Program Specification
Sohag University
Faculty of medicine

A- Basic Information

1- Program Title: Master Degree in Neurosurgery

2- Programme Type: Single [ ] Double [X] Multiple [ ]

3- Faculty: Faculty of Medicine

4- Department(s): NEUROSURGERY

5- Coordinator: Dr. Khaled Nasser, Dr. Abdeen Khair Allah. Assistant coordinator: Demonstrator, Karam Kenawy.

6- External Evaluator(s): Professor Dr. Roshdy Elkhayat

7- Last date of programme specifications approval: faculty council No. 182 decree No. 7163 dated 14-9-2009

B- Professional Information

1- Program Aims
The aim of this program is to provide the postgraduate with medical knowledge and skills essential for the practice of neurosurgery and necessary for further training and practice in the field of neurosurgery through gain:
1- Scientific knowledge essential for practice of Neurosurgery according to the international standards.
2- Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving, decision making and operative skills.
3- Provision of sound ethical principles related to medical practice.
4- Active participation in community needs assessment and problems solving.
5- Maintainance of learning abilities necessary for continuous medical education.
6- Upgrading research interest and abilities.

Program Intended Learning Outcomes (ILOs)

a- Knowledge and Understanding:
By the end of the study of master program in neurosurgery the Graduate should be able to:

a.1 Mention the normal structure and function of the human central and peripheral nervous system on the macro and micro levels.

a.2 Understand the normal growth and development of the human central and peripheral nervous system.

a.3 List the abnormal structure, function, growth and development of human central and peripheral nervous system.

a.4 Understand natural history of neurosurgical diseases.

a.5 Understand the causation of neurosurgical diseases and their pathogenesis.

a.6 Enumerate Methods of promoting normal function and structure of the central and peripheral nervous system and preventing their illness.
a.7 List the clinical picture and differential diagnosis of neurosurgical diseases.
a.8 Enumerate common diagnostic and laboratory techniques necessary to establish
diagnosis of neurosurgical diseases.
a.9 Describe the various therapeutic methods/alternatives used for neurosurgical
diseases.
a.10 Describe the structure, mechanism of action, advantages, disadvantages, side
effects and complications of the neurosurgical diagnostic and therapeutic methods.
a-11 understand scientific development in the field of neurosurgery
A-12Understand the mutual influence between professional practice and it's impact on the  
environment
a-13 Mention the principles and fundamentals of ethics and legal aspects of
professional practice in the field of neurosurgery.
a.14 Know the principles and fundamentals of quality assurance of professional
practice in the field of neurosurgery
A-15know the basics and ethics of scientific research.
A.16 understand effect of professional practice on the environment and the 
methods of environmental development and maintenance.

b-Intellectual Skills
By the end of the study of master program in neurosurgery the Graduate should be 
able to:
b.1 Interpret data acquired through history taking to reach a provisional diagnosis for 
neurosurgical problems.
b.2 Select from different diagnostic alternatives the ones that help reaching a final 
diagnosis for neurosurgical problems.
b.3 Conduct research studies and/or write a scientific study on a research problem.
b.4 Formulate scientific papers in the area of neurosurgery.
b.5 Assess risk in professional practices in the field of neurosurgery
b.6 Plan to improve performance in the field of neurosurgery
b.7 Identify neurosurgical problems and find solutions..
b.8 Have the ability to innovate nontraditional solutions to neurosurgical problems.
b.9 Mange Scientific discussion based on scientific evidences and proofs.
b.10 Criticize researches related to neurosurgery

c-Professional and Practical Skills
By the end of the study of master program in neurosurgery the Graduate should be 
able to
C.1 Master of the basic and modern professional medical and surgical skills in the 
area of neurosurgery
C.2 Evaluate and develop methods and tools existing in the area of Neurosurgery
C.3 Assess the methods and tools existing in the area of neurosurgery.
C.4 Plan for the development of professional practice and development of the 
performance of others
C.5 Be Oriented to develop new methods, tools and ways of professional practice.
C.6 Conduct research studies, that adds to knowledge
C.7 Identify the macroscopic and microscopic criteria of the altered structure 
(pathology) of the body and its major organs and systems that are seen in various 
diseases.
d- General and Transferable Skills

By the end of the study of master program in neurosurgery the Graduate should be able to:
D.1 Communicate effectively by all types of effective communication.
D.2 Use information technology to serve the development of professional practice.
D.3 Teach others and evaluating their performance.
D.4 Assess himself and identify personal learning needs.
D.5 Use of different sources for information and knowledge.
D.6 Work in a team and team's leadership.
D.7 Manage Scientific meetings administration according to the available time.
D.8 Learn himself continuously.

3- Academic Standards

Sohag Faculty of Medicine adopted the general National Academic Reference standards (NARS) provided by the national authority for quality assurance and accreditation of education (naqaae) for postgraduate programs. This was approved by the Faculty Council decree No.6854, in its cession No.177 Dated:18/5/2009. Based on these NARS; Academic Reference Standards (ARS) erre suggested for this program. These ARS were approved by the Faculty Council decree No. , in its cession No. 191, dated: 15/3/2010.

4- Curriculum Structure and Contents

4.a- Program duration 6semesters (3 years )
4.b- Program structure
4.b.i- No. of hours per week :

<table>
<thead>
<tr>
<th>Subject</th>
<th>Lectures</th>
<th>Practical /Surgical</th>
<th>Clinical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Part:</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>General Surgery</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Neurology</td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Physiology of Central Nervous System</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Anatomy And Embryology of Central Nervous System</td>
<td>2</td>
<td>2</td>
<td>---</td>
</tr>
<tr>
<td>Histology of Central Nervous System</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td>Pathology of Central Nervous System</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td><strong>Second Part:</strong></td>
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<tr>
<td>Neurosurgery curriculum</td>
<td>6</td>
<td>6 (300)</td>
<td>6 (290)</td>
</tr>
</tbody>
</table>
5- Program Courses :

7 courses are compulsory

5.1- Level/Year of Program...1....... Semester...1.....

First part

a. Compulsory

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Total No. of hours</th>
<th>No. of hours /week</th>
<th>Program ILOs Covered (By No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Surgery</td>
<td>2</td>
<td>2</td>
<td>A11, A12, B1, B7, C3, D3</td>
</tr>
<tr>
<td>Neurology</td>
<td>2</td>
<td>2</td>
<td>A5, A7, A9, B1, B2, C5, D4</td>
</tr>
<tr>
<td>Anatomy And Embryology of Central Nervous System</td>
<td>2</td>
<td>2</td>
<td>A1, A2, B5, C2, D6</td>
</tr>
<tr>
<td>Histology of Central Nervous System</td>
<td>2</td>
<td>2</td>
<td>A6, B3, B9, C6, D1</td>
</tr>
<tr>
<td>Pathology of Central Nervous System</td>
<td>2</td>
<td>2</td>
<td>A4, A5, A10, A15, B11, C7, D5</td>
</tr>
<tr>
<td>Physiology of Central Nervous System</td>
<td>2</td>
<td>2</td>
<td>A3, B4, C4, D2</td>
</tr>
</tbody>
</table>

Second Part

<table>
<thead>
<tr>
<th>Course Title</th>
<th>No. of Units</th>
<th>No. of hours /week</th>
<th>Programme ILOs Covered (By No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neurosurgery Curriculum</td>
<td>6</td>
<td>6</td>
<td>A1, A7, A8, A14, B1, B2, B6, B8, B10, C1, D7, D8</td>
</tr>
</tbody>
</table>

5.2 Repeat for all higher years/semesters/levels
6- Programme Admission Requirements

I. General Requirement
   A-Candidates should have either:
      1. MBBCh Degree from any Egyptian Faculties of Medicine or
      2. Equivalent Degree from Medical Schools abroad approved by the
         Ministry of Higher Education.
   B-Candidate should pass the house officer training year.
   C-Those who are not university residents should pass training for at least
      12 months in one of known hospitals.
   D- Follow postgraduate Regulatory rules of Sohag Faculty of Medicine.

II. Specific Requirements:
   A- Candidates graduated from Egyptian Universities should have at least
      “Good Rank” in their final year examination, and grade “Good Rank” in
      General surgery Course too.
   B-Candidate should know how to speak & write English well.
   C-Candidate should have computer skills.

7- Regulations for Progression and Programme Completion
Duration of program is 6 semesters (3 years), starting from registration till the second
part exam divided to:
First Part: (≥6 months=1 semester):
   • Program-related basic science & Program-related clinical courses.
   • At least six months after registration should pass before the student can ask for
     examination in the 1st part.
   • Two sets of exams: 1st in April — 2nd in October.
   • For the student to pass the first part exam, a score of at least 60% in each
     curriculum is needed (with at least 40% of written exam).
   • Those who fail in one curriculum need to re-exam it only.

Thesis/ Essay
   • Start after at least 6 ms from registration and should be completed, defended
     and accepted at least after passing 6 ms from documentation and after passing
     the first part examination, and at least one month before allowing to enter
     second part final examination.
   • Accepting the thesis is enough to pass this part.

Second Part: (≥24 months=4 semester):
   • Program related specialized science of neurosurgery Courses.
   • After passing at least:
     - university hospital residents: 36 months in the department of neurosurgery.
     - Residents in other places: 12 months training in department of neurosurgery.
     - The student should pass the first part before asking for examination of second
       part.
• Fulfillment of the requirements in each course as described in the template and registered in the log book is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations as following:

<table>
<thead>
<tr>
<th>Grand rounds</th>
<th>اجتماع علمي موسع</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training courses</td>
<td>دورات تدريبية</td>
</tr>
<tr>
<td>Conference attendance</td>
<td>حضور مؤتمرات علمية</td>
</tr>
<tr>
<td>Thesis discussion</td>
<td>حضور مناقشات رسائل</td>
</tr>
<tr>
<td>Workshops</td>
<td>حضور ورش عمل</td>
</tr>
<tr>
<td>Journal club</td>
<td>ندوة الدوريات الحديثة</td>
</tr>
<tr>
<td>Case presentation</td>
<td>تقييم حالة مرضية</td>
</tr>
<tr>
<td>Workshops</td>
<td></td>
</tr>
<tr>
<td>Seminars</td>
<td>لقاء علمي موسع</td>
</tr>
<tr>
<td>Morbidity and Mortality conference</td>
<td>ندوة تحليل المخاطر المرضية والوفاة</td>
</tr>
<tr>
<td>Self education program</td>
<td>برنامج التعليم الذاتي</td>
</tr>
</tbody>
</table>

• Two sets of exams: 1st in April— 2nd in October.
• At least 40% of the written exam is needed to be admitted to the oral and practical exams.

8-Methods of student assessments:

<table>
<thead>
<tr>
<th>Method of assessment</th>
<th>The assessed ILOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Research assignment</td>
<td>-general transferable skills, intellectual skills</td>
</tr>
<tr>
<td>2-Written Exams:</td>
<td>-knowledge</td>
</tr>
<tr>
<td>-Short essay</td>
<td>-knowledge, intellectual skills</td>
</tr>
<tr>
<td>-MCQs</td>
<td>- intellectual skills</td>
</tr>
<tr>
<td>-Commentary</td>
<td>-general transferable skills, intellectual skills</td>
</tr>
<tr>
<td>-Problem solving</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>3-Practical Exams</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>4-OSPE</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>5-Clinical Exams.</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>6-OSCE</td>
<td>- knowledge</td>
</tr>
<tr>
<td>7-Oral Exams.</td>
<td>-knowledge</td>
</tr>
<tr>
<td>8-Structured Oral Exams</td>
<td></td>
</tr>
</tbody>
</table>

9-Evaluation of Program Intended Learning Outcomes

<table>
<thead>
<tr>
<th>Evaluator</th>
<th>Tool</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Senior students</td>
<td>Questionnaire</td>
<td>1</td>
</tr>
<tr>
<td>2- Alumni</td>
<td>Questionnaire</td>
<td>0</td>
</tr>
<tr>
<td>3- Stakeholders (Employers)</td>
<td>Questionnaire</td>
<td></td>
</tr>
<tr>
<td>4-External Evaluator(s)</td>
<td>Report</td>
<td>1</td>
</tr>
<tr>
<td>5- Other</td>
<td></td>
<td></td>
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<tr>
<td>PARAMETER</td>
<td>Agreement</td>
<td></td>
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<tr>
<td>--------------------------------------------------------------------------</td>
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<tr>
<td><strong>Programme aims &amp; ILOs</strong></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>Did the programme helped you to acquire skills needed to diagnose and</td>
<td>62.5</td>
<td></td>
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<tr>
<td>manage the patients</td>
<td>acceptable</td>
<td></td>
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<td></td>
<td>12.5</td>
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<tr>
<td></td>
<td>good</td>
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<tr>
<td>Does the current programme give you the skills needed to reach a</td>
<td>80.5</td>
<td></td>
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<tr>
<td>provisional diagnoses</td>
<td></td>
<td></td>
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<tr>
<td>Are Program alumni motivated to increase their professional knowledge</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>and skills</td>
<td></td>
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</tr>
<tr>
<td>Does the teaching programme give the acceptable ethical behaviour</td>
<td>65</td>
<td></td>
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<tr>
<td>Does the current programme motivate the alumni for continuous medical</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>education</td>
<td></td>
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<tr>
<td>Do programme alumni perform good communication with their patients</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>acceptable</td>
<td></td>
</tr>
<tr>
<td>Do programme alumni have computer skills needed for their work.</td>
<td>80</td>
<td></td>
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<tr>
<td>Do programme alumni perform team work</td>
<td>75</td>
<td></td>
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<tr>
<td>Can programme alumni react well to emergency</td>
<td>83</td>
<td></td>
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<tr>
<td>Can programme alumni reach a satisfactory preliminary diagnosis</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>Can programme alumni choose the proper diagnostic methods</td>
<td>75</td>
<td></td>
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<tr>
<td>Can programme alumni distinguish complicated cases above his own and</td>
<td>50</td>
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<tr>
<td>establishment abilities</td>
<td></td>
<td></td>
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<tr>
<td>Do programme alumni perform community health education</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Do programme alumni show scientific interest to widen their knowledge</td>
<td>87</td>
<td></td>
</tr>
<tr>
<td>and study for post graduate degrees</td>
<td></td>
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</tbody>
</table>
Course Specification of Anatomy in Master degree in Neurosurgery

University… Sohag                                    Faculty …Medicine

Course Specifications
Program on which the course is given: Master degree in Neurosurgery.
Major or minor element of program: Minor
Department offering the program: Neurosurgery.
Department offering the course: Anatomy
Academic year / Neurosurgery 1st part of Master degree
Date of specification approval: Date of specification approval: Faculty Council No .182 ,decree 7163
Date 14/9/2009

A- Basic Information
Title: Course Specification of Anatomy in Master degree in Neurosurgery
Code: Anatomy
Credit Hours: Lecture:
            Tutorial: -  Practical: hrs.    Total:

B- Professional Information
1. Overall Aims of Course:

2. Intended Learning Outcomes of Course (ILOs):
According to the intended goals of the faculty

    a- Knowledge and Understanding:
        By the end of the course the student should be able to:
        a1. Mention the normal structure and function of the human central and peripheral
            nervous system on the macro levels.
        a2. Understand the normal growth and development of the human central and
            peripheral nervous system.

    b- Intellectual Skills:
        By the end of the course the student should have the ability to:
        b1. Assess risk in professional practices in the field of neurosurgery

    c- Professional and Practical Skills:
        By the end of the course the student should have the ability to:
        c1. Evaluate and develop methods and tools existing in the area of Neurosurgery

    d- General and Transferable Skills:
By the end of the course the student should have the ability to:

d1. Work in a team and team's leadership.

3. Course contents:

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1- General Pathology:</strong></td>
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<tr>
<td>1.1. Inflammation &amp; repair.</td>
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<tr>
<td>1.2. Cell response to injury and aging.</td>
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<td>1.3. Disturbances of circulation.</td>
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<td>1.4. Infection.</td>
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<td>1.5. General pathology of tumors.</td>
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<td>1.6. Genetic diseases.</td>
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<td><strong>2- Endocrine system:</strong></td>
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<tr>
<td>2.1. Diseases of pituitary gland &amp; pineal body.</td>
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<td><strong>3- The musculoskeletal system:</strong></td>
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<tr>
<td>3.1. Motor neuron diseases &amp; neuropathies</td>
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<td><strong>4- Nervous system:</strong></td>
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<tr>
<td>4.1. Meningitis, encephalitis and brain abscess.</td>
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<tr>
<td>4.2. Demyelinating diseases</td>
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<tr>
<td>4.3. Degenerative diseases</td>
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<tr>
<td>4.4. Hydrocephalus.</td>
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<td>4.5. Cerebral edema.</td>
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<td>4.6. Space occupying lesion.</td>
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<td>4.7. Intracranial hemorrhages.</td>
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<tr>
<td>4.8. Spina pifida</td>
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<td>4.9. Arnold Chiari malformation</td>
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<tr>
<td>4.10. Spinal disc prolapse.</td>
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<tr>
<td>4.11. Spinal canal stenosis.</td>
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<tr>
<td>4.14. Tumors of spinal cord</td>
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<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

4– Teaching and Learning Methods

4.1-lectures.
4.2-practical lessons.
4.3- Assignments for the students to empower and assess the general and transferable skills

5- Student Assessment Methods

5.1- Assignments for the students to empower and assess the general and transferable skills
5.2 final written exam to assess Knowledge, understanding and intellectual skills.
5.3 final oral exam to assess understanding and intellectual skills.
5.4 final practical exam to assess practical skills.
and absenteeism.

Assessment Schedule

Assessment 1…. Final practical exam…. week 24
Assessment 2…..Final written exam …… week 24
Assessment 3 … Final oral exam …. week: 24

Weighting of Assessments

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final-written Examination</td>
<td>50%</td>
</tr>
<tr>
<td>Oral and Practical Examination</td>
<td>50 %</td>
</tr>
</tbody>
</table>

Total 100%

Formative only assessments: simple research assignments, log book, attendance, absenteeism

6- List of References

6.1- Course Notes: Lecture notes prