufo  |
| 8. GOVERNANCE AND ADMINISTRATION | Prof Mahmood H Hammash  
|                                   | Prof Abdul-Mutalib AbdulKarim  
|                                   | Assist Prof Jamil Swaquid  
|                                   | Assist Prof Saed Addalain  
|                                   | Assist Prof Montasir Al-Rawashda  |
| 9. CONTINUOUS RENEWAL | Prof Amal Mashali  
|                       | Associate Prof Mohammed Al-Samarie  
|                       | Assist Prof Fahmi Al-Uri  
|                       | Dr Majid Shamayla  
|                       | Prof Waqar Al-Qubaisi  |
The committees were modified again on 31/3/2010 after submission of the self-assessment study to the HEAC (Annex 1A: Dean Decision No. 11/2010)

| MISSION AND OBJECTIVES | Prof Salah Al-qaryoti  
|                        | Prof Imad Farju  
|                        | Pro Waffa Mosalamy |
| EDUCATIONAL PROGRAMME | Prof Nather FathAlla  
|                        | Prof Amal Jabri  
|                        | Prof Mahmood Hayawii |
| ACADEMIC STAFF/FACULTY | Assist Prof Bassam Nishewat  
|                        | Prof Salim M Hassan  
|                        | Dr Esmat Omari |
| EDUCATIONAL RESOURCES | Associate Prof Waleed Ezzat  
|                        | Assist Prof Fawaz Saraira  
|                        | Assist Prof Jehad Shuneigat |
| GOVERNANCE AND ADMINISTRATION | Prof Mahmood H Hammash  
|                        | Prof Hani Azzawi  
|                        | Assist Prof Omar Nafi |
| STUDENTS | Prof Aziza Ebrahim  
| evaluation_of_students | Assist Prof Aymen Qutaitat  
|                        | Assist Prof Mohammed Al-Souob |
| PROGRAMME EVALUATION | Assist Prof Mohammed Al-Sbou  
|                        | Prof Mohammed Hassan  
|                        | Assist Prof Khitam Roufo |
| CONTINUOUS INNOVATION | Prof Amal Mashali  
|                        | Assist Prof Moamar Jefot  
|                        | Assist Prof Ayad al-Tamimi |
GENERAL INFORMATION

Name of the Institute: Faculty of Medicine, Mu'tah University
Address: Mu'tah, AL-Karak, PO Box 7, Jordan

Tel: 0096232386175
     0096232386287
Fax: 0096232386175

Website: http://www.mutah.edu.jo/index.html

Dean: Professor Adel Abu-Heija
      Official E-mail: dean_med@mutah.edu.jo
      E-mail: abuheija2008@hotmail.com

Vice-Dean for Basic Sciences: Professor Salim Muhi Hassan
      E-mail salimmuhi@yahoo.com

Vice-Dean for Clinical Sciences: Assist Professor Bassam Nishewat
      E-mail nesheiwat_bassam@hotmail.com

Number of Students: 821
Number of Full-time Teaching Staff: 47
Number of Part-time Teaching Staff: 85
Number of non-Academic staff: 29
Number of Technicians: 9
Number of Academic Departments: 9
Awarded Degree: M.B.B.S
List of Abbreviations:

HEAC: Higher Education Accreditation Commission
MB, BS: Medicine Bachelor, Surgery Bachelor
WFME: World Federation of Medical Education
WHO: World Health Organization
EMR: Eastern Med Mediterranean Region
EMRO: Eastern Med Mediterranean Region Office
GMC: General Medical Council
SAS: Self-Assessment Study
UK: United Kingdom
USA: United States of America
PhD: Doctorate of Philosophy
M Sc: Master of Science
MRCP: Member of the Royal College of Physicians
FRCP: Fellow of the Royal College of Physicians
FRCS: Fellow of the Royal College of Surgeons
EBM: Evidence Based Medicine
SPSS: Statistical Package for Social Sciences
E-learning: Electronic learning
General Introduction

Foundation of the Faculty
The Faculty of Medicine of Mu'tah University was founded in 2001 in accordance with the vision of His Majesty King Abdullah II Bin Al-Hussein, the Fourth King of the Hashemite Kingdom of Jordan as to the need of the Kingdom to have more doctors and to have a medical school in the southern part of the Kingdom. The University Board of Trustees agreed in its meeting dated 26/4/2001 on the establishment of the Faculty of Medicine by the decision number 69 (Annex 1A: Mu’tah Faculty of Medicine Token 2001-2002).

Accreditation of Medical Schools
Accreditation is a voluntary, independent review of educational programs to determine that the education provided is of uniform and sound quality. Accreditation is the process of quality assurance indicating that an institution meets established standards for function, structure, and performance. When accreditation is awarded, this ensures that a faculty has been evaluated and that it met certain standards of quality determined by the accrediting organization granting the accreditation. To ensure good quality of graduated physicians, medical schools should cooperate closely with teaching hospitals to develop a good educational program. Basically, a medical school should have basic medical sciences departments, clinical sciences departments and sub-specialty teaching and research branches. Training and continued medical education programs for physicians, and to other faculties related to medical sciences should also exist. A faculty or university's accreditation is maintained by continued adherence to the set guidelines or criteria.

Accreditation is important for medical schools. It ensures good quality and adherence to academic standards. Proper accreditation is also important for the acceptance and transfers of college credit, and is a prerequisite for many graduate programs.
Accreditation of Medical Schools in Jordan

Accreditation award is a self-regulatory process by which governmental, non-governmental, voluntary associations or other statutory bodies grant formal recognition to educational programs or institutions. In Jordan the Higher Education Accreditation Commission (HEAC) has been established in 2007 with the aim of ensuring high and good quality of the Higher Education programs and Universities in the Kingdom. The HEAC has adopted nine Accreditation Criteria for Medical Schools and their thirty-nine subareas (Annex 1A: HEAC Accreditation Guidelines, 2010). These were put forward to ensure good quality of the educational program of Medical School and to improve Medical Education & health care. The World Federation of Medical Education (WFME) has 9 WFME global standards and 36 subareas (Annex 1A: WFME global standards).

Accreditation of Medical Schools is a priority that has been discussed and emphasized upon during the three annual conferences of Deans of Arab Faculties of Medicine held 2004 - 2006. These meeting concluded and recommended that Arab Faculties of Medicine should reform their medical education programs to enhance the accreditation process. WHO/EMRO (Eastern Mediterranean Region Office) encouraged and supported these recommendations.

Accreditation of Medical Schools in the Eastern Mediterranean Region (EMR)

In the EMR, undergraduate medical schools are usually recognized worldwide, for instance by the General Medical Council (GMC) of the United Kingdom, when they are listed in the “WHO World Directory of Medical Schools”. Accreditation of the postgraduate medical education is performed by “The Arab Board of Medical Specialization”. Several attempts for accreditation have been operating on a sporadic level in some countries in this Region. A pilot testing of WFME global standards is being undertaken in several medical schools in the Region & in the Kingdom. The decision to achieve national (regional) accreditation of Mu'tah Faculty of Medicine by the HEAC and subsequently the international accreditation by WFME was stressed upon by the Faculty Deanships since the early days of the Faculty foundation.
Methodology adopted in preparing the Faculty Self-Assessment Study (SAS) document

This Evidence-Based Self-Assessment Study of the Faculty was planned by the Faculty & performed as a team work task in which all faculty members had a share. Nine accreditation committees and a supreme leading committee were established to cover all aspects of the study. They started meetings & collecting information since October 2008 (Annex 1A: Document 3 & Document 1). Performing this Self-Assessment Study is an important preliminary step for the accreditation process both on national and international global levels & becomes well known to all members of the Faculty. In Jordan, other Faculties of Medicine started working or even completed their self-assessment studies. The Higher Education Accreditation Commission (HEAC) Guidelines and Standards were utilized as guidelines for the self-assessment study. These Jordanian National Standards adopted by the Higher Education Accreditation Commission for Medical Schools and published in 2010 (Annex 1A; HEAC Accreditation Guidelines, 2010).

Aim of the Self-Assessment Study

The goal of this Self-Evaluation Study was to assess and validate the Faculty facilities and educational program as a first step in the accreditation process of the Faculty prior to the site visit of the faculty by the HEAC peer review committee. Awareness of the accreditation process, both by the teaching staff & students, is an important early step and the discovery of the points of strength & weakness will help to improve the Faculty performance. Applying national and the international standards of medical education to our program will improve the Faculty educational outcome with benefits to students, graduates and to the community.

Collection of Data

Data collection of the medical educational programme of the Faculty was started in 2008. The Faculty established nine working committees to begin the self-assessment procedure of the Faculty and its educational programme according to the guidelines of the HEAC. These committees included all members of the teaching staff members. Reports of these
accreditation committees were submitted to the supreme accreditation committee. This committee supervised, coordinated and finalized the committees' reports and produced the final Self-Assessment Study (SAS) document. This SAS was submitted to the HEAC in December 2009 for evaluation. Since March 2010, reports and data of these committees were revised and rewritten according to the remarks and guidelines of the HEAC published in 2010.

The nine committees started their meetings after having a 2-days workshop in Amman in October 2008 about the Accreditation process & its Guidelines. The committees started to collect the necessary information about the Faculty including the educational program, teaching plan and curricula, educational resources and facilities, faculty regulations, the teaching staff members and relevant students' information. The necessary information about the educational program & the applied scientific teaching methods were prepared by the departments & presented to the relevant committees.

This internal system for quality assurance worked to identify the Faculty points of strengths, weaknesses & problem areas that require attention and distinctive activities. The Accreditation Committees adopted & utilized the **SWOT strategy** (Strengths, Weaknesses, Opportunities and Threats) to analyze the results. The Faculty working Accreditation Committees supported by the Scientific Departments as well as the Administrative and Managerial Departments assessed the real situation of the Faculty, according to HEAC Guidelines and the international standards of the (WFME) to establish the Faculty SAS document. Plan of actions was put forward to correct all weaknesses detected by the working Accreditation Committees so as to improve the quality of the educational program. This plan of actions is presented in tables at the end of this SAS document (Annex 10; Tables 1-9). An additional set of **surveys** was adopted where multiple **questionnaires** designed by experts in medical education from the WHO were used to obtain feedback on different aspects of the nine HEAC domains. The questionnaires targeted a sample of the Faculty stakeholders (about 10%) including Faculty staff, students, part-time teaching and training staff, administrative staff, current and previous management officers like Deans and Chairmen of departments. The data obtained was analyzed and reflected in the strengths and weaknesses which ultimately dictated the suggested actions to overcome the deficiencies and fill the gaps. As indicated in different parts of the document and its annexes, a number of such remedies were
actually initiated by the Dean and related councils and committees. It is hoped that such ongoing actions can achieve full goals before or shortly after the accreditation evaluative site visit to the Faculty by the HEAC. In doing so, the Faculty of Medicine in Mu’tah University affirms the commitment of its management to proceed with the accreditation as a continuous process of quality improvement and not as a procedure that is finished with the production of the Self Assessment Study document.

**Annex 1A contains:**

- Dean order on 2/11/2008
- Dean Order 18/2009 on 5/10/2009
- Dean Order 11/2010
- Dean Order 18/2009
- Mu’tah Faculty of Medicine Token 2001-2002
- HEAC Accreditation Guidelines, 2010
- WFME global standards
Components of the Self-Assessment Study

The study covers the following 9 HEAC standards & their 39 components sub-areas

(HEAC Guidelines, 2010):

1. Mission and Objectives
   - 1.1 Statements of Mission and Objectives
   - 1.2 Participation in formulation of mission & objectives
   - 1.3 Academic Autonomy
   - 1.4 Educational outcome

2. Educational Programme
   - 2.1. Curriculum models & Instructional Methods
   - 2.2 Scientific methods
   - 2.3 Basic Biomedical Sciences
   - 2.4 Behavioural and social sciences and Medical Ethics
   - 2.5 Clinical Sciences and Skills
   - 2.6 Curriculum structure, composition and duration
   - 2.7 Programme management
   - 2.8 Linkage with medical practice and the health care system

3. Faculty Members
   - 3.1 Appointment policies
   - 3.2 Training and Vocational Development
   - 3.3. Medical Faculty Staff

4. Educational Resources
   - 4.1 Constructions
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   - 4.8. Educational Exchange
   - 4.9. Equipment & Educational Aids
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   ▪ 5.1 Governance
   ▪ 5.2 Academic Leadership
   ▪ 5.3 Educational Budget and Resource allocation
   ▪ 5.4 Administrative staff and Management
   ▪ 5.5 Interaction with Health Sectors

6: Students
   ▪ 6.1 Admission policy and selection
   ▪ 6.2 Number of Students
   ▪ 6.3 Student Support and Counselling

7: Student Evaluation
   ▪ 7.1 Evaluation Methods
   ▪ 7.2 Relation between Evaluation and Instructions

8. Programme Evaluation
   ▪ 8.1 Mechanisms of Programme Evaluation
   ▪ 8.2 Feedback
   ▪ 8.3 Student Performance
   ▪ 8.4 Participation

9. Continuous Innovation
   ▪ 9.1. Curriculum
   ▪ 9.2. Number of students
   ▪ 9.3. The staff
   ▪ 9.4. Methods of teaching
   ▪ 9.5 Methods of examinations
   ▪ 9.6 The relation with the teaching hospital:
   ▪ 9.7 Feedback of students

10. Summary & Recommendations
11. Plan of actions
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13. Annexes
RESULTS OF THE

SELF-ASSESSMENT STUDY
1. MISSION AND OBJECTIVES

1.1 STATEMENTS OF VISION, MISSION, AND OBJECTIVES

Basic standard:
The medical school must define its mission and objectives and make them known to its constituency. The mission statements and objectives must describe the educational process resulting in a medical doctor competent at a basic level, with an appropriate foundation for further training in any branch of medicine and in keeping with the roles of doctors in the health care system.

Vision:
Faculty of Medicine, Mu’tah University in Al-Karak province will be the healthy learning environment for professional excellence.

Mission:
The mission of Faculty of Medicine, Mu’ta University is to develop a competent medical graduate who is an honest physician capable of dealing with local community health problems and capable of performing scientific research.

Objectives of the Faculty of Medicine at University of Mu’tah:
1. Provision of competent medical graduates capable of dealing effectively with health problems of the individual patient and of the community as a whole.
2. Contribution to the development of scientific medical knowledge through medical conferences, meetings, continuous medical education, medical research, and later higher postgraduate studies.
3. Provision of high standard of medical services to patients and the community in Jordan in general, and in Al-Karak and other governorates in Southern Jordan in particular.
4. Participation in health development and improvement in the community through primary health care, preventive health services and environmental health standards in Jordan, especially in Southern Jordan.
Mu'tah Faculty of Medicine shall be the nucleus for serving the health and scientific needs of the community in the southern region of the Hashemite Kingdom of Jordan. Its mission is to prepare competent medical graduates who are ready for internship hospital training to become capable of dealing adequately with the local community health problems and performing scientific research.

**Quality development:**

The mission and objectives **should** encompass social responsibility, research attainment, community involvement, and address readiness for postgraduate medical training.

**The 1st objective:**

It is concerned with providing adequate medical education for the students. The Faculty utilizes all its human, material, scientific, and financial resources to achieve and maintain its objectives of a basic standard of knowledge and ethical values for the students during their medical study.

The measures that were taken by the Faculty for this aim include:

- Providing adequate number of teaching halls and equipped labs to start medical study in 2001. The University completed the new building at its campus in early 2009 where teaching of the basic medical sciences started on March 2009.
- Influencing the admission policy of the University so that the number of students admitted annually to the Faculty matches its teaching capacity.
- Appointment of teaching staff with adequate professional and teaching experience to serve the educational goal of the Faculty, and to fill any department deficit in this regard.
- Distribution of resources to different department to provide optimum teaching by staff members and learning by students.
- Solving problems of students regarding teaching methods, thus enhancing learning.
- Provision of adequate number of computers in computer labs to enhance self-learning.
- Continuous upgrading of syllabus of scientific curriculum of each basic academic or clinical departments.
Continuous upgrading of library services to provide adequate knowledge regarding current developments and advances in different branches of medicine.

Providing adequate laboratory equipment and space to optimize practical teaching and student learning in different basic medical sciences. A grant from World bank in 2004 assisted in providing the required lab equipment for practical teaching as well as for future research in the different basic sciences (Annex 1: Lists of instruments in teaching and research labs).

Helping in the development and expansion of Al-Karak Government Hospital to provide enough beds and adequate laboratory services to provide better clinical teaching and training.

The 2nd objective:

It indicates the role of Faculty in upgrading scientific medical knowledge and encouraging research. Since its foundation, the Faculty of Medicine at Mu’tah university has been focusing on building institutional structure and function in regard to the undergraduate program. Hence, the total load on Faculty staff has been devoted towards teaching, training, and management of the undergraduate educational program.

To upgrade its research activity, the Faculty is performing or has done the following:

Building its institutional capacities in human and physical resources at present with plans to start its own postgraduate research programs once the shortage in the number of academic staff members and relevant research facilities is corrected, and becomes appropriate, sustainable to allow starting of higher postgraduate studies.

The Faculty is encouraging research activities by teaching staff members, and by undergraduate students supervised by their teaching staff. Some of these student research papers were outstanding and presented during the Medical Conferences of the Faculty or its scientific days.

Teaching staff as well as students have participated by research papers in local and international medical or student conferences since 2003 till 2010 (Annex 1: Scientific Days and Meetings; Documents 1 and 2).
The 3rd and 4th objectives

They show the social responsibility and community involvement or contributions of the Faculty of Medicine. This participation includes:

- The Faculty clinical staffs are participating in clinical service to Al-Karak Government Hospital and to Prince Ali Bin Al-Hussein Military Hospital in Al-Karak as well as to local health centres at University campus and in Al-Karak.
- Students had participated under supervision of Community Medicine teaching staff of the Faculty in research surveys on common disease in Al-Karak city and its neighbouring villages in the years 2004-2007 (Annex 1: Document 3).
- During 2005, community representatives and members attended discussions and lectures held at student theatre of the University about common diseases in Jordan like diabetes mellitus, and also about the standard of health services in the southern region of Jordan (Annex 1: Documents 4 & 5).
- Community representatives attended the lectures and discussions about "Bird Flue" held at the student theatre of the University in 2007, and about "Swine Flue" held in the main Faculty hall during late 2009 (Annex 1: Documents 6 & 7).
- Many medical conferences, meetings, scientific days, or workshops have been held at the Faculty or University halls since 2002 and till the present date. The 7th conference of the Faculty held on April 15-16, 2010 was a real scientific demonstration, as acknowledged by Faculty staff, University authority, as well as by visiting medical professors or participants from Amman or abroad. The Faculty has also hosted the 3rd day of the 1st conference as well as the 3rd conference of Deans of Arab Medical Faculties in 2004 and 2007, respectively (Annex 1: Documents 8, 9, 10, and 11).
- The Faculty holds annual continuous education program including lectures or discussions sessions since 2005 till present date, to which doctors from Al-Karak Government Hospitals are also invited, aiming to upgrade knowledge of staff members, students, and Al-Karak hospital doctors about new developments in medicine (Annex 1: Document 12).
- The Faculty staffs also attend and participate in lectures at the Al-Karak branch of Jordanian Medical Association located at the campus of Professional Associations of Al-Karak in Al-Marje district, close to Al-Karak city.
The mission and objectives of the Faculty of Medicine at Mutah University were first defined at the stage of the Faculty establishment in 2001 by the temporary Council of the Faculty of Medicine. The mission and objectives were then included in a published booklet describing the newly established Faculty of Medicine as the third school in the HKJ (Faculty Token 2001-2002; Establishment). This token was made available to all stakeholders including the appointed teaching staff members of the Faculty, medical Faculties in other Jordanian Universities, the medical students who were admitted for the study of medicine at Mu'tah University, the Ministry of Health, and the Royal Medical Services in Amman (Annex 1: Document 13. Faculty Token booklet: Establishment of Faculty of Medicine, 2001-2002).

The document described the intended objectives of the newly established Faculty of Medicine at Mutah University as follows:

1. **Graduating general practitioners with high standard in the different fields of medicine, capable of offering a high standard of curative and preventive medical care and also capable of specialization in the different fields of medicine.**
2. **Assisting in raising the standard of doctors in the local society through the defined facilities of the continuous medical education system.**
3. **Participating in raising the standard of medical care and health services provided at the hospitals of Al-Karak governorate and the southern area in general, in cooperation with the Ministry of Health and the Royal Medical Services.**
4. **Encouraging medical research with special emphasis on local medical problems.**
5. **Raising the standard of preventive medicine and primary health care.**
6. **Teaching medical courses for the paramedical colleges.**
7. **To be concerned with military medical teaching by establishing in the future a military wing for the Faculty of Medicine, aiming at graduating military doctors of good scientific and professional standards.**

Developments regarding vision, mission, and objectives of the Faculty of Medicine came after graduation of two batches of students in 2007 and 2008. By this time, the Faculty became more aware of its capacity and abilities in different scientific disciplines as well as its contributions to the local community, research, and the professional standard of its graduates. During the academic year 2008-2009, ten committees, including committee on mission and objectives, were established on November 2, 2008 (Annex 1: Document 14)
to prepare the accreditation self-assessment study of the Faculty of Medicine. The committee of mission and objectives revised the pre-existing 7 objectives of the Faculty, and after considering the actual capacity and capability of the Faculty after 7 years of its establishment, summarized the achievable objectives into the previously mentioned four objectives. These revised objectives were presented to and approved by the Faculty Council in its meeting on the 16th Feb 2009 (Annex 1: Document 15). Printed material as well as electronic versions were sent to all teaching staff members to make them aware of the revised vision, mission, and objectives of the Faculty. In addition, posters containing the vision, mission and objectives were put and distributed in the buildings of the Faculty so as to be seen by all students.

Domain 1 Questionnaire Survey

A questionnaire survey on random samples of medical students from different stages of their study as well as teaching staff of the Faculty was carried out to see the extent of their awareness and acquaintance with the Faculty vision, mission, and objectives as well as the extent of their participation in their formulation, and whether these objectives reflect community scientific and health needs (Questionnaire 1). Results of this survey are shown in (Table 1). Although most students (83.5%) and staff members (92.5%) were familiar with the Faculty mission & objectives. Some are still not acquainted with them.

For real verification of the accomplishment of its objectives, the Faculty adopts the following procedure for medical students or graduates:

A. For undergraduates: Evaluation depends on the following:

- Results of the theory and practical or clinical examinations
- Student attendance of lectures and practical or clinical sessions
- Personal impression of staff members about students' scientific knowledge, practical or clinical skills.
- Standard of scientific seminars presented by students (according to the content, method of presentation, and discussion or answers to questions raised by staff members or student colleagues)
How students rank their knowledge and skills in the basic medical as well as clinical sciences in comparison to their counterparts in other medical schools in Jordan, namely JUST and JU?

Another questionnaire survey regarding this point was conducted on students selected randomly from the 3rd & 4th years of medical study. Results are shown in (Tables 1 & 2.). The results of this survey showed that most of the students indicated that the contents of the teaching curriculum of the different subjects provided them with enough knowledge and skills in these subjects with overall average of 78% and 69% for students of the third and fourth year (Tables 2 & 3). Moreover, they rated the standard of their knowledge and practical skills in comparison to their medical students' counterparts in the Jordanian University of Science and Technology (JUST) or the Jordanian University (JU) as follows:

**Third year medical students:**
The subjects studied included the basic medical sciences of the Respiratory System module, Cardiovascular System module, Neuroscience 1 and 2 modules, Haemopoietic System module, and the Uro-genital System module. Students surveyed were 40. In comparison to their student counterparts in JUST, they ranked their knowledge and practical skills as better (44% overall average) or equal to (37% overall average) that possessed by them. Respective values for comparisons with their counterparts in JU were 49% and 20.5%, respectively (Table 2).

**Fourth year medical students:**
The subjects studied are those of Internal Medicine, General Surgery, Forensic Medicine, Radiology, and Anaesthesia including Intensive Care. Out of the 45 students surveyed, an overall average of 43% and 26%, respectively, indicated that their standard of medical knowledge and clinical skills were better than or equal to that of their counterparts in JUST; the corresponding overall average values for comparisons with JU were 47% and 21%, respectively (Table 2). Most students (78%) indicated that teaching and consequently their knowledge and skills were relatively weaker in Internal Medicine when compared to the other major clinical discipline of General Surgery, and thus an appreciable portion of students rated their knowledge and clinical skills in Internal
Medicine below that of their counterparts in medical schools in JUST (58% overall average) or JU (33% overall average).

The Faculty Council is aware of this problem and has started taking the necessary measures to provide the department with the necessary full-time teaching staff. To a lesser extent, 45% of students indicated that their teaching and thus their learned knowledge and clinical skills were inadequate in Anaesthesiology & Intensive care (Table 3) which is included as a branch of the discipline of surgery; overall 43% and 40% ranked their standard of knowledge and clinical skills less than that of their counterparts in JUST or JU, respectively.

In order to deal with student problems and to improve students' learning and performance, the Dean and Vice Dean of the Faculty hold meetings with the students during the first and second semester of each academic year. These meetings provide feedback about adequacy of teaching and curriculum contents, and to listen to student problem regarding learning or attendance in order to provide solutions for them.

**B. Graduates:**

Evaluation depends on their knowledge at final written graduation exam, clinical skills at clinical or OSCE exam, impression of external examiners about knowledge and clinical skills of graduating students, and finally follow up of graduates after their appointment in different Jordanian teaching hospital for internship residency training (this will be described in more detail with the "Educational Outcome").

If any deviation of scientific medical standard of knowledge or clinical skills is identified, the Faculty administration takes the necessary educational plans and measures in order to correct the defect, and thus maintaining the objective of good quality of medical education. The student admission policy of the Faculty, although affected by the extent of fulfilment of the Faculty objectives, is under direct control by the University but the Dean of the Faculty is always consulted regarding the number of students for admission.
Points of Strength:

- The mission, goals, and objectives are comprehensive, well specified & properly detailed. If achieved they will result in creating a competent graduate doctor ready for further internship medical training and community health service.
- The statements of vision, mission, and objectives of the Faculty have been displayed in the Faculty building as well as being sent electronically to all academic staff.
- Most staff members (80%) and students (78.5%) thought that the Faculty’s mission and objectives reflect the community health and scientific needs.
- The majority of students of 3rd & 4th year indicated that the curricula of the different subjects they studied were enough to provide them with enough knowledge and practical or clinical skills. Moreover, they rated their knowledge and skills in the majority of subjects and modules as either better or equal to that of their medical student counterparts in JUST or JU (Tables 2). First year medical students who studied the medical school requirements during the first semester also indicated that their standard of knowledge and skills was better or occasionally equal to that before entering the medical school.

Points of Weakness:

- The mission, goals, and objectives are not well known to some of the students and therefore, more copies of the vision, mission, and objectives are printed and are to be distributed to faculty members, students and other stakeholders
- Fourth year students indicated in the questionnaire survey that their knowledge and clinical skills are inadequate in the major discipline of Internal Medicine, and to a lesser extent in Anesthesia & Intensive Care.
- Research capabilities are still below the ambition.

Suggested Corrective Actions

- The Faculty is building its research facilities and efficient staff members in the hope of enhancing scientific academic or clinical research in the hope of paving the way for establishing higher postgraduate studies in due time.
The Faculty Council is already aware of this teaching problem and has already started taking the needed steps to provide teaching resources necessary for correction.

