

**The First Step to words the  
integration of teaching in a way  
that medical College**

**الخطوة الأولى نحو التدريس بطريقة  
التكامل في كليات الطب**

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كلية الطب / جامعة الكوفة



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#### الملخص:

يعتبر التكامل كطريقة مهمة في التعليم الطبي، كما إن إدخالها في المناهج لكليات الطب في العراق؛ بالإضافة إلى التعليم بطريقة حل المشكلة "PBL" والتقييم الموضوعي في الامتحانات السريرية "OSCE"، يعتبر تمهيدا لنيل الاعتمادية لكليات الطب العراقية ولتحديث المناهج بطريقة تُعد طلاب الطب ليتمكنوا من تقديم أفضل الخدمات الطبية لمرضا.

انه لمن الصعب إحداث تغير شامل ومفاجئ لمناهج كليات الطب العراقية (التي لاتزال على حالها منذ تأسيسها) لذلك فان إدخال التكامل بصورة تدريجية يمنح الكادر التدريسي الخبرة لإنجاز برنامج التكامل بصورة كاملة وكذلك يساعد في إكتشاف الصعوبات التي قد يواجهونها في التطبيق .

في هذه الدراسة:

- تم إعادة صياغة الجدول السابق لكلية طب في جامعة الكوفة - من قبل مقدمة الدراسة و بإشراف مباشر من عميد كلية الطب.
- تم مناقشة الجدول في أقسام الكلية.
- تم تشكيل لجنة لدراسة الجدول لكل مرحلة دراسة تضم ممثلين من كافة

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الأقسام المسؤولة عن التدريس لتلك المرحلة للاتفاق على تطبيقه في السنة القادمة بعد إضافة التعديلات .  
إن المنهج المقترح يقوم على أساس ترتيب المواضيع في الأقسام المختلفة لتعطي المادة معا في نفس الفترة وبذلك يتحقق التكامل الأفقي .

مثال:

الفسلجة العصبية، تشريح الأعصاب، الأنسجة العصبية و مادة الأعصاب في الأجنة جميعها تدرس في الفترة نفسها . هذا يمكن أن يعطي الطالب فكرة متكاملة عن الموضوع وكذا يجعل مهمة التدريس أسهل بكثير عن طريق التعاون بين الأقسام.

إن هذا الجدول يمكن أن يضع كلية طب الكوفة على أول خطوة في سلم التكامل

### ABSTRACT

**Background:-** Integration has been accepted as an important educational strategy in medical education , and its introduction to the curricula of Medical schools in Iraq , together with the Problem Based Learning PBL and Objective Structured Clinical Examination OSCE, is regarded as the pavement of the way to gain the accreditation for Iraqi Medical Colleges and to update the curriculum in such away to prepare the medical students to fulfill the requirements to provide the best health service for our patients .

A total and sudden change in the curricula of the medical schools , which had been the same since their foundations , seems to be inconvenient . So a gradual integration can give the teaching staff a good idea and experience to achieve a complete shift toward the ideal

program and can clarify the possible difficulties in the future implementations.

**Methods:-**This paper presents a preliminary version of a proposed schedule for the next academic year , which completely fits the contents of the previous syllabus , arranged by a coordinator under direct supervision of the dean of Kufa Medical College . The draft was discussed by the concerned departments followed by the formation of one committee for each class consisting of representatives from all departments participating in the teaching process of that class to approve the application of the schedule for the next year.

**Results:-** What is done in this syllabus is the rearrangement of the same topic in the different departments to be given in the same period .so the horizontal integration could be achieved and here is an example:

Neurophysiology , Neuroanatomy , Neurohistology , & Neuroembryology are being taught for the second-Year students at the same time .This can give the student a complete idea about the topic and make the task of teaching much easier by inter-disciplinary cooperation .

**Conclusion:-**the schedule can put Kufa Medical College on the first step of integration ladder .

## INTRODUCTION

The first thing to realize about curriculum is that it is more than just a syllabus , a curriculum is about what should happen in a teaching programme so

What to learn is the content .

How to learn is the method or strategy .

The explosion of knowledge in biomedical sciences and the rapidity of change make it essential that physicians should know how to link basic science concepts with their practice to enable them to continue learning.<sup>(1)</sup>

The days are now past when the teacher produced a curriculum in which the lecturer taught whatever attracted his or her interest and when the students clinical training was limited to the patients who happened to present during a clinical attachment . It is now accepted that careful planning is necessary if the programme of teaching and learning is to be successful.<sup>(2)</sup>

The content of the curriculum can be analysed from a number of

perspectives:

Subjects or disciplines (in a traditional curriculum)

Body systems , e.g. the cardiovascular system (in an integrated curriculum)

The life cycle , e.g. childhood adulthood , old age .

Problems or tasks (in a problem-based or task-based curriculum)

Learning outcomes (in an outcome-based curriculum)<sup>(3)</sup>.

The traditional medical curriculum is that students should first master the basic sciences of anatomy , physiology and biochemistry and then the applied sciences of pathology , microbiology and epidemiology . Once they have achieved this they move on to a study of clinical medicine . A common criticism of this approach is that students may not see the relevance of what is taught to their future career as doctors . Once they have passed the examinations in the basic sciences students tend to forget or ignore what they have learned .

It has been advocated that the curriculum should be turned on its head , with students starting to think like a doctor from the day they enter medical school . In a vertically integrated curriculum , students are introduced to clinical medicine alongside the basic sciences in the early years of the programme . The students continue to look at the basic sciences as applied to clinical medicine in the later years.<sup>(4)</sup>

Horizontal integration describes integration across topics or subjects.

Vertical integration describes integration throughout the course.

This paper consist of two parts , the first sheds light on integrated teaching while the second discusses how the proposed schedule can put Kufa Medical College on the first step of integration ladder .

### **The Advantages of Integrated Learning**

Using integrated approach has the following advantages  
It:

Enables a unified presentation of a problem .

Minimalisies contradiction of concepts .

Avoids repetition within the curriculum .

Facilitates interdisciplinary cooperation .

Provides opportunities for learning for staff .

Motivates students.

A study resulted from three different medical schools comparing traditional discipline teaching with an integrated curriculum by assessing their diagnostic competence for 30 case histories.

The study reported that diagnostic competence was more accurate in the students from the integrated schools. However, this difference only became apparent in the clinical years.

### **The Disadvantages of Integrated Learning**

As with all aspects of education there are always some concerns in the development of an integrated curriculum .  
These include the following:

The potential to miss out basic concepts .

Time- consuming liaising with other staff members .

Decreased expertise of teaching staff .

The need for more preparation by teaching staff.<sup>(5)</sup>

## **Accreditation Criteria for Medical Schools and Integration**

The purpose of accreditation and quality improvement in medical education is towards changing conditions in the health care delivery system and to prepare physicians for the needs and expectations of Iraqi society.

Accreditation is an affirmation for higher education institutions (Colleges) to obtain a distinguished character and identity and a seal approval that actions taken to improve quality are successful, It is a the gate way toward total quality and it is also considered to be a motivation for the college to promote comprehensive educational process and quality systems to raise the level of confidence in the medical college and its graduates .The Dean of Colleges of Medicines in Iraq has approved the need to develop basic minimum standards for accreditation of medical Colleges to meet both the national and international standards in ensuring meeting the interest of the public and the students enrolled in medical programs.

One of these requirements:

In curriculum design and organization , an appropriate level of horizontal (*concurrent*) and vertical (sequential) integration (end point spiral integration) should be in place in order to achieve the educational objectives.<sup>(6)</sup>

in curriculum structure and composition , The medical school must describe the content, extent and sequencing of courses which regarded as a basic standard while the quality development requires that Basic sciences and clinical sciences should be integrated in the curriculum and integration of disciplines would include both horizontal (concurrent) and vertical (sequential) integration of curricular component.<sup>(7)</sup>

A workshop held in Baghdad and another held in Erbil , discussing the accreditation for Iraqi Medical Schools ,

emphasized on the introduction of teaching integration in medical schools curricula and insisted on student centered learning as well as objective structural clinical examinations OSCE.<sup>(8)</sup>

The Higher Education Accreditation Commission in the ministry of higher education in Jordan, established the national criteria for medical schools in July, 2008. These criteria are used by the medical colleges as guidelines on minimum standards establishing and accrediting medical schools in Jordan. The task of the Self-Assessment Accreditation Committees is to evaluate the structure, process and outcome of medical education in the faculty through an accreditation questionnaire started with.<sup>(9)</sup>

*1- Does the current organ system curriculum integrates basic and clinical sciences?*

a. highly                      b. moderate                      c. none

*2- What percentage of clinical elements are integrated in the organ system module?*

a. (0 – 25)    b. (26 – 50)    c. (51 – 75)    d. (76 – 100)

If someone reviews the first two questions in the above questionnaire one can realize the importance of teaching integration in its both directions ; the vertical and the horizontal .

### **Part of the Curriculum Overview at Mayo Medical School MMS , as An American Model , Focusing on Integration**

**A focus on patient care and clinical experiences that broaden and deepen classroom learning.**

**Course lectures thematically integrated with clinic rotations. Morning lecture topics are revisited in the afternoon in patient care clinics on the same topic.**

**Establishes meaningful clinical context by involving students in patient care from week 1. As important as gross anatomy and pathophysiology are to medicine, MMS**

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leadership believes these subjects take on even deeper meaning after clinical context is established through six months of microanatomy coupled with significant student-patient interaction<sup>(10)</sup>

## **Practical steps toward Horizontal Integration at Kufa Medical College**

- A preliminary version of a proposed schedule for the next academic year was designed , under direct supervision of the dean , by rearrangement of the current schedule to achieve horizontal integration for the 2<sup>nd</sup> ,3<sup>rd</sup> , 4<sup>th</sup> & 5<sup>th</sup> years .
- A copy of the draft was sent to the concerned departments and it was put on the table of discussion .
- The departments sent memoranda to the dean's office to give the supporting suggestions to overcome the weak points in the schedule .
- formation of one committee for each class consisting of representatives from all departments participating in the teaching process of that class to approve of the application of the schedule for the next year.
- Encouraging more iner-disiplinary cooperation during the implementation along the ladder of integration .

### **The Proposed Syllabus for Year Two**

The obtained schedule from the rearrangement of the previous one, which totally fits the hours and the subjects in all departments in the new schedule ,can give the following integrated blocks:-

- A block in haematology: given in Physiology and Histology at the same time.
- A block in Neurology: Neurophysiology , Neuroanatomy , Neurohistology , and Neuroembryology .

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- **A block in Nephrology: renal physiology ,renal Histology ,renal Embryology & abdominal anatomy.**
- **A block in Digestive system: GIT physiology , GIT Histology , GIT Embryology and abdominal anatomy.**
- **A block in respiratory system: respiratory physiology , respiratory Histology and respiratory Embryology.**
- **A block in Genital system in Histology and Embryology together with pelvic anatomy & Endocrine in Physiology .**

**Calculations:-**

**To calculate the percentage of the horizontal integration among two subjects the following equation can be used:**

$$\frac{\text{Total integrated hours between two subjects}}{\text{Total hours in the academic year for those subjects}} * 100\%$$

**For example:  
the percentage of integration between Histology& Embryology**

$$\frac{14 + 7}{60 + 30} * 100 \% = 23 \%$$

**Also**

The subjects	The percentage of horizontal integration
Histology& Embryology	23%
Histology& Anatomy	40%
Histology& Physiology	54.25%
Histology& Biochemistry	0%
Physiology & Anatomy	47.5%
Physiology & Embryology	23.75%
Physiology & Biochemistry	0%
Anatomy & Embryology	16%
Anatomy & Biochemistry	0%

### **Advantages:-**

These results can be accepted if compared to one of the American Models at Mayo Medical School MMS . In its first year curriculum Where the organ system approach is utilized , integrating the concepts of physiology , anatomy and pathology to teach the systems

### **Drawbacks:-**

The students in year two had already received chest anatomy, in year one , so less integration could be achieved in the heart and lung anatomy with other departments .

The schedule can be a burden on the teaching staff by obligating them on to give the lectures on a specific date especially if there is limited number of staff in the given department .

There is no integration with one of the major subjects in this year , the Biochemistry , since I couldn't find a feasible correlation with the blocks so the committee , who is responsible for the approval of the year two schedule , has a representative of this department to overcome the problem .

### **The Proposed Syllabus for Year Three**

The obtained schedule can give the following integrated blocks or integration:-

Between Parasitology and Medicine where clinical aspect of the infections with parasite will be given in Medicine at the end of description of each parasite in Parasitology .

Between medicine and surgery: some topics like fluid and electrolytes will be discussed at the same time .

- **block in immunology:**

Immunology in Microbiology , Immunological disease in Medicine .

Immunopathology , Lymphoreticular system & spleen in Pathology , Histamine , Antihistamine., Endotheline ,

**Bradikinin , Leukotriens angiotensin , Serotonins , Prostaglandins , Ergot, immunosuppressant & NSAIDS in pharmacology ;the principle of transplantation in Surgery; all will be given at the same time.**

- **block in infectious diseases:**

1. **antibiotics in pharmacology .**

2. **Systemic bacteriology in Microbiology .**

3. **Surgical infections , sterilization , disinfection &hospital infection in Surgery .**

4. **pathology of infectious diseases in pathology .**

- **Between Surgery & pathology where trauma & wound healing in surgery integrated with acute & chronic inflammation in pathology .**

- **Haemodynamic disorder & thrombosis in Pathology, drugs of Antiplatelets, Anticoagutant , Antifibrinolytics in Pharmacology will be given with DVT & disease of veins in Surgery .**

- **Virology in Medicine , Virology in Microbiology , &Antiviral drugs in Pharmacology.**

- **Haemorrhage & blood transfusion in Surgery , Haematology &blood Transfusion in Pathology .**

- **Skin Tumors & Surgical Oncology in Surgery , Neoplasia in Pathology , & Anticancer drugs in Pharmacology .**

**Calculations:-**

**To calculate the percentage of the horizontal integration among two subjects the following equation can be used:**

**Total integrated hours between two subjects**

**\*100%**

**Total hours in the academic year for those subjects**

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For example:

the percentage of integration between Surgery & Pathology  
39

$$= \frac{39}{29+60} * 100 \% = 43.8 \%$$

Also

The subjects	The percentage of horizontal integration
Pharmacology & Pathology	33.5%
Pharmacology & Surgery	23.3%
Pharmacology & Microbiology	32%
Microbiology & Pathology	26.6%
Microbiology & Surgery	20%
Microbiology & Medicine	28.5%
Medicine & Parasitology	45%
Medicine & Surgery	21.4%
Medicine & Pathology	14.5%
Surgery & Pathology	43.8%
Community Medicine integration	0%

### Drawbacks:

Again the schedule may be a burden on the teaching staff by obligating them on to give the lectures on a specific date.

There is no integration with the Community Medicine so the committee , who is responsible for the approval of year three schedule , has a representative of this department to overcome this problem .

### The Proposed Syllabus for Year Four

The schedule divides the whole class in to 5 Groups: A ,B ,C , D & E for practical training (each group 3hr.s/day)

while the lectures are given for all the Groups together (maximally 4hr.s/day) , as did the previous schedule ,

Each group will have

1. one session in community Medicine (com.) /week
2. one session in forensic Medicine (FM) /week
3. one lab session in Pathology (patho) /week.

until they complete the requirements i.e.

1. 20 sessions in com/ academic year
2. 16 sessions in F.M / academic year
3. 30 lab session in Patho/ academic year  
(as indicated in the previous schedule)

The other remaining two days of the week:

- 3 groups A,B,C will be offered training in Medical ward on GIT Medicine ,on alternative days in order to avoid heavy burden on the teaching staff ,while the other 2 groups will be offered training in the Surgical ward on GIT Surgery . This will last 2 weeks after that there will be replacement of the positions between the groups i.e groups A,B,C will be offered training in Surgical ward while the other 2 groups in the Medical ward on GIT Medicine .
- The period of training integrated with the theory themes on GIT both in Medicine and Surgery. The total hours of lectures are 4 lectures /day , equal to the previous schedule .
- At the same time lectures in GIT pathology are given as well & integrated with GIT laboratories .
- At the end of the block lectures in GIT Radiology & Clinical training on GIT Radiology are offered to students.

The above regimen will be repeated similarly, with some differences, on other topics all over the year e.g:

Renal System (in which the renal medicine, Urosurgery, Pathology of the Urinary & male genital System & Radiology of Urinary system are given at the same time both the lectures and practical training) as well as Endocrine System Cardiovascular System & Respiratory System.<sup>(11)</sup>

### **Advantages:-**

The results of integration between the lectures and the clinical training could be acceptable if compared with what is going on at Mayo Medical School MMS where Course lectures thematically integrated with clinic rotations. Morning lecture topics are revisited in the afternoon in patient care clinics on the same topic.<sup>(12)</sup>

### **Drawbacks:-**

Again the schedule can be a burden on the teaching staff by obligating them on to give the lectures on a specific date .

- The proposed schedule doesn't anticipate the holidays that may create a defect in implementation of the schedule completely since it may affect the fluency one subject but not the other. The days of well known holidays & breaks can be left blank in the syllabus.<sup>(13)</sup>

The students in year four will receive Cardio –thoracic Surgery in year Five, so less integration could be achieved in the heart and lung diseases between Surgery & Medicine

.

There is no integration with the Community Medicine so the committee, who is responsible for the approval of year

four schedule , has a representative of this department to overcome this problem .

*The Proposed Syllabus for Year Five*

The schedule follows A system of courses and the five-year students are divided into eight groups.

**Course one:- 2 Blocks**

Group A,B,C&D will be engaged in block I for 6 weeks then in block II for another 6 weeks while Group E,F,G&H will start with block II followed by block I , then a final exam , synchronized with Mid-year exam of the other stages, will be held .

• **Block I:(bones and Joints for 6 weeks)**

The given Lectures in:

Orthopedics , Rheumatology , Rehabilitation , Geriatrics ,Musculoskeletal Radiology & lectures are given in Anesthesia as well .

**Clinical training:**

Each group must complete

\*3 Weeks in Orthopedics

\*2 Weeks in Rheumatology & Rehabilitation

\*1 Week in anesthesia

\*2 sessions in Musculoskeletal Radiology

• **Block II: (Neurology & Psychiatry: 6 weeks)**

The given Lectures in:

Neurosurgery , Neuromedicine, Psychiatry , & Neuro Radiology

**Clinical training:**

Each group must complete:

\*2 Weeks in Neurosurgery

\*2 Weeks in Neuromedicine

\*2 Weeks in Psychiatry

\*2 sessions in Neuro Radiology

**Course two:- 4 Blocks**

All the Groups will participate in block III , then the groups will be divided on the blocks IV ,V & VI then

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exchange their blocks until they fulfill the whole blocks then a final exam , synchronized with Final exam of the other stages, will be held .

- **Block III(Gynecology & Pediatrics: 8 weeks)**

The given Lectures in:

Gynecology , Pediatrics , & Heamatology /Medicine .

Clinical training:

Each group must complete:

\*3 Weeks in Gynecology

\*4 Weeks in Pediatrics

\*+ 1 week examination

- **Block IV (Dermatology: 3 weeks)**

The given Lectures in:

Dermatology & Pediatric surgery

Clinical training:

Each group must complete:

\*3 Weeks in Dermatology

- **Block V: (Ophthalmology & Thoracic surgery: 3 weeks)**

The given Lectures in:

Ophthalmology ,Thoracic surgery & war injury

Clinical training:

Each group must complete:

\*2 Weeks in Ophthalmology

\*1 Week in Thoracic surgery

- **Block VI: (ENT & Plastic surgery: 3 weeks)**

The given Lectures in:

ENT & Plastic surgery

Clinical training:

Each group must complete:

\*2 Weeks in ENT

\*1 Week in Plastic surgery

### **Advantages:-**

The results of integration between the lectures and the clinical training could be acceptable if compared with what is going on at Mayo Medical School MMS where Course lectures thematically integrated with clinic rotations. Morning lecture topics are revisited in the afternoon in patient care clinics on the same topic.<sup>(14)</sup>

While in the previous system a student may enter the clinical training with a minimum back ground lectures especially in the first courses while the lectures will be completed at the end of the academic year.

### **Drawbacks:-**

Again the schedule can be a burden on the teaching staff by obligating them on to give the lectures on a specific date .

- The proposed schedule doesn't anticipate the holidays that may create a defect in implementation of the schedule completely since it may affect the fluency one subject but not the other. The days of well known holidays & breaks can be left blank in the syllabus.<sup>(15)</sup>
- The lecturer should repeat the lectures twice in the first two blocks and three times in each of the blocks IV,V & VI.
- The College should provide three auditoria for the blocks IV,V & VI since the lectures should be repeated three times .The lecture theatre should hold one third of the Five-Year students.
- In the above blocks ;IV,V&VI . the clinic centre should have the capacity to hold three groups & in block III

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the Gynecological & the Pediatric wards should hold 4 groups each.

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The Proposed Syllabus for Second Stage / Lectures(2-1)

Physiology 5hr./w	Anatomy 2hr./w	Histology 2hr.s/w	Embryology 1hr./w
27-9-2010 *Composition of blood 2hr. *RBC&WBC 2hr. *Anemia 2 hr.	From 27-9 till 29-11 Head & Neck including one Lecture in Radiology of Head & Neck	29-9 *Introduction 2hr.s	
4-10 *Haemostasis 2hr. *Blood group 2hr.		6-10 *Circulatory system 2hr.s	
11-10 *Immune system 2hr. *Introduction to CVS 2hrs *Myocardium 2hr.		13-10 * Circulatory system 2hr.s	
18-10 *haemodinamics 2hr. *ECG 2hr.		total Lectures = 18 20-10 *Lymphoid tissue 2hr.s	
25-10 *hypotention 2hr. *CV reflexes to changing posture 2hr.s *Veins &their functions 2hr.		27-10 *Lymphoid tissue 2hr.s	

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The Proposed Syllabus for Second Stage / Lectures(2-2)

Physiology 5hr./w	Anatomy 2hr./w	Histology 2hr.s/w	Embryology 1hr./w
1-11 *cardiac cycle 2hr. *cardiac output 2hr	From 27-9 till 29-11 Head & Neck including one Lecture in Radiology of Head & Neck  <b>total Lectures = 18</b>	3-11 *The skin 2hr.s	
8-11 *haemorrhage 2hr. *shock 2hr. *Diving 2hr.		10-11 *The skin 2hr.s	
15-11 *cardiac action potential 2hr.s *properties of cardiac muscles 2hr.		17-11 *Nervous tissue 2hr.s	
22-11 *introduction to autonomic system 2 *physiology of muscle & nerves 2hr. *skeletal m. & excitability 2hr.		24-11 *Nervous tissue 2hr.s	

The Proposed Syllabus for Second Stage / Lectures(2-3)

Physiology 5hr./w	Anatomy 2hr./w	Histology 2hr.s/w	Embryology 1hr./w
29-11 *synaptic & n.m. transmission 2hr. *ionic theory of membrane potential 2	From 1-12 till 4-3 Neuroanatomy including one Lecture in CT & MRI of skull & Brain  <b>total Lectures = 19</b>	1-12 *Nervous tissue 2hr.s	
6-12 *receptors 1hr. *types of receptors 1hr. *Neural pathway 1hr. *defect of receptors 1hr. *Introduction to special sense 1hr.		8-12 *Nervous tissue 2hr.s	
13-12 *structure of the eye 1hr. *error in vision 1hr. *retina 1hr. *color vision 1h. *hearing & equilibrium 1hr.		15-12 *Sense organs the eye 2hr.s	
20-12 *functional anatomy of the ear 1hr. *properties of hearing 1hr. *vestibular function 1hr. *smell & taste 1hr. *introduction to autonomic system 2hr		22-12 *Sense organs the ear 2hr.s	22-12 * Eye & Ear 1hr

The Proposed Syllabus for Second Stage / Lectures(2-4)

Physiology 5hr./w	Anatomy 2hr./w	Histology 2hr.s/w	Embryology 1hr./w
27-12 *functional anatomy of sympathetic & parasympathetic 2hr. *function of sympathetic & parasympathetic 2hr.	From 1-12 till 4-3 Neuroanatomy including one Lecture in CT & MRI of skull & Brain  <b>total Lectures = 19</b>	29-12 *Endocrine 2hr.s	29-12 * Nervous System 1hr.
7-2 *chemical transmission in ANS 2hr. *physiology of spinal cord reflexes 2hr. *cerebellum & motor control of movement 2hr.		5-1 *Endocrine 2hr.s	
14-2 *function of cerebellar tracts 2hr.s *hypothalamus & limbic system 2hr.		9-2 *Endocrine 2hr.s	
21-2 *brain stem & reticular formation 2hr. *cerebral cortex sensory & motor function 2hr.s *wakefulness & sleep 2hr.s		16-2 *Digestive system 2hr.s	
28-2 *basal ganglia 2hr.s *renal physiology 2hr.s		23-2 *Digestive system 2hr.s	

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The Proposed Syllabus for Second Stage / Lectures(2-5)

Physiology 5hr./w	Anatomy 2hr./w	Histology 2hr.s/w	Embryology 1hr./w
7-3 *mechanism of GFR 2hr.s *regulation of tubular reabsorption 2hr.s *measurement of GFR 2hr.s	From 7-3 till 8-4 Anatomy of The Abdomen including two Lectures in Radiology of the Abdomen + CT & MRI of the Abdomen  <b>total Lectures = 10</b>	2-3 *Urinary System 2hr.s	2-3 *Urinary System 1hr.
14-3 *water & Na homeostasis 2hr.s *regulation of K balance		9-3 *Urinary System 2hr.s	9-3 *Urinary System 1hr.
21-3 *GIT 5hr.s		16-3 *Digestive system 2hr.s	16-3 *Digestive system 1hr.
28-3 *GIT 5hr.s		23-3 *Digestive system 2hr.s	23-3 *Digestive system 2hr.
4-4 *GIT 4hr.s *Respiratory 1hr.		30-3 *Digestive system 2hr.s	

The Proposed Syllabus for Second Stage / Lectures(2-6)

Physiology 5hr./w	Anatomy 2hr./w	Histology 2hr.s/w	Embryology 1hr./w
11-4 *Respiratory 5hr.s	From 11-4 to 10-5 Anatomy of the Pelvis  <b>total Lectures = 10</b>	6-4 *Respiratory system 2hr.s	
18-4 *Respiratory 5hr.s		13-4 *Respiratory system 2hr.s	13-4 *Respiratory system 1hr.
25-4 *Respiratory 4hr.s *Endocrine 1hr.		20-4 *Respiratory system 2hr.s	
2-5 *Endocrine 5hr.s		27-4 *Male Reproductive System 2hr.s	
9-5 *Endocrine 5hr.s		4-5 *Male Reproductive System 2hr.	
16-5 *Endocrine 5hr.s		11-5 *Female Reproductive System 2hr.	
		18-5 *Female Reproductive System 2hr.	18-5 *Genital System 1hr

**The Proposed Syllabus For The Third Stage Medical Students/Lectures(3-1)**

Week No.	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Pharmacology</b> 3hr.s/w	*Pharmacodynamics & Pharmacokinetics 6hr.s	* Adrenergic System 6hr.s	* Cholinergic System 4 hr.s * Antihypertensive 3hr.s *Heart Failure 2hr.s	*Antianginal drugs 2hr.s *Diuretics 2hr.s *Antiarhythmic drugs 2hr.s	*General Anesthesia 2hr.s *Local Anesthesia 1hr	*Antiplatelets 1hr. *Anticoagulant 1hr. *Antifibrinolytic 1hr	*introduction to antibiotics 2hr.s *Penicillins 1hr	*quinolones 2hr.s *Antimalarial 1hr.					
<b>Microbiology</b> 3hr.s/w	<b>Systemic Bacteriology</b> 31 hr.s												
<b>Parasitology</b> 2hr.s/w	Introduction 14 hr.s	Host-parasitology 2hr.s	Protozoology definitions 2hr.s	Entamoeba appearance 6hr.s	Intestinal flagellate 3hr.s	Leishmania & Trypanosoma spp. 4hr.s	Toxoplasma sacrosyst 2hr.s	Isospora 2hr.s	Cryptosporidia Malaria; Plasmodium spp. 4hr.s				
<b>Medicine</b> 2hr.s/w	<b>Systemic Bacteriology</b> 31 hr.s												
<b>Surgery</b> 1hr./w	Introduction 1hr.	Burns skin graft & implants 3hr.s	Fluid & electrolytes & acid base balance 6hr.s	Truma & wound healing 2hr.s	Fluid & electrolytes & acid base balance 3hr.s	Disease of veins & DVT 2hr.s	Shock 1hr.	Surgical infections 1hr.					
<b>Pathology</b> 2hr.s/w	Introduction 6hr.s	Acute & chronic inflammation tissue repair regeneration 6h.s	Genetics 8 hr.s	Haemodynamic disorder thrombosis & shock 5hr.s	Pathology of infectious disease 4hr.s								

**The Proposed Syllabus For The Third Stage Medical Students/Lectures(3-2)**

Week No.	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
<b>Pharmacology</b>	*Cephalosporines, Macrolids *Salinomide *Aminoglycosides *AntiTB 3hr.s	*Antiparasitic *Urinary antiseptic *Antituberculous Antiepileptic	*Neuroleptic drugs *Antidepressant drugs *Antiparkinsonism	*Sedatives & anxiolytic *Histamine & Antihistamine, *Serotonins	* Prostaglandins & Ergot * Endothelins & Bradykinin * Leukotriens & angiotensin	*Migraine *immunossuppressant *NSAIDS	*NSAIDS *optoids 2hr.s	*Endocrine system 7hr.s *GIT 4hr.s *Anticancer drugs 1hr		Respiratory System *Skin Pharmacology 1hr.	*Anti Viral drugs *drugs in Anaemia *Bone						
<b>Microbiology</b>	Systemic Bacteriology 31 hr.s																
<b>Parasitology</b>	Helminthology 7hr.s																
<b>Medicine</b>	Nematode: 10 hr.s Ascars E Vermicularis, Hook worms , ..... Immunological disease 8hr.s * Ascars E Vermicularis *Ancylostoma 2hr.s																
<b>Surgery</b>	Virology 8 hr.s * Schistosoma :flarisis 2hr.s Haemo rthage 1hr. Surgical Oncology 2hr.s Skin cysts tumours 1hr.																
<b>Pathology</b>	Lymphoreticular system & spleen 5hr.s Neoplasia 8 hr.s Haematology & Bl. Transfusion 7hr.s Environmental pathology 4hr.s Cytopathology 2hr.s																
	Trematods 6 hr.s Hepatic , intestinal ,pul, blood(schistosoma) flukes Blood & tissue Nematods 6hr.s :flaria,..... Entomology Review 4hr.s Dise ase of lymph atics 1hr																

The First Step To words The Integration .....(29)

The proposed syllabus for the fourth stage(4-1)

	Week 1					Week 2					Week 3				
	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur
clinical training	Med /GIT	Med /GIT	Patho	Com	F.M	Med /GIT	Med /GIT	Patho	Com	F.M	Surgery /GIT	Surgery /GIT	Patho	Com	F.M
Group A	Com	patho	F.M	Med /GIT	Med /GIT	Com	Patho	F.M	Med /GIT	Med /GIT	Com	Patho	F.M	Surgery /GIT	Surgery /GIT
Group B	Patho	F.M	Med /GIT	Med /GIT	Com	Patho	F.M	Med /GIT	Med /GIT	Com	Patho	F.M	Med /GIT	Surgery /GIT	Com
Group C	Surgery /GIT	Surgery /GIT	Com	F.M	Patho	Surgery /GIT	Surgery /GIT	Com	F.M	Patho	Med /GIT	Med /GIT	Com	F.M	Patho
Group D	F.M	Com	Surgery /GIT	Patho	Surgery /GIT	F.M	Com	Surgery /GIT	Patho	Surgery /GIT	F.M	Com	Med /GIT	Patho	Med /GIT
Group E															
Note	Com: community medicine F.M: Forensic Medicine Patho: Pathology lab										Group A,B,C: 2 weeks training in GIT/ Medicine Group D,E: 2 weeks training in GIT/ Surgery				
<b>Theory</b>															
Medicine/GIT	*Introduction * Mouth diseases	* Oesophagus	* Dysphagia	/	* Achalasia	* GERD *PU	* Dysphagia	* Malabsorption	/	* Celiac disease	* Bacterium over growth * Irritable bowel syndrome	* Ulcerative colitis	* Chon's disease	/	* C.A. Colon
Surgery/GIT	*Tongue *SalivaryGlands 1	/	*Salivary Glands 2	**Esophagus 1,2	*Esophagus 3	**Stomach & Duodenum 1,2	*Stomach & Duodenum 3	*Stomach & Duodenum 4	*small & large intestine 1	*small & large intestine 2	**small & large intestine 3,4	*small & large intestine 5	**small & large intestine 6,7	*small & large intestine 8	
Pathology			*GIT 1	*GIT 2	*GIT3		*GIT4	*GIT5	*GIT6			*GIT7	*GIT8	*GIT9	
Obstetrics	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Note	The fixed lectures are: community medicine 3hr.s/week forensic medicine 2hr.s/week medical ethics 1 hr./week each* indicates one hour														



The proposed syllabus for the fourth stage(4-3)

clinical training	Week 7					Week 8					Week 9				
	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur
Group A	Surgery /ano-rectal	Surgery /ano-rectal	Patho	Com	F.M	Radiology /GIT	Radiology /GIT	Patho	Com	F.M	Med /CVS	Med /CVS	Exam in surgery	Com	F.M
Group B	Com	patho	F.M	Surgery /ano-rectal	Surgery /ano-rectal	Com	patho	F.M	Radiology /GIT	Radiology /GIT	Com	Exam in surgery	F.M	Med /CVS	Med /CVS
Group C	Patho	F.M	Surgery /ano-rectal	Surgery /ano-rectal	Com	Patho	F.M	Radiology /GIT	Radiology /GIT	Com	Exam in surgery	F.M	Med /CVS	Med /CVS	Com
Group D	Radiology /GIT	Radiology /GIT	Com	F.M	Patho	Surgery /ano-rectal	Surgery /ano-rectal	Com	F.M	Patho	Obstetrics	Obstetrics	Com	F.M	Exam in surgery
Group E	F.M	Com	Radiology /GIT	Patho	Radiology /GIT	F.M	Com	Surgery /ano-rectal	Patho	Surgery /ano-rectal	F.M	Com	Obstetrics	Exam in surgery	Obstetrics
Note	Group A,B,C:1 week training in hernia & ano-rectal Surgery Group D,E : 1 week training in GIT Radiology					Group A,B,C:1 week training in GIT Radiology Group D,E : 1 week training in hernia & ano-rectal Surgery					Instead of Patho lab there will be Exam in surgery Group A,B,C : 2 weeks training in CVS/ Medicine Group D,E : 2 weeks training in Obstetrics				
<b>Theory</b>															
Medicine	* CVS 2	/	* CVS 3	/	* CVS 4	** CVS 5,6	* CVS 7	* CVS 8	/	* CVS 9	** CVS 10,11	* CVS 12	* CVS 13	/	* CVS 14
Surgery	** Radiology of GIT 1,2	* Radiology in acute abdomen 3	* Radiology of liver, spleen &pan 4	* ano-rectal Surgery 1	* ano-rectal Surgery 2	* ano-rectal Surgery 3	/	* ano-rectal Surgery 4	* intra abd. sepsis 1	* intra abd sepsis 2	/	/	/	/	/
Pathology	/	/	/	/	/	/	/	/	/	/	/	/	/	* CVS 1	/
Obstetrics	*1st lecture	/	*2 nd lecture	**3,4 th lecture	*5 th Lec.	*6 th Lec.	/	*7 th Lec.	**8,9 th Lec.	*10 th Lec.	**11,12 th Lec.	/	**13, 14 th Lec.	**15, 16 th Lec.	**17,18 th Lec.

The proposed syllabus for the fourth stage(4-4)

clinical training	Week 10					Week 11					Week 12				
	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur
Group A	Med /CVS	Med /CVS	Patho	Com	F.M	Obstetrics	Obstetrics	Patho	Com	F.M	Obstetrics	Obstetrics	Patho	Com	F.M
Group B	Com	Patho	F.M	Med /CVS	Med /CVS	Com	patho	F.M	Obstetrics	Obstetrics	Com	patho	F.M	Obstetrics	Obstetrics
Group C	Patho	F.M	Med /CVS	Med /CVS	Com	Patho	F.M	Obstetrics	Obstetrics	Com	Patho	F.M	Obstetrics	Obstetrics	Com
Group D	Obstetrics	Obstetrics	Com	F.M	Patho	Med /CVS	Med /CVS	Com	F.M	Patho	Med /CVS	Med /CVS	Com	F.M	Patho
Group E	F.M	Com	Obstetrics	Patho	Obstetrics	F.M	Com	Med /CVS	Med /CVS	Patho	F.M	Com	Med /CVS	Med /CVS	Patho
Note	Group A,B,C : 2 weeks training in CVS/ Medicine Group D,E : 2 weeks training in Obstetrics					Group A,B,C : 2 weeks training in Obstetrics Group D,E : 2 weeks training in CVS/ Medicine									
Theory															
Medicine	** CVS 15, 16	* CVS 17	* CVS 18	/	* CVS 19	** CVS 20, 21	* CVS 22	* CVS 23	/	* CVS 24	** CVS 25, 26	* CVS 27	* CVS 28	/	* CVS 29
Surgery	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
Pathology			* CVS 2	* CVS 3				* CVS 4	* CVS 5				* CVS 6	* CVS 7	
Obstetric	**19, 20th Lec	/	* 21th Lec heart diseases	** 22,23th Lec.Hypertention	** 24, 25 th Lec.	** 26,27th Lec.	/	* 28th Lec.	** 29,30th Lec.	** 31,32th Lec.	** 33,34th Lec.	/	* 35th Lec.	** 36,37 th Lec	** 38,39 th Lec
Note	each * indicates one hour The fixed lectures are: community medicine 3hr.s/week forensic medicine 2hr.s/week medical ethics 1 hr./week														

The proposed syllabus for the fourth stage(4-5)

clinical training	Week 13				
	Sun	Mon	Tues	Wed	Thur
Group A	Med /CVS	Exam in Med CVS & GIT	Patho	Com	F.M
Group B	Com	Patho	F.M	Med /CVS	Exam in Med CVS & GIT
Group C	Patho	F.M	Med /CVS	Exam in Med CVS & GIT	Com
Group D	Med /CVS	Exam in Med CVS & GIT	Com	F.M	Patho
Group E	F.M	Com	Med /CVS	Patho	Exam in Med CVS & GIT
Note	Group A,B,C, D,E : Exam in Medicine/ CVS & GIT				
<b>Theory</b>					
Medicine	** Infectious Diseases 1,2	* Infectious Diseases 3	* Infectious Diseases 4	/	* Infectious Diseases 5
Surgery	/	/	/	/	/
Pathology			* skin 1	* skin 2	
Obstetric	** 40,41 th Lec	/	* 42th Lec.	** 43,44th Lec.	** 45, 46 th Lec.
Note	each* indicates one hour The fixed lectures are: community medicine 3hr.s/week forensic medicine 2hr.s/week medical ethics 1 hr./week				



The proposed syllabus for the fourth stage(4-7)

clinical training	Week 17					Week 18					Week 19																																																																																				
	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur																																																																																
Group A	Uro-Surgery	Uro-Surgery	Patho	Com	<b>Radiology/ Renal</b>	Med/ Endocrine	Med/ Endocrine	Patho	Com	Med/ Endocrine	Surgery /Neck & DM	Surgery /Neck & DM	Patho	Com	Surgery /Neck & DM																																																																																
Group B	Com	Patho	<b>Radiology/ Renal</b>	Uro-Surgery	Uro-Surgery	Com	patho	Med/ Endocrine	Med/ Endocrine	Med/ Endocrine	Com	patho	Surgery /Neck & DM	Surgery /Neck & DM	Surgery /Neck & DM																																																																																
Group C	Patho	<b>Radiology/ Renal</b>	Uro-Surgery	Uro-Surgery	Com	Patho	Med/ Endocrine	Med/ Endocrine	Med/ Endocrine	Com	Patho	Surgery /Neck & DM	Surgery /Neck & DM	Surgery /Neck & DM	Com																																																																																
Group D	Med /Renal	Med /Renal	Com	<b>Radiology/ Renal</b>	Patho	Surgery /Neck & DM	Surgery /Neck & DM	Com	Surgery /Neck & DM	Patho	Surgery /Neck & DM	Med/ Endocrine	Med/ Endocrine	Med/ Endocrine	Patho																																																																																
Group E	<b>Radiology/ Renal</b>	Com	Med /Renal	Patho	Med /Renal	Surgery /Neck & DM	Com	Surgery /Neck & DM	Patho	Surgery /Neck & DM	Med/ Endocrine	Com	Med/ Endocrine	Patho	Med/ Endocrine																																																																																
Note	Forensic Medicine is stopped (have completed 16 days) Instead Radiology/ Renal is given																																																																																														
Theory	<table border="1"> <thead> <tr> <th></th> <th>Sun</th> <th>Mon</th> <th>Tues</th> <th>Wed</th> <th>Thur</th> <th>Sun</th> <th>Mon</th> <th>Tues</th> <th>Wed</th> <th>Thur</th> <th>Sun</th> <th>Mon</th> <th>Tues</th> <th>Wed</th> <th>Thur</th> </tr> </thead> <tbody> <tr> <td>Medicine</td> <td>*Pituitary gland 2,3</td> <td>/</td> <td>*Thyroid gland</td> <td>/</td> <td>*parathyroid</td> <td>*D.M. introduction *D.M. Clinical</td> <td>*D.M. treatment</td> <td>*D.M. complication 1</td> <td>/</td> <td>*D.M. complication 2</td> <td>*Adrenal gland *Pheochromocytoma</td> <td>*Hyperlipidemia</td> <td>*Gonads</td> <td>*Infectious Diseases 6</td> <td>** Infectious Diseases 7,8</td> </tr> <tr> <td>Surgery</td> <td>*Prostate 2 *Infertility</td> <td>*Radiology of renal system 1</td> <td>*Radiology of renal system 2</td> <td>*Thyroid 1,2</td> <td>**Thyroid &amp; parathyroid 3,4</td> <td>**Hand &amp; foot infection 1,2</td> <td>/</td> <td>*cervical LAP 1</td> <td>**cervical LAP 2,3</td> <td>*cervical LAP 4</td> <td>*Adrenal 1</td> <td>/</td> <td>*Adrenal 2</td> <td>/</td> <td>/</td> </tr> <tr> <td>Pathology</td> <td></td> <td>*Male genital system 4</td> <td>*Male genital system 5</td> <td></td> <td></td> <td></td> <td></td> <td>*Endocrine System 1</td> <td></td> <td></td> <td></td> <td></td> <td>Endocrine System 2</td> <td>Endocrine System 3</td> <td>*Endocrine System 4</td> </tr> <tr> <td>Obstetrics</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> <td>/</td> <td><b>*47th Lec DM1</b></td> <td><b>*48th Lec DM2</b></td> <td><b>*49th Lec Endocrine</b></td> <td></td> <td></td> <td></td> <td>*50th Lec.</td> </tr> </tbody> </table>																Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Medicine	*Pituitary gland 2,3	/	*Thyroid gland	/	*parathyroid	*D.M. introduction *D.M. Clinical	*D.M. treatment	*D.M. complication 1	/	*D.M. complication 2	*Adrenal gland *Pheochromocytoma	*Hyperlipidemia	*Gonads	*Infectious Diseases 6	** Infectious Diseases 7,8	Surgery	*Prostate 2 *Infertility	*Radiology of renal system 1	*Radiology of renal system 2	*Thyroid 1,2	**Thyroid & parathyroid 3,4	**Hand & foot infection 1,2	/	*cervical LAP 1	**cervical LAP 2,3	*cervical LAP 4	*Adrenal 1	/	*Adrenal 2	/	/	Pathology		*Male genital system 4	*Male genital system 5					*Endocrine System 1					Endocrine System 2	Endocrine System 3	*Endocrine System 4	Obstetrics	/	/	/	/	/	/	/	/	<b>*47th Lec DM1</b>	<b>*48th Lec DM2</b>	<b>*49th Lec Endocrine</b>				*50th Lec.
	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur																																																																																
Medicine	*Pituitary gland 2,3	/	*Thyroid gland	/	*parathyroid	*D.M. introduction *D.M. Clinical	*D.M. treatment	*D.M. complication 1	/	*D.M. complication 2	*Adrenal gland *Pheochromocytoma	*Hyperlipidemia	*Gonads	*Infectious Diseases 6	** Infectious Diseases 7,8																																																																																
Surgery	*Prostate 2 *Infertility	*Radiology of renal system 1	*Radiology of renal system 2	*Thyroid 1,2	**Thyroid & parathyroid 3,4	**Hand & foot infection 1,2	/	*cervical LAP 1	**cervical LAP 2,3	*cervical LAP 4	*Adrenal 1	/	*Adrenal 2	/	/																																																																																
Pathology		*Male genital system 4	*Male genital system 5					*Endocrine System 1					Endocrine System 2	Endocrine System 3	*Endocrine System 4																																																																																
Obstetrics	/	/	/	/	/	/	/	/	<b>*47th Lec DM1</b>	<b>*48th Lec DM2</b>	<b>*49th Lec Endocrine</b>				*50th Lec.																																																																																

The proposed syllabus for the fourth stage(4-8)

clinical training	Week 20					Week 21					Week 22					
	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	
Group A	Med/ Infection	Med/ Infection	Patho	Com	Med/ Infection	Med/ Respiratory	Med/ Respiratory	Patho	Radio logy/ Chest	Med/ Respiratory	Med/ Respiratory	Med/ Respiratory	Patho	Radio logy/ Chest	Med/ Respiratory	
Group B	Com	Patho	Med/ Infection	Med/ Infection	Med/ Infection	Radio logy/ Chest	patho	Med/ Respiratory	Med/ Respiratory	Radio logy/ Chest	Med/ Respiratory	patho	Med/ Respiratory	Med/ Respiratory	Med/ Respiratory	
Group C	Patho	Med/ Infection	Med/ Infection	Med/ Infection	Com	Patho	Med/ Respiratory	Med/ Respiratory	Med/ Respiratory	Radio logy/ Chest	Med/ Respiratory	Med/ Respiratory	Obstetrics	Med/ Respiratory	Radio logy/ Chest	
Group D	Med/ Infection	Med/ Infection	Com	Med/ Infection	Patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics	Patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics	Patho	
Group E	Med/ Infection	Com	Med/ Infection	Patho	Med/ Infection	Obstetrics	Obstetrics	Obstetrics	Patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics	Obstetrics	Obstetrics	
Note	All the Groups will have 1 week training in Infection/ Medicine										Community medicine is stopped (have completed 20 days) Instead Radiology/ Chest is given					
Theory	Group A,B,C : 2 week training in Respiratory / Medicine Group D,E : 1 week training in Obstetrics															
Medicine	**Infectious Diseases 9,10	*Infectious Diseases 11	*Infectious Diseases 12	**Infectious Diseases 13,14	*Infectious Diseases 15	*Introduction to respiratory system 1,2	*Asthma Introduction on 1	*Asthma 2	*COPD 2	*Interstitial lung diseases 1	*Occupational lung diseases	*ARDS				
Surgey	*Pre & Post operative care 1		*Pre & Post operative care 2			*Principles of operative surgery 1										
Pathology			*Musculoskeletal system 1	*Musculoskeletal system 2			*Respiratory System 1	*Respiratory System 2	*Respiratory System 3	*Radiology of the chest 1,2	*Radiology of the chest 3					
Obstetrics	*51 th Lec.				*52 th Lec.	*53 th Lec.			*54 th Lec.		*55 th Lec.				*56 th Lec.	*57 th Lec.

The proposed syllabus for the fourth stage(4-9)

Clinical training	Week 23					Week 24					Week 25				
	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur	Sun	Mon	Tues	Wed	Thur
Group A	Obstetrics	Obstetrics	Patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics	Patho	Obstetrics	Obstetrics	Exam in Medicine	Obstetrics	Patho	Obstetrics	Obstetrics
Group B	Obstetrics y	patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics	patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics y	patho	Obstetrics	Obstetrics	Exam in Medicine
Group C	Patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics	Patho	Obstetrics	Obstetrics	Obstetrics	Obstetrics	Patho	Obstetrics	Obstetrics	Obstetrics	Exam in Medicine
Group D	Med/Respiratory	Med/Respiratory	Radiology/Chest	Med/Respiratory	Patho	Med/Respiratory	Med/Respiratory	Radiology/Chest	Med/Respiratory	Patho	Surgery/breast & general	Surgery/breast & general	Exam in Medicine	Surgery/breast & general	Patho
Group E	Med/Respiratory	Radiology/Chest	Med/Respiratory	Patho	Med/Respiratory	Med/Respiratory	Radiology/Chest	Med/Respiratory	Patho	Med/Respiratory	Surgery/breast & general	Exam in Medicine	Surgery/breast & general	Patho	Surgery/breast & general
Note	Community medicine is stopped (have completed 20 days) Instead Radiology/ Chest is given Group A,B,C : 2 week training in Obstetrics Group D,E : 1 week training in Respiratory / Medicine														
Theory	Group A,B,C : 2 weeks training in Obstetrics Group D,E : 2 weeks training in breast & general Surgery														
Medicine	** pneumonia 1,2	Bronchiectasis	* Pulmonary tuberculosis 1	* Pulmonary tuberculosis 2	/	** Pleural disease 1,2	* Lung Cancer 1	* Lung Cancer 2	* Occupational lung diseases	/	/	/	/	/	/
Surgery	Principles of operative surgery 2		* Management of severe injury 1	* Management of severe injury 2		* Management of pain 1		* Management of pain 2			* Surgery of Breast 2	* Surgery of Breast 3	* Surgery of Breast 4	* Surgery of Breast 5	
Pathology			* Respiratory System 6	* Respiratory System 7				* Nervous System 1	* Nervous System 2						
Obstetrics	* 58th Lec.			* 59th Lec Respiratory	* 60th Lec	* 61th Lec			* 62th Lec					* Breast 2	* Breast 3



**Total Hours In Clinical Training**

Medicine		Surgery		Radiology	
Subject	Total days :3hours/day	Subject	Total days :3hours/day	Subject	Total days :3hours/day
GIT	4 days	GIT	4 days	GIT	2 days
Liver & pancreas	2 days	Liver & pancreas	2 days	/	/
CVS	5 days	Hernia & anorectal	2 days	Chest	2 days
Renal	4 days	Urosurgery	4 days	Renal	1 day
Endocrine	3 days	Neck & DM	3 days	/	/
Infection	3 days	Breast & general	7 days	Breast & Obstetrics	1 day
Respiratory	6 days	Total days	22	Total days	6 days
Total hours	81 (versus 72 previously)	Total hours	66 (versus 60 previously)	Total hours	18 (versus nil previously)

Subject	Total days :3hours/day
Obstetrics	21 days
community medicine	20 days
forensic medicine	16 days

**The new changes in the practical training :**

- 1- The Neuro-Medicine will be shifted to the 5<sup>th</sup> stage .
- 2- The general examination will be shifted to the 3<sup>rd</sup> stage
- 3- adding practical training in the Uro-surgery for 12 hour .
- 4- adding practical training in the Radiology as given above.

**The new changes in the Lectures:**

- 1- In Pathology the a- Haematology & blood transfusion 7 hours.  
 b- Lymphoreticular system & spleen 5 hours .  
 will be replaced by GIT 10 hours.(from the 3<sup>rd</sup> stage) while the former will be shifted to the 3<sup>rd</sup> stage
- 2- In Radiology adding the following lectures .(from the 5<sup>th</sup> stage):  
 -2 Lectures in GIT.  
 -1 Lecture in acute abdomen.  
 -1 Lecture in Hebatobiliary system , spleen & pancreas  
 -1 Lecture in Urinary system.  
 -3 Lectures in chest  
 -2 Lectures in Gyn Obst & breast.

**The Frame Of The Proposed Syllabus For The Fifth Stage(5-1)**

Week Number	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<b>Block Number</b>	<b>Block I (Bones &amp; Joints: 6 weeks)</b>						<b>Block II (Neurology &amp; Psychiatry : 6 weeks)</b>					
<b>Practical Training</b>	*3 Weeks in Orthopedics *2 Weeks in Rheumatology & Rehabilitation *1 Week in anesthesia *2 sessions in Musculoskeletal Radiology						*2 Weeks in Neurosurgery *2 Weeks in Neuromedicine *2 Weeks in Psychiatry *2 sessions in Neuro Radiology					
<b>Theory</b>	Total Hours : 69 *Orthopedics = 46 hours *Rheumatology , Rehabilitation & Geriatrics = 16 hours. *Anesthesia = 5 hours . *Musculoskeletal Radiology = 2 hours						Total Hours : 102 *Neurosurgery = 9 hours *Neuromedicine =29 hours *Psychiatry =60 hours *Neuro Radiology = 3 hours .					
<b>Note</b>	<p>The Stage will be divided in to 8 groups The 1<sup>st</sup> 4 Groups participate in Block I for 6 weeks ,then in Block II for another 6 weeks. While the 2<sup>nd</sup> 4 Groups will have the reverse Blocks.</p> <p>The Total Hours of the practical training/day is 3 hours (from 10:00 am to 1:00 pm) The Total Hours of the Lectures/day is 4 hours (from 8:00 am to 10:00 am &amp; from 1:00 pm till 3:00 pm ) The max. no. of Lectures/week is 19</p>											

**\*week 13 is for practical exam**

**The Frame Of The Proposed Syllabus For The Fifth Stage(5-2)**

Week Number	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
<b>Block Number</b>	<b>Block III</b> (Gynecology & Pediatrics : 8 weeks)																	
<b>Practical Training</b>	*3 Weeks in Gynecology *4 Weeks in Pediatrics *+ 1 week examination																	
<b>Theory</b>	Total Hours: 144 *Gynecology = 51 hours *Pediatrics = 72 hours *Heamatology /Medicine = 21 hours																	
<b>Note</b>	All of the 8groups in the stage participate in this block alternatively . the theory is given once The Total Hours of the practical training/day is 3 hours (from 10:00 am to 1:00 pm) The Total Hours of the Lectures/day is 4 hours (from 8:00 am to 10:00 am & from 1:00 pm till 3:00 pm ) The max. no. of Lectures/week is 19																	
	<b>Block IV</b> (Dermatology: 3 weeks)			<b>Block V</b> (Ophthalmology & Thoracic surgery : 3 weeks)			<b>Block VI</b> (ENT & Plastic surgery : 3 weeks)											
	*3 Weeks in Dermatology			*2 Weeks in Ophthalmology *1 Week in Thoracic surgery			*2 Weeks in ENT *1 Week in Plastic surgery											
	Total Hours: 35 *Dermatology = 30 hours *Pediatric surgery = 5 hours			Total Hours: 52 *Ophthalmology = 31 hours. *Thoracic surgery & war injury = 21			Total Hours: *ENT= 31 Hours *Plastic surgery = 7 Hours.											
	2Groups in one Block IV , 3 Groups in Block V & 3 Groups in Block VI . Then they interchange the Blocks , until each Group completes the above 3 Blocks .																	

**The Proposed Syllabus For The Fifth Stage Medical Students**

**Block I**  
**Group (A,B,C&D)**

Week no.	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<b>Subject</b>						
<b>Orthopedics</b>	A, B	A, B	A, B + Practical Exam	C, D	C, D	C, D+ Practical Exam in Ortho+Radio
<b>Rheumatology &amp; Rehabilitation</b>	C, D	C, D+ Practical Exam in Rheum			A, B	A,B+ Practical Exam in Rheum+ Radiology
<b>anesthesia</b>			C, D	A, B		
<b>Musculoskeletal Radiology</b>				C, D 2sessions (at 8:00 pm to 10:00 am)	A, B 2sessions (at 8:00 pm to 10:00 am)	
<b>Practical Training 3hours/day</b>						
<b>Theory 4hours/day</b>						
<b>Orthopedics</b>	10 Lectures /week	10 Lectures /week	10 Lectures /week	10 Lectures /week (at 1:00 to 3:00 pm)	6 Lectures /week (at 1:00 to 3:00 pm)	-----
<b>Rheumatology</b>	7 Lec /week	5 Lec /week	4 Lec /week	-----	-----	-----
<b>anesthesia</b>	2 Lec /week	2 Lec /week	1 Lec /week	-----	-----	-----
<b>Musculoskeletal Radiology</b>	-----	-----	2 Lec /week	-----	-----	-----
<b>Total Lectures</b>	19 Lectures /week	17 Lectures /week	17 Lectures /week	10 Lectures /week	6 Lectures /week	-----

\* 10 Lectures is given in week 4, & 5 Lectures in week 5 (at 1:00 to 3:00 pm)

\*2sessions are given in **Radiology** in week 4 (at 8:00 pm to 10:00 am) for Group C & D & 2sessions are given in **Radiology** in week 5 (at 8:00 pm to 10:00 am) for Group A & B

**Block I  
Group (E,F,G&H)**

Week no.	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
<b>Subject</b>	E, F	E, F	E, F + Practical Exam	G, H	G, H	G, H + Practical Exam in Ortho+Radio
<b>Orthopedics</b>	G, H	G, H + Practical Exam in Rheum			E, F	E, F + Practical Exam in Rheum+ Radiology
<b>Rheumatology &amp; Rehabilitation</b>			G, H	E, F		
<b>anesthesia</b>				G, H 2sessions (at 8:00 pm to 10:00 am)	E, F 2sessions (at 8:00 pm to 10:00 am)	
<b>Musculoskeletal Radiology</b>						
<b>Practical Training 3hours/day</b>						
<b>Theory 4 hours/day</b>	10 Lectures /week	10 Lectures /week	10 Lectures /week	10 Lectures /week (at 1:00 to 3:00 pm)	6 Lectures /week (at 1:00 to 3:00 pm)	-----
<b>Orthopedics</b>	7 Lec /week	5 Lec /week	4 Lec /week	-----	-----	-----
<b>Rheumatology</b>	2 Lec /week	2 Lec /week	1 Lec /week	-----	-----	-----
<b>anesthesia</b>	-----	-----	2 Lec /week			
<b>Musculoskeletal Radiology</b>	19 Lectures /week	17 Lectures /week	17 Lectures /week	10 Lectures /week	6 Lectures /week	-----
<b>Total Lectures</b>						

\* 10 Lectures is given in week 4, & 5 Lectures in week 5 (at 1:00 to 3:00 pm)

\*2sessions are given in **Radiology** in week 4 (at 8:00 pm to 10:00 am) for Group G & H & 2sessions are given in **Radiology** in week 5 (at 8:00 pm to 10:00 am) for Group E&F

**Block II**  
**Group (A,B,C&D)**

Week no.	Week 7	Week 8	Week 9	Week10	Week 11	Week 12
<b>Subject</b>						
<b>Neurosurgery</b>	A , B	A, B + Practical Exam in Neurosurgery	D	D + Practical Exam in Neurosurgery	C	C + Practical Exam in Neurosurgery + Neuro Radiology
<b>Neuromedicine</b>	C	C + Practical Exam in Neuromedicine	A, B	A, B + Practical Exam in Neuromedicine+ Neuro Radiology	D	D+ Practical Exam in Neuromedicine+ Neuro Radiology
<b>Psychiatry</b>	D	D+ Practical Exam in Psychiatry	C	C + Practical Exam in Psychiatry	A, B	A, B+ Practical Exam in Psychiatry
<b>Neuro Radiology</b>				A, B 2sessions (each at 8:00 pm to 10:00 am)	C, D 2sessions (each at 8:00 pm to 10:00 am)	
<b>Practical Training 3hours/day</b>						
<b>Theory 4hours/day</b>						
<b>Neurosurgery</b>	3 Lectures /week	3 Lectures /week	-----	-----	-----	3 Lectures /week
<b>Neuromedicine</b>	6 Lec /week	6Lec /week	6 Lec/week	3 Lec/week (at 1:00 to 3:00 pm)	3 Lec/week (at 1:00 to 3:00 pm)	5 Lec/week
<b>Psychiatry</b>	11 Lec /week	11 Lec /week	11 Lec /week	7 Lec /week(at 1:00 to 3:00 pm)	7 Lec /week(at 1:00 to 3:00 pm)	12 Lectures /week
<b>Neuro Radiology</b>	-----	-----	3 Lec /week	-----	-----	-----
<b>Total Lectures</b>	20 Lectures /week	20 Lectures /week	20 Lectures /week	10 Lectures /week	10 Lectures /week	20 Lectures /week

\* 10 Lectures is given in week 10, & 10 Lectures in week 11 (at 1:00 to 3:00

\*2sessions are given in **Radiology** in week 10 (at 8:00 pm to 10:00 am) for Group A&B  
& 2sessions are given in **Radiology** in week 11(at 8:00 pm to 10:00 am) for Group C&D

**Block II  
Group (E,F,G&H)**

Week no.	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<b>Subject</b>						
<b>Neurosurgery</b>	E, F	E, F + Practical Exam in Neurosurgery	H	H + Practical Exam in Neurosurgery	G	G + Practical Exam in Neurosurgery + Neuro Radiology
<b>Neuromedicine</b>	G	G + Practical Exam in Neuromedicine	E, F	E, F + Practical Exam in Neuromedicine+ Neuro Radiology	H	H+ Practical Exam in Neuromedicine+ Neuro Radiology
<b>Psychiatry</b>	H	H+ Practical Exam in Psychiatry	G	G + Practical Exam in Psychiatry	E, F	E, F + Practical Exam in Psychiatry
<b>Neuro Radiology</b>				E, F 2sessions ((each at 8:00 pm to 10:00 am)	G, H 2sessions (each at 8:00 pm to 10:00 am)	
<b>Practical Training hours/day</b>						
<b>Theory hours/day</b>	3 Lectures /week	3 Lectures /week	-----	-----	-----	3 Lectures /week
<b>Neurosurgery</b>	6 Lec /week	6 Lec /week	6 Lec/week	3 Lec/week (at 1:00 to 3:00 pm)	3 Lec/week (at 1:00 to 3:00 pm)	5 Lec/week
<b>Neuromedicine</b>	11 Lec /week	11 Lec /week	11 Lec /week	7 Lec /week(at 1:00 to 3:00 pm)	7 Lec /week(at 1:00 to 3:00 pm)	12 Lectures /week
<b>Psychiatry</b>	-----	-----	3 Lec /week	-----	-----	-----
<b>Neuro Radiology</b>	20 Lectures /week	20 Lectures /week	20 Lectures /week	10 Lectures /week	10 Lectures /week	20 Lectures /week
<b>Total Lectures</b>						

\* 10 Lectures is given in week 10, & 10 Lectures in week 11 (at 1:00 to 3:00 pm)  
 \*2sessions are given in **Radiology** in week 10 (at 8:00 pm to 10:00 am) for Group G & H  
 & 2sessions are given in **Radiology** in week 11(at 8:00 pm to 10:00 am) for Group E& F



Block V,VI&VII

Week no.	Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28	Week 29	Week 30
Subject	A, B	A, B	A, B + Practical Exam	Ophthalmology Training Thoracic surgery/ Training	C, D, E	C, D, E + Practical Exam	F, G, H	F, G, H + Practical Exam	F, G, H + Practical Exam
<b>Theory</b>									
<b>Dermatology</b>	10 Lectures /week	10 Lectures /week	6 Lectures /week	14 Lectures /week	14 Lectures /week	3 Lectures /week	15 Lectures /week	15 Lectures /week	-----
<b>Pediatric surgery</b>	2 Lectures /week	2 Lectures /week	1 Lecture /week	6 Lectures /week	5 Lectures /week	9 Lectures /week	5 Lectures /week	2 Lectures /week	-----
<b>Total Lectures</b>	12	12	7	20	19	12	20	17	-----

- After 3 each week the groups will change the blocks until they complete the whole requirements

Block V, VI & VII

Week no.	Week 22	Week 23	Week 24	Week no.	Week 25	Week 26	Week 27	Week no.	Week 28	Week 29	Week 30
Subject	F, G, H	F, G, H	F, G, H Practical Exam	Subject	A, B	A, B + Practical Exam		Subject	C, D, E	C, D, E + Practical Exam	
<b>Dermatology Training</b>	F, G, H	F, G, H	F, G, H Practical Exam	Ophthalmology Training	A, B	A, B + Practical Exam		ENT Training	C, D, E	C, D, E + Practical Exam	
				Thoracic surgery/ Training			A, B + Practical Exam	Plastic surgery/ Training			C, D, E + Practical Exam
<b>Theory</b>											
<b>Dermatology</b>	10 Lectures /week	10 Lectures /week	6 Lectures /week	Ophthalmology	14 Lectures /week	14 Lectures /week	3 Lectures /week	ENT	15 Lectures /week	15 Lectures /week	-----
<b>Pediatric surgery</b>	2 Lectures /week	2 Lectures /week	1 Lecture /week	<b>Thoracic surgery &amp; war injury</b>	6 Lectures /week	5 Lectures /week	9 Lectures /week	<b>Plastic surgery</b>	5 Lectures /week	2 Lectures /week	-----
<b>Total Lectures</b>	12	12	7	<b>Total Lectures</b>	20	19	12	<b>Total Lectures</b>	20	17	-----

Block V,VI&VII

Week no.	Week 22	Week 23	Week 24	Week 25	Week 26	Week 27	Week 28	Week 29	Week 30
Subject	C,D,E	C,D,E	C,D,E Practical Exam	F,G,H Ophthalmology Training Thoracic surgery/ Training	F,G,H+ Practical Exam	F,G,H+ Practical Exam	A,B	A,B+ Practical Exam	A,B+ Practical Exam
<b>Theory</b>									
<b>Dermatology</b>	10 Lectures /week	10 Lectures /week	6 Lectures /week	14 Lectures /week	14 Lectures /week	3 Lectures /week	15 Lectures /week	15 Lectures /week	-----
<b>Pediatric surgery</b>	2 Lectures /week	2 Lectures /week	1 Lecture /week	6 Lectures /week	5 Lectures /week	9 Lectures /week	5 Lectures /week	2 Lectures /week	-----
Total Lectures	12	12	7	20	19	12	20	17	-----

**(50)..... The First Step To words The Integration**

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- (1) (J.S. ker , 2001:169)
- (2) (R. M. Harden , 2001:13)
- (3) (R. M. Harden , 2001:15)
- (4) (R. M. Harden , 2001:16)
- (5) (J. S. Ker , 2001:172- 178)
- (6) (Hikmat ,2009)
- (7) (World Federation for Medical Education (*WFME*) , 2003:13)
- (8) (Al Rasheed Hotel workshop , 2009)
- (9) (Nather , 2009)
- (10) (MMS web site)
- (11) (Further details are given in the appendix, the proposed syllabus of Year-Four)
- (12) (MMS web site)
- (13) (as suggested by some departments)
- (14) (MMS web site)
- (15) (as suggested by some departments)