**Questionnaire 1A**

**Vision, Mission and Objectives**

**Faculty of Medicine / Mu'tah University**

- Academic Identification: Choose:
  - ( ) staff member
  - ( ) part – time staff member
  - ( ) student
  - ( ) administrator

Q.1: Are you aware of the existence of college vision, mission and objectives statements?
   - ( ) yes
   - ( ) no

Q.2: Have you contributed towards the formulation of vision, mission and objectives of your Faculty?
   - ( ) yes
   - ( ) no

Q.3: Were these vision, mission and objectives made known to you?
   - ( ) yes
   - ( ) no

Q.4: Do you think that these vision, mission and objective reflect community needs priority health problems?
   - ( ) yes
   - ( ) no
Table 1: Responses of random sample of staff members (No. 40) and students (No. 200) regarding vision, mission, and objectives of the Faculty of Medicine at Mutah University in Jordan

1.1 Response of staff members and students in the sample (No. 240)

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware of mission &amp; objectives?</td>
<td>204</td>
<td>85</td>
</tr>
<tr>
<td>Did you contribute toward formulation of mission &amp; objectives?</td>
<td>74</td>
<td>30.8</td>
</tr>
<tr>
<td>Is mission &amp; objectives known to you</td>
<td>159</td>
<td>66.25</td>
</tr>
<tr>
<td>Do you think mission &amp; objectives reflects community needs</td>
<td>189</td>
<td>78.75</td>
</tr>
</tbody>
</table>

Table 1.2. : Response of Staff members

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware of mission &amp; objectives?</td>
<td>37</td>
<td>92.5</td>
</tr>
<tr>
<td>Did you contribute toward formulation of mission &amp; objectives?</td>
<td>11</td>
<td>27.5</td>
</tr>
<tr>
<td>Is mission &amp; objectives known to you</td>
<td>34</td>
<td>85</td>
</tr>
<tr>
<td>Do you think mission &amp; objectives reflects community needs</td>
<td>32</td>
<td>80</td>
</tr>
</tbody>
</table>

Table 1.3. : Response of Students

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware of mission &amp; objectives?</td>
<td>167</td>
<td>83.5</td>
</tr>
<tr>
<td>Did you contribute toward formulation of mission &amp; objectives?</td>
<td>63</td>
<td>31.5</td>
</tr>
<tr>
<td>Is mission &amp; objectives known to you</td>
<td>125</td>
<td>62.5</td>
</tr>
<tr>
<td>Do you think mission &amp; objectives reflects community needs</td>
<td>157</td>
<td>78.5</td>
</tr>
</tbody>
</table>

Table 1.4. : Response of Part-time staff member

<table>
<thead>
<tr>
<th>Question</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are you aware of mission &amp; objectives?</td>
<td>14</td>
<td>87.5</td>
</tr>
<tr>
<td>Did you contribute toward formulation of mission &amp; objectives?</td>
<td>1</td>
<td>6.25</td>
</tr>
<tr>
<td>Is mission &amp; objectives known to you</td>
<td>10</td>
<td>62.5</td>
</tr>
<tr>
<td>Do you think mission &amp; objectives reflects community needs</td>
<td>10</td>
<td>62.5</td>
</tr>
</tbody>
</table>
Table 2. Third year students 2009-2010 No. of students = 40

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Number of students</th>
<th>If No, why?</th>
<th>JUST</th>
<th>Number of students</th>
<th>Number of students</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>Less</td>
<td>Equal</td>
<td>Better</td>
<td>Less</td>
</tr>
<tr>
<td>Respiratory Module</td>
<td>4</td>
<td>36</td>
<td>5</td>
<td>17</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Cardiovascular Module</td>
<td>6</td>
<td>34</td>
<td>8</td>
<td>14</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Neuroscience I Module</td>
<td>13</td>
<td>27</td>
<td>11</td>
<td>9</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Neuroscience II Module</td>
<td>9</td>
<td>31</td>
<td>14</td>
<td>13</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Haemopoeitic System Module</td>
<td>11</td>
<td>29</td>
<td>5</td>
<td>14</td>
<td>21</td>
<td>10</td>
</tr>
<tr>
<td>Urogenital System Module</td>
<td>11</td>
<td>29</td>
<td>4</td>
<td>22</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Overall average</td>
<td>9</td>
<td>31</td>
<td>8</td>
<td>15</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>22.5%</td>
<td>78%</td>
<td>19%</td>
<td>37%</td>
<td>44%</td>
<td>21%</td>
</tr>
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</table>
Table 3. Fourth year students 2009-2010 Students No. 45

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Number of students</th>
<th>If No, why?</th>
<th>Number of students</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>Yes</td>
<td>Less</td>
<td>Equal</td>
</tr>
<tr>
<td>Medicine</td>
<td>10</td>
<td>35</td>
<td>22</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>48%</td>
<td></td>
</tr>
<tr>
<td>Surgery</td>
<td>45</td>
<td>0</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Forensic medicine</td>
<td>37</td>
<td>8</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Radiology</td>
<td>38</td>
<td>7</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Anaesthesia and Intensive care</td>
<td>25</td>
<td>20</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35%</td>
<td></td>
</tr>
<tr>
<td>Overall average</td>
<td>31</td>
<td>14</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>69%</td>
<td>31%</td>
</tr>
</tbody>
</table>

Self-Assessment Study: Faculty of Medicine, Mu’tah University, May 2010
1.2 PARTICIPATION IN FORMULATION OF MISSION AND OBJECTIVES

Basic standard:

The mission statement and objectives of a medical school must be defined by its principal stakeholders.

Quality development:

Formulation of mission statements and objectives should be based on input from a wider range of stakeholders.

The formulation of the mission and objectives of the Faculty of Medicine at Mutah University was originally carried out at the stage of the Faculty establishment in 2001 by the temporary Council of the Faculty of Medicine. At that time, the Council included: The acting Dean who was the Dean of the Faculty of Science of Mutah University, the Dean's Assistant, a representative of the Faculty of Medicine/University of Jordan in Amman, a representative of the Faculty of Medicine/University of Science and Technology in Irbid, a representative of the Royal Medical Services, a representative of the Ministry of Health from Al-Karak Health Authority, director of Al-Karak Governorate Hospital, a representative from the private medical sector, and a representative of the local community of Al-Karak.

The mission and objectives were then included in the Faculty Token published in 2001-2002. This booklet was made available to all appointed teaching staff members of the Faculty, Medical Faculties in other Jordanian Universities, the medical students admitted for the study of medicine at Mu'tah University, Ministry of Health, and the Royal Medical Services in Amman.

The revised 4 objectives were approved by the Faculty in 2009 as mentioned earlier. The Council included the Dean, 2 Vice Dean, 2 Dean's Assistants, Chairmen of the different scientific Departments as well as a chosen representative for each department, a chosen student representative, a representative from the Royal Medical Services and from Ministry of Health, as well as representative from the local community in Al-Karak.
Printed material and electronic mails were sent to all Faculty members to make them acquainted with the revised mission and objectives of the Faculty; similarly, posters about the revised Faculty mission and objectives were also distributed in the Faculty corridors catching the eyes of most students, teaching staff, and other community stakeholders.

The questionnaire survey, already mentioned with the "statements of mission and objectives" showed that (see Table 1):

- 27.5% of staff members and 31.5% of students participated in the formulation of the Faculty mission and objectives
- 80% of staff members and 78.5% of students thought that the Faculty vision, mission, and objectives reflected the scientific and health needs of the community

**Point of Strength:**

- The Faculty mission and objectives were revised after 7 years of its establishment in 2001; most stakeholders were acquainted with them, and most staff members and students thought that they reflected community needs

**Point of Weakness:**

- A large proportion of staff members as well as students did not participate in the formulation of these objectives

**Suggested Corrective Action:**

- Any future revision or revaluation of Faculty mission and objectives should be addressed by most staff members and students before being approved. Most teaching staff members or students should present their opinion about mission and objectives of the Faculty at their department council or student representative, respectively, and this opinion should then be presented to Faculty Council so that any change in the formulation of these objectives, if needed, would be approved.
1.3 ACADEMIC AUTONOMY

Basic standard:

There must be a policy, for which the administration and faculty/academic staff of the medical school are responsible, within which they have freedom to design the curriculum and allocate the resources necessary for its implementation.

University regulations confer the responsibility of designing the teaching curriculum and allocation of the needed resources to its individual Faculties. Accordingly, it is the duty of the Faculty Council, headed by its Dean, to formulate the general policy for education at the Faculty, and to approve the curriculum that is presented by each of its teaching disciplines, as well as provide plans for allocation of the needed resources. Likewise, the council of each scientific department or discipline is responsible for designing the syllabus of its curriculum, follow its implementation by the department teaching staff members, and design its evaluation method in accordance with the working regulations of the University. Thus, it is evident that both the administration and academic staff members within the different disciplines are responsible for implementing the educational policy of the Faculty (Annex 1: Document 16).

Since its establishment in 2001, the Faculty of Medicine Council at Mu’tah University had a complete autonomy in carrying out its duties or decisions without any dictation from any external authority; however University legislations or orders or decisions by University authorities are binding to its faculties in general.

Establishing the educational curriculum of the Faculty and providing the resources required to implement it were the first challenges of the Faculty Council at that time.

The curriculum of the subjects of medical school requirements that are taught during the first year of medical school (Medical Physics, Biology, Chemistry and Organic Chemistry, Computer Science, English Language) had their curricula laid out and their teaching carried out by the teaching staff members of their respective departments at the Faculty of Science and Faculty of Educational Sciences. This was approved by the Temporary Council of Faculty of Medicine during the second quarter of 2001 before the start of the first academic year 2001-2002.
During the second semester of the second year and both the first and second semesters of the third year, teaching of the basic medical sciences followed the integrated system teaching method. This integration involves separating the nine physiological systems of the human body into 9 respective modules. In each of these modules, relevant lectures were delivered to the students by teaching staff of the basic medical science disciplines in a sequence that makes learning easier for the students.

The curriculum of these body systems' modules was approved during 2001 by the Temporary Council of the Faculty; the Council obtained the curriculum from the Faculty of Medicine at JUST which was the only Faculty that adopted and experienced this system for many years. The first appointed Dean of the Faculty in 2002 had a considerable experience in the implementation of integrated module system teaching since he served as Vice Dean at the Faculty of Medicine in JUST before joining Mu'tah University. If any addition of lectures or practical hours is needed by a discipline, it should be addressed by the scientific committee of the Faculty before being discussed for approval by the Faculty Council.

The curricula of the general courses of basic medical sciences delivered during the second semester of first year as well as the first semester of the second year were prepared by the basic sciences departments and approved by the Faculty Council.

The curricula of the courses of the clinical sciences followed the classical lecture, seminar, and clinical teaching method. They were designed by the respective department council after several consultations about the syllabus of each curriculum with their respective counterparts at the Faculty of Medicine in JUST. These curricula were approved by the Faculty Council in 2004, and were ready for implementation starting from the summer course of academic year 2003-2004.

**Quality development:**

*The contributions of all academic staff *should* address the actual curriculum and *the educational resources *should* be distributed in relation to the educational needs.*

A change of the educational plan of the Faculty came in 2006 when the Faculty Council and teaching staff approved some reduction in the credit hours of educational plan from
266 to 262 (Annex 1: Document 17) with reshuffle in sequence of the modules during the second and third year of medical study. A final change was approved in 2009 where the number of credit hours was further reduced from 262 to 258 h (Annex 1: Document 18). These alterations were approved by the University Council of Deans before their implementation.

In the implementation of departmental curriculum, teaching staff members have the academic freedom they need to implement the teaching method or practical or clinical procedure they find more optimal for teaching of their students, thus enhancing learning.

A questionnaire survey was recently carried out on 30 teaching staff members regarding the academic autonomy of teaching staff members and the Faculty Council. The results are shown in (Table 1.3). The survey showed participation of 63% of the current staff members in designing the syllabus of their specific discipline teaching curriculum, and 73% indicated also their participation in choosing the required scientific references for their subject (Table 1.3). Furthermore, 80% of teaching staff members affirmed their autonomy in choosing their desired method or procedure of teaching. In addition, 77% indicated that they also had full autonomy in revising and renewing relevant topics, seminars, clinical or practical sessions of the syllabus of their specific curriculum after being discussed in the Department Council (Table 3). Nevertheless, they should adhere to the specified credit hours of the subject. Among the 18 teaching staff members who were also members of the Faculty Council, 78% also indicated that the Faculty Council had full autonomy in taking its educational decisions without any dictation or interference from any external source or authority (Table 1.3).

Full autonomy of the Faculty was also evident in providing the resources needed for implementing its educatory plan such as providing the building, furnishing the teaching halls and the basic science labs, appointment of suitable teaching staff, providing a library with adequate numbers of periodicals and textbooks, providing a computer lab with adequate numbers of computers, and other measures.

Faculty autonomy is also expressed in Faculty cooperation or agreements with the Ministry of Health, the Royal Medical Services, and other medical or educational establishments inside or outside Jordan. In the year 2001, the University of Mu'tah signed
an agreement with the Ministry of Health for the purpose of organizing contacts and to make Al-Karak Government Hospital as the main teaching hospital for the students of the Faculty of Medicine (Annex 1: Agreements). The last revised agreement was signed on 31/7/2009.

The University also signed an agreement with the Royal Medical Services Administration (2001) to designate Prince Ali Bin Al-Hussein Hospital in Al-Karak as another teaching hospital for the Faculty students, in addition to King Hussein Medical Centre in Amman (Annex 3; Agreements). The revised version was signed on 2006.

The Faculty is in contact with the Faculties of Medicine at Jordan University, at University of Science and Technology (JUST) in Irbid, as well as with Union of Arab Universities, Ministry of Health, Health Directorate at Al-Karak governorate, and Al-Karak government hospital. Relations also exist with Jordanian Medical Council, the Higher Council for Science and Technology, and the Arab Board for Medical Specialization. Similarly, sustainable relations with international partners do exist including the representatives of the WHO in Jordan and the UNESCO.

**Points of strength:**

- The Faculty Council has full autonomy in its duties and decisions which all serve the educational plan of the Faculty and without any external dictation from any authority. The Faculty established educatory relations with the Ministry of Health, Royal Medical Services, Medical Faculties in Jordanian University (JU) in Amman, Jordanian University for Science and Technology (JUST) in Irbid, Jordanian Medical Council, as well as international organizations like the WHO. The Faculty also provided the necessary resources for implementation of its educational plan or program.

- The teaching staff members have full freedom in choosing their optimal method or procedure of teaching in order to enhance student learning. They have also been allowed more lecture or practical hours, if needed, as from the start of the present academic year

- The present department curricula and educational plan of the faculty as well as the devotion of the teaching staff members in different departments established a solid base for medical education at Mutah University.
Table 1.3. Results of Questionnaire Survey about Academic Autonomy of Teaching Staff Members of Faculty of Medicine (Total teaching staff number = 30)

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Did you participate in designing the syllabus of your discipline curriculum?</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>63%</td>
<td>37%</td>
</tr>
<tr>
<td>2- Was the design of your discipline curriculum dictated from external source or authority?</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>33%</td>
<td>60%</td>
</tr>
<tr>
<td>3- Did you participate in choosing the scientific references for the subject of your discipline?</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>73%</td>
<td>23%</td>
</tr>
<tr>
<td>4- Do you have full autonomy or freedom in choosing the method or procedure of teaching?</td>
<td>24</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>80%</td>
<td>13%</td>
</tr>
<tr>
<td>5- Do you have full autonomy to add topics or seminars or clinical or practical sessions that you think are necessary to make the curriculum of your discipline more comprehensive or updated?</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>77%</td>
<td>23%</td>
</tr>
<tr>
<td>6- Please answer this question only if you are a member of the Faculty Council: Do you think that the Faculty Council has full autonomy in taking its decisions without any dictation from external source or authority?</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>78%</td>
<td>17%</td>
</tr>
</tbody>
</table>

1.4 EDUCATIONAL OUTCOME

Basic standard:

The medical school must define the competencies that students should exhibit on graduation in relation to their subsequent training and future roles in the health system.

Competencies that graduates should acquire should include clinical skills in various clinical aspects. These skills should be in diagnosis and treatment, in communication skills, in clinical decision skills, in knowledge in social sciences and in ethical professional values.
Competencies that graduates of the Faculty of Medicine at Mutah University should acquire during their medical study include scientific knowledge and clinical skills in various medical fields. These competencies allow the newly graduated doctor to start his internship residency program in hospitals whereby he utilizes his skills efficiently to acquire more clinical experience and knowledge.

The Competencies include:

1. **Knowledge**: it includes fundamental understanding of basic medical sciences as well as clinical and behavioural science. It also includes knowledge about treatment, rehabilitation, or prevention of disease, public health, and population medicine.

2. **Attitude and communication skills**: This enables the graduate to interact with patients and health professionals.

3. **Clinical skills** with respect to diagnosis (history taking, physical examination, laboratory or radiological investigations), practical procedures that may be required for diagnosis, treatment, or prevention of disease.

4. **Clinical reasoning and decision making** including problem solving.

5. **Knowledge about the social sciences** (Ethics, Humanism, and Professionalism)

6. **Possession of Medical Ethics** in relation to practice of medicine

7. **Ability to undertake life-long self-learning** and professional development

These skills would be utilized by graduate to aid in communicating with patients and health professionals in hospitals during their residency programs, in arriving at diagnosis and applying treatment of disease, in clinical decision making and thus problem solving, in applying various disease-preventive measures as well as health education of the community, and in clinical or practical knowledge of social sciences and ethical professional values. The graduate doctor will be acquainted with the common problems of his community and master their proper clinical management; he shall also learn about inpatient and outpatient care, emergency handling and life saving measures, preoperative and post-operative patient care. This training would also strengthen his professional ethics, and make him ready to acquire patient responsibility, increase his scope of self-learning, and thus would make him ready for responsible post-registration residency and then higher post-graduate medical studies and training for academic or professional degrees.
Thus, the graduate doctor should achieve the following abilities or competencies by the end of his internship hospital training making him ready for responsible post-registration residency and later for higher training service in community health systems, or higher postgraduate professional studies:

- Apply properly the fundamentals of diagnosis, management, and rehabilitation of disease, taking in consideration the traditions and environmental conditions.
- Proper management of medical emergencies.
- Dealing effectively with patient problems at individual, family, and social level.
- Provide proper disease prevention requirements as well as health education to the community in order to deal effectively with the common health problems.
- Efficiently and continuously upgrade his medical knowledge and clinical skills by following the medical advances in different specialties.
- Commitment to medical ethics and human as well as social values which are essential to the expected ideals of medical profession in the community.

These meet with the objectives of the Faculty of Medicine in providing competent graduates that are ready after pre-registration and post-registration hospital training to become efficient doctors in the health system that serves the various community needs in treatment and prevention of disease as well as participating in proper scientific research and is ready for enrolment in higher postgraduate academic or professional studies.

**Quality development:**

The linkage of competencies to be acquired by graduation with that to be acquired in postgraduate training should be specified. Measures of, and information about, competencies of the graduates should be used as feedback to programme development.

The evaluation of the competencies or skills that recently graduated doctors have acquired from their 6 years of medical study at the Faculty of Medicine/Mu’tah University follows the following guidelines or plan:

- Personal evaluation reports done by medical specialists responsible for training of graduate doctors in their pre-registration year of residency
- Evaluation from directors of hospitals or centres to which graduate doctors are assigned to do their supervised pre-registration training.
For some students, results of international exams like American USMLE 1 or 2
For post-registration residency, reports regarding the clinical efficiency and ethical professional values of the residents by their senior specialist consultants or hospital administrator are good enough as well as their selection for post-graduate higher studies for academic or professional degrees inside or outside the Hashemite Kingdom of Jordan

These evaluations would give the Faculty the required feedback about the scientific, clinical, social, and ethical knowledge skills of its graduated doctors. If any defect is defined that does not coincides with the Faculty of Medicine objectives of graduating competent doctors for community health service, then proper steps are taken by the Faculty Council to implement measures in relation to curriculum, teaching hours, number of medical students to be accepted by the admission policy of the university as well as assigning the required number of efficient teaching staff in order to correct this defect.

**Questionnaire survey on graduates' skills**

A recent survey, using a questionnaire (Annex 1: questionnaires 1 B and 1 C), was done to grade the skills that our graduate doctors have learned during their undergraduate medical study at the Faculty of Medicine/Mu'tah University. The survey included 30 graduates as well as 10 staff members who supervised the internship training at Al-Karak governorate hospital, Prince Ali Bin Al-Hussein Military hospital in Al-Karak, and King Hussein Military Medical Centre in Amman. Grading was done by arbitrary 4-point Likert scale concerning the effective acquisition of each skill or competency, starting with grade (1) for strongly disagree, grade (2) for disagree, grade (3) for agree, and grade (4) for strongly agree. Results are shown in (Annex 1. Table 4)

The results of the survey above on competencies acquired by our graduate doctors during their study at the Faculty of Medicine showed that (see Table 4):

With regard to clinical skills, graduates rated themselves as acquiring clinical skills at an average of 85%, and for knowledge regarding diagnosis and treatment or prevention of disease at an average of 90%, for communication skills at 85%, for clinical decision making at 85%, for knowledge in social sciences at 83%, and for possessing professional
ethics at 88%. The corresponding average grading of their above competencies by their specialist supervisors were: 85%, 85%, 85%, 85%, 83%, and 80%, respectively (Table 4).

**Points of Strength:**

- Personal communications acknowledged the high standards of graduates in hospitals in different areas in the Kingdom.
- A recent letter from King Hussein cancer Centre was received and it reports positively on number of Faculty graduates working in the centre.
- Many graduates have passed the American USMLE exam 1 or 2.
- An evaluation report of our graduates was also recently received from the director of King Hussein Cancer Centre in Amman (Annex 1: Letter).

**Point of Weakness**

- Reluctance of some supervising staff of our graduates or hospital directors to share in the survey or to issue formal letters of evaluation of our graduates as a response to our Faculty letters in this issue.

**Suggested Corrective Action:**

- Letters from the Faculty to evaluating hospital directors should stress the importance of this evaluation of our graduates, being an important feedback in order to take action in improving the curriculum or teaching in order to correct any defect that deviate from Faculty objectives.

**Questionnaire 4 B**

(Dear Dr. Graduate of Faculty of Medicine / Mu'tah University)

1- I am confident that I have acquired the clinical skills required to begin a residency program.
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)
2- I have the fundamental understanding of basic disease mechanisms, clinical presentation and principles of diagnosis and management or prevention of the common disease condition.  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

3- I have the communication skills necessary to interact with patients and health professionals  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

4- I have the basic skills in clinical decision making and the application of evidence based information to medical practice  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

5- I have a fundamental understanding of the issues in social sciences of medicine (e.g. ethics, humanism, professionalism )  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

6- I have the ethical and professional values that are expected of the medical profession  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

**Questionnaire 4 C (Faculty staff member)**
Kindly answer the following questions which measure the competencies of your residents who graduated from this Faculty. The results will be used to improve the Faculty performance.

1. I am confident that my resident has acquired the clinical skills required to begin a residency program.  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

2. My resident has the fundamental understanding of basic disease mechanisms, clinical presentation, and principles of diagnosis and management of the common conditions.  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

3. My resident has the communication skills necessary to interact with patients and health professionals  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

4. My resident has the basic skills in clinical decision making and the application of evidence based information to medical practice.  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

5. My resident has a fundamental understanding of the issues in Social sciences of medicine (e.g. ethics, humanism, professionalism).  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)

6. My resident has the ethical and professional values that are expected of the medical profession.  
   Strongly Disagree (1)  Disagree (2)  Agree (3)  Strongly agree (4)
Table 4: Grading of medical graduates from Mutah University & their internship training supervisors on knowledge and skills acquired during undergraduate study at Faculty of Medicine

<table>
<thead>
<tr>
<th>Item</th>
<th>Graduates (Number= 30)</th>
<th>Staff members(No = 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade out of 4 points</td>
<td>Grade out of 4 points</td>
</tr>
<tr>
<td></td>
<td>(%)</td>
<td>(%)</td>
</tr>
<tr>
<td>Clinical skills</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>85%</td>
<td>85%</td>
</tr>
<tr>
<td>Knowledge to enable Diagnosis and treatment</td>
<td>3.6</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>90%</td>
<td>85%</td>
</tr>
<tr>
<td>Communication skills</td>
<td>3.5</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>88%</td>
<td>85%</td>
</tr>
<tr>
<td>Clinical decision skills</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>83%</td>
<td>85%</td>
</tr>
<tr>
<td>Knowledge in social science</td>
<td>3.25</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>81%</td>
<td>83%</td>
</tr>
<tr>
<td>Ethical professional values</td>
<td>3.5</td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td>88%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Annex 1 contains:

- Lists of instruments in teaching and research labs
- Scientific Days and Meetings; Documents 1 and 2.
- Annex 1: Document 3
- Annex1: Documents 4 & 5
- Annex1: Documents 6 & 7
- Annex1: Documents 8, 9, 10 & 11
- Annex1: Documents 12
- Annex1: Document 13 Faculty Token: Establishment of Faculty of Medicine, (2001-2002)
- Annex 1: Document 16
- Annex 1: Document 17
- Annex 1: Document 18
- Annex 1: Agreements
- Annex 1: questionnaires 1 B and 1 C
الموضوع: تقييم الأطباء خريجي جامعة مؤتة

تحية طيبة وبعد،

إلى جميع الأطباء الذين اتفقوا برامج الإعاقة في مركز الصناع للسرطان:
1. د. محمد أبو زيد
2. د. حيدية عطلي
3. د. سبيين بغور
4. د. طارق عزيز
5. د. محمد أبو هزيم
6. د. معين عبد الرحيم

وبعد الإبلاغ على نقيضهم، مبنية على أهمية التقييم الدائم والمستمر.

أوكم جزيل الشكر والامتنان.
2. EDUCATIONAL PROGRAM

2.1. CURRICULUM MODELS AND INSTRUCTIONAL METHODS

Basic Standard:
The medical school must define the curriculum models and instructional methods. Taking in consideration that the minimum required educational credit hours is 250 hours. These hours should be distributed over 6 years; at least, 3 of them should be for the clinical sciences, and as follows:

- University requirements: 27 credit hours
- Basic sciences: 10 – 20 credit hours
- Basic biomedical sciences: 70 – 90 hours
- Clinical sciences: 120 – 140 hours

The educational program for obtaining the Bachelor degree in Medicine and Surgery at Mu'tah University provides general education that prepares students for all career options in the field of medicine (Annex 2:1). It consists of 258 credit hours distributed over 6 years and includes the following:

University Requirements: (27) credit hours
  A. Mandatory requirements: (12) credit hours
  B. Elective requirements: (15) credit hours

Faculty Requirements: (231) credit hours, distributed as follows:
  C. Requirements in basic sciences: (13) credit hours
  D. Requirements in basic medical sciences: (83) credit hours
  E. Requirements in clinical sciences: (135) credit hours

Each academic year is made of 3 semesters (except the 4th year which is made of 2 semesters).

Basic Medical Sciences
In the first year and the first semester of the second year, some basic University requirements and introductory courses in basic and basic biomedical sciences are given,
such as Medical Physics, General and Organic Chemistry, Cell biology, General Anatomy, General Histology, General Physiology, Biochemistry, Molecular Biology, General Pathology, General Pharmacology, etc. During the second and third years, the teaching system is centred on the horizontal integrated modular teaching of the different systems of the human body, together with other courses in immunology, microbiology, public health, epidemiology, and others.

**Instruction Methods**

The curriculum utilizes a variety of instructional method *(Annex 2: 2)* including:

- Lectures
- Seminars
- Practical training in the lab
- Field visits
- Epidemiological studies

**Clinical Sciences**

During the summer semester of the 3rd year and over the last 3 years of the curriculum, the students cover all aspects of clinical sciences. They will practice their clinical training at different health facilities available in Al-Karak Governorate; including Al-Karak Teaching Hospital, Prince Ali Bin Al-Hussein Military Hospital and other primary, secondary or tertiary Health Centres. Other medical centres in Amman as Al-Basheer Hospital, King Hussein Medical Centre, and Psychiatric Hospital in Al-Fuheiss are also used as required.

**Instruction Methods**

Different instructional methods are used during the clinical years including *(Annex 2: 3)*:

- In-patient and out-patients related activities such as:
- In-patient rounds
- Attending emergency rooms and intensive care units
- Surgical theatres
- Labour rooms
- Night duties
Lectures, seminars and round table discussions are other instructional methods used (Annex 2: 3):

During the clinical years, and mainly the 6th year, the objectives for the training programs is to promote the student's clinical skills in the main 4 branches of medicine; namely, Medicine, Surgery, Pediatrics, Obstetrics and Gynecology. Students are subjected for problem solving activities, emergency medicine, and other fields in health care (Annex 2: 3):

Since the establishment of the Faculty of Medicine at Mu'tah University in 2001, a curriculum models was designed (Annex 2: 4). This model was revised in the academic year 2006/2007 (Annex 2: 5) and in year 2008/2009 (Annex 2: 1). The last revision was made to fulfil the accreditation criteria for the medical schools in Jordan adopted by the HEAC. This version was implemented in the academic year 2009/2010.

These revisions were carried out by the Committee of Educational Programs and the Faculty Council and have been approved by the University Council of Deans.

The Deanship of student's affairs at Mu'tah University provides the students with hard copy of the curriculum upon their admission to the faculty (Annex 2: 6). The detailed teaching plan is available on the website of the university (Annex 2: 7) and also in the Faculty token which is available to the students (Annex 2: 8).

Over the last few years, lectures were conducted by the Committee of Quality Control and Medical Education, attended by all the staff members and some students in the Faculty to raise their awareness about quality development of their programs according to the global standards of Medical Education using especially designed templates for course specifications. The lectures addressed the context of educational process, the components and outcomes (Annex 2: 9).

The lectures aimed to refresh and motivate the teaching staff and stressed on the role of staff members to inform students before each program on the detailed objectives, contents and methods of evaluation. Most staff members in the departments were rapidly responding. However, some were not cooperating (personal observation of the committee).
Quality Development:

The curriculum and instructional methods should ensure that students have responsibility for their learning process and should prepare them for lifelong, self-directed learning.

During the courses of Epidemiology, Medical statistics, and Public Health, the students are subjected for field visits and they are encouraged to conduct some epidemiological studies. These studies help the students to acquire the skills for collecting and analysing the data, and then to produce and discuss the results (Annex 2: 10). Unfortunately, these field studies have been stopped recently due to shortage of supervising staff in the department.

On the other hand, some departments in the Faculty have encouraged students to do some researches and present them in scientific meetings held by the Faculty (Annex 2: 11).

Starting with the module programs in the second and third years, students are preparing and presenting seminars under the supervision of the staff members.

E-Learning

E-learning started to be used by some of the teaching staff in the basic medical sciences. The teaching material is uploaded on the website of the University (e-learning portal). The students are encouraged to upload assignments in Medical Ethics and in Health Managements.

The clinical departments in the Faculty are more concerned in encouraging self-learning among the students. It is the responsibility of the students to present some of the topics in the syllabus as seminars. This helps students to take the responsibility of self-learning. Also, the students are encouraged to present case studies in the hospital morning reports and to discuss the management in a problem solving method (Annex 2: 3).

To evaluate the educational program, a questionnaire was conducted targeting a random sample of students and staff (Annex 2: 12). The results are shown in table 2-1. A survey was performed on students and teaching staff. The results showed that:
82% of students and 90% indicated availability of modules and courses syllabi as compared to 90% and 97% of staff, respectively (item 6, table 2-1).

Similarly, 95% of students and 97% of staff admitted the usefulness of these syllabi (item 6, table 2-1).

76% of students indicated that current curriculum is strongly (34%) or moderately (42%) satisfactory (item 12, table 2-1).

In regard to the learning objectives, students stated as clear (47%), useful (71%) and guiding (53%) (Items 9-11, table 2-1).

**Points of Strength:**

- The modular curriculum format in the first three years is well described and made known to both students and staff.
- The presence of curriculum booklet that is distributed to students on admission to first year and uploaded on the website of the Faculty.
- Students are encouraged to actively participate in learning process through assignments, seminars and e-learning.

**Points of Weakness:**

- Deficiency of small groups of problem-based teaching in the basic biomedical sciences.
- Deficiency of computer-assisted learning.
- The time spent in theoretical knowledge learning is more than necessary in the basic biomedical sciences.
- The Accreditation Committee thinks that many of the actual departmental curricula (based on the weekly teaching programs and information from the students) do not correspond with core curriculum present on the website. However, 95% of students and 97% of staff surveyed admitted that 90%-100% of the planned curriculum is implemented (item 8, table 2-1).
- Deficiency in vertical integration between the preclinical and clinical sciences.

**Suggested Corrective Actions:**

- New methods of teaching in different disciplines based on problem solving with the integration of different subjects are to be include.
Workshops are to be arranged in the Faculty by the Committee of Medical Education for the younger staff members to update their curriculum design and enhance them for interactive teaching.

To encourage vertical integration in the modular systems were some of the clinicians should give lectures on the common medical diseases affecting each system.

To add some instructional methods in the curricula of the pre-medical sciences that encourages students for self-learning.

Table 2-1 Students and staff positive responses about educational program expressed as percent.

<table>
<thead>
<tr>
<th>Item</th>
<th>Students' No: 38</th>
<th>Staff No: 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1 Current modular curriculum integrates basic and clinical sciences at high level of integration</td>
<td>79 %</td>
<td>13%</td>
</tr>
<tr>
<td>1-2 Current modular curriculum integrates basic and clinical sciences at moderate level of integration</td>
<td>16%</td>
<td>84%</td>
</tr>
<tr>
<td>2-1 Percent of clinical elements integrated in modular curriculum (0-25%)</td>
<td>21%</td>
<td>7%</td>
</tr>
<tr>
<td>2-2 Percent of clinical elements integrated in modular curriculum (26-50%)</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td>2-3 Percent of clinical elements integrated in modular curriculum (51-75)</td>
<td>29%</td>
<td>42%</td>
</tr>
<tr>
<td>2-4 Percent of clinical elements integrated in modular curriculum (76-100)</td>
<td>11%</td>
<td>7%</td>
</tr>
<tr>
<td>3. Behavioral sciences are included within curriculum</td>
<td>79%</td>
<td>97%</td>
</tr>
<tr>
<td>4. More behavioral sciences are needed in curriculum</td>
<td>32%</td>
<td>25%</td>
</tr>
<tr>
<td>5. Year of first exposure to patients (3rd Year)</td>
<td>42%</td>
<td>61%</td>
</tr>
<tr>
<td>6. Year of visiting a health center (2nd Year)</td>
<td>55%</td>
<td>26%</td>
</tr>
<tr>
<td>7. Modules and course syllabus is available</td>
<td>82%</td>
<td>90%</td>
</tr>
<tr>
<td>8. Modules syllabus was useful in learning</td>
<td>95%</td>
<td>97%</td>
</tr>
<tr>
<td>9. % of implantation of curriculum (90-100)</td>
<td>66%</td>
<td>74%</td>
</tr>
<tr>
<td>10. Learning objectives are clear</td>
<td>47%</td>
<td>65%</td>
</tr>
</tbody>
</table>
Table 2-1 cont. Students and staff positive responses about educational program expressed as percent.

<table>
<thead>
<tr>
<th>Item</th>
<th>Students' No: 38</th>
<th>Staff No: 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. Learning objectives are useful</td>
<td>71%</td>
<td>48%</td>
</tr>
<tr>
<td>12. Learning objectives are guiding</td>
<td>53%</td>
<td>52%</td>
</tr>
<tr>
<td>13. Satisfaction with current curriculum moderately satisfied</td>
<td>42%</td>
<td>62%</td>
</tr>
<tr>
<td>13. Satisfaction with current curriculum strongly satisfied</td>
<td>34%</td>
<td></td>
</tr>
<tr>
<td>14. Does the medical school have clinical skills lab?</td>
<td>68%</td>
<td>94%</td>
</tr>
<tr>
<td>15. The goals of the clinical rotation was clearly stated</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>16. We spend enough time with mentors</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td>17. The hospital is well equipped for clinical teaching</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>18. There is correlation between clinical teaching and common diseases in the community</td>
<td>76%</td>
<td></td>
</tr>
<tr>
<td>19. Clinical rotation provide practical training on clinical skills</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>20. The teaching staff is well trained on methods of clinical training</td>
<td>73%</td>
<td></td>
</tr>
</tbody>
</table>

2.2 SCIENTIFIC METHOD

Basic Standard:

The medical school must teach the principles of scientific method and evidence-based medicine, including analytical and critical thinking, throughout the curriculum.

During the first 3 years of the educational program, the students study the principles of scientific research. This is covered by the courses of bio-statistic, epidemiology, and
public health *(Annex 2: 2)*. They learn basic study design and the principles of medical statistics.

As part of the curriculum, the Department of Community Medicine used to conduct a supervised community survey by medical students to assess the health status of the community at Al-Karak province. This project was conducted annually during the summer semester. It served two main purposes; the first was to make medical students oriented about prevailing health problems in the community, and acquire the skills of conducting a research. The second major objective was contribution of Mu'tah University in raising the health standards of the local community. Each year a health topic was to be studied. The prevalence and determinants of common chronic diseases were studied. These included hypertension, diabetes mellitus and chronic obstructive pulmonary diseases *(Annex 2: 10)*. The results of these surveys have been presented in the fourth and the fifth scientific days of the Faculty of Medicine, Mu'tah University, and the Eleventh Arabic Student Meeting in the Creativity of Youth in Arabic Universities, Teshreen University, Syria, August 2008 *(Annex 2: 13)*. As mentioned before, unfortunately, these field studies have been stopped recently due to shortage of supervising staff in that department.

Currently, there is no systemic approach towards integrating evidence-based medicine (EBM) in the curriculum. Thus, EBM teaching activities depend mainly on the effort of personally interested Faculty members. The teaching staff in the clinical sciences always emphasise on its importance in the different aspects in clinical management.

In a questionnaire survey carried out to the sixth year student during the academic year 2009/2010, nearly, 75% of the students agreed that clinical training program was satisfactory in acquiring the clinical skills needed after their graduation. More than 50% agreed strongly that the clinical training is based on problem solving method that enhances their analytic and critical thinking throughout the teaching program. The main deficiency was in the program of Internal Medicine course; this was due to shortage in the teaching staff in the department *(Annex 2: 14)*.
Quality Development:

The curriculum should include elements for training students in scientific thinking and research methods.

Different departments in the Faculty (on personal interest) encourage students to do some basic supervised researches.

During the academic year 2008/2009, a scientific research has been conducted by students of second and third year under the supervision of the Pharmacology department on prevalence of smoking among students of Faculties in the University. The results were presented at the Fifth Scientific Day of the Faculty, April 2009 (Annex 2: 11).

During the academic year 2009/2010, 5 scientific researches have been conducted by students of fourth, fifth and sixth year under the supervision of the staff members in Pharmacology, Anatomy, Forensic Medicine and Obstetrics and Gynecology. Results have been presented in the 7th Scientific Conference of the Faculty (2010) (Annex 2: 15).

The Department of Obstetrics and Gynaecology arranged a scientific day this academic year (2009-2010), in which 2 groups of students presented a debate on the management of breech presentation (Annex 2: 16).

Points of Strength:

- The current curriculum teaches the students the principles of scientific methods and EBM, including analytical and critical thinking. This is more obvious in the clinical teaching programs.
- There is an increase in the number of researches conducted by students and supervised by staff members.

Points of Weakness:

- The current instructional methodologies do not stimulate analytical and critical thinking in most of the basic bio-medical sciences.
Deficiency in curriculum learning activities for scientific methods and EBM mainly in the basic bio-medical sciences.

Limited exposure to research methodology apart from individual interests in some of the departments.

Limitation in the number of the teaching staff makes the implementation of the programs unsatisfactory.

Suggested Corrective Actions:

- Intensifying the Faculty development program in EBM to prepare an adequate number of EBM tutors.
- Introducing research activities in the curriculum in different departments. Each department should announce annually research projects to the students and encourage them to participate in them.
- Introducing problem solving and small group discussion in the modular courses to encourage active and life-long learning.
- The faculty should work hard to increase the number of the teaching staff mainly in the courses of community medicine and internal medicine.

2.3 BASIC BIOMEDICAL SCIENCES

Basic Standard:

The medical school must identify and incorporate in the curriculum the contributions of the basic biomedical sciences to create understanding of the scientific knowledge, concepts and methods fundamental to acquiring and applying clinical science.

The educational program of the Faculty of Medicine contains 83 credit hours of basic biomedical sciences. This constitutes 36% of the total credit hours of the faculty requirements. These sciences include Anatomy, Histology, Embryology, Physiology, Biochemistry, Molecular Biology, Pathology, Pharmacology, Microbiology, Immunology and others (Annex 2: 1). They are delivered over 3 year period in the preclinical phase of the curriculum. This constitutes the period where the student gets familiar with the basic medical science with the aim of preparing him for subsequent clinical studies.
The basic biomedical sciences are been taught in as general courses and in the modules systems. These courses include clinical applications that provide some vertical integration with the clinical years. Usually these applications are planned, prepared and taught by the basic science departments and without sharing from the clinical departments. This is mostly applied in the programs of Anatomy, Embryology, Physiology, Pathology, Pharmacology and Microbiology.

During the summer semester of the third year, students are obliged to attend an introductory clinical course, where they start their actual contact with patients.

Most of the students (79%) consider the size of the basic biochemical courses appropriate, and agreed that these courses prepare students adequately for the clinical phase (Table 2.1). Fifty five percent of the students confirm that they visited health centres during the second year of their program, and nearly 50% agreed that their first exposure to patient was in the third year (Table 2.1 item 6 and 5 respectively).

**Quality Development:**

*The contributions in the curriculum of the biomedical sciences should be adapted to the scientific, technological and clinical developments as well as to the health needs of society.*

The courses syllabi of the biomedical sciences take in consideration the recent advances in technological and clinical developments. This could be more obvious in the courses of Cell Biology, Microbiology, Immunology, and Molecular Biology, where more concerns are directed towards recent technological developments (syllabus of the concerned subjects).

Most biomedical sciences in the Faculty added clinical applications of biochemical and pathological disturbances deviating from the normal anatomy and physiology of the body organs leading to clinical manifestation.

The courses of Public Health, Bio-statistic, Epidemiology, Health management, and Occupational health have a total of 10 credit hours; they constitute 8.3% of the total basic biomedical sciences credit hours. The teaching plans of these courses take in
consideration the health needs of the society such as the socio-demographic indicators, and health indicators (Annex 2: 2).

**Points of Strength:**

- The basic science courses are diverse and cover all aspects of the human body structure and function.
- The duration of pre-clinical phase of the curriculum is adequate for students, and to some extent prepare them for the clinical phase of the curriculum.
- Some of the bio-medical sciences take in their consideration the technological and clinical developments as well as the health needs of the society.

**Points of Weakness:**

- Lack of collaboration between basic and clinical science disciplines in preparing for clinical practice. Vertical Integration between the two sciences is weak (table 2-1).
- Clinical applications of some of the basic sciences are not well defined.

**Suggested Corrective Actions:**

- Vertical integration between basic and clinical sciences to allow better understanding and applicability of acquired knowledge and skills.
- More emphasis should be applied towards the social health needs in the community.

### 2.4 BEHAVIOURAL AND SOCIAL SCIENCES AND MEDICAL ETHICS

**Basic Standard:**

The medical school **must** identify and incorporate in the curriculum the contributions of the behavioural sciences, social sciences, medical ethics and medical jurisprudence that enable effective communication, clinical decision making and ethical practices.
Behavioural science is present in the curriculum of Clinical Psychology (2 credit hours) at the summer course of second year.

In Public Health and Community Medicine courses (7 credit hours), students study the basis of health administration and communication. Communicable and non-communicable diseases are part of their Epidemiology course.

Medical Ethics constitutes one credit hour in the second semester of the second year. It is mainly in the form of lectures including some application to ethical dilemmas and some problems during the lectures. E-learning was emphasized during the academic year 2009-2010. All students of the second year had to upload 2 assignments on the website of the University, e-learning as part of their activities and self-learning (Annex 9: Assignments on the CD).

Medical Ethics in addition to legal aspects of medical practice are revisited by the students in the curriculum of Forensic Medicine (2.25 credit hours). This curriculum is dealing with some virtual ethical situations.

Effective communication, clinical decision making and ethical practices are part of the syllabus of Introduction into clinical sciences (9 credit hours) that students take in the summer semester of the third year.

All the above mentioned subjects constitute 21.25 credit hours or 9.2% of the Faculty requirements.

A hidden curriculum in medical ethics and ethical practices is present in the clinical teaching of the students in the 4 main branches of medicine. Emphasis on communication skills, clinical decision making, and ethical practices are made by the tutors in clinical practice. However, the effectiveness of these practices could not be measured, as they are not quite clear in the curriculum.
**Quality Development:**

The contributions of the behavioural and social sciences and medical ethics should be adapted to scientific developments in medicine, to changing demographic and cultural contexts and to health needs of society.

The Deanship of Mu'tah University is very keen to watch the developments in the socio-demographic behaviours in the community. Staff members have been encouraged to participate in meetings that deal with this issue. Recently, staff members attended a national meeting that discuss the issue of abortion, invitro-fertilization, and genetic cloning (Annex 2: 17). Attending such meeting by the teaching staff will be reflected on the teaching program of behavioural science.

**Points of Strength:**

- There is actual exposure of students to different dilemmas and applications in clinical situations stressing on medical ethics through the entire clinical curriculum.
- Students and staff overwhelmingly (79% and 97% respectively) agreed that behavioural sciences are included in the current curriculum. However, only 32% of students and 25% of staff indicated a need to increase such elements in curriculum (items 3 & 4, table 2-1)

**Points of Weakness:**

- There is no clear syllabus in the curriculum of the main clinical sciences. Teaching behavioural skills is based on individual interest of the tutor.

**Suggested Corrective Actions:**

- Increasing the practical time for community visits and active participation of students in health promotion and disease prevention activities.
- Incorporating medical ethics teaching in all medical branches to allow better understanding of ethical issues in medical practice.
Increasing the credit hours of Medical Ethics to be 2 – 3 hours, to introduce ethical dilemmas in small group discussion.

2.5 CLINICAL SCIENCES AND SKILLS

Basic Standard:

The medical school must ensure that students have patient contact and acquire sufficient clinical knowledge and skills to assume appropriate clinical responsibility upon graduation.

The clinical program of the clinical sciences and their applications start from the summer semester of the third year where introduction to clinical skills is taught. During the last 3 years of the curriculum, all clinical sciences are covered.

Over the 4th and the 5th years of the medical school, students study Internal Medicine, General surgery, Paediatrics, Obstetrics and Gynaecology, Emergency Medicine and Intensive Care, Radiology and Nuclear Medicine, Forensic Medicine, Otolaryngology, Ophthalmology, Neurology and Neuro-surgery, Urology, Psychiatry, Dermatology, and Family Medicine. In the sixth year, the students are rotating between General Surgery, Internal Medicine, Obstetrics and Gynaecology, Paediatrics, and elective training in any two of the 4 main clinical sciences to be done in any recognized teaching hospital nationally or internationally (Annex 2: 1).

The total credit hours of these sciences are 135 hours, and constitute 58% of the total hours of the faculty requirements.

Students are not actively involved in patient's care during their program. They are usually supervised by tutors in their patient's round, emergency care and specialized clinics. Patient's history taking, physical examination, investigations, and management are discussed with the tutors. Problem solving methods of teaching and evidence-based medicine are usually stressed on. This is obvious from the objectives and the instructional methods used by the different clinical departments (Annex 2: 3).
To achieve good clinical skills to the students, University of Mu'tah had signed agreements with Ministry of Health (*Annex 1: Agreements*) and The Royal Medical Services (*Annex 1: Agreements*). These agreements allowed the students to use all the health facilities available in the region; including Al-Karak Teaching Hospital, Prince Ali Bin Al-Hussein Military Hospital and other Health Centers in Al-Karak. Due to shortage in some of the clinical staff members or certain specialities, students are referred to other medical centres in Amman, such as Al-Basheer Hospital, King Hussein Medical Centre, and Psychiatric Hospital in Al-Fuheiss.

**Quality Development:**

*Every student should have early patient contact leading to participation in patient care. The different components of clinical skills training should be structured according to the stage of the study program.*

The clinical science courses cover the general and special medical and surgical branches. Adequate time is allocated in the curriculum for clinical training of the students and the clinical courses cover a broad spectrum of clinical subjects and theory. The Faculty strives to improve the clinical skills training by using simulators (skill lab). This lab contains different types of models. It is used regularly by some of the departments, and rarely by others.

Students' satisfaction regarding the methods of teaching, clinical training, the skills of the tutors, and methods of evaluation in the main clinical sciences were studied by a questionnaire to the sixth year students in the academic year 2009/2010 (*Annex 2: 14*). The degree of satisfaction was quite good; it varied between 50-100% in most of the variables tested, expect in Internal medicine. This was mainly due to the shortage of academic staff the Department of Internal Medicine.

**Points of Strength:**

- *Students admitted their exposure for first time to patients is in year 3 (42%) and to visits to health canters in year 2 (55% (items 5, 7, & 6 table 2-1).*
- *Student involvement in primary and secondary clinical care settings is in the form of preparing the morning report to be presented to senior staff members.*
High percentage of students admitted that in their clinical courses of training, the objectives and the content of the syllabus are clearly stated, they spend enough time with their tutors, their training is correlated to community common diseases, and rotational training provides practical training on clinical skills and appraised the teaching skills of their trainers (2-14).

**Points of Weakness**

- The clinical sciences are still deficient in the academic staff of certain specialties; such as Internal Medicine and Family Medicine.
- Health Facilities are also deficient in certain specialties; such as Psychiatric Hospital

**Suggested Corrective Action:**

- Improving training facilities in hospitals to cope with training needs.
- To appoint a number of academic staff, mainly in Internal Medicine, Family Medicine, and Community health.

### 2.6 CURRICULUM STRUCTURE, COMPOSITION AND DURATION

**Basic Standard:**

The medical school must describe the content, extent and sequencing of courses and other curricular elements, including the balance between the core and optional content, and the role of health promotion, preventive medicine and rehabilitation in the curriculum, as well as the interface with unorthodox, traditional or alternative practices.

The content, extent, and sequencing of courses in the curriculum for the Bachelor in Medicine and Surgery (MB, BS) are available for referral (Annex 2: 1). The balance between theoretical and practical hours, and the instructional methods used in teaching are presented in tables 2.2 and table 2.3.
The program includes 58 courses distributed over 6 years and could be classified into:

- **University requirements (9 courses):**
  - Mandatory requirements: 4 courses.
  - Elective requirements: 5 courses

- **Faculty requirements (49 courses):**
  - Mandatory basic sciences: 5 courses
  - Mandatory basic bio-medical sciences: 29 courses
  - Mandatory clinical sciences: 18 courses
  - Elective clinical training: 1 course

The elective University requirements constitute only 5.8% of the total credit hours. The student is allowed to choose 5 courses from a list provided by the University (*Annex 2: 1*).

The academic year is 40 weeks. It is divided into 3 semesters; the first and the second semester are 16 weeks each, and the summer semester is 8 weeks.

Each academic year includes on average 43 credit hours distributed over the 3 semesters. The first and second semesters contain around 18 credit hours, and the summer semester contains 9 credit hours.

The most important characters in the content of the curriculum are:

- The horizontal integrated modular system in the preclinical years (*Annex 2: 2*).
- More concerns are directed towards recent technological developments as seen in the content of cell biology, Microbiology, Immunology, and Molecular Biology (*Annex 2: 2*).
- Problem solving methods of teaching is usually stressed on in the clinical teaching (*Annex 2: 3*).

**Quality Development:**

Basic sciences and clinical sciences **should** be integrated in the curriculum.
Horizontal and vertical integration in the curriculum is very important in medical education.

The teaching system at the Faculty of Medicine, University of Mu'tah, is centred on the modern method implemented in medical education, namely an integrated modular teaching of the different systems of the human body. However, vertical integration between the preclinical and the clinical years is weak.

In the Faculty of Medicine, there is a Medical Education Committee headed by the Vice-Dean and members of the teaching staff (Annex 2: 20). The main interest of this committee is to observe the implementation of the curriculum by the different departments, and to evaluate its effectiveness, so to advice for any changes in the future.

The balance between theoretical and practical hours, and the instructional methods used in teaching are presented in tables 2.2 and table 2.3.

**Points of Strength:**

- The curriculum is well designed. There is a balance in the distribution of the content, extent, and sequencing of courses.
- There is an accepted balance between the theoretical and practical hours in the clinical courses with more emphasis on the clinical training. The process of teaching in second and third years includes modules of system-based education.
- More concern is emphasized on in the content of the curriculum regarding recent technological developments, Community health, and problem solving method of teaching.
- The curriculum is designed to encourage integration between different departments.
- Active learning is encouraged through seminars and assignments on e-learning.

**Points of Weakness:**

- The vertical integration between the pre-clinical and clinical sciences is weak.
- Resistance of some staff members to change (personal observation of the working committee during the preparation of this study).
In the pre-clinical courses, the theoretical part of the curriculum is large, and almost always teacher-based, without student involvement in active learning.

Shortage in the number of staff members needed to implement the curriculum as stated before in the courses of Internal Medicine, Public Health, and Family Medicine.

**Suggested Corrective Actions:**

- Decreasing the theoretical load of the curriculum and putting more time for practical applications and students directed learning sessions to prepare them for competencies expected from graduates.
- Orientation of the staff members (mainly the pre-clinical years) with the basis and fundamentals of evidence-based medicine and problem-based teaching through workshops and training courses.
- Modification of the instructional methodologies and staff attitudes to include more problem based learning in small groups.
- More orientation should be directed to the teaching staff members (newly appointed) in the Faculty for the importance of quality control and continuous monitoring of the educational program. This could be accomplished though the continuous medical education program of the Faculty.
### Table 2.2: The Bio-Medical Sciences

<table>
<thead>
<tr>
<th>Subject</th>
<th>Year</th>
<th>Practical credit hours</th>
<th>Theoretical credit hours</th>
<th>Teaching methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Anatomy</td>
<td>First</td>
<td>1</td>
<td>3</td>
<td>Lectures, dissection room, case study, tutorials</td>
</tr>
<tr>
<td>General Histology</td>
<td>First</td>
<td>2</td>
<td>1</td>
<td>Lectures, practical lab.</td>
</tr>
<tr>
<td>General Embryology</td>
<td>First</td>
<td>-</td>
<td>1</td>
<td>Lectures, discussions</td>
</tr>
<tr>
<td>General Physiology</td>
<td>First</td>
<td>-</td>
<td>3</td>
<td>Lectures, discussions</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>First</td>
<td>1</td>
<td>2</td>
<td>Lectures, practical lab.</td>
</tr>
<tr>
<td>Molecular Biology</td>
<td>First</td>
<td>0.5</td>
<td>1.5</td>
<td>Lectures, practical lab.</td>
</tr>
<tr>
<td>General Pathology</td>
<td>Second</td>
<td>0.5</td>
<td>1.5</td>
<td>Lectures, practical lab.</td>
</tr>
<tr>
<td>General Pharmacology</td>
<td>Second</td>
<td>-</td>
<td>3</td>
<td>Lectures</td>
</tr>
<tr>
<td>General Microbiology</td>
<td>Second</td>
<td>1</td>
<td>2</td>
<td>Lectures, practical lab.</td>
</tr>
<tr>
<td>Medical Immunology</td>
<td>Second</td>
<td>0.5</td>
<td>1.5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Musculoskeletal system Module</td>
<td>Second</td>
<td>1</td>
<td>5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Gastrointestinal system Module</td>
<td>Second</td>
<td>1</td>
<td>5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Endocrinology &amp; Metabolism Module</td>
<td>Second</td>
<td>0.5</td>
<td>4.5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Respiratory System Module</td>
<td>Third</td>
<td>0.5</td>
<td>3.5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Cardiovascular System Module</td>
<td>Third</td>
<td>1</td>
<td>4</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Neuroscience (1) Module</td>
<td>Third</td>
<td>0.5</td>
<td>4.5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Neuroscience (2) Module</td>
<td>Third</td>
<td>0.5</td>
<td>3.5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Lymphatic System &amp; Blood Module</td>
<td>Third</td>
<td>0.5</td>
<td>4.5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Uro-genital System Module</td>
<td>Third</td>
<td>1</td>
<td>5</td>
<td>Lectures, discussions, seminars, practical</td>
</tr>
<tr>
<td>Public Health</td>
<td>Second</td>
<td>-</td>
<td>2</td>
<td>Lectures, field visits</td>
</tr>
<tr>
<td>Epidemiology and Population Study</td>
<td>Third</td>
<td>-</td>
<td>2</td>
<td>Lectures, discussions, case study</td>
</tr>
<tr>
<td>Health Management</td>
<td>Third</td>
<td>-</td>
<td>1</td>
<td>Lectures, e-learning</td>
</tr>
<tr>
<td>Occupational Health</td>
<td>Third</td>
<td>1</td>
<td>1</td>
<td>Lectures, field visits</td>
</tr>
<tr>
<td>Clinical Psychology</td>
<td>Second</td>
<td>-</td>
<td>2</td>
<td>Lectures</td>
</tr>
<tr>
<td>History of medicine and Documentation</td>
<td>Second</td>
<td>-</td>
<td>1</td>
<td>Lectures, discussions</td>
</tr>
<tr>
<td>Medical Ethics</td>
<td>Second</td>
<td>-</td>
<td>1</td>
<td>Lectures, discussions, e-learning</td>
</tr>
</tbody>
</table>
Table 2.3: The Clinical Sciences

<table>
<thead>
<tr>
<th>Subject</th>
<th>Year</th>
<th>Practical credit hours</th>
<th>Theoretical credit hours</th>
<th>Teaching methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction into clinical sciences</td>
<td>Third</td>
<td>6</td>
<td>3</td>
<td>seminars, practical, discussion, case presentation</td>
</tr>
<tr>
<td>Internal Medicine (1)</td>
<td>Fourth</td>
<td>8.5</td>
<td>5</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Internal Medicine (2)</td>
<td>Sixth</td>
<td>8</td>
<td>1</td>
<td>seminars, practical, discussion, problem solving, case presentation</td>
</tr>
<tr>
<td>Surgery (1)</td>
<td>Fourth</td>
<td>8.5</td>
<td>5</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Surgery (2):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Orthopedics</td>
<td>Fifth</td>
<td>3.25</td>
<td>1.25</td>
<td>seminars, practical</td>
</tr>
<tr>
<td>- Ophthalmology</td>
<td>Fifth</td>
<td>1</td>
<td>1.25</td>
<td>Lectures, seminars, practical</td>
</tr>
<tr>
<td>- Urology</td>
<td>Fifth</td>
<td>1</td>
<td>1.25</td>
<td>Lectures, seminars, practical</td>
</tr>
<tr>
<td>- Neurosurgery</td>
<td>Fifth</td>
<td>1</td>
<td>1.25</td>
<td>Lectures, seminars, practical</td>
</tr>
<tr>
<td>- Ear, Nose &amp; Throat</td>
<td>Fifth</td>
<td>1.25</td>
<td>1</td>
<td>Lectures, seminars, practical</td>
</tr>
<tr>
<td>Surgery (3)</td>
<td>Sixth</td>
<td>7.5</td>
<td>1.5</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Pediatrics (1)</td>
<td>Fifth</td>
<td>5</td>
<td>4</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Pediatrics (2)</td>
<td>Sixth</td>
<td>7</td>
<td>2</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Gynecology &amp; Obstetrics (1)</td>
<td>Fifth</td>
<td>5.5</td>
<td>3.5</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Gynecology &amp; Obstetrics (2)</td>
<td>Sixth</td>
<td>7.5</td>
<td>1.5</td>
<td>seminars, practical, discussion, problem solving, case presentation</td>
</tr>
<tr>
<td>Forensic Medicine</td>
<td>Fourth</td>
<td>1</td>
<td>1.25</td>
<td>Lectures, practical, discussion, case study</td>
</tr>
<tr>
<td>Radiology &amp; Nuclear Medicine</td>
<td>Fourth</td>
<td>1.25</td>
<td>1</td>
<td>Lectures, practical</td>
</tr>
<tr>
<td>Emergency Medicine, Anesthesiology &amp; Intensive Care</td>
<td>Fourth</td>
<td>2.5</td>
<td>2</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Psychiatry</td>
<td>Fifth</td>
<td>2.5</td>
<td>2</td>
<td>Lectures, seminars, practical</td>
</tr>
<tr>
<td>Neurology</td>
<td>Fifth</td>
<td>2.5</td>
<td>2</td>
<td>Lectures, seminars, practical</td>
</tr>
<tr>
<td>Dermatology</td>
<td>Fifth</td>
<td>1.25</td>
<td>1</td>
<td>Lectures, seminars, practical, discussion, problem solving</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>Fifth</td>
<td>1.25</td>
<td>1</td>
<td>Lectures, seminars, practical</td>
</tr>
<tr>
<td>Elective Clinical Training</td>
<td>Sixth</td>
<td>9</td>
<td>-</td>
<td>Practical</td>
</tr>
</tbody>
</table>


2.7 PROGRAM MANAGEMENT

Basic Standard:

A curriculum committee must be given the responsibility and authority for planning and implementing the curriculum to secure the objectives of the medical school.

Since the establishment of the Faculty of Medicine at Mu'tah University in 2001, a curriculum model was designed by a special committee formed according to the decision No. 70/2001 from the President of the University (Annex 2: 4). This model was revised in the academic year 2006/2007 by another committee. The main reason to revise the curriculum was to reduce the number of credit hours of community-based science from 17 credit hours to 10 credit hours. Also, to redistribute the content, extent, and sequencing of courses in the curriculum to make more match with the other Jordanian medical faculty (Annex 2: 5). During the academic year 2008/2009 the last revision was made to fulfil the accreditation criteria for the medical schools in Jordan adopted by the HEAC (Annex 2: 1). This version was designed by the present curriculum committee in the Faculty, and implemented in the academic year 2009/2010.

The curriculum committee of the Faculty is headed by the Vice-Dean and includes number of an expert teaching staff (Annex 2: 20).

The committee terms references are:

- Revision of the medical school educational objectives.
- Supervision of curriculum planning.
- Supervision of curriculum implementation.
- Analysis of the effectiveness of the educational program.

The recommendations of this committee must be forwarded to the Faculty Council and then to University Council of Deans for final decision.

Point of Strength:

- The Faculty has a Curriculum Committee with defined responsibilities.
Points of Weakness:

- Non-existence of a Medical Education Unit or centre in the Faculty to cater for the overall planning and management of the educational program.
- Departmental curriculum planning activities are not organized or supervised by the Curriculum Committee.
- Students, stakeholders and committees in charge of house officers training are not adequately represented in the curriculum committee.

2.8 LINKAGE WITH MEDICAL PRACTICE AND THE HEALTH CARE SYSTEM

Basic Standard:

Operational linkage must be assured between the educational program and the subsequent stage of training or practice that the student will enter after graduation.

According to the Jordanian rules, medical graduates should spend 11 months of internship pre-registration training before they get fully registered by the Jordanian Medical Association. The graduates must spend two months in each of the main medical branches (Paediatrics, Obstetrics & Gynaecology, General Surgery, and Internal Medicine). In the remaining 3 months, they have the right to select two or three other specialties. During this year, the graduates are involved in direct patients care.

It is the policy of our Faculty to trace the graduate during and after this internship training program to ensure that he has acquired the essential competencies needed for his subsequent stage of training after graduation.

A recent study, using a questionnaire (1-1) was done on a random sample of our graduates (30 graduates) who are doing the internship pre-registration training program. In this questionnaire we seek a feedback from both the graduates and the senior medical staff members who supervised their training program. We asked about the essential competencies that we consider in our curriculum. The results were quite satisfactory as shown in table 2.4.
Table 2.4 Grading of Mu'tah Medical graduates during their internship training

<table>
<thead>
<tr>
<th>competencies</th>
<th>Grading by graduates</th>
<th>Grading by senior staff member</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>%</td>
</tr>
<tr>
<td>Clinical skills</td>
<td>3.4</td>
<td>85</td>
</tr>
<tr>
<td>Knowledge</td>
<td>3.6</td>
<td>90</td>
</tr>
<tr>
<td>Communication skills</td>
<td>3.5</td>
<td>88</td>
</tr>
<tr>
<td>Problem solving and application of evidence based medicine</td>
<td>3.3</td>
<td>83</td>
</tr>
<tr>
<td>Social behaviours</td>
<td>3.25</td>
<td>81</td>
</tr>
<tr>
<td>Ethical profession</td>
<td>3.5</td>
<td>88</td>
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</table>

Because our graduates are not subjected to any local evaluation exam after graduation, the other indicator that we used is the USMLE exam that some of our graduate has applied to. From direct personal communication with our graduate, good number has passed the exam with high marks.
### List of references:

<table>
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<th>No.</th>
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</tr>
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<td>The faculty token, 2001 (دبلّي كلية الطب، انتماء و التأسيس 2001)</td>
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<td><a href="http://www">www</a>. mutah.edu.jo / Faculty of Medicine / curriculum for BSc</td>
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<td>Continues medical education programs of the faculty, 2005-2010</td>
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<td>2-10</td>
<td>Samples of surveys done by the students in the Dept. of community Medicine</td>
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<td>2-11</td>
<td>Sample of researches done by the students under supervision of the department and presented in different faculty meetings</td>
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<td>2-12</td>
<td>Sample of questionnaire used to evaluate the educational program</td>
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<td>Meeting preceding booklets.</td>
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<td>استبيان أراء طلاب السنة السادسة حول المساقات السريرية الرئيسية في كلية الطب/جامعة مؤتة</td>
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<td>The preceding of the 7th international meeting of the faculty of Medicine/University of Mu'tah</td>
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<td>The annual report of the Dept. Obstetrics &amp; Gynaecology, 2009/2010</td>
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<td>الكتاب الخاص ينطليف د. ناجي بحضور دورة في عمان</td>
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<td>اتفاقية جامعة مؤتة مع الخدمات الطبية الملكية</td>
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<td>الامير الاداري الخاص يشكل لجنة الخطة الدراسية في كلية الطب</td>
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<td>1-1</td>
<td>Questionnaire on grading of Mu'tah medical graduates during their pre-registration training program</td>
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</table>
3. ACADEMIC TEACHING STAFF

3.1 RECRUITMENT POLICY

Basic standard:
The medical school must have a staff recruitment policy which outlines the type, responsibilities and balance of academic staff required to deliver the curriculum adequately, including the balance between medical and non-medical academic staff, and between full-time and part-time staff, the responsibilities of which must be explicitly specified and monitored.

Methods of Recruitment
Mu'tah Faculty of Medicine has a policy of recruitment that ensures that the staffing profile matches the range and balance of teaching skills required to deliver the curriculum. During the last 9 years the Faculty has appointed highly qualified teaching staff members having the highest standard of academic degrees from recognized Universities (Tables 3.1 & 3.2).

There are 2 methods employed to recruit academic teaching staff. The first method applies when the departments in the Faculty specify their need of the teaching staff personnel. The need is discussed in the corresponding Department Council. The Council recommendation is passed to the Faculty Council that approves the need. Announcement of the need will appear on the University website and in the national newspapers. Applicants should submit their curriculum vitae, certificates & documents of their scientific degrees to the responsible department at the University. These are passed to the Faculty Dean & then to the related departments for consideration. Recruitment of suitable candidates as academic teaching staff will be advised by the Department Council to the Faculty Council taking into consideration the applicant's qualification and experiences.

Another method of recruitment is through allocation of scholarships to eligible candidates after announcement in the national newspapers and University website. Candidates provide the necessary certificates and documents and present them to the Deanship of Higher Education at the University. The accepted candidates will obtain scholarships and will join postgraduate centres in recognized countries like the United Kingdom (UK),
United States of America (USA), Germany, Australia & Canada to do their postgraduate studies. In the basic sciences disciplines, accepted candidates have to obtain an academic degree as the PhD degree while in the clinical science disciplines they are required to do subspecialty training in their respective clinical fields for 2 years outside the Kingdom. Candidates nominated for these clinical training scholarships should have the Jordanian Board & the Higher Specialization degrees. The scholarships are fully sponsored by the University of Mu'tah.

**Required Qualifications of the Teaching Staff**

According to the University regulations (*Annex 3; Reference 1; University Regulations*), candidates to be appointed as teaching staff at Mu'tah Faculty of Medicine, should fulfil the following criteria:

**A. For Basic Sciences appointment:**

- They should have a PhD degree or equivalents in their discipline. Candidates with MSc degree are accepted when there are no PhD holders. However, the number of teaching staff having MSc degree should be within the accreditation criteria of the HEAC limit and should not exceed 20% of the number of full time PhD holders (*Annex 3; HEAC Guidelines; Reference 2*).

- They have an academic rank from a Jordanian University or a University recognized by Mu'tah University.

**B. For Clinical Sciences appointment:**

Candidates are appointed as teaching staff in the clinical departments of the Faculty when they have a:

1. Bachelor degree in Medicine & Surgery (MBBS) or its equivalent.
2. License to practice the specialty from the recognized bodies
3. Certificate of the Jordan Medical Council (Jordanian Board) to practice the specialty.
4. They should have either:
   - A. British, Irish or Canadian Fellowship or American Board or equivalents. Or:
B. Arab Board or Jordanian Board and Higher Specialization degree
with at least 2 years training in the specialty in a recognized hospital or
centre outside Jordan.

The application forms are discussed by the related Department Councils and the
recommendations of the departments about the appointment are forwarded to the Dean.
The application forms and Departmental recommendation are discussed at the Faculty
Council to reach a decision about fulfilment and suitability of the candidates to the
appointment criteria.

Encouragement of scholarships
The University Presidency and the Faculty Deanship encourage scholarship recruitment
to ensure full staffing of the Faculty. At the present time the Faculty has 10 postgraduate
students studying for academic degrees outside Jordan. There are six students studying
to have PhD degrees in basic science disciplines and one in Forensic Medicine. In
addition there are three students doing clinical training in recognized centres or hospitals
outside the Kingdom (Annex 3: Letter of the University Higher Education Deanship).

In summary, there is one student in each of the following postgraduate programs:

1. MSc & PhD in Microbiology in UK
2. MSc & PhD in Immunology in UK
3. PhD in Public Health in Malaysia
4. MSc & PhD in Anatomy in UK
5. MSc & PhD in Biochemistry in UK
6. MSc & PhD in Pharmacology in UK
7. Training course in Neurosurgery in Germany
8. Training course in Paediatrics in Canada
9. Training course in Paediatrics in Australia
10. PhD in Forensic Medicine in UK

Moreover, the University and The Faculty have accepted and appointed ten eligible
medical postgraduate personnel waiting for scholarships for postgraduate study or clinical
training outside the Kingdom. They are appointed for 1-2 years at the Faculty and
officially they join the Faculty. During this period they should apply to obtain seats at
postgraduate centres at the previously mentioned countries. When they get an acceptance in a recognized department or hospital, they proceed with the scholarship and join their study centres. All the scholarships are granted and sponsored fully by the University.

According to the letter of the Higher Education Deanship these students are (Annex 3: Letter of Higher Education Deanship):

1. Two students in Gynaecology & Obstetrics
2. One student in General Surgery
3. One student in Internal Medicine
4. One student in Radiology
5. One student in Anaesthesia
6. Two students in Physiology
7. Two students in Anatomy

The balance between Medical & Non-Medical staff
At the present time the number of the teaching staff is 47 members (16 in the Basic Sciences and 31 in Clinical Sciences Departments). Of those 47 members, those having medical degree are 40 (86%) and the non-medical personnel are 7 (14%). The ratio between medical to non-medical personnel is about 6 to 1 (Annex 3: Table 3.1).

The balance between Full-time & Part-time Staff

- In the Basic Science Departments
The total number of the teaching staff in the basic science department is 23. There are 17 full-time teaching staff (74 %) & 6 part-time workers (26 %). This ratio is approximately 3 to 1.

- In the Clinical Departments
In our Faculty the number of full-time teaching staff in clinical science departments is 30 members. However there are 80 part-time teaching staff recruited from the Royal Medical Services and from the Ministry of Health to teach students in clinical disciplines at various Teaching Hospital & centres.
The qualifications and other relevant information for the academic teaching staff are shown in tables (Annex 3: Table 3.2 and 3.3)

**Domain 3 Questionnaire Survey**

A survey was conducted among staff members (No.: 38) regarding items of Domain 3. Results of questionnaires are shown below in Table 3.1 below. Results showed that:

1. Staff agreed (76%) that there exists a recruitment and employment policy in the Faculty.
2. Also they agreed (71%) that the policy emphasizes mainly on credentials.
3. Staff preferred that this employment policy is to focus on the following skills as ranked by the staff:
   - Teaching skills acquired by candidates (47%),
   - Years of experience (32%),
   - Their credentials (20%)
   - Published research (4%).

**Point of Strength**

- The Faculty Deanship and the University Presidency encourage scholarship recruitment to ensure full staffing of the Faculty.

**Points of Weakness**

- For candidates submitting to obtain scholarships in basic science fields, they preferably should have an MBBS degree. Nevertheless medical graduates submitting are few and sometimes none. Therefore, it was recommended that in some specialties as in biochemistry and pharmacology, holders of other degrees may be considered. Candidates having BSc in Pharmacy can apply for pharmacology and those having BSc in Dentistry, Pharmacy or Science can apply to biochemistry.
- However, staff survey showed that the criterion of credentials scored (20%) and was ranked third after teaching skills and years of experience.
Suggested Corrective Actions

- The Faculty encourages scholarships to postgraduate candidates in basic and clinical disciplines to fulfil all deficiencies in teaching staff members in the Faculty.
- At the present academic year 2009-2010, there are ten eligible candidates waiting to be sent abroad to complete their postgraduate study or training as mentioned earlier.

Governmental requirements that affect medical school's staffing decisions

The medical school's staffing decisions are influenced by several governmental requirements in particular the Guidelines of the Higher Education Accreditation Commission, the Ministry of Health, and Ministry of Higher Education and Scientific Research of Jordan. In addition, University criteria for employment are present to ensure high standards of the education program and the teaching staff members.

Law of Jordanian Universities (Law Number 20; 2009)

In the year 2009 the Government of the HKJ issued the law of Jordanian Universities (Law Number 20; 2009). This law regulates affairs and regulations of Jordanian Universities. A copy of the Law is included in Annex 3 (Law Number 20; 2009).

Review of the Priority Policy of Recruitment

As the Faculty is new and understaffed in some disciplines, therefore, the priorities of the policy of recruitment are reviewed continuously by the Departments and by the Faculty Council according to the need. Their suggestions are forwarded to the responsible authority at the University for implementation.

Quality development:

A policy should be developed for staff selection criteria, including scientific, educational and clinical merit, relationship to the mission of the institution, economic considerations and issues of local significance.
The Faculty improves its recruitment of academic teaching staff to meet its mission and objectives by encouraging medical graduates to join scholarships in various disciplines and being sponsored by Mu'tah University. They are sent for postgraduate studies or clinical training outside Jordan mainly to USA, UK, Australia, Germany and Canada.

3.2 SAFF POLICY AND DEVELOPMENT

**Basic standard:**

The medical school must have a staff policy which addresses a balance of capacity for teaching, research and service functions, and ensures recognition of meritorious academic activities, with appropriate emphasis on both research attainment and teaching qualifications.

The Faculty chooses for appointment teaching staff members with high standards of qualification and experience and competencies to ensure that teaching of students, research activity and patient services are appropriately recognized and rewarded. Contribution of the teaching staff to patient's services are recognized and properly rewarded by the Ministry of Health. Moreover, these activities are recognized and implemented as essential requirements in the teaching staff academic promotion. In addition, the Faculty encourages attendance and participation of its teaching staff in national and international scientific meetings, workshops and conferences and being sponsored by the University.

**Quality development**

The staff policy should include teacher training and development and teacher appraisal. Teacher–student ratios relevant to the various curricular components and teacher representation on relevant bodies should be taken into account.

**Staff Development Programs**

The staff development programs enable teachers to upgrade and improve their skills and their teaching performance. The Faculty encourages academic teaching staff to participate actively in activities and workshops provided by the Teaching Staff...
Development Centre of the University. The centre provides the necessary training & workshops on various educational aspects needed by the teaching staff members. They need skills in computer sciences and technology and statistical methods for application in research and for teaching purposes. Computer skill training programs are given during the Mutah University Computer Driving License (MUCDL) course. Other courses and training programs on skills like biostatistics (SPSS course) and in E-learning workshops are also delivered by the Teaching Staff Development Centre.

Since 2004, Faculty members have joined actively these workshops (Annex 3; Lists & letters of courses). At the present time all members of the Teaching Staff have the MUCDL and E-learning training certificates. These are important to have when appointed in the University and for scientific promotion of the teaching staff.

Participation in Staff Developments Programs

Participation of the teaching staff members in workshops or training programs held at other Jordanian Universities is also encouraged (Annex 3; Lists of activities). These involve important issues of Medical Education like teaching methods, teaching skills, methods of examinations as the OSCE exam and other topics.

The Faculty also encourages staff development programs by encouraging attendance of scientific meeting and conference inside & outside Jordan. Moreover, attendance of continuous learning programs prepared by the Jordanian Medical Association (JMA) is stressed upon as mentioned previously.

The qualifications of the Teaching Staff in the Basic and Clinical Science Departments and their publications are shown in the tables (Annex 3; Table 3.3 and 3. Arabic table).
Teacher-Student Ratios

In our Faculty the teacher-student ratios are as fellows in the basic & clinical disciplines:

A. Basic Science Disciplines

In our Faculty, the Basic Sciences are taught to medical students in the first 3 years. The total number of students in these 3 years is 523 in the academic year 2009-2010. According to the accreditation guidelines the required teaching staff members should be 26 (1 teacher to 20 students). Of these 70% should be full-time employee (Annex 3: HEAC Guidelines). At the present time the available teaching staffs in our Faculty is 23. This means that the Faculty requires additional 5 members. We have 17 full time workers and 6 part time workers. In conclusion our Faculty teacher: student ratio is 1: 22.7 in the Basic Science Disciplines. Additional three teaching staff members are needed to ensure the required accreditation ratio of 1: 20.

It is important to note that the Faculty has seven postgraduate students studying outside Jordan to obtain PhD degrees in various basic science disciplines. These are 1 student studying Pharmacology, 1 studying Biochemistry, 1 studying Anatomy, 1 studying Pathology, 1 studying Immunology, 1 studying Microbiology and one is studying Public Health as mentioned before. The majority of them will join the Faculty within the next academic year.

Technician-Student Ratio

In this Faculty, we have 9 technicians working in basic science laboratories. They have bachelor degree in science or in laboratory sciences (Annex 3: Table 3.5 Arabic). The technician: student ratio in our Faculty is 1: 58. The HEAC and WFME accreditation limit should be 1: 40 (Annex 3: HEAC Guidelines). It is worth mentioning that each class of students attending practical classes in the Basic Medical Sciences does not exceed 50 students.

B. Clinical Science Disciplines

In the 2nd three years of the study, Clinical Science Disciplines are studied. The total number of students in these 3 years is 298 in the academic year 2009-2010. According to
the Accreditation Guidelines the required teaching staff members should be 37 to ensure a ratio of 1:8 (Annex IA: HEAC Guidelines). Of these 22 should be full-time workers (60%) and 15 should be part-time workers (40%).

At the present time the available teaching staffs in the Clinical Sciences Disciplines is 30 full-time workers and 80 part-time workers. This means that the Faculty meets the necessary accreditation criteria of 1:8 in the clinical disciplines.

It is worth mentioning that the Faculty has at the present time 4 postgraduate students performing clinical training programs or studying for PhD in clinical disciplines outside Jordan. These graduates will join the Faculty within the next academic year. In addition 6 eligible students are waiting to join their clinical training abroad.

**Teacher Representation in Relevant Bodies**

According to the Faculty and University regulations, members of the teaching staff are represented in various committees and councils in the Faculty. All members of the teaching staff are provided with chances to join the Faculty committees that regulate various aspects of the daily activities of the Faculty. Each year the Deanship prepares and issues an order of the relevant committees. This academic year 2009-2010 the Deanship issued the formation of 14 working committees in addition to the 10 accreditation committees (Annex 3: Letters of Committees; Dean orders 18/2009 & 11/2010)

Other participations include:

- Chairmen of the departments and one representative for each department are members of the Faculty Council
- In addition a representative of the teaching staff is allocated yearly to be a member of the University Council to participate in discussing the policy of the university and other important relevant affairs of the University.
- Members are also represented in the Jordan Medical Council (JMC) that conduct graduation evaluation examinations of Jordanian students graduated from foreign
medical faculties. They also participate in scientific committees of JMC that conduct postgraduate examinations in clinical specialties.

- Teachers are also involved in scientific and examination committees of the Arab Board of Medical Specialization which conduct specialty examinations for Arab candidates.
- The Dean is a member of the Council of Trustees of Diabetes and genetic center
- A professor is participating in preparing the Code of ethics of scientific research, at the Higher Council for Science and Technology, Amman, April, 2010.

**Duties of the Teaching Staffs**

Members of the academic teaching staff have the following responsibilities:

- They conduct the scientific teaching activities of the educational program. Lectures & other teaching activities are delivered by members of the teaching staff having doctorate (PhD) degree or fellowship or the Board or equivalent degrees in that specialty.
- These activities include delivering lectures, seminars and practical classes to students
- They participate in scientific meetings, conferences, training programs inside and outside Jordan
- They should devote one hour daily to meet students seeking advice, answer their questions and follow them up.
- The scientific and educational abilities of members of the teaching staff are assessed by students at the end of the course. This is conducted by the faculty in arrangement with the Teaching Staff Development Centre of the University. Results are analyzed by the centre giving the full & complete evaluation of teachers' performance *(Annex 1A: Questionnaire Sheet enclosed)*. Copies of the analysis results are sent to related department and teaching staff. The Teaching Staff Development Centre has several advanced training program to improve various aspects of the teaching staff members as mentioned before.
Academic Ranking of Teaching Staffs

According to the Law 20 of Jordanian Universities issued in 2009, the academic ranking of members of the teaching staffs is as follow:

- Professor
- Associate Professor
- Assistant Professor
- Lecturer
- Assistant lecturer

The number of the teaching staffs in Mu'tah Faculty of Medicine according to the academic ranking is shown in table 3.4 below and is as follows:

- Professors: 15
- Associate Professors: 5
- Assistant Professors: 21
- Lecturers: 6
- Assistant lecturer

Members of the teaching staff are usually employed as full time workers. Sometimes & for certain reasons some are employed as part time workers.

Teaching Load of Members of the Teaching Staff

Weekly teaching hours of members of the teaching staff are:

- Professor: 9 hours
- Associate Professor: 12 hours
- Assistant Professor: 12 hours
- Lecturer: 18 hours
- Staff with academic ranks having contracts with the University: 12 hours

Academic Teaching Load

For the academic year 2009-2010, the teaching load of the academic staffs at various departments is shown in Tables 3.1 below.
# Table 3.1 Teaching loads of academic teaching staffs

## 1. Department of Anatomy & Histology

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<tr>
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<th>Summer Semester 2009</th>
<th>1st Semester 2010</th>
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<td>Salwa Metwally</td>
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<td>Aiman Al-Qtaitat</td>
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## 3. Department of Physiology, Biochemistry & Microbiology

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## 4. Department of Forensic Medicine, Community Medicine & Pathology

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### 5. Department of Obstetrics & Gynecology

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<td>Adel Abul-Heija</td>
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<td>Fahmi Amine El-Uri</td>
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<tr>
<td>Momar Al-Jefout</td>
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### 6. Department of Surgery

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### 7. Department of Surgical subspecialties

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<td>7</td>
</tr>
<tr>
<td>Hussam Algarmokly</td>
<td>9</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Amal Jabri</td>
<td>8.1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Omar Ali Nafi</td>
<td>9</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>
9. Department of Medicine

<table>
<thead>
<tr>
<th>Name</th>
<th>2nd Semester 2009</th>
<th>Summer Semester 2009</th>
<th>1st Semester 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Khitam Salem Al-refu</td>
<td>12.5</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>Muhammad Al-Samarrai</td>
<td>9.2</td>
<td>5</td>
<td>9.2</td>
</tr>
<tr>
<td>Essmat Al-Omari</td>
<td>12</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Academic Research**

Members of the teaching staff participate actively in conducting academic research which is part of their duties. Participation in research activities and their publishing are essential requirement for the scientific promotion of the teaching staff to a higher academic rank. Publications of the Faculty Teaching Staff members and a short curriculum vitae are attached and shown in Tables (*Annex 3: Table 3.3 & Table3. 4 attached*)

**Domain 3 Questionnaire Survey**

A survey was conducted among staff members (No.: 38). Results are shown below in table 3.2. Overwhelming percentage of staff agreed on the following issues in regard to staff policies and staff development:

- Staff evaluation by students (84%)
- Staff peer evaluation does not exist at present time (70%)
- Understanding of rules of employment (59%)
- Awareness of their job description in regard to teaching (84%), research (68%) and service duties (82%).
- Over half of staff admitted that they have attended training activities in the last few years on teaching skills (54%), medical education (68%), but to a lesser extent on research improvement (41%) and on administrative management (38%).

**Point of Strength**

- The Faculty recruits about 80 part time clinical staff personnel working in various clinical disciplines. This has allowed teaching students in small subgroups during clinical sessions in hospitals and this is important for the patients, students and teachers.
Points of Weakness

- The Faculty has no University Hospital
- Some departments are not fully staffed
- No full time teaching staff members are available in the Department of Community Medicine.
- In regard to promotion policy, only 47% think that it is balanced around teaching, research and service
- Less than half of staff admitted attending training on research improvement (41%) and on management (38%).

Suggested Corrective Actions

- The Faculty is planning to have its own Teaching Hospital
- The Faculty is encouraging graduate to join the faculty to have scholarships in various basic & clinical disciplines.

Table 3-2: Results of Academic Faculty Staff questionnaires of Domain 3 (Total sample No. 38). Percentage of positive responses of Staff Members in regard to items of domain 3

<table>
<thead>
<tr>
<th>Item</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment Policy</td>
<td>76%</td>
</tr>
<tr>
<td>Consideration of educational skills</td>
<td>71</td>
</tr>
<tr>
<td>Preference considered in employment:</td>
<td></td>
</tr>
<tr>
<td>Teaching skills</td>
<td>44</td>
</tr>
<tr>
<td>Research</td>
<td>4</td>
</tr>
<tr>
<td>Years of experience</td>
<td>32</td>
</tr>
<tr>
<td>Credentials</td>
<td>20</td>
</tr>
<tr>
<td>Balanced Consideration among teaching, research and services for promotion</td>
<td>47</td>
</tr>
<tr>
<td>Student /staff ratio</td>
<td>42</td>
</tr>
<tr>
<td>Staff evaluation by students</td>
<td>84</td>
</tr>
<tr>
<td>Staff evaluation by peers</td>
<td>70</td>
</tr>
<tr>
<td>A knowledge of evaluation results</td>
<td>19</td>
</tr>
<tr>
<td>Evaluation and loss of incentive and delay of promotion</td>
<td>32</td>
</tr>
</tbody>
</table>
Table 3.2 cont.: Table 3.1: Results of Academic Faculty Staff questionnaires of Domain 3 (Total sample No. 38). Percentage of positive responses of Staff Members in regard to items of area 3

<table>
<thead>
<tr>
<th>Item</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshops attended of teaching skills</td>
<td>55</td>
</tr>
<tr>
<td>Workshops attended of Medical education</td>
<td>68</td>
</tr>
<tr>
<td>Workshops attended of research improvement</td>
<td>41</td>
</tr>
<tr>
<td>Workshops attended of management</td>
<td>38</td>
</tr>
<tr>
<td>Understanding rules and regulations of employment</td>
<td>59</td>
</tr>
<tr>
<td>Understanding rules and regulations of renewal of appointment</td>
<td>35</td>
</tr>
<tr>
<td>Understanding rules and regulations of promotion</td>
<td>49</td>
</tr>
<tr>
<td>Understanding rules and regulations of dismissal</td>
<td>39</td>
</tr>
<tr>
<td>Knowing the job description of teaching research</td>
<td>84</td>
</tr>
<tr>
<td>Knowing the job description of research</td>
<td>68</td>
</tr>
<tr>
<td>Knowing the job description of service duties</td>
<td>82</td>
</tr>
<tr>
<td>Participation in decision making</td>
<td>51</td>
</tr>
</tbody>
</table>

**Teaching Staffs Curriculum Vitae**

The full electronic curriculum vitae of members of the teaching staffs in various departments are present on the accompanying CD. A summary of these information are summarised in the tables 3.3 below
<table>
<thead>
<tr>
<th>Name</th>
<th>Birth</th>
<th>Rank</th>
<th>Degrees</th>
<th>appointment</th>
<th>High Specialty</th>
<th>Publi</th>
</tr>
</thead>
</table>

2. Department of Pharmacology

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth</th>
<th>Rank</th>
<th>Degrees</th>
<th>appointment</th>
<th>High Specialty</th>
<th>Publi</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Sa'id M Al-Dalaen</td>
<td>1970</td>
<td>Assist Professor</td>
<td>BSc Pharmac 97 PhD Cuba 2002</td>
<td>Mutah 2004</td>
<td>Pharmacology</td>
<td>13</td>
</tr>
</tbody>
</table>
### 3. Department of Physiology, Biochemistry & Microbiology

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth</th>
<th>Rank</th>
<th>Degrees</th>
<th>appointment</th>
<th>High Specialty</th>
<th>Publi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Waleed Al-Shaikhly</td>
<td>1953</td>
<td>Associate Professor</td>
<td>MB ChB 1977, PhD Canada 1987</td>
<td>1977</td>
<td>Cardiovascular Physiology</td>
<td>8</td>
</tr>
<tr>
<td>2. Mohamed Hassan</td>
<td>1949</td>
<td>Professor</td>
<td>MB ChB 1972, MSc 1974, PhD Egypt 1979, MSc Egypt 1985</td>
<td>1972</td>
<td>Endocrine Physiology</td>
<td>13</td>
</tr>
<tr>
<td>3. Aziza Ebrahim Ahmed</td>
<td>1949</td>
<td>Professor</td>
<td>MBChB 1972, PhD Egypt 1983</td>
<td>1972</td>
<td>Microbiology Parasitology</td>
<td>32</td>
</tr>
<tr>
<td>4. Waffa Ahmed El-Shafie</td>
<td>1954</td>
<td>Professor</td>
<td>MBChB 1979, PhD Egypt 1990</td>
<td>1979</td>
<td>Microbiology Immunology</td>
<td>15</td>
</tr>
<tr>
<td>5. Amin Abdelfattah Aqel</td>
<td>1975</td>
<td>Assistant Professor</td>
<td>BVMS (1997), PhD Greece 004</td>
<td>1998</td>
<td>Molecular Microbiology</td>
<td>6</td>
</tr>
<tr>
<td>6. Jahad Shuniegat</td>
<td>1968</td>
<td>Assistant Professor</td>
<td>BSc 1992, MSc Sydney 003, PhD Sydney 009</td>
<td>1993</td>
<td>Medical Molecular Biology</td>
<td>8</td>
</tr>
<tr>
<td>7. Samir Saad Mahjob</td>
<td>1959</td>
<td>Assistant Professor</td>
<td>MBChB 1984, MSc Egypt 1992, PhD (USA 1999)</td>
<td>Mutah 2010</td>
<td>Molecular Biology</td>
<td></td>
</tr>
</tbody>
</table>

### 4. Department of Forensic Medicine, Community Medicine & Pathology

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth</th>
<th>Rank</th>
<th>Degrees</th>
<th>appointment</th>
<th>High Specialty</th>
<th>Publi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Amal Abdelrazek Mashali</td>
<td>1949</td>
<td>Professor</td>
<td>MB ChB 1974, MSc (1979), MD Egypt 1984</td>
<td>1975</td>
<td>Forensic Medicine/Toxicology</td>
<td>40</td>
</tr>
<tr>
<td>2. Dhamia Karim Al-Rahal</td>
<td>1956</td>
<td>Lecturer</td>
<td>MB ChB 1980, MSc 1987</td>
<td>1980</td>
<td>Pathology</td>
<td></td>
</tr>
<tr>
<td>Mahmod Habashna</td>
<td>1955</td>
<td>Lecturer</td>
<td>MB ChB 1980, Jordan Board91, MSc (UK 1986)</td>
<td>Part timer</td>
<td>Pathology</td>
<td></td>
</tr>
<tr>
<td>Ahmed Abu Simin</td>
<td>1960</td>
<td>Lecturer</td>
<td>MB ChB 1985, Jord Board 91</td>
<td>Part timer</td>
<td>Pathology</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Birth</td>
<td>Rank</td>
<td>Degrees</td>
<td>appointment</td>
<td>High specialty</td>
<td>Publi</td>
</tr>
<tr>
<td>-----------------------</td>
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<td>-----------------</td>
<td>--------------------------------------------------------</td>
<td>------------------</td>
<td>-------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>5. Department of Obstetrics &amp; Gynecology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 6. Department of Surgery

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth</th>
<th>Rank</th>
<th>Degrees</th>
<th>appointment</th>
<th>High specialty</th>
<th>Publi</th>
</tr>
</thead>
</table>

### 7. Department of Surgical subspecialties

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth</th>
<th>Rank</th>
<th>Degrees</th>
<th>appointment</th>
<th>High specialty</th>
<th>Publi</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Salah Al-qaryoute</td>
<td>1945</td>
<td>Prof</td>
<td>MD, DS, FRCS (UK), JBPS, FACS</td>
<td>Mutah 2006</td>
<td>General surgery Plastic surgery</td>
<td></td>
</tr>
<tr>
<td>Name</td>
<td>Birth</td>
<td>Rank</td>
<td>Degrees</td>
<td>appointment</td>
<td>High specialty</td>
<td>Publi</td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------</td>
<td>---------------</td>
<td>---------------------------------------------------</td>
<td>-------------------</td>
<td>---------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>1. Eyad Al-tamimi</td>
<td>1976</td>
<td>Assist Professor</td>
<td>MBBS Fellowship in paediatrics (Canada)</td>
<td>2000 Mutah June 2006</td>
<td>Paediatric GIT and liver</td>
<td></td>
</tr>
</tbody>
</table>
# 9. Department of Medicine

<table>
<thead>
<tr>
<th>Name</th>
<th>Birth</th>
<th>Rank</th>
<th>Degrees</th>
<th>appointment</th>
<th>Publi</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Jord Board 001</td>
<td>Mutah Oct 2008</td>
<td></td>
</tr>
<tr>
<td>2. Muhammad Al-Samarrai</td>
<td>1948</td>
<td>Associate Professor</td>
<td>MBChB 1972 MRCPsych UK DPM MRCPsych UK</td>
<td>1972</td>
<td>Psychiatry Psychoanalysis</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Mutah Oct 2005</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Mutah Sept 2007</td>
<td></td>
</tr>
<tr>
<td>4. Khalil Souas</td>
<td>1946</td>
<td>Associate Professor</td>
<td>MBBS 1972 Amer Board FACC</td>
<td>Mutah 2010</td>
<td>Internal Medicine, Cardiology</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3.4: Academic ranks of teaching staff members in the departments

<table>
<thead>
<tr>
<th>Department</th>
<th>Professor</th>
<th>Associate Professor</th>
<th>Assist Professor</th>
<th>Lecturer</th>
<th>Total/Dept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy &amp; Histology</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Pharmacology</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Physiology</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Biochemistry</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Microbiology</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Pathology</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Community Medicine</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forensic Medicine</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Medicine</td>
<td></td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Surgery</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Surgical Subspecialties</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Gynecology &amp; Obstetrics</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Pediatrics</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Total /Faculty</td>
<td>15</td>
<td>5</td>
<td>21</td>
<td>6</td>
<td>47</td>
</tr>
</tbody>
</table>

Annex 3 contains:

- Table 3.1: Teaching staff load
- Table 3.2: Results of questionnaire survey
- Table 3.3: Vital information of teaching staff
- Table 3.3: Vital information of teaching staff (in Arabic)
- Table 3.4: Academic load of teaching staff
- Table 3.5: Vital information of technical staff (in Arabic)
- Law 20 of Ministry of higher Education
- University Employment Regulation
- Curriculum vitae of Teaching Staff (electronic on CD)
4. EDUCATIONAL RESOURCES

4.1 CONSTRUCTIONS

Basic standard:

The medical school must have sufficient physical facilities for the staff and the student population to ensure that the curriculum can be delivered adequately.

The Non-clinical Facilities of the Faculty

The facilities available for the undergraduate programs of the Faculty include large and small lecture halls that are available in both the new building (The basic Sciences Building) and the Clinical Sciences Building. These include:

I. The Basic Sciences Building

It is a modern building present inside the University campus and contains the following lecture halls:

- Three large theatres (Have respectively 250, 144 and 84 seats)
- Four medium lecture halls (81-90 seats)
- Three small lecture halls (< 50 seats) suitable for small group sessions

All these lecture halls are equipped with data show facilities and overhead projectors. Moreover, they are equipped with microphones and electrical screens as well.

II. The Clinical Sciences Building

This is present near Al-Karak Hospital and it contains the following lecture halls:

- Two large lecture halls (144 seats each)
- Five medium lecture halls (60-70 seats each)
- Two small halls (40 seats each) used for small group teaching and discussion within vicinity of Al-Karak Hospitals.
All academic Faculty members and administrative personnel have their own offices. All offices are equipped with computers including the side rooms in the labs. In the new basic sciences building, computers are connected to the net through a wireless network.

Each department evaluates the different facilities based on feedback from the academic staff, lab technicians, and the students (through questionnaire). Additional needs are forwarded by the chairman or head of the department to the dean, who considers the needs of different departments of the Faculty of medicine as a whole when making decisions (through the Faculty Council). The final allocation of financial resources is the responsibility of the University Council. Modifications were made in some of the department to suit more the needs of the Faculty undergraduate and research programs of the teaching staff members. Examples are the modifications made in the physiology and microbiology labs of the new building (*Annex 4: Document 1*)

The learning environment and recreation sites for medical students are good & suitable in the two building. Wide spaces and wide gardens and parking sites are available. These facilities are continuously looked after and improved. The medium sized lecture halls in the Basic Sciences Building are planned to be fitted with carpets but the work was temporarily delayed for technical difficulties. A cafeteria is also present in the Basic Sciences Building to serve and provide refreshments to students and to employee in the Faculty. It will be available soon within the next few weeks.

Nevertheless, some deficiencies are present; financial factors play a major role in the presence of these deficiencies. The current University budget is low and so it hinders the needed expansions. It is believed that improving the efficiency of the use of the currently available resources may improve the situation.

A survey among staff and students has been conducted to obtain feedback on how they evaluate the different aspects related to the standard of the constructions. 24 staff members (approximately 50% of staff member sample) and 101 students (approximately 13% student sample) responded. Results are shown in Tables 4-1 and 4-2 below.
4.2 Clinical Training Resources

The Faculty of Medicine at Mu'tah University has no University Hospital. For the clinical training Governmental Hospitals, community clinics, primary health care centres belonging to the Ministry of Health (MOH), as well as to the Jordanian Royal Medical Services (RMS) are utilized for training purposes. These are governed by agreements between the Faculty and the University on one side and the governmental bodies on the other side. Copies of these agreements are available (Annex 4: Agreements) as that with the MOH and RMS.

Facilities available for clinical training are:

- Al-Karak Governmental Hospital (128 beds)
- Prince Ali Bin Al-Hussein Military Hospital / Al-Karak (150 beds)
- King Hussein Medical Centre / Amman (44 beds in Neurosurgery and 12 beds in Neurology Departments)
- Al-Basheer Hospital / Amman; Department of Medicine (250 beds).
- Fuheis Hospital (Governmental Psychiatric Hospital / Amman; 200 beds)
- Outpatient clinics within Al-Karak Governmental Hospital, Prince Ali Bin Al-Hussein Military Hospital, and the Medical Centre of the University of Mu'tah.
- Maternity and Child Health centres within Al-Karak province
- Skills lab within the clinical science building

The total number of beds available in these teaching facilities is 784.

The above mentioned centres represent primary, secondary, and tertiary referral centres that serve virtually the whole Al-Karak province. These hospitals provide inpatient and outpatient services and emergency services for all branches of Medicine and Surgery, as well as the regular services in internal medicine, surgery, obstetrics and gynaecology and paediatrics.

The outpatient clinics serve many primary-care-type patients from the surrounding areas. Furthermore, students are trained at community-based health facilities outside the University during the Community Medicine Course. The Faculty uses the skills lab for technical skills training courses for the fourth year medical students.
**Student/Bed Ratio**

At this academic year 2009-2010, there are (298) medical students in the fourth, fifth, and sixth medical years (clinical years). As mentioned above the total available beds for their clinical training are 784. This makes student/bed ratio of about 1:2.6 which is adequate and accepted. This ratio will get even better in the near future as the expansion of the wards within *Prince Ali Bin Al-Hussein* Military Hospital will bring the total number of beds to 210. Similar expansion is under way in Al-Karak Governmental Hospital. An Extra 200 beds will be added. This will bring the total number of beds to more than 500 beds in these two hospitals. Such a number is optimal for our medical students training as our policy is to accept about 150 students each year.

The goal of the Faculty is to establish a Teaching University Hospital that belongs to the University of Mu'tah. Such Teaching Hospital will meet all the requirements for the proper medical training. Until then training will be confined to the above mentioned centres.

The rooms available, for bed-side teaching, in the wards of the above mentioned medical centres are adequate. The students group does not exceed the size of 13 students. According to the training program, 3-4 students of each group should attend the outpatient clinics, major surgical theatres, minor surgical theatres, emergency room, etc. This leaves no more than 10 students for the bed-side teaching. The space between each two beds is not less than 1.5 meter. Such a space is adequate for clinical discussion and meets the clinical teaching requirement.

Other than bed-side teaching, small meeting rooms are available in Al-Karak Governmental Hospital for group discussion. A medical case from the ward is chosen to be presented and discussed. Students, teaching staff, and interns are required to attend these meetings. Most of the teaching staff that supervise the clinical teaching and training of our students are members of the Faculty of medicine, University of Mutah. However, in some disciplines, specialist part-timers and visitors from Jordan University, King Hussein Medical Centre, and Al-Karak Governmental Hospital participate in the clinical teaching.
Similar to the non-clinical facilities, departments are primarily responsible for reviewing the adequacy of the clinical facilities and for determining appropriate settings and patients used for clinical training. Departments respond to deficiencies through modifications in the utilization of current resources or seeking additional resources. Again, regular systematic review of clinical resources is currently done by clinical departments. Direct assessment by staff and students is also planned.

**Points of Strength:**

- Availability of variety of medical health centres with a large number and variety of patients.
- The curriculum is community based.
- Efforts to introduce simulated and community settings in clinical teaching.

**Points of Weakness**

- The Faculty has no University Hospital
- The number of hospital beds in Al-Karak Hospitals are insufficient
- Students are sent to Al-Bashir Hospital or to King Hussein Medical Centre and to the Psychiatry Hospital in Al Fuhais in Amman
- The hospital beds in Al-Karak Hospitals (Civilian & the military Hospitals) will be increased to become 250 beds for each (Total 500) within 12-15 months.
- Not all clinical cases and specialties are available within Al-Karak province
- Clinical academic staff cannot accompany our medical students in all their visits to different medical centres. Relaying on doctors in the visited centres to train our students cannot be fully evaluated.
- Actual student-patient contact is suboptimal in some centres.
- Student-teacher contact is suboptimal as many of the clinical staff members are part-timers and their contact with the students is limited
- Students evaluated the available teaching and learning materials and patients in their main local training clinics as poor by 59% of the responding sample of students in 4th, 5th and 6th year's students *(Table 4-1 and 4-2)*
Suggested Corrective Actions:

- The Faculty is encouraging graduates to join the faculty to have scholarships in various basic & clinical disciplines to cover for the shortage in our teaching staff and to minimize the need to relay on external visiting teaching members.
- Increasing the actual student-patient interaction should be addressed by the curriculum committee and clinical departments. Suggestions include
  1. Extending practical clinical hours
  2. Increasing clinical components at the expense of theoretical presentations with encouragement of self-reading and self-learning
  3. Stressing on common clinical problems at the community level
  4. Increasing the use of outpatient clinics with the use of skills labs particularly for procedures and emergency skills
  5. The participation in community-level healthcare as an elective activity

- Considering the availability of extra beds in Al-Karak Governmental Hospital and Prince Ali Bin Al-Hussein Military Hospital by the beginning of the academic year 2011-2012, exposure to a wider variety of patients, diseases, and therapeutic modalities is expected. This will eliminate the need to refer certain cases to main hospitals in Amman and thereby eliminate the need to transport our students to be exposed to such cases there.

4.3 Information Resources

Hundreds of medical books and textbooks are available in our library. More than five books are available for each medical subject; most of them are modern with more than one copy for each title. More than 20 medical periodicals are available on the shelf as well (Available CD containing lists of Medical Books in the library). Faculty members and students have access to thousands of medical books and journals through the data base of the main library. This access can be from within the University campus and from outside the campus. The main library of Mu'tah University has annual subscription with international medical and non-medical web sites that allow browsing thousands of journals and books with full-text downloads.
Examples of these web sites:

1. Dissertations and thesis full text (http://proquest.umi.com/login)
2. E-books (http://site.ebrary.com/lib/mutahu)
4. Lippincott Williams & Wilkins (http://www.ovid.com)
5. Books @Ovid (http://www.ovid.com)
6. LWW Total Access Collection (http://www.ovid.com)

The Faculty Library

The main library is open from 8:30 a.m. – 7.30 p.m. on weekdays. Special section is allocated for the basic sciences medical books and textbooks. Other than the main library, a branch library is present in the Faculty of nursing to serve both the medical and nursing students. Clinical sciences books and textbooks are allocated in this branch library to serve medical students having their medical teaching in the Clinical Science Building (Annex 4: Survey of Books titles in the library: on the CD). The main library is air-conditioned and has photocopying facilities. Both the main and the branch libraries have computers and internet facilities.

Large reading room is available in the new Basic Science Building which is about 100 m². This room is fully furnished and is available as a study room to students. It is, also, equipped with wireless computer connection for direct use by students and connection of laptops with the main library data base. Equipments for modern video conference room are available in the new Basic Sciences Building. This will facilitate live video connection with the University of Jordan and its university hospital in the near future and similar centres.

The Faculty Electronic Facilities

These are shown in Table 4-1 below
Table 4-1 Electronic Physical Facilities in the Faculty

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computers</td>
<td>188</td>
</tr>
<tr>
<td>Data show</td>
<td>17</td>
</tr>
<tr>
<td>Overhead</td>
<td>4</td>
</tr>
<tr>
<td>Screen (automatic)</td>
<td>6</td>
</tr>
<tr>
<td>Electronic screen</td>
<td>1</td>
</tr>
<tr>
<td>Computer microphones</td>
<td>86</td>
</tr>
<tr>
<td>Slide projector</td>
<td>4</td>
</tr>
</tbody>
</table>

**Points of Strength:**

- Lecture halls are adequate and are equipped with necessary facilities. The 3 large lecture halls in the Basic Sciences Building are fully equipped with central cooling and heating facilities.
- The presence of large and well equipped modern departmental laboratories
- The computer lab is adequate. All computers (including that of staff members) are connected to the internet and to the main library database
- All computers are modern and equipped (by the university computer centre) with all necessary programs such as SPSS, medical and linguistic dictionaries, etc.
- Students evaluated the university overall spending on educational resources as sufficient and fairly sufficient (72%).
- Absolute majority of students evaluated the learning environment settings as good or fair in appearance and quality in regard to: lecture rooms (99%), labs (89%), and exams halls (83%), corridors (85%), lighting (96%), heating and cooling systems (98%) and general atmosphere (84%).
- Similarly, students evaluated the available teaching and learning materials as good in many basic sciences departments including Anatomy lab (76%), Physiology lab (55%), Biochemistry lab (68%) and Microbiology lab (88%).
- More than two thirds of staff (67%) indicated that their department space is adequate to perform activities.
- Similarly, 63% of staff thought that the university facilities are good enough for them to function satisfactorily.
About two thirds of staff in basic sciences departments thought that the labs in their departments are adequately equipped to function properly

Points of Weakness:

- Departmental museums have not been established yet
- Animal house has not been established yet
- Student's library and study rooms lack the facility of free copying, and students have to pay for their own copying
- Both, staff and students need a restaurant or a cafeteria for refreshment. Currently students go to cafeterias within or outside the university to dine or have some rest.
- Female students need to have their own rest room. However, female praying room is available
- Advancement and addition of new facilities and constructions by the faculty and the University are limited at the present time due to financial constraints
- Students evaluated the learning environment settings as poor or just fair in appearance and quality in regard to cafeteria (2% as good and 18% as fair) and bathrooms (24% as good and 42% as fair).
- Similarly, students evaluated the available teaching and learning materials and patients as poor in only few settings including clinics (59%) and Pathology lab (58%)

Suggested Corrective Actions:

- One student is allocated to the Faculty Council to express students' opinion about possible deficiencies from the student's points of view.
- Activate the collaboration between departments of the Faculty and laboratories and wards of the hospitals in order to collect samples needed to establish museums in the Faculty.
- The quality assurance committee should conduct regular assessments of issues related to facilities by faculty members and students using proper questionnaires.

4.4 Laboratories

The Basic Science Building is equipped with large laboratories (Table 4.2). All laboratories have side-rooms (for the technicians) and store room. Some labs have
preparation room and hoods as well. Other than the labs used for undergraduate teaching, well equipped research laboratory is available and is used currently for the faculty research work. Large skill lab is available in the clinical science building as well.

Table 4-2 Faculty Laboratories

<table>
<thead>
<tr>
<th>Lab</th>
<th>Dimensions</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiology &amp; Pharmacology</td>
<td>25 x 6 = 150 m²</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>25 x 8 = 200 m²</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Microbiology</td>
<td>25 x 8 = 200 m²</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Histology</td>
<td>22 x 8 = 176 m²</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Anatomy lab 1</td>
<td>25 x 6 = 150 m²</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Anatomy lab 2</td>
<td>25 x 8 = 200 m²</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Dissection room</td>
<td>8 x 6 = 48 m²</td>
<td>40 - 50</td>
</tr>
<tr>
<td>Research labs (3 rooms)</td>
<td>70 m²</td>
<td></td>
</tr>
<tr>
<td>Histopatholgy preparation lab</td>
<td>48 m²</td>
<td></td>
</tr>
<tr>
<td>Plastination lab</td>
<td>48 m²</td>
<td></td>
</tr>
<tr>
<td>Computer lab (BSB)</td>
<td>60 m²</td>
<td></td>
</tr>
<tr>
<td>Computer lab (CSB)</td>
<td>60 m²</td>
<td></td>
</tr>
</tbody>
</table>

Laboratories are run and supervised by efficient technical staff members. All technicians have bachelor degrees at least *(Annex 4: Table of Technicians vital information)*. The technical staff members follow the maintenance and safety regulations and inform related departments of any shortage or maintenance requirements by the end of each term.

These laboratories are well equipped with the necessary instruments used both for undergraduate teaching activities and for teaching staff research activities. Electronic lists of available equipments & instruments are present on the accompanying CD.

The plastination lab that belongs to the department of anatomy supplies the needed plastinated human body parts used in the study of human anatomy.

Computer laboratories are available in both buildings. In the Basic Sciences Building the modern computer lab is wide and equipped with 53 computers that are connected to the internet and to the data base of the whole governmental libraries within the Kingdom.
Twenty computers are available in the computer lab in the Clinical Science Building with the same access facility.

6.5 Information Technology

All staff members believe that the use of Information Technology in teaching is essential for self-learning, a formal Faculty-level policy on its use is not yet present. The Curriculum committee and the Deanship would be responsible for formulating such policy.

Currently, there are two computer labs, as mentioned above, in the new basic science building (53 computers) and the clinical science building (20 computers), with internet connections. These labs are used actively by the students to prepare for their seminars and other activities. Outside these two labs, students have full access to the internet service through the wireless connection available within the whole building of the Basic Medical Sciences. This allows the students to have full access to the main library database even outside the library hours.

The University of Mu'tah has already developed a new centre for E-learning as part of IT. Teaching members can introduce their lectures, quizzes, etc. on special site on line within the official web site of Mutah University. Students can communicate with their teachers as such.

All academic staff members have been enrolled in a workshop to acquire the necessary skills needed for E-learning. However, the full use of E-learning in the medical teaching is still limited and has not reached its full scale for variety of reasons.

Concerning the utilization of IT in the undergraduate program, current practice varies widely between and within departments. It is encouraging that majority of staff and of graduating students has rated their computer skills as good or average. Staff and students regularly use IT for self-learning.

Training courses in basic computer skills is a prerequisite for promotion staff members. This has been set as policy in Mutah University. Knowledge about non-compulsory
courses may be deficient and specific advanced courses on the medical applications of IT may be needed. Compulsory course on basic computer skills is part of the medical curriculum in the first two years of the undergraduate program.

**Points of Strength:**

- Internet connection and full access to library databases within the whole Kingdom is available, during and outside working hours.
- The availability of video conference room that will be in action in the near future.
- Most of faculty and students believe in the importance of IT in teaching. Students use this facility to acquire information needed to complete their understanding of the scientific information they receive in their medical education. Teaching staff use this facility to upgrade their information and make it up to date.
- Governmental and institutional interest and efforts are in favour of developing the role of IT in teaching and patient care.
- Students and staff have average computer skills
- Nearly four in every five students affirmed that it is easy to acquire scientific knowledge when needed in the college settings.
- About three quarters of students (72%) thought that the Faculty has a good communication system that enables them to get needed information.
- Majority of staff thought that the communication means between staff and students are good through boards (97%) and to a lesser extent through internet (63%).

**Points of Weakness:**

- No defined policy for use of IT in teaching.
- Current utilization of E-learning in teaching is still suboptimal.

**Suggested Corrective Actions:**

- Formulating a faculty policy on the use of IT including its introduction in the undergraduate program and allocating the necessary resources.
- Reinforcing current activities aimed at developing IT resources and utilization.
- Providing advanced training for faculty staff through the computer cantor in the use and medical applications of IT.
4.6 Scientific Research

Members of the teaching staff employed as full time workers participate actively in doing academic research of interest to them, to the community, and to develop their medical education (Annex 4: Examples of Students research). Doing research is part of their duties & doing research & publishing them are essential for the scientific promotion of the teaching staff to a higher academic rank. Research protocol is prepared by the research team then passed to the related Department Council to be approved. The approved protocol will be studied by the scientific research committee & if approved will be sent to the University for financial support. The university allocates about 5% of its budget to cover academic research & related matters. In the Faculty there are 3 research laboratories run by the academic teaching staffs & technicians. At the present time several high quality research studies are performed & expected to be completed within the next 2 years.

Technical and financial research facilities are available (Annex 5: Lists of equipments). However, the small number of academic staff hinders the initiation of postgraduate programs within most of the departments. The library serves research purposes and is equipped with internet search and article delivery service; however, up-to-date paper journal subscriptions are deficient. The research committee is responsible for approving research proposals and activities; however, a documented research policy and plan at the Faculty level is lacking and funding for research is governed by the financial policy of the University. Moreover, there is no current policy to foster interaction between research and undergraduate educational activities.

The current involvement of research activities in the curriculum is less than optimal, with the exception of limited activities in a few courses (e.g. Community Medicine and Internal Medicine). Research activities have recently been initiated by some staff members. Being over occupied with teaching and administrative duties, many staff members find it difficult to have research commitment. The appointment of new teaching staff is essential to overcome this obstacle in the near future. Currently, there are limited initiatives at the Faculty level to engage students in medical research.

Points of Strength:
- Availability of well equipped research lab and potential research materials.
Regular conferences and scientific collaboration with academic Jordanian and non-Jordanian scientific institutions.

More than half of staff (56%) thought that they have good teams to perform their duties in research.

Points of Weakness:

- Deficiency in some supporting services such as human resources.
- Limited funding opportunities.
- Lack of coordination and partnership between the school of medicine and medical personnel in Al-Karak governmental Hospital and Prince Ali Bin Al-Hussein Military Hospital.
- Lack of research plan and lack of interaction between research and undergraduate educational activities.

Suggested Corrective Actions:

- Development of a research policy at the faculty which would address upgrading of libraries and research facilities, development of Faculty and departmental research plans.
- Encouraging teamwork research activities between the school of medicine and medical and surgical departments within hospitals of Ministry of Health and Jordanian Royal Medical Services.
- Fostering the interaction between research and undergraduate educational activities.

4.7 Educational Experts

At present, Department Councils are primarily responsible for ensuring the appropriateness of the educational methodologies used. The Curriculum Committee is the academic body within the Faculty that is responsible for annual evaluation of teaching methods. Although the Curriculum Committee is composed of professors with eminent expertise and capabilities, the Faculty of Medicine arranged for many workshops to develop the planning, developing, and curriculum design capability of our teaching staff. Expert from the WHO have been invited to participate in such workshops.
Concerning practices, additional plans, on the way of implementation, include the development of course specifications covering intended learning outcomes and teaching methods, the implementation of quality assurance tools such as course reports, faculty and students’ feedback and analysis of students' results.

The Faculty with the help of the Medical Education Development Centre (MEDC) in Jordan University holds itself responsible for planning and coordinating education development activities at the Faculty. This centre is staffed with faculty members who have the knowledge, interest and experience in medical education development, in addition to supporting staff. The centre provides major contributions to education and staff development to all Jordanian university members; however, its utilization is limited by the available number of experts. The Faculty of Medicine in Mu'tah University also performs other activities such as surveying for faculty and students and organizing conferences and scientific events.

**Points of Strength:**

- The presence of professors with high medical education proficiencies
- More than 4 out of every five students (87%) thought that their teachers are doing their best to deliver the curriculum (table 6-1).
- Three in every five of students (60%) affirmed that they are satisfied about the teaching process in the Faculty (table 6-1).
- More than half of staff (56%) thought that they have good teams to perform their duties in teaching.

**Points of Weakness:**

- The University of Mu'tah has no MEDC of its own, with full-time staff.
- Activities of the curriculum committee are limited by the number of faculty staff currently participating in these activities.
- Only 42% of students thought that the available staffs are adequate for their learning needs (table 6-1).
- On same issue, only 22% of staff thought that number of staff is enough to function properly.
Suggested Corrective Actions:

- Faculty policies should encourage the development of MEDC in Mu'tah University to guide program and staff development.
- The use of visiting international experts conducting "Training of Trainers" workshops and cooperation with similar centers at the international level

4.8 Educational Exchange

The Faculty has several protocols for cooperation with other educational institutions. Cooperation includes scientific activities such as workshops and conferences, joint research activities, external examiners, visiting experts and faculty members, conduction of international (e.g. board) examinations.

Currently staff members from the departments of Physiology, Pharmacology, and Anatomy help in teaching nursing students within the University of Mu'tah. The department of Pharmacology covers pharmacology course in Princess Mona School of Nursing in Amman as well.

Concerning credit transfer, according to the law, passing students may transfer between different Faculties of Medicine with certain regulations up to end of 3rd year.

There is a budget for attending international conferences by staff with certain limitations (should have an accepted presentation at the event). Attending conferences without accepted presentation is self-financing.

Point of Strength:

- Presence of cooperation with other institutions. Many workshops and conferences run by other Jordanian Medical faculties have been attended by some of our faculty members. On the other hand, some of our medical courses are conducted by professors from other Jordanian Universities.
Point of Weakness:

- Limited financial resources allocated for cooperation with other institutions

Suggested Corrective Actions:

- International cooperation with high ranking institutions needs to be a priority for the faculty, through a well defined policy.
- Establishment of international links may be set when recognized external examiners are invited to attend and evaluate the medical exams.
- Enhancing budgets needed for international travel and collaborative events.

Questionnaire survey

A survey was conducted among students and staff members to obtain feedback on issues in this Domain. Results are shown in table below 6.1.

Annex 4 contains

- Annex 4: Document 1
- Annex 4: Agreements
- Annex 4: Survey of Books titles in the library: on the CD
- Annex 4: Table of Technicians vital information
- Electronic lists of available equipments & instruments are present on the accompanying CD
Table 4.1 Educational facilities. Positive responsive in percentage of items regarding to educational facilities (sample 101 students)

<table>
<thead>
<tr>
<th>Question</th>
<th>Question</th>
<th>Student Yes %</th>
<th>Staff Yes %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If you need to acquire a scientific knowledge, it is:</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>2</td>
<td>Do you think that the university is spending sufficient resources to cover your needs of the library, lecture rooms labs and computers?</td>
<td>Sufficient 26%</td>
<td>Fair 46%</td>
</tr>
<tr>
<td>3</td>
<td>Do you think that your medical school has a good communication system that enables you to get any information you like?</td>
<td>Good 33%</td>
<td>Fair 39%</td>
</tr>
<tr>
<td>4</td>
<td>Do you think that the environment of the following is suitable in appearance and quality?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lecture rooms</td>
<td>70%</td>
<td>29%</td>
</tr>
<tr>
<td></td>
<td>Labs</td>
<td>45%</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Exam Halls</td>
<td>42%</td>
<td>41%</td>
</tr>
<tr>
<td></td>
<td>Corridors</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Cafeteria</td>
<td>2%</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Bathrooms</td>
<td>24%</td>
<td>42%</td>
</tr>
<tr>
<td></td>
<td>Lighting</td>
<td>62%</td>
<td>34%</td>
</tr>
<tr>
<td></td>
<td>Heating and cooling systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>General atmosphere</td>
<td>46%</td>
<td>52%</td>
</tr>
<tr>
<td>5</td>
<td>Do you think that the number of staff is adequate to your needs?</td>
<td>42%</td>
<td>42%</td>
</tr>
<tr>
<td>6</td>
<td>Do you think that what is available of set ups, clinics, patients, equipments, models and teaching materials in your different practical sessions is adequate?</td>
<td>Good 41%</td>
<td>Fair 41%</td>
</tr>
<tr>
<td></td>
<td>Clinics</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Anatomy lab</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Physiology lab</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>Biochemistry lab</td>
<td>68</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Pathology lab</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Microbiology lab</td>
<td>88</td>
<td>88</td>
</tr>
<tr>
<td>7</td>
<td>Are you satisfied about the teaching process?</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>8</td>
<td>Do you think that your teachers are doing their best to deliver the curriculum?</td>
<td>87</td>
<td>87</td>
</tr>
</tbody>
</table>
Table 4.2 Educational facilities

Positive responsive in percentage of items regarding to educational facilities (sample 27 staff members)

<table>
<thead>
<tr>
<th>Question #</th>
<th>Question</th>
<th>Yes% or Very good %</th>
<th>Fair %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>If your department space adequate to perform your activity?</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Are your university facilities good enough for you to function satisfactorily</td>
<td>63%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Do you think that the number of staff is enough to function properly?</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Communication between staff and students can be described as:</td>
<td>41%</td>
<td>56%</td>
</tr>
<tr>
<td>5</td>
<td>A. Means of communication like boars</td>
<td>56%</td>
<td>33%</td>
</tr>
<tr>
<td></td>
<td>B. Means of communication like internet</td>
<td>37%</td>
<td>26%</td>
</tr>
<tr>
<td>6</td>
<td>Do you think that what you have in your lab is enough to function properly?</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>What is the ratio between numbers of staff and the number of students your department responsible for? Medical school ratio (**)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Do you think you have a good team to perform your duties in teaching and research?</td>
<td>56%</td>
<td></td>
</tr>
</tbody>
</table>
5. GOVERNANCE AND ADMINISTRATION

5.1 GOVERNANCE

Basic standard:

*Governance structures and functions of the medical school must be defined, including their relationships within the university.*

The Faculty of Medicine is one of the Faculties at Mutah University and is governed by the law of the University and its related amendments and regulations.

The organizational charts showing relations with the University and Departments are shown in annex 5 (*Annex 5: Organization charts; on the CD*).

*Description of Governance Structure, its Components and Functions*

The medical Faculty is governed by the Dean and Faculty Council. The Dean is directly linked to The President of University and indirectly through number of Councils and Bodies in the University as will be detailed below. On the other hand, The Heads of Departments, Vice-Deans and Dean’s Assistants are directly linked to the Dean and indirectly through Faculty Council and other Committees (*Annex 5: Organization charts; on the CD*).

*The Dean*

The Dean is appointed by a decree from the Council of the President of the University for renewable two years. The Dean is responsible of all administrative, financial and academic aspects as well as the follow up of implantation of decisions of Faculty Council and Council of Deans and University Council. In appointing the Dean there are certain conditions that should be considered: The Dean should be a Faculty staff member with professorship in one of the medical fields. The Dean is representing the Faculty in the University Council and Council of Deans and reports to the President of the University. He is also the chairman of Faculty Council.
**Vice Deans and Dean's Assistants**

Vice Deans & Dean’s Assistants are appointed by the President of the University according to nomination from the Dean. This is for renewable one year. The Vice Dean represents the Dean and would be responsible of aspects which are assigned by the Dean. They follow closely the various aspects of the activities in the Faculty. Dean's assistants are responsible of follow up and coordination of activities related to students affairs.

**Faculty Council**

The Council is headed by the Dean. The members of the Council, according to the University law include: Heads of the academic departments, one representative from each department, elected by the staff members in the department for one year, two members from institutions relevant to the Faculty in the local community. At the present time there is one representative from Ministry of Health and one representative from Royal Medical Services and representative of the local community (*Annex 5: Document 1: Faculty Council scheme; on the CD*). Recently student's representative attends relevant meetings of the Council when discussing student's affairs. The Faculty Council reviews the scientific plans and follows up the performance of the Departments and staff member in implementing the teaching and academic programs, and also the aspects of appointing teaching staffs and promotion of Faculty members (*Annex 5: Document 1: Faculty Council scheme; on the CD*).

**The Faculty Committees**

The Faculty Council, in the beginning of each academic year form a number of committees with intention that all staff member participate in these committees. Previously, students were not represented in the committees. Recently & officially students were allocated to become members of the Faculty Council, Curriculum Committee, Library Committee, Social Activities Committee and Committee of Conferences and meetings (*Annex 5: Document 2; Committees orders*).

**The Faculty Committees:**

1. **Curriculum Committee:** It is concerned with improvement and implementation of the scientific curriculum and presents suggestion to be discussed by the Faculty Council
2. **Committee of Conferences and Scientific Activities:** This is concerned with organizing the annual scientific activities and presentation of selected lectures delivered by the teaching staff as a continuous education activity. It, also, organizes the annual scientific days or conferences.

3. **Committee of Continuous Education:** The committee arrange for course, workshops and lectures in the aspects of continuous medical education for the medical personals and physicians in the area

4. **Committee of Students’ Counselling:** This is to inform the student about the system and curriculum and assists them in planning their selection of elective courses and to reply for their queries.

5. **Committee of Social and Sport Activities:** To organize the social activities for students and teaching staff on appropriate occasions.

6. **Library Committee:** To follow up the available books and references in various fields and to prepare suggestions to upgrade information resources.

7. **Ethics Committee:** This committee assesses the proposed clinical research proposals and projects especially those involving patients or any human subjects to make sure of safety and legality.

8. **Committee of Research Laboratories:** To organize the available facilities in research laboratories for optimum benefits and to improve conditions for research.

9. **Committees of Faculty Accreditation:** These are recent committees to follow up and sum the various reports of self assessment subcommittees (**Annex 5: Document 2; Committees orders**).

5.2 **ACADEMIC LEADERSHIP:**

**Basic Standard:**

*The responsibilities of the academic leadership of the medical school for the medical educational program must be clearly stated.*
The academic leadership is represented by:

- The Dean
- Vice Deans
- Dean's Assistants
- Head of Departments
- Faculty Council
- Department Councils

The Dean is responsible of implementing the scientific and teaching programs, and to head the meetings of Faculty Council. The Dean represents the Faculty in the Council of Deans.

**The Council of Deans**

It is headed by the President of the University. It is the governing body for the University scientific programs and administrative planning and approves teaching staff appointment. The President also heads the University Council. This is a Council in which the Deans are members in addition to representative of Faculties, a representative of graduated students, and representatives of local community. Its main function is to review the University plans, and suggestions for development. It also approves the plan of the University budget.

**Board of Trustees**

It is the supreme governing body of the University which puts the strategic plans for the University and concerned with financial funding and approves the University budget.

**Faculty Council**

The Faculty Council is the authority for discussing the curriculum and the teaching program, staff recruitment, scientific mission abroad, and setting the rules for student's evaluation. **The Faculty Council functions are mainly:**
Following the aspects related to the teaching program and regulations for student's evaluations and examinations and teaching staff affairs according to Mutah University law.

- Studying the continuous improvements of the scientific program and curriculum
- Reviewing the suggestions presented by the Departments and Committees to evaluate and improve the scientific standard
- Approving the final examination results and suggesting the granting of the MBBS degree for the graduates
- Takes the decisions concerning the scientific meetings
- Suggesting the appointment of staff members and their promotions

**Department's Council**

The Department Council looks at all aspects of activities in the Department, which is considered as the basic unit in the scientific organization in the University. The Council takes the following actions:

- Assigning the teaching duties of the staff members
- Looking for the best way to implement the teaching program
- Reviewing the scientific activities and research plans in the department
- Suggesting improvements on the teaching and scientific programs and the opinion of the council in the participation of staff members in scientific meetings
- Approving the annual report of the department.

**Vice Deans**

There are two Vice Deans in the Faculty; one for the Basic Sciences and one for the Clinical Departments. The clinical Vice Dean is concerned with implementation of the clinical program, and this requires coordination with many sides including hospitals in Al-Karak and outside Al-Karak. Basic Sciences Vice Dean is concerned in coordinating the implementation of the teaching program which is an integrated system-based modules program and organize for Faculty Council meetings which supervises the implementation of both clinical and basic sciences teaching program.


**Heads of Departments**

Head of departments are appointed, considering the conditions, for a period of one year which is renewable. Each Department has its own plan for implementing the teaching program and to develop research and scientific activities, and also teaching staff development & promotion.

**Evaluation of the Academic Leadership**

The Faculty Council is the body who evaluates the academic leadership and staff member. The Head of Department's performance is evaluated by the Dean. Teaching staffs are evaluated according to the Head of Department reports and also by student's feedback (electronic) evaluations. The overall evaluation of the academic leadership of the school is evaluated by the President of the University.

**Recommendations for quality development:**

- There should be better authentication of the evaluation of various levels of academic leadership
- The evaluation should include recommendations for improvements in the next stage
- There should be fixed time for regular (periodical) evaluation
- Emphasis should be put on dean's annual report
- There should be a general meeting for all teaching staff for evaluation of the preceding academic year performance and pointing the aspects which need improvement.

**5. 3 EDUCATIONAL BUDGET AND RESOURCE ALLOCATION**

**Basic standard:**

Sufficient financial resources are important for the medical school to implement its educational curriculum.

The budget of the Faculty is included within the budget of the University. The procedure of assessing the financial needs for the college starts from the Faculty side to suggest the required budgets for resources, teaching staffs, scientific missions abroad, teaching program requirements, equipments and furniture. The suggestions are considered by the
University to be included in the main budget, which should be approved by Council of Deans, the University Council and the Board of Trustees. The utilization of financial resources is controlled centrally by the University and the Faculty needs to request the needs every time from the University.

Quality development:
There should be sufficient autonomy to direct resources, including remuneration of teaching staff, in an appropriate manner in order to achieve the overall objectives of the school.

The Faculty has no autonomy regarding financial issues. All these should be sponsored by the related official bodies at the University.

5.4 ADMINISTRATIVE STAFF AND MANAGEMENT

Basic standard:
The appropriate administrative staff of the medical school is important to support the implementation of the school's educational program and other activities and to ensure good management and development of its resources.

Administrative Support Functions Provided by Staff of the Faculty
The main functions are to support implementation of school educational program and the scientific and educational activities, the deployment of resources and to keep records and achieves. The academic administration is to organize the time table and schedules for the teaching programs and clinical training in various premises and affiliated hospitals.

Structure of Administrative Staffing
The Faculty has two separate buildings, one for Clinical Departments, situated close to Government Hospital of Al-Karak, and the other is inside the University campus for
Basic Sciences and the Deanship of the Faculty. This dictates that the staffing is duplicated.

**Academic Administrative Staff**

These include (Annex 5: Schedule on CD)

- Two Vice Deans
- Three Dean’s Assistants including the "technical" Assistant for the Hospital Affairs
- Non-academic administrative staffs include:
  - Chief Administrator
  - Assistant administrators
  - Teaching halls supervisor
  - Technician – responsible for computer labs
  - Computer engineer
  - Administrators for the clinical building

The size of the administrative staff is determined according to the practical need to ensure good management that supports the implantation of the teaching program and various activities of the Faculty (Annex 5: Documents 3: Faculty reports & activities).

**Quality development:**

The management should include a program of quality assurance and the management should submit itself to regular review.

The quality assurance of the administrative and management components is by evaluating the achievements such as: management of resources, keeping good archives, and efficiency of the administration staff (Annex 5: Document 3: Faculty activities & reports).

### 5.5 INTERACTION WITH HEALTH SECTORS

**Basic standard:**

The medical school aims to have a constructive interaction with the health and health-related sectors of society and government.
At the present time there is no University Hospital for the Faculty that made the cooperation with Ministry of Health essential.

There is a close relationship between the Faculty and Ministry of Health (and its establishments). This relationship is detailed in a signed agreement between the University and the Ministry (Annex 5: Agreements). This includes the training of students of the Faculty in Al-Karak Government Hospital. According to this agreement the Heads of Clinical Departments of the medical school are at the same time, the heads of these departments in the hospital. There is a representative of the Ministry of health as member in the Faculty Council. The Faculty cooperates with local health sector in providing continuous education for health workers and also performing surveys in certain field as projects for students and teaching staff contributions (Annex 5: Examples of students’ research)

Clinical teaching staffs work and practice in the hospital and provide services for the patients. Similar agreement is also signed between the University and the Royal Medical Services (Annex 5: Agreements) that states on training medical students in the Royal Medical Services Hospitals in Al-Karak and Amman. Qualified medical staff members of Royal Medical Service, in various specialties contribute to clinical training and teaching. Clinical staff members of the Faculty also contribute to the clinical services in the Hospitals of the Royal Medical Service.

**Quality development:**
Some of the functions concerning the administration and management are shared with the University and others are available in the Faculty. Understanding and improvement in these functions are essential to improve and raise the performance of the academic Leadership of the Faculty.

**Questionnaire Survey on Domain 5**
A survey was conducted among staff of both clinical and basic sciences departments to obtain feedback concerning their opinion on issues related to governance and administration. 11 member of staff from clinical and 16 from basic sciences responded representing 54% of the total 50 members of staff. Results are shown in table 5.1 below:
Staff in both clinical (73%) and basic sciences (69%) departments agreed about the presence of a formal link between the Faculty and the University, and the Hospitals of MOH & RMS.

Staff from clinical indicated the effectiveness of this link (64%) in contradiction with staff in basic where only 25% agreed.

On the process of decision making mechanism in the Faculty, staff agreed on some aspects like appointment (91% clinical and 56% in basic), on teaching (91% clinical and 69% in basic). However there was a difference in agreement on appointment (73% in clinical versus only 38% in basic).

Majority of staff from both clinical and basic departments agreed on their active role and contribution towards mission and goals (91% clinical and 88% basic), academic strength (73% and 94% respectively) and on achievements (82% 56% respectively).

Points of Strength:

- There is a unit for quality assurance in the University and a Committee in the Faculty.
- There is a Teaching Development Centre in the University for improving teaching staff abilities and performance.
- There is a Student Counselling Office in the Deanship of Student's Affair.
- Administrative staffs are available for the Faculty, with chief administrator and a number of staff, secretaries, and printers.
- Archiving is available in the Faculty.
- There are enough meeting rooms for the Faculty Council and the departments.
- There is a Psychological Counselling Bureau for the students in Students’ Deanship.

Points of Weakness:

- At present the Faculty is not independent concerning the budget and this is an obstacle, because the Faculty is new and needs some flexibility and some time
quick response, especially concerning the shortage of staff and the need for incentives to recruit the necessary specialized staff to this remote area.

- There are no equipments for Video show in the Faculty.
- There is no photocopy machine for each department.
- The presence of two separate buildings is a weak point that interferes with unity of management and blocks the interaction between basic and clinical departments as well as dividing the students and staff activities.
- The available measures of quality assurance do not ensure the progress into higher standard
- Staff from both clinical and basic departments disagreed on the positivity of decision making mechanism in the Faculty in regard to research (0% clinical and 6% basic) and on systems of reward and punishment (9% clinical and 6% basic).
- Majority of staff from both clinical and basic departments evaluated low their own Departments in regard to financial resources (27% clinical and 19% basic) and facilities (36% clinical). However, 63% of staff in basic sciences evaluated their facilities as adequate.
- Overwhelming majority of staff in both clinical and basic (100% and 94% respectively) agreed that authority on departments’ budget is inadequate.
- The overall satisfaction of staff with administrative structure and governance was high in clinical (82% and 73% respectively) and low in basic (50% and 44% respectively).

**Suggested Corrective Actions:**

- This includes allocation of a special budget for the medical school to promote the infra structural aspect and to maintain flexible way of directing the financial resources to implement the educational requirements.
- At the time being the Faculty feels the need for a more independent decision concerning the financial aspects.
- The need to reconsider to unite the Faculty in one location
- There is a need for quality assurance plan and a responsible unit.

A survey was conducted to obtain feedback on issues in this area. Results are shown in table below.
### Table 5.1: Governance and administration items positively scored by clinical and basic sciences staff members in percentage; Clinical staff (No. 11); Basic staff (No. 16)

<table>
<thead>
<tr>
<th>Q #</th>
<th>Item</th>
<th>Clinical staff (No. 11) %</th>
<th>Basic staff (No=16) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Presence of formal link between Hospitals &amp; FMJUST</td>
<td>73</td>
<td>69</td>
</tr>
<tr>
<td>2</td>
<td>Effectiveness of the formal link</td>
<td>64</td>
<td>25</td>
</tr>
<tr>
<td>3</td>
<td>Positive rating of decision making mechanism:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Appointment</td>
<td>91</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>- Promotion</td>
<td>73</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>- Teaching</td>
<td>91</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>- Research</td>
<td>00</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>- Reward &amp; punishment</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>Contribution to Faculty:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Mission &amp; goals</td>
<td>91</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>- Academic strength</td>
<td>73</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>- Achievements</td>
<td>82</td>
<td>56</td>
</tr>
<tr>
<td>5</td>
<td>Evaluation of own department:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Financial resources</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>- Facilities</td>
<td>36</td>
<td>63</td>
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<tr>
<td>6</td>
<td>Adequacy of authority on department budget</td>
<td>00</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Satisfaction with:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Administrative structure</td>
<td>82</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>- Governance</td>
<td>73</td>
<td>44</td>
</tr>
</tbody>
</table>

**Annex 5 contains**

- **Annex 5: Organization charts**
- **Annex 5: Document 1: Faculty Council scheme; on the CD**
- **Annex 5: Document 2: Committees orders**
- **Annex 5: Administrative Schedule; on CD**
- **Annex 5: Agreements**
- **Annex 5: Document 3: of Faculty activities & reports**
- **Annex 5: Examples of students’ research**
6. STUDENTS

6.1 ADMISSION POLICY AND SELECTION

Basic Standard:

The medical school must have an admission policy including a clear statement on the process of selection of students.

Academic Criteria for Admission to the Medical School:

There are two ways for selecting students for admission to the medical school at Mutah University and the same applies to all Jordanian Universities regardless the specialty:

1. Competitive Program

This program is centrally run by the Unified Admission Coordinating Committee (UAC) which is currently located at University of Jordan in Amman. Candidates apply for admission to various fields at all official Universities, either through the post office or through the new online services. At the UAC office all information of the received application forms will be entered through computers into special computer program. Students will be allocated to colleges at various Governmental Universities according to their marks in the Jordanian Secondary School Certificates (scientific branch or its equivalent), taking in consideration students' wish and place of living. The minimum mark (by law) for admission to the medical faculties is 85%. Students with the highest marks will be admitted to the Medical Faculties. During the academic year 2009-2010, fifty students were accepted through the UAC office on this program (see Table 5. 1 below). In this program, the students pay fewer fees (75 J.D per credit hour) in each semester.

2. Parallel Program

In this program, the students apply directly to the admission and registration office at Mu'tah University. Students are selected in this program according to their marks in the Jordanian secondary school certificates (scientific branch) or its equivalent. Usually the average marks of those students accepted on this program are lower than those accepted on the competitive program but their average should not be less than 85%.
The Faculty accepted this academic year 2009-2010 ninety students on this program. Students usually pay **150 J.D per a credit hour** in each semester.

In addition, some students are accepted because they are sons of workers in the Faculty or the University. The remaining of students in the class were repeaters who failed last year in the first year. Usually not more than 5% of seats in both programs are allocated for none Jordanian students.

The students of both programs have all their teaching activities as lectures, laboratories, clinical teaching and examinations together (no separation of the students of the two programs).

The policy for students' selection for both programs follows the basic criteria of the Higher Education Council and rules issued by Deans Council (Annex 6: Table for seat allocation). The criteria for admission are present on the website of the University (www.Mutah.edu.jo) and are regularly and annually upgraded (Annex 6: copy of criteria for admission).

**Table 5.1 Number of students admitted to Mutah Faculty of Medicine over the years**

<table>
<thead>
<tr>
<th>Academic Year</th>
<th>Competitive Program</th>
<th>Parallel Program</th>
<th>Total No. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>25</td>
<td>-</td>
<td>25</td>
</tr>
<tr>
<td>2002</td>
<td>90</td>
<td>-</td>
<td>90</td>
</tr>
<tr>
<td>2003</td>
<td>82</td>
<td>18</td>
<td>100</td>
</tr>
<tr>
<td>2004</td>
<td>80</td>
<td>32</td>
<td>112</td>
</tr>
<tr>
<td>2005</td>
<td>82</td>
<td>79</td>
<td>161</td>
</tr>
<tr>
<td>2006</td>
<td>129</td>
<td>75</td>
<td>204</td>
</tr>
<tr>
<td>2007</td>
<td>108</td>
<td>108</td>
<td>216</td>
</tr>
<tr>
<td>2008</td>
<td>88</td>
<td>129</td>
<td>217</td>
</tr>
<tr>
<td>2009</td>
<td>88</td>
<td>102</td>
<td>190</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>772</strong></td>
<td><strong>543</strong></td>
<td><strong>1349</strong></td>
</tr>
</tbody>
</table>
Quality development:

The admission policy **should** be reviewed periodically, based on relevant social and professional data, to comply with the social responsibilities of the institution and the health needs of community & society. The relationship between selection, the educational program and desired qualities of graduates **should** be stated.

The criteria of selection are reviewed periodically by the Ministry of Higher Education. It is hoped that in the near future, acceptance and admission of students to the Faculty shall be through the Faculty administration. This enables the Faculty to implement its views, rules and regulations regarding the selection process. Special admission exam and candidates interviews are the potential means to assess students' potentials to pursue their study to be future doctors. This can be done by experts in this field like academicians, senior clinicians from various sectors of the health providers and psychiatrists.

Domain six Questionnaire Survey

A questionnaire survey has been done by the Faculty to declare the opinion of the staff & students regarding the criteria of admission policy in the Faculty (see Table 6.2 below). The following results were obtained:

- Majority of both students (76%) and staff (92%) admitted their awareness of existing criteria for students' admission.
- Again, both students and staff admitted the need for other criteria like interviews (82% and 100% respectively); admission tests (88% and 71% respectively) and Psychological tests (69 and 86% respectively).
- Both students (65%) and staff (54%) agreed that there should be a chance for underprivileged candidates for admission.
- Surprising enough, 54% of staff thought that the dissemination of information about the Faculty to secondary school pupils and community was effective as compared to only 29% of students.

Point of strength:

- Applicants with highest marks usually have the best scientific background & learning capabilities
**Point of Weakness:**

- The current policy for admission & selection of the students does not test the capability or suitability of applicants to study and practice medicine

**Suggested Improvement Actions:**

- Dissemination of information about the Faculty to secondary school pupils and community is important and should be considered by all authorities
- Developing methods, supplementing high school grades, for selection of students for admission. Suggested methods include:
  - Setting pre-requisites in high school education e.g. advanced level biology
  - Development of national written examinations testing language, creativity, attitudes and interest in medical education.
  - Personal interview

### 6.2 STUDENTS' INTAKE

**Basic Standard**

The size of student intake **must** be defined and related to the capacity of the medical school at all stages of education and training.

The annual student intake is determined by the Ministry of Higher Education and Scientific Research in collaboration with different Universities according to their demands & resources.

According to the recommendation of the Faculty Council (*Annex 6: 2: 1 document*) the Ministry of Higher Education informed the UAC for the required number of the students that could be accepted in the Faculty taking in consideration the resources of the Faculty & needs of the community. The number of students matches, to certain extent, the available facilities at the Faculty regarding the number of teaching staff in the basic and clinical sciences, number of technicians, number and size of laboratories, number and size of teaching halls, the availability of teaching tools like data shows, over head projectors and hospital beds.
Since the start of the Faculty there is an escalating increase in number of admitted students every year (see Table 6.1 above) (Annex 6: 2; 2 List of students’ number over the years).

**Quality development:**

The size and nature of student intake should be reviewed in consultation with relevant stakeholders and regulated periodically to meet the needs of community and society.

**Point of Strength:**

- The increasing number of accepted students every year partly matches with the increasing number of population & subsequent demands for health services.

**Point of Weakness**

- Less than a quarter of both students (26%) and staff (17%) agreed that number of students' admission is matching the available facilities in the Faculty.

**6.3 STUDENT SUPPORT AND COUNSELING**

**Basic Standard:**

A program of student support, including counseling, must be offered by the medical school.

Student support and counseling are achieved through the following channels:

- The University **Student Support and Counseling Office**; this is present in the Deanship of Students' Affairs (Annex 6: 3: 1 document). This office provides counseling services, social, psychological and academic support to students.

- In the Faculty there is Students Counseling Committee (both basic and clinical) which is supervised by an experience teaching staff member. Each member of the teaching staff declare certain hour daily to be devoted to discussion of students' affairs and problems. During this fixed office hour, the students can communicate with their teaching staff and can be provided with guidance and academic support (Annex 6: 3: 2 Document).
The yearly published student guidance book which contains: (Annex 6: 3: 3 Faculty Token)

- The Faculty objectives and mission
- The details of the teaching plan in all academic years regarding number of teaching years, number of years students allowed to fail, credit hours of each subject and attendance of teaching activities and limits of allowed absences which if exceeded students will be forbidden from the exams, distribution of marks, the pass from one year to the next, dismissal from the Faculty, postponement of studying, transfer to the Faculty and scheme of punishments
- Faculty governance
- Teaching staff names in each departments
- Number of students in each year

Medical services; in the University, there is a Health Centre affiliated to the University to provide free medical services to students, to teaching staff and to University employee.

Students' Exchange Program is present between the Faculty and University of Texas Medical Branch in Galveston Texas, USA (Annex 6: 3: 4 Agreement Document). It has been signed by the Presidents of both Universities. This agreement will promote the education and deepens the understanding of different cultural & social issues (Annex 6: 3: 4 Agreement)

The Deanship of Students' Affairs at the University has a program of financial support to students. Those in need for financial support can apply and be considered for financial help.

Quality development:
Counseling should be provided based on monitoring of student progress and should address social and personal needs of students.
Domain Six Questionnaire Survey (cont.)

- More than half of students sample showed their satisfaction with health services offered to them by the University in terms of cost (53%) and accessibility (again 53%).
- Only less than a quarter of sample of both students (22%) and staff (17%) admitted having an experience with the existing career guidance for students.
- Only about a third of the students' sample (38%) admitted having had at least a visit to academic advisor per year.
- Only less than a third of sample of both students (21%) and staff (38%) admitted existence of a mechanism to detect students’ academic difficulties.
- It is confusing when only 43% of students tell that they are aware of student’s financial aid system while 88% of their staff admit being aware of such a system.

Points of Strength

- The presence of students support and counseling office at the University
- The presence of students counseling committees at the Faculty
- The availability of good high standard Health centre at the University
- The presence of Exchange program for the students with international university
- The presence of students financial support program at the Deanships of Students' Affairs at the University that provide financial help to students.

Point of Weakness

- It is confusing when only 43% of students tell that they are aware of student’s financial aid system while 88% of their staff admit being aware of such a system.

6.4 STUDENTS REPRESENTATION

Basic Standard:

The medical school **must** have a policy on student representation and appropriate participation in the design, management and evaluation of the curriculum, and another matters relevant to students.
The Faculty Deanship has encouraged students' representation in many committees and activities of the Faculty. There are student representations in many of the Faculty committees that have direct relevance to students (Annex 6: 4: 1 Document).

**Students Representations:**

- Representation in the Faculty Council; students are represented in the Faculty Council through the presence of a representing member within the Council who was chosen from students. The student reflects students' opinion and point of view considering relevant issues and demands (Annex 6: 4: 2 Document).
- Representation in Curriculum Committee
- Representation in Conferences Committee
- Representation in Committee of Social Activities
- Representation in Library Committee
- Students are allowed to represent their opinion and points of view on matters related to courses, lectures and tutors, via an online feedback assessment questionnaire. Consequently, this will aid in improving the outcomes of the teaching process and to achieve high standards of educational measurements (Annex 6: 4: 3 Online Questionnaire form)

**Quality developments:**

*Student activities and student organization should be encouraged and facilitated.*

Students are encouraged to participate in activities within the Faculty and within the University as a whole, through participation in relevant bodies as clubs and societies.

**Within the Faculty**

- **Representing student**

Students of each year are represented by a student who acts as an authorized spokesperson who usually presents students' opinions to the Faculty Deanship, lecturers, course coordinators and examination committee on matters relevant to students.
Annual Conferences
Students are encouraged to participate actively in the annual Faculty conferences and scientific days. Special sessions and seminars are arranged for student projects. These research activities are conducted by students under supervision of the academic teaching staff. See attached the program of the Seventh Conference of the Faculty of Medicine. (Annex 1 & Annex 6: 4:4 Program of 7th Conference)

Within the University

Students' Union
All students of the University are entitled to elect, freely, their representatives within the Students' Union. The Faculty as part of the University encourages students to vote for their representatives and provide all the support and facilities needed (Annex 6: 4: 5 Section 5/ Student Activity Regulations in Mutah University/29/1987).

Scientific and Academic Excellence
Students who achieve high grades in their courses are qualified for an award ruled by special regulations (Annex 6: 4: 6 Section 5/Student Activity Regulations in Mutah University/ 29/1987).

Scientific Research
Students are allowed and supported by the University to carry out research projects ruled by section 8/ Scientific Research Regulations 39/2003 (Annex 6: 4: 7)

Clubs and Societies
Students are permitted to form and join clubs and societies in accordance with the University Regulations/Section 5/Students Activity Regulations/29/1987 (Annex 6: 4: 8)
Students’ Journeys

Students are allowed to organize group visits and trips to selected sites of interest in conformance with the University Regulations (Annex 6: 4: 9; Section 5 Students Activity Regulations /29/1987).

Points of strength:

- Existence of students’ representation in the Faculty Council and in many other committees.
- The presence of an elected Students’ Union in the University

Points of weakness

- Students are currently not represented in Departments’ councils.
- The students’ opinion was not considered in curriculum design, management or Evaluation.
- Unawareness of stakeholders about the importance of students' representation in Faculty committees & curricular planning activities. There are some difficulties and obstacles to include students in some of these activities.

Suggestive Improvement Actions

- Formal representation of the students in curriculum design, Student affairs and in quality assurance committees.
- Encourage students for active participation in non-curricular activities.
Annex 6 contains

- Annex 6: Table for seat allocation
- Annex 6: copy of criteria for admission
- Annex 6: 2: 1 document
- Annex 6: 2; 2 List of students’ number over the years
- Annex 6: 3: 1 Document
- Annex 6: 3: 2 Document
- Annex 6: 3: 3 Faculty Token
- Annex 6: 3: 4 Agreement
- Annex 6: 4: 1 Document
- Annex 6: 4: 2 Document
- Annex 6: 4: 3 Online Questionnaire form
- Annex 6: 4: 4 7th Conference Program
- Annex 6: 4: 5 Section 5/Student Activity Regulations in Mutah University/29/1987)
- Annex 6: 4: 7
- Annex 6: 4: 8
- Annex 6: 4: 9; Section 5 Students Activity Regulations /29/1987

A survey was conducted among stakeholders to obtain feedback on issues in Domain 6. Results are shown in table 6.1 below.
Table 6: 2. Students’ and Staff positive response in percentage in regard to items in Domain 6 (Students: 107; Staff: 13).

<table>
<thead>
<tr>
<th>Item</th>
<th>Students in %</th>
<th>Staff in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing criteria for admission</td>
<td>76</td>
<td>92</td>
</tr>
<tr>
<td>Need for other criteria like:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interviews</td>
<td>82</td>
<td>100</td>
</tr>
<tr>
<td>Admission tests</td>
<td>88</td>
<td>71</td>
</tr>
<tr>
<td>Psychological tests</td>
<td>69</td>
<td>86</td>
</tr>
<tr>
<td>Periodical review of existing criteria</td>
<td>63</td>
<td>38</td>
</tr>
<tr>
<td>Matching of facilities with number of admissions</td>
<td>26</td>
<td>17</td>
</tr>
<tr>
<td>Present experience with career guidance</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>Need for student representation in following bodies:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty Council</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Department councils</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Curriculum committee</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Assessment committee</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Library committee</td>
<td>0.7</td>
<td></td>
</tr>
<tr>
<td>Conferences committee</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Chance for under-privileged students for admission</td>
<td>65</td>
<td>54</td>
</tr>
<tr>
<td>Effectiveness of information dissemination about college</td>
<td>29</td>
<td>54</td>
</tr>
<tr>
<td>At least one visit to academic advisor/year</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>Presence of mechanisms to detect students’ academic difficulties</td>
<td>21</td>
<td>38</td>
</tr>
<tr>
<td>Adequacy of English language support</td>
<td>30</td>
<td>75</td>
</tr>
<tr>
<td>Appropriateness of tuition and study fees</td>
<td>43</td>
<td>71</td>
</tr>
<tr>
<td>Awareness about student financial aid programs</td>
<td>43</td>
<td>88</td>
</tr>
<tr>
<td>Satisfaction with health services offered to students</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In term of cost</td>
<td>53</td>
<td>100</td>
</tr>
<tr>
<td>In term of accessibility</td>
<td>53</td>
<td>100</td>
</tr>
<tr>
<td>Extent of responsiveness to student concerns by administration and Faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1% - 25%</td>
<td>33</td>
<td>-</td>
</tr>
<tr>
<td>26% - 50%</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>51% - 75%</td>
<td>24</td>
<td>40</td>
</tr>
<tr>
<td>76% - 100%</td>
<td>5</td>
<td>20</td>
</tr>
</tbody>
</table>
7. ASSESSMENT OF STUDENTS

7.1 EVALUATION METHODS

Basic standard:

The medical school must define and state methods used for assessment of its students, including the criteria for passing examinations.

General Policy for Assessment

Assessment procedure is an important pillar in the educational and teaching hierarchy since it influences student learning behavior as well as it gives feedback for staff educational method which ultimately improves both educational and teaching processes. In view of that it should be given an ample time and effort to achieve acceptable results.

To have an ideal assessment procedure it is imperative to have a:

- **Examination Committee** including teaching staff representatives from the scientific departments.
- **Summative Assessments** e.g. end course exam (not Formative Assessment), though not ideal but applicable regarding various resources (i.e. number of students, teaching staff and space).
- **Appropriate** proportion for the theoretical components of the course versus practical and clinical aspects. In the basic sciences 20% of the mark is allocated to the practical part & 80% is for the theoretical part. In the clinical sciences, the final mark 100 consists of three parts: 40% for the written exam, 40% for the clinical exam and 20% for students' general evaluation.
- The examination and assessment methods should reflect course objectives, i.e. directed mainly towards preparing the student to comprehend clinical knowledge by emphasis on points of clinical importance.
- There should be not less than two methods of assessments practical & theoretical.
- Formulation of well planned feedback questionnaires that assess the opinion and attitudes of students towards the studying approach.
The Examination Committee

It consists of five teaching staff members from the basic sciences and clinical departments. The members are chosen by the Dean at the beginning of each year, headed by a senior member of the teaching staff.

Functions of the examination committee

- Setting the timetable for the practical and theoretical parts of the exam according to the predetermined University calendar.
- The examination timetable is discussed with students' representatives.
- Allocation of appropriate sites (halls or labs) for conduction of the examinations.
- Preparing lists of students’ names with specific serial site number for each student allocated randomly for the appropriate hall or lab.
- Collecting examination questions from the teaching staff members in two forms questions prepared by random distribution of questions (Form A & Form B). The examination papers are photocopied a day or two before the exam and stored in the examination committee room till the day of the exam.
- Selecting and preparing timetables for invigilators of the exam. At least one senior and one junior staff member and a technician are allocated for a hall accommodating 45-50 examinee (the actual space can accommodate 81-90 students).
- Choosing invigilators, supervising exams and the correction process & marks documentation after each exam to ensure full secrecy of the process.
- General supervision of the examination process as a whole including photocopying of questions, distribution of examination paper to various examination halls, correction of examination answer sheets. Rechecking of students' answer sheets and results are carried out by the committee when students present an objection on their results. This is performed after filling an official application form by students at the administration office. Result of the objections whether identical or not should be signed by the Head of the examination committee, Head of the department (or module coordinator) and the Dean.
Examination design

Questions of the examination are prepared and discussed by the teaching staffs involved in teaching that particular subject or module. The questions are prepared in the form of MCQ with a main stem directing the student to choose one appropriate option out of the five that follow the stem.

Each staff member is responsible for typing his own questions. The head of the department & a member of the teaching staff or the module coordinators are responsible for arranging the questions together in consistent clear forms. The number of questions allocated to each lecturer or to each discipline in the module is generally proportional to the number of lectures for that discipline. This also applies for the practical exam.

Invigilation

Duties and responsibilities of the invigilators include:

- Invigilators should attend 15 minutes before the exam. The chief invigilator collects the envelopes containing the answer sheets and examination papers from the exam committee office.
- They seat students each to his allocated seat number.
- They distribute the answer sheets to students to fill in their names, number, and subject of the exam and sign the paper. The chief invigilator is responsible for checking correct filling of the required information in both the answer and questions sheets and has to sign these.
- The question sheets are distributed according to the forms (A or B). Each student has to check his exam paper, write his name, number, sign it and put the form A or B on his answer sheet before starting answering.
- Keen observation is required to prevent cheating.
- Attendance of students is checked by signing on the attendance list during the exam as well as by counting the number of students.
- Chief invigilator has to announce time progress every now and then.
- At the end of the exam both the answers and questions sheets are collected, checked, counted, grouped according to the forms and delivered to the concerned staff member in the examination committee office.
- The exam committee member collects and gathers the answer sheets received from different examination halls, delivers the answer keys, and then the process
of correction is done by the officer in charge of the examination committee computer.

During the exam, the senior staff of the exam committee as well as the Dean goes around to supervise the whole process. Students, who are caught cheating, will be allowed to finish the exam but they will be referred to special committee for further investigation. If cheating is proven and documented, they will get zero in that exam.

**Correction of the examinations**

It is computer-based technique using a photo-scanner machine that scan and correct rapidly the examination papers. After completion of the scanning a print out will appear that contain students' name, students' registration number, number of correct answers and students' mark. The print out shows the mark of each student (out of 100 and then out of 25, 30, or 40 according to the weight of that particular exam). A histogram will also be plotted that gives the distribution of the students according to their marks. The computer program will also produce a statistical analysis of the questions and will produce estimates of both the difficulty index and discrimination index for each question. Questions are difficult when the DI is below 20% and questions are easy when the DI is above 90%. Discrimination index is between 0-1. Negative discrimination means that students answered the question haphazardly on no scientific knowledge and it means a badly formulated question. This is an essential feedback for the teaching staff and to decide whether questions with negative discrimination are to be considered or deleted.

**Discussion of questions and marks**

After each exam the statistical analysis of questions and the marks are discussed by the examiners and by the Department Council before being discussed with the Dean. Announcement to students follows. Results of final exams are to be discussed at the Faculty Council as well.

Discussion of results can give a lot of feedback regarding the educational process. Discussion should be in view of professional level rather than strategic level. It gives more information and better knowledge or understanding on how the education process is
going on, implementation of the curriculum, weakness and strength in the educational process and curriculum.

**Discussion of questions with students**

All questions and their correct answers and marks are discussed with students after each exam during the year. This would give feedback to both students and teaching staff.

**Types of examinations**

**I. Basic sciences examinations**

- **Multiple Choice Questions Exam (MCQ)**

  Basic sciences are delivered to students during the first three years of study years. During each semester, there are three exams (for the modules there are two MCQs and one practical); the questions are almost always multiple choice questions (MCQs). The time given is one hour per 40 MCQs (i.e. 1.5 minute per question).

  There are 3 written examinations performed during the course for each basic science discipline. The examination dates are arranged according to the University calendar. The first examination is at the 6th week of the course and the second is at the 12th week.

  The theoretical examinations are:

  1. First and second examinations usually consisting of 40 MCQs and the mark allocated is 30% of the total marks each.

  2. The final exam consists of 80 MCQs (2 hours) and the mark allocated is 40% of the total mark.

  So far all multiple choice questions consist of a stem and five options, the student will choose the most appropriate answer. Generally time allowed for each question is 1.5 minutes.

  Whenever there is a laboratory work, a practical exam will be held and the mark designated for that practical exam will be 20% of the total mark and the written exams mark will comprise 80% of the total mark. During the practical exam all students are
exposed to the same twenty spots or stations to be identified with a relevant question for each spot i.e. each spot consists of two parts: A & B.

For the module teaching system, there are only two exams per module, 80 questions per exam, 40% of the mark for each exam and a 20% of the mark for the practical exam. The number of questions of each specialty in the module depends on the number of lectures given.

Answers are plotted on an answer sheet by the students which are corrected by a computerized system (Annex 7: Answer sheet). A specialized officer (computer engineer) performs this process in cooperation with a member from the exam committee.

❖ **Short Essay Questions Examination**

The use of short essay examinations at this Faculty is very limited; few teaching staff does quizzes for the students. The quizzes mark is considered as part of the evaluation mark.

The students who were absent and did not do the examination for an acceptable excuse accepted by the Faculty Deanship will be allowed to have the exam few days later. The teacher may opt for a short essays questions exam rather than for multiple choice questions exam.

**II. Clinical Sciences Exams**

The final mark is 100 and it consists of three parts:

❖ **Written exam: 40%**

❖ **Clinical exam (OSCE): 40%**

❖ **Evaluation mark: 20%**

The clinical examination was performed previously as follow:

- One long case 25%
- Two- three short cases 15%
- There is an oral exam for 6th year students
Since the academic year 2009-2010, OSCE (Objective Structured Clinical Examination) has been performed.

**The written examination**

It is in the form of multiple choice questions. The number of questions is 100 questions in the major subjects like General Medicine, General Surgery, Pediatrics and Obstetrics and Gynecology. Each question, as in basic sciences exams, consists of a stem and 5 options; the allocated time of examination is **two and half hours**.

The questions are usually carefully chosen, each one is directed to a certain point, usually are clear, leveled with what the students has been taught and cover most of the subject been taken. All questions are discussed by the department committee and any argue about any question means it is not clear and is omitted. Some of the MCQs are problem solving questions.

The number of MCQs in minor subjects such as Anesthesia, E.N.T, Orthopedic, etc. is 40. The answer sheet is corrected also by the photo scanner. Mark allocated for this part of examination is **40%** of the total mark.

The pass mark for each subject is 50% but the cumulative **average** per year should be not less than **60%**.

**The OSCE**

It usually consists of **8-10 stations** per clinical subject and all students are exposed to the same stations and given exact time per station, the duration of each station varies but usually around 5 minutes. The mark for this part of the exam is **40%** of the total mark.

The **OSCE consists of:**

- **2-3 short cases** "usually real patients" the student directed by reading the question written on a paper and he should show how to examine, how to adopt the systemic way he learned and how he is going to reach the diagnosis.

- **2-3 long cases** "a simulators" the student asked to show how he is going to
approach the problem by taking a proper history in a trial to know what the problem with this patient is.

❖ Two structural oral questions.

**Evaluation of students:**

The mark allocated for the evaluation is **20%** of the total mark. This is distributed as:

- **5%** for daily student **attendance**
- **15%** for different activities, good performance and knowledge

The evaluation is revised daily. Points taken in consideration include student behavior with his colleagues and peers, attitude to patients and nurses, dress, general appearance, proper sharing during clinical sessions, patient presentation, preparing the seminars and participating in the discussion during the presentation.

Each student prepare a medical topic chosen to be practically useful for discussion in the daily morning session and it reflects the student ability to prepare the topic his ability to present and discuss the impression about the distinguished students and the bad are discussed in the weekly department meeting with other department affairs

**7.2 RELATION BETWEEN EVALUATION AND INSTRUCTIONS**

**Basic standard:**

*Assessment principles, methods and practices must be clearly compatible with educational objectives and must promote learning.*

The assessment methods in the Faculty are mostly compatible with the educational objectives related to factual knowledge. Objectives related to skills and attitudes are adequately targeted by our clinical examinations, 20% of the total clinical mark is devoted for evaluation in which an attitude is an important issue.

Applying our assessment principles, the methods and practices are compatible with
educational objectives and are in the direction of promoting learning. The assessment methods expose the student knowledge by queering him with a wide range of data that he needs to know and facing him with clinical problems in the written and clinical exam, observing the way he is doing, his skills, how he correlates and interprets his findings and the way he is taking his conclusions in the direction of giving diagnosis. These are going to lead him to concentrate in his reading and pay more attention and efforts to raise his intellectual and performance abilities.

As a feedback mechanism for the teaching process, students are asked to fill questionnaires about the methods of teaching, methods of demonstration, staff standard, and student sharing in the learning process and in receiving data. A sample of students' questionnaire is attached (Annex 7: Questionnaire form). The students assess the teaching program, teaching methods and teaching staff performance by answering the questionnaire. This is useful as a feedback mechanism for the teaching process.

**Quality development:**

The number and nature of examination should be adjusted by integrating assessments of various curricular elements to encourage integrated learning. The need to learn excessive amounts of information should be reduced and curriculum overload prevented.

**Quality development:**

The reliability and validity of assessment methods should be documented and evaluated and new assessment methods developed.

Hopefully, during the next academic year 2010-2011, all MCQs exams will be online computerized exams (paperless) in large examination halls. These halls will be monitored by cameras to minimize the chances of cheating.

**Domain 7 Questionnaire Survey**

A questionnaire survey was conducted among stakeholders to evaluate components of this domain to obtain feedback on issues in this area. Results are shown in tables 7.1-7.8 below. Analysis of the results showed that:
Students and staff stated that there exists a percentage of the final mark devoted to in-course evaluation. Majority of students in basic sciences stated such percentage to be less than 25%, clinical students: 51-75%, both staff in basic and clinical as 26-50%.

Only students in clinical side demanded an increase in magnitude of in-course evaluation as compared to the demand to keep as it is by student in basic and staff in both basic and clinical departments.

Majority of students in both basic and clinical agreed that best combination of examination to be MCQ and OSCE. Staff in basic preferred MCQ and OSPE. Staff in clinical divided into two parties who equally preferred either MCQ and OSCE or MCQ and oral. All four categories of respondents rated MCQ as good method of exams.

In basic sciences, both students and staff rated OSPE as a good method of exam.

Only students in basic and staff in clinical rated oral exams as good while students in clinical and staff in basic rated it as a poor method.

Points of Strength:

- There is an examination office and committee to supervise exams.
- The OSCE was introduced this year for clinical disciplines so the exams became more faire.
- Questions analysis was adopted for all MCQs exams to identify difficulty index and discrimination index for each question.
- All respondents in the four categories (students and staff in both basic and clinical disciplines) agreed that exams and evaluation meet learning objectives to an extent between 51-75%.

Points of Weakness:

- There are no yet online examinations
- Short essays questions should be used in more disciplines and they should have significant weight in the final mark, because MCQs alone do not reflect the student ability to express him.
The evaluation mark in the clinical subjects (20%) is high; sometimes those marks do not reflect the student's level, as we noticed that in certain subjects where one teacher is involved in the evaluation may give the same mark to all students.

Practical classes are deficient in the basic sciences.

**Suggested Corrective Actions:**

- Hopefully in the near future, all MCQs exams will be online exams in large examination halls monitored by cameras to minimize the chance of cheating.
- The evaluation mark in the clinical years is to be reduced to 10% or to abolish it altogether.
- Introducing OSPE in the basic sciences
- Adding other types of examinations, short essays & problem solving
- Addition of methods of evaluation of students throughout the courses.
- The evaluation in clinical years should be reflecting attitude, interaction, attendance and activity of students in details using specially designed checklist or scale

**Annex 7 contains samples of student's:**

- Answer sheet
- Examination curve
- Statistical analysis of questions
- Clinical evaluation sheet
- Program evaluation questionnaire
A survey was conducted among stakeholders to obtain feedback on issues Domain 7 Assessment of students. Results are shown in the tables below.

Table 7.1 To what extent the exams and evaluation meet learning objectives according to students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/Basic %</th>
<th>Student/Clinical %</th>
<th>Staff/Basic %</th>
<th>Staff/Clinical %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-25%</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26-50%</td>
<td>21</td>
<td>8</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>51-75%</td>
<td>51</td>
<td>71</td>
<td>53</td>
<td>50</td>
</tr>
<tr>
<td>76-100%</td>
<td>23</td>
<td>13</td>
<td>40</td>
<td>38</td>
</tr>
</tbody>
</table>

Table 7.2 What percentage of the total final examination mark is allocated to in-course evaluation according to participants in percentage: students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/Basic %</th>
<th>Student/Clinical %</th>
<th>Staff/Basic %</th>
<th>Staff/Clinical %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-25%</td>
<td>21</td>
<td>5</td>
<td>33</td>
<td>38</td>
</tr>
<tr>
<td>26-50%</td>
<td>16</td>
<td>16</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>51-75%</td>
<td>5</td>
<td>74</td>
<td>20</td>
<td>13</td>
</tr>
<tr>
<td>76-100%</td>
<td>12</td>
<td>5</td>
<td>17</td>
<td>10</td>
</tr>
</tbody>
</table>

Table 7.3 Do you think the in-course evaluation percentage of the total grade should be according to participants in percentage: students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/Basic %</th>
<th>Student/Clinical %</th>
<th>Staff/Basic %</th>
<th>Staff/Clinical %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased</td>
<td>37</td>
<td>61</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>Decreased</td>
<td>-</td>
<td>29</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Kept as it is</td>
<td>40</td>
<td>11</td>
<td>67</td>
<td>50</td>
</tr>
</tbody>
</table>

Table 7.4 Which combination of methods of assessment do you prefer according to participants in percentage: students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/Basic %</th>
<th>Student/Clinical %</th>
<th>Staff/Basic %</th>
<th>Staff/Clinical %</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCQ + OSCE</td>
<td>44</td>
<td>66</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>MCQ + OSPE</td>
<td>30</td>
<td>zero</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>MCQ + ORAL</td>
<td>12</td>
<td>8</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>All of the above</td>
<td>26</td>
<td>26</td>
<td>40</td>
<td>25</td>
</tr>
</tbody>
</table>
Table 7.5 How do you rate MCQ according to participants in percentage: students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/ Basic</th>
<th>Student/ Clinical</th>
<th>Staff/ Basic</th>
<th>Staff/ Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>93</td>
<td>90</td>
<td>87</td>
<td>100</td>
</tr>
<tr>
<td>Poor</td>
<td>7</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7.6 How do you rate OSCE according to participants in percentage: students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/ Basic</th>
<th>Student/ Clinical</th>
<th>Staff/ Basic</th>
<th>Staff/ Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>53</td>
<td>82</td>
<td>60</td>
<td>75</td>
</tr>
<tr>
<td>Poor</td>
<td>12</td>
<td>18</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

Table 7.7 How do you rate OSPE according to participants in percentage: students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/ Basic</th>
<th>Student/ Clinical</th>
<th>Staff/ Basic</th>
<th>Staff/ Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>53</td>
<td>87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>35</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7.8 How do you rate ORAL EXAM according to participants in percentage: students/basic (No: 43), students/clinical (No: 38), staff/basic (No: 15) and staff/clinical (No: 8).

<table>
<thead>
<tr>
<th></th>
<th>Student/ Basic</th>
<th>Student/ Clinical</th>
<th>Staff/ Basic</th>
<th>Staff/ Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Good</td>
<td>51</td>
<td>45</td>
<td>33</td>
<td>50</td>
</tr>
<tr>
<td>Poor</td>
<td>37</td>
<td>55</td>
<td>53</td>
<td>13</td>
</tr>
</tbody>
</table>
8. PROGRAM EVALUATION

8.1 MECHANISMS FOR PROGRAM EVALUATION

Basic standard:

The medical school must establish a mechanism for programme evaluation that monitors the curriculum and student progress, and ensures that concerns are identified and addressed.

Program Evaluation

The medical school self evaluates its educational program by using different methods. These include (Annex 8: Documents):

- Computerized student to staff online evaluation process
- Surveys and questionnaires
- Ongoing all through the year Departmental Councils meetings.

Computerized students to staff online evaluation process

As mentioned before in domain 7 and as a feedback mechanism for the teaching process, students are asked to fill online questionnaires. The date of doing these assessments is at the end of each semester. The assessment is carried out according to a timetable arranged between the Vice Dean of the Faculty and the Teaching Staff Development centre. Questions to be answered concern with the performance and attitudes of the teaching staff members, the methods of teaching and demonstration and other relevant matters. A sample of the students' electronic questionnaire is attached (Annex 7 & 8: Questionnaire form). This is useful as a feedback mechanism for the teaching process.

Surveys and Questionnaires

According to a fixed schedule staff members and students are asked to fill questionnaire forms at the final examination of each course. An orientation lecture has been delivered to encourage both teaching staff members and students to share the evaluation of the educational program.
By the end of last academic year 2008/2009 the students’ perceptions were assessed by specially designed close-ended questionnaires using a 5-point Likert scale. The questionnaire was prepared by a committee responsible for monitoring the educational program for the students of the first 3 academic years at the end of every program. A questionnaire form has been designed to assess staff member perceptions regarding the educational program, teaching methods, teaching facilities and facilities in the lecture rooms (Annex 8: Questionnaire forms). Another questionnaire for students was prepared that included 26 different items regarding teaching facilities, teachers' presentations and method of teaching, as well as equipments and facilities in laboratories and lecture rooms (Annex 8: Questionnaire forms).

The number of students completed the questionnaire constituted a quite good percentage of the total registered students (Annex 8: Table on the accompanying CD). The data were presented as a scientific paper in the 7th Conference of the Faculty of Medicine, Mu'tah University (April 2010) and was discussed by basic and clinical staff members (Annex 8).

**Quality development:**

*Programme evaluation should address the context of the educational process, the specific components of the curriculum and the general outcome*

A study was conducted at the end of the first semester (2009/2010) to assess the 6th year students' opinions regarding the educational program, teaching methods and facilities in the major four clinical subjects (Internal Medicine, General Surgery, Paediatrics and Obstetric and Gynaecology). The majority of students were satisfied with the content of the educational program and teaching methods, and emphasized that after their graduation they will be able to work as professional doctors in the future. The results of the study were also presented by a staff member in the 7th conference of the Faculty of Medicine (April 2010) (Annex 8).

The committee responsible for monitoring the educational programs is preparing a questionnaire to be completed by alumni of Faculty of Medicine of Mu’tah University.
Reports are been received about the success of students in the fifth and sixth year in the United States Medical Licensing Examination (USMLE) (Annex 8: USMLE Document).

The Faculty has received multiple reports from hospital directors from different areas of Jordan about the standards of Mu’tah University graduates (Annex 1: Report).

Points of Strength:

- There is a start in implementing the process of program evaluation by both staff members and student questionnaires.
- The response on awareness of existence of program evaluation in the Faculty was positive among both staff (70%) and students (82%).

Points of Weakness:

- No defined mechanisms for monitoring and evaluating the faculty program
- The process was not taken seriously by some students and teachers
- The clinical departments were not involved
- Teachers questionnaire was designed, but no response was received from staffs
- There was a need to evaluate performance and other aspects of all courses as expressed by 86% of students and 90% of staff.
- The methods of program evaluation that could be utilized were rated low by students as compared to staff. The use of computerized method was rated negatively by students (42%) versus staff positive rating (65%), similarly surveys method was rated negative by students (45%) and positive by staff (75%). The other way around the utilization of meetings as a possible method was rated positive by students (51%) and negative by staff (35%).

Suggested Corrective Actions:

- The committee for program evaluation should be completely independent
- The committee responsible for program evaluation should seek for the involvement of experts in medical education.
8.2 TEACHER AND STUDENT FEEDBACK

Basic standard:

Both teacher and student feedback must be systematically sought, analysed and responded to.

The medical school encourages all staff members and students to participate in its evaluation activities and program evaluation. The opinion of the students has been statistically analyzed. The results were presented through a recent lecture by the committee and will be disseminated to the staff members. The students added some comments on different aspects of the program.

Students' evaluation results are analyzed and utilized as feedback delivered to the teaching staff members and their Departments.

Quality development:

Teachers and students should be actively involved in planning programme evaluation and in using its results for programme development.

An important observation was noticed and being related to the modules. Students are choosing to study some specialties in the modules and neglect the remaining which form a lower percentage of the program and which were considered by the students to be difficult to understanding and learning. The opinion of the teachers is being collected to find, if possible, a solution.

Teachers were supplied also by a suggestion form to be used in structure of the action plan of the Faculty, so that teachers will share in developing and updating their curricula (Annex 8 :).

A close-ended questionnaire using a 5-point Likert scale has also been designed to the clinical departments, so that students can evaluate the programs (Annex 8: Questionnaire forms).
Points of Strength:

- There is increased awareness of the importance of involvement of teachers and students in program evaluation.
- Curriculum committee starting from next year will include representatives of student.
- The clinical departments started to use the student questionnaire on a small scale.
- Although the system modules is considered a modern method of teaching, yet students omitted some specialties in every module, which were considered difficult to understand and those forming a lower percentage in the module
- Both students (51%) and staff (60%) admitted that they do receive feedback.

Points of Weakness:

- The students do not consider that their opinion is taken into consideration in the various components of the educational program.
- The analysis of student feedback was not used to improve the educational process.
- Some of the staff members was not motivated to develop his way of teaching, assessment of student or contents of his curricula

Suggested Corrective Actions:

- Student feedback should be received from students regularly about the following:
  - Course contents
  - Teaching methods
  - Staff performance
  - Work-load within the course
  - Any problems or obstacles

- Teachers and students should be included in the suggested program evaluation committee.
- Teachers and students’ feedback questionnaires should be regularly analyzed and the results and corrective actions should be presented annually to the Faculty administration.
8.3 STUDENT PERFORMANCE

Basic standard:

Student performance must be analysed in relation to the curriculum and the mission and objectives of the medical school.

Student performance is not analysed in relation to the curriculum and the mission and objectives of the medical school. Measures of student performance include information about scores, pass and failure rates at examinations, difficulty index and discrimination index of questions, success and dropout rates.

The practical examinations in the basic sciences departments are mainly through spot diagnosis of specimens. The clinical examination in the fourth to sixth year comprises Objective structured clinical examination (OSCE) using patients or simulators, from the skill laboratory.

Every Department Council reviews analysis of the examination results especially regarding the questions with high and those with low difficulty index. As the questions numbers in every exam are proportional to the number of lectures, this reflects that the exam is in accordance with the intended learning outcomes (ILOs) of the programs.

Quality development:

Student performance should be analysed in relation to student background, conditions and entrance qualifications, and should be used to provide feedback to the committees responsible for student selection, curriculum planning and student counselling.

The Medical Education Committee is preparing a checklist to evaluate the attitude and skills of students in the different practical sessions. Another checklist has been prepared to evaluate the attitude and skills learned by the students in the clinical departments (Annex 8: Checklist)

The practical examinations in the basic biomedical science need to be updated to include objective structure practical exams (OSPE), using problems for every spot or station to be analyzed and interpreted by the students.
Points of Strength:

- The clinical departments started in the last academic year 2008/2009 to introduce OSCE in the assessment of clinical skills of students
- More than half of students admitted that they do receive feedback.

Points of Weakness:

- The results of the analysis process are not used for corrective actions
- The student performance is not analyzed in relation to mission and objectives.
- The analysis is not utilized in curriculum planning or student counseling
- Student evaluation in the basic sciences is measuring only knowledge and to some extent practical skills in few specialties. Attitude, critical thinking and problem solving are not included in the methods of evaluation.
- Student performance is not analyzed in relation to student background, conditions and entrance qualifications

Suggested Corrective Plans

- The analysis should be used for curriculum planning and student counseling.
- Student performance should be analysed in relation to student background, conditions and entrance qualifications, and should be used to provide feedback to the committees responsible for student selection

8.4 PARTICIPATION

Basic standard:

Programme evaluation must involve the governance and administration of the medical school, the academic staff and the students.

The Faculty Deanship, Vice Deans, Dean's Assistants, the academic teaching staff and the students participate in involved in answering questionnaire concerned with program evaluation.
**Quality development:**

*A wider range of stakeholders* should have access to results of course and program evaluation and their views on the relevance and development of the curriculum should be considered.

A wide range of stakeholders including the governance and administration of the Faculty, the academic staff and the students, representative of departments, members of local community, a representative of Ministry of Health have access to the results of the courses, and program evaluation and their views on the development of the curriculum and future plans are taken into consideration.

The results of each course and program evaluation are discussed in every Department Council in the Faculty and then their suggestions and plans about the results and the program are discussed in the Faculty Council. These suggestions are then passed to the University Council.

**Point of Strength:**

- Staff and students have stated that they have had a role in the evaluation of educational programme (83% and 70% respectively).

**Points of Weakness:**

- Some corrective actions need higher authorities’ decision. The principal stakeholders of the medical school are only involved in a very small part of the program evaluation.
- Minority of both students (35%) and staff (15%) agreed that other parties were involved in program evaluation.

**Suggested Corrective Actions**

- The results of the program evaluation should be easily transmitted to all stakeholders to be utilized on updating the curricula.
A questionnaire survey was conducted to obtain feedback on different aspects of the program evaluation domain. Results are shown in Table 8.1 below.

Table 8.1 Positive responses (in percent) of students & staff in regard to items of educational program evaluation

<table>
<thead>
<tr>
<th>Item</th>
<th>Student (No= 65)</th>
<th>Staff (No= 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awareness of program evaluation</td>
<td>82 %</td>
<td>70%</td>
</tr>
<tr>
<td>You have a role in the evaluation of the educational program</td>
<td>83%</td>
<td>70%</td>
</tr>
<tr>
<td>Did you receive feedback</td>
<td>51%</td>
<td>60%</td>
</tr>
<tr>
<td>Involvement of other parties</td>
<td>35%</td>
<td>15%</td>
</tr>
<tr>
<td>Need to evaluate course</td>
<td>86%</td>
<td>90%</td>
</tr>
<tr>
<td>Method of program evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. computerized</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. survey</td>
<td>42%</td>
<td>65%</td>
</tr>
<tr>
<td>c. meetings</td>
<td>45%</td>
<td>75%</td>
</tr>
<tr>
<td></td>
<td>51%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Annex 8 contains

- Annex 8: USMLE Documents
- Annex 8: Electronic Questionnaire form on CD
- Annex 8: Tables; on the accompanying CD
- Annex 8: Questionnaire forms
- Annex 1: Report
- Annex 8: Checklist forms
9. CONTINUOUS INNOVATION

Basic standard:
The medical school must as a dynamic institution initiate procedures for regular reviewing and updating of its structure and functions and must rectify documented deficiencies.

9. 1. Curriculum:
By the year 2006 changes have been applied to the curricula as a result of the recommendation of the committee of medical education as mentioned before in the Educational Program section.

The Committee of Medical Education and Quality Control in the Faculty is responsible for revising the course design and is responsible for its development according to the global standards of medical education. During the last few years, lectures have been held by the committee and attended by all the staff members in the Faculty to raise their awareness about quality development of their programs using especially designed templates for course specifications prepared by the committee \((Annex \, 9)\). The lectures addressed the context of educational process, the components and outcomes. The committee was responsible for designing questionnaires for program evaluation by students and teachers \((Annex \, 9)\).

The teachers were encouraged to develop their curricula and make suitable changes according to the results of the questionnaire held by the end of the academic year 2008-2009 for the basic sciences and in the midyear of 2009-2010 for the main clinical departments.

9. 2. Number of students:
The number of students is increasing every year since 2001 when the Faculty was established. The number of students admitted to the Faculty increased from 27 in the academic year 2001/2002 to 185 in the year 2009-2010 (See table 6.1 below). The Faculty admission policy was expanded due to the increase demand on the Faculty and a
parallel admission program was established in the academic year 2003 to help the Faculty financially, which wasn’t the case.

The total number of students of the parallel program admitted in the academic year 2009-2010 was 90 which constituted 64% of the total number of students admitted to the Faculty. The increased number of students every year is considered a problem especially during the clinical sciences study years due to lack of staff and minimal hospital space, especially in the very near future with the constructions in Al-Karak Governmental Hospital. Solutions for this problem are been thought of.

9. 3. The staff

The Faculty started by 12 Teaching staff members of staff; most of them were non-Jordanians. During this academic year and as mentioned in Domain 3, the number of the teaching staffs in the basic sciences is 17; five of them are Jordanian (29%). The number of the staff in the clinical sciences is 30; twenty one of them are Jordanian (70%). Since the establishment of the Faculty, teacher assistants were recruited offering them sponsorships, to pursue their training abroad and return back as staff in the Faculty as mentioned in Domain 3. This was a successful policy. Of the scholars many returned to the Kingdom and are now full-time staff members in the Faculty. The number of the scholars present now abroad is ten and the Faculty is expecting their return within a year.

9. 4. Methods of Teaching

Beside the classical way of lectures, practical lessons and clinical rounds, the staff member adopted other methods of teaching like:

- Active learning including seminars prepared by students and supervised by staff members.
- Introducing clinical applications in the basic sciences
- Student activities by preparing posters which are disseminated over the walls of the new Faculty building.
Students were involved in scientific research under the supervision of the staff members in the Departments of Community Medicine, Pharmacology, Forensic Medicine, and Obstetrics and Gynaecology. The students presented their results in the annual scientific meetings in 2008, 2009 and 2010.

9. 5. Methods of Examinations

Since the establishment of the Faculty, the multiple choice question (MCQ) system with one best answer and five stems was the only method applied in written exam. It is still used in both the basic and clinical sciences. The introduction of problem solving through different scenarios was recently introduced through the MCQs to stimulate thinking of students.

The practical exams of the basic sciences were spot diagnosis of samples. Lately the stations of the exams are made through an applied problem as Objective Structure Practical Exams (OSPE). It was recommended by the Committee of Medical Education to the increasingly use of OSPE.

In the clinical sciences, the classical way of Long case, Short case and oral exam were used till this year 2008-2009, when the Faculty started to use the OSCE exams. Clinical cases and patient simulators were used.

From the experience of the end year exam in 2009-2010 in OSCE, it was observed that:

- Neither the teachers nor the infrastructure or the facilities in the Faculty were well prepared.
- The students themselves felt confused regarding the exams.
- Another problem with implementation of this new modality of exams, the teaching methodology, objectives and specific curriculum should be changed to fit in with this new assessment modality.
- Training of examiners in doing those exams is needed.
- The environment where the tests were held is not simulating the hospital one. Specifically for the pediatric exams, it is very difficult to get clinical cases and even simulated patients with the huge numbers of the students in the exams.
9. 6. The relation with the Teaching Hospitals

Till now there is no university hospital. Students are trained in both the Ministry of Health (MOH) and Military Hospitals. The agreements with the MOH included use the facilities to train students, in exchange to offering the expertise of the staff of the Faculty to the local community. The same is occurring in the Military Hospitals. However there are some administrative obstacles in applying this. This issue is compromising the teaching process and quality.

The different agendas between the University staff and the Hospital staff need to unite for the patient care and the student benefit.

9. 7. Feedback of Students

The feedback of students to the different teaching programs is been now being put into consideration.

A survey was conducted targeting Deans, Chairs, Faculty staff and administrators to obtain feedback on different aspects of the continuous innovation domain. Results are shown in table 9.1.
**Table 9.1 Positive responses of two deans, 7 chairpersons, 22 staff members and 4 administrators in regard to items concerning Continuous Innovation Domain**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>Dean (2)</th>
<th>Chair (7)</th>
<th>Staff (22)</th>
<th>Admin (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes %</td>
<td>Yes %</td>
<td>Yes %</td>
<td>Yes %</td>
</tr>
<tr>
<td>Procedures for regular reviewing and updating structure and functions?</td>
<td>100</td>
<td>50</td>
<td>52</td>
<td>75</td>
</tr>
<tr>
<td>Process of &quot;Continuous Renewal&quot; based on research studies</td>
<td>100</td>
<td>16</td>
<td>15</td>
<td>75</td>
</tr>
<tr>
<td>Involved in discussing changes of policies (Promotion)</td>
<td>100</td>
<td>33</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Involved in discussing changes of policies (student enrollment)</td>
<td>100</td>
<td>33</td>
<td>34</td>
<td>50</td>
</tr>
<tr>
<td>Involved in discussing changes of policies (curriculum)</td>
<td>100</td>
<td>66</td>
<td>15</td>
<td>50</td>
</tr>
<tr>
<td>Mission and objectives meet scientific, socio-cultural development of society</td>
<td>100</td>
<td>100</td>
<td>77</td>
<td>75</td>
</tr>
<tr>
<td>Modification of competencies of graduates in accordance with health needs (clinical skills)</td>
<td>100</td>
<td>100</td>
<td>89</td>
<td>50</td>
</tr>
<tr>
<td>modification of competencies of graduates in accordance with health needs (public health training)</td>
<td>100</td>
<td>66</td>
<td>77</td>
<td>75</td>
</tr>
<tr>
<td>Modification of competencies of graduates in accordance with health needs (new diagnostic tech.)</td>
<td>100</td>
<td>83</td>
<td>81</td>
<td>75</td>
</tr>
<tr>
<td>Modification of competencies of graduates in accordance with health needs (ethical considerations)</td>
<td>100</td>
<td>100</td>
<td>92</td>
<td>100</td>
</tr>
<tr>
<td>Curricular model and instruction methods appropriate and relevant to graduate needs</td>
<td>100</td>
<td>83</td>
<td>74</td>
<td>50</td>
</tr>
<tr>
<td>curriculum elements continuously updated to meet the new biomedical, and sociocultural development</td>
<td>100</td>
<td>33</td>
<td>59</td>
<td>25</td>
</tr>
<tr>
<td>Changes methods of students' assessment based on changes educational objectives</td>
<td>100</td>
<td>16</td>
<td>81</td>
<td>50</td>
</tr>
<tr>
<td>Recruitment of academic staff is in accordance with the changing needs</td>
<td>100</td>
<td>33</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Update the education resources to meet the changing needs of the college</td>
<td>100</td>
<td>83</td>
<td>77</td>
<td>75</td>
</tr>
<tr>
<td>Periodic refinement of program monitoring and evaluation</td>
<td>0</td>
<td>66</td>
<td>59</td>
<td>75</td>
</tr>
<tr>
<td>Org. structure and management principles developed to meet the changing needs</td>
<td>100</td>
<td>33</td>
<td>51</td>
<td>0</td>
</tr>
<tr>
<td>Is there a Total Quality Management System</td>
<td>0</td>
<td>50</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Is there a body responsible for the Total Quality Management System</td>
<td>0</td>
<td>50</td>
<td>23</td>
<td>50</td>
</tr>
<tr>
<td>Total Quality Management System sufficient to manage existing academic activities</td>
<td>0</td>
<td>33</td>
<td>25</td>
<td>50</td>
</tr>
</tbody>
</table>
Quality development:

The process of renewal should be based on prospective studies and analyses and should lead to the revisions of the policies and practices of the medical school in accordance with past experience, present activities and future perspectives.

1. Curriculum and Methods of teaching

New modalities of teaching were used recently:

- **E-learning** at the website of the University is been starting to be used by some of the staff members who uploaded their teaching material on that site and also invited to upload assignments through the way of e-learning as part of their activities to be evaluated by the teachers (Annex 9; The accompanying CD; Continuous Innovation folder).

- **The Clinical Debate** at the Department of Obstetrics and Gynaecology a new method of Medical Education was created; the “Clinical Debate” for the sixth year medical students (Annex 9; the accompanying CD; Continuous Innovation folder). The objectives of this Clinical Debate were:
  - To teach the students how to properly look for the right information in different databases.
  - To develop the ethics of debate and to accept the others opinion in a civilized way.
  - To develop team work skills.
  - To teach the students how to present their own thoughts in a scientific way.
  - To teach the students the Evidence Based Medicine approach in solving medical problems.
  - To help students to develop English language skills.

The Debate was attended by most of sixth year medical students and was started with a pre-debate voting about the audience opinion regarding the problem discussed “Breech delivery; Vaginal Vs C/S”. At the end of the debate a post-debate voting was done.
The debate was received very positively by most of the attendants and the participants and generated a lot of interesting questions. It was recommended to perform this activity as a monthly activity at the Department of OBGYN and may be other departments.

❖ **A workshop** has been held at the 7th Scientific Meeting of the Faculty and was attended by students and local gynaecologists and surgeons. It was about “Basic skills in hysteroscopy and laparoscopy workshop” (*Annex 9; The accompanying CD; Continuous Innovation folder*)
  - It was a joint activity of Department of OBGYN with the Department of Surgery.
  - Students were invited to attend this workshop with the purpose of encouraging them to decide what pathway they might like to pursue in their future medical profession.
  - The feedback was great as some students decided to consider Laparoscopic field in their future profession.

❖ **Lectures** to the local community about different gynaecological diseases were held by Assist Prof Moamar Al-Jefout.

### 2. Feedback of Students:

The staff members were encouraged to construct their own questionnaire for evaluating their programs in a way suitable for their specialty. Samples are presented in (*Annex 9; the accompanying CD; Continuous Innovation folder*).

❖ A pilot survey in the paediatric department was done for the sixth year students, post the paediatric rotation. The survey tried to evaluate rotation and the teachers’ performances at midterm and asking for suggestions to improve the rotation (*Annex 9; the accompanying CD; Continuous Innovation folder*). The results were discussed in the Department Council. Some of the student suggestions were applied to the second semester rotation, like adding an outpatient sub-rotation in
the general and subspecialty paediatric clinic. The primary feedback was so encouraging.

3. **Committee of Continuous Medical Education** is being put in action

The Dean nominated its members by May 2009 *(Annex 9; the accompanying CD; Continuous Innovation folder)*. The committee is responsible for preparing training courses and workshops for the physicians in the South of the kingdom, which is not yet been in action.

4. **An Ethics Committee**

This was developed by September 2008 of 4 staff members of the Faculty *(Annex 9; the accompanying CD; Continuous Innovation folder)*. A staff member from the Faculty of Law has been added by April 2010 *(Annex 9; the accompanying CD; Continuous Innovation folder)*. The committee is responsible for reviewing the protocols of the different researches submitted by staff members to evaluate the ethical conduct of research.

**Points of Strength:**

- The Faculty started to adopt the policy of self-review and renewal.
- Introduction of new modalities of teaching as seminars, students’ activities, sharing in research, e-learning, Clinical debate and workshops.
- Introducing OSPE in the basic sciences and OSCE in the clinical sciences.
- Involvement of a greater number of staff members in preparing their program evaluation.

**Points of Weakness:**

- Limited Faculty fund for updating the educational resources
- Unawareness of a large number of faculty staff about the established committees and their role in the process of reviewing and renewal
- Inadequate participation of some faculty members in the process of rectifying the deficiencies is a threat to the proper renewal process.
Suggested Corrective Action:

1. Establishment of quality assurance systems which enable continuous monitoring and annual reviewing of different processes at the faculty.

2. Due to the increasing number of the students with the limited number of tutors and beds available, new modalities of teaching should be adopted. Reviewing the goals of the courses and establishing action plans to achieve those goals is mandatory. These are been discussed in the Department Councils and the Faculty Council. This is through:
   
i) **Reviewing** the topics of seminars and lectures
   
   ii) **Survival guide** should be prepared by all Departments and should be handed to the students pre-course. The guide should contain:
      
      A. **Duties and Responsibilities**
      
      B. **Daily Schedule**
      
      C. **Details of rotation (in-out patient)**
      
      D. **Activities**
      
      E. **Call schedule**
      
      F. **Red Flags**
      
      G. **Recommended books**
      
      H. **Other information (common drugs used, H & E template,..)**

   
   iii) **Case-Based learning.** To overcome the underexposure anticipated, all the Departments should establish a list of the most common cases. Specific number of cases should be assigned to each student to prepare and discussed with the staff.

   iv) **Seminars should be replaced by small group discussions in the hospital environment in a problem-based learning.**

   v) **New topics should have a place in the clinical rotations:**
      
      A) **Evidence Based Medicine**
      
      B) **Clinical research methodology**

3. The clinical debate is suggested to be conducted as a monthly activity.

4. Medical data base workshops should be held.
5. Inviting other medical faculties in Jordan and may be international faculties to participate in a “Medical Faculties Marathon” as a nation-wide clinical debate between sixth year medical students.

6. The establishment of subspecialty clinics at the outpatient clinics e.g. Polycystic Ovary Syndrome Clinic at the Department of OBGYN. This condition seems to be very common in the local community and there is a real necessity to the establishment of such a clinic. This goes with the general policy of the Faculty in solving the problems of local community.

7. The establishment of a solid program of a whole range of lectures to the local community to spread the word about good health practice to increase the people awareness about local community disease population.

8. Participation in a radio talk show in the local radio station about different diseases to local community.

9. Solving the problem of exceeding numbers of students in the clinical sciences: The Faculty is ought to adopt new training places for the students. The usage of teaching hospitals outside Alkarak district is still inconvenient for both the students and the teachers. The physical, psychological and financial burden on the students and their families is huge.

Upon exploring the possibilities it is recommend to:

i) Using the speciality clinics in the Health Centers for the training in the outpatient sectors like (General Paediatrics at Almazar Health Center and Neurology Clinic at Al-Raba Center).

ii) Using Ghour Al Safi Hospital. This hospital contains a brand new Paediatrics – NICU and OBGYN Departments established on very high international standards. The capacity of those departments is even larger than the departments in Alkarak Governmental Hospital. To overcome the problem of inexperienced staff there, our staff can join the students in their journey and do the clinical teaching for them.
iii) The clinical departments are still understaffed. The recruitment of staffs, part-time staffs and teacher assistants should be a priority for the faculty for the academic year 2009-2010.

iv) The reliance on the non-university staff for clinical teaching will be expanded next year. This expansion should not be on the expenses of the quality of teaching. The departments should establish a working plan for those sessions, and periodic re-evaluation of their performance.

10. Integration of Basic and Clinical Sciences:

Though of the adoption of the modular system in basic sciences, till now there is no real integration between the clinical and basic science. What is happening is classical teaching (bulk and way) in a modular way. It is recommend to establish a committee of both basic and clinical departments to bridge this gap.

11. Exams:

Though the OSCE system was adopted in the clinical sciences, believing that it is free of bias, more consistent and reproducible, yet lots of effort is needed to improve the experience of the participants:

i) Workshops for the teachers on how to prepare and run OSCE exams should be scheduled.

ii) During the clinical rotations, students should also be counselled about methodology and preparation of the exam.

iii) To overcome the problems faced with the exams this year, the exams can be done in the outpatient clinics of Alkarak Governmental Hospital, either on Saturday or the afternoon. This will benefit in many aspects:

a) Hospital environment simulation
b) Better place, with easier control over cheating
c) Clinical cases will be easier to find- can be transferred from the inpatient-

12. The relation between the faculty and the teaching hospitals need to be reviewed.

The faculty need to press on the MOH and The Military Hospital to fulfil the accreditation criteria for the teaching hospitals.

13. The huge number of students accepted yearly is overloading the faculty. This is compromising the teaching and the expected doctor quality. The faculty need to
review the policy of admission and number of students according to the facilities available. Portion of the income of the parallel program should be delivered to the Faculty itself- not the university- to help maintaining and improving the Faculty.

14. In addition to the scholarship policies in the faculty, recruitment of new faculty members should be a priority to meet the increasing number of the students.

15. This process of reviewing should be shared with the students, especially the sixth year and those who are already graduated.

Annex 9 contains the following on the available CD

- Assignment health management
- Course evaluation form Health Management
- Debate Department of Obstetrics
- Questionnaire Forensic
- Assignments Med Ethics
- Pediatric instructor evaluation form
- The workshop
SUMMARY AND RECOMMENDATIONS

This Self-Assessment study of the Faculty has revealed clearly all points of strength and points of weakness of the Faculty that have to be corrected. Suggested corrective actions have been put forwards to improve these deficiencies in basic & clinical sciences disciplines and in the academic teaching staff members' number. The Faculty academic leadership and all academic teaching staff members feel committed and being responsible to implement these actions to improve the quality of the Faculty and subsequently the quality of its graduates. The Faculty of Medicine of Mu'tah University is the only Medical school in the Southern region of the Hashimate Kingdom of Jordan and is doing its job & duties according to the requirements of the medical education programs. The Faculty graduates have good scientific quality and reputation in comparison with graduates of other Jordanian Medical Schools and serving well the community and the Royal Medical Services of the army. We think, therefore, that the Faculty has fulfilled its mission & objectives. The Faculty has modern new building with large and well equipped modern departmental laboratories. The computer lab is adequate & all computers (including that of staff members) are connected to the internet and to the main library database. All computers are modern and equipped (by the university computer center) with all necessary programs such as SPSS, medical and linguistic dictionaries.

The main Weaknesses and Deficiencies of the Faculty

These have to be corrected in the near future and include:

- Some departments are not fully staffed; the deficiency of the academic teaching staff members in some departments has been dealt properly by the Faculty policy of encouraging scholarships outside Jordan in basic & clinical science disciplines to ensure full staffing of the Faculty. There are 13 postgraduate students outside Jordan & 10 additional students will be sent this year.

- The Faculty has no University Hospital
The number of hospital beds in Al-Karak Hospitals (The Civilian and the Military Hospitals) is insufficient; nevertheless, the beds in Al-Karak Hospitals will be increased to become 250 beds for each Hospital (Total 500) within the next year.

At present the Faculty is not independent concerning the budget and this is an obstacle, because the Faculty is new and needs some flexibility and sometime quick response, especially concerning the shortage of staff and the need for incentives to recruit the necessary specialized staff to this remote area.

There is a need for quality assurance plan and a responsible unit.

Plan of actions

Below are summary of the Points of Strength, Points of weakness and the Suggested Corrective Actions or plan of actions to be implemented in each of the 9 areas & subareas of the HEAC standards as detected by the Self-Assessment Study of Mu'tah Faculty of Medicine.
التاريخ:

الأخطار الدكتور عادل أبو الدهجاء الأكرم
عبد كلية الطب/ جامعة موثة

الموضوع: تقديم الأطباء خريجي جامعة موثة

وجهة طلبة وبحب


يقترح من مستوى خريجي كلية الطب/ جامعة موثة برسم العام بأن الأطباء الثانوية أساتذتهم قد

تعلموا برامج الإعداد في مركز الطبية للسراكن:

1. د. محمد أبو زيّن
2. د. حافظ علي
3. د. نصرين محمد
4. د. دارsci معزات
5. د. محمد أبو هزيم
6. د. محمد أبو هزيم
7. د. د. منى عبد الرحمن

وبعد الإبلاغ على نقصهم، نحن نعلم أنهم جميعاً متميزين سواء على مستوى العلمية

بالمرضع أو المحترفة الطبية أو الحرية.

أركم جزيل الشكر والامتنان!!!

رئيسي مجلس الإدارة
مدير العام

[signature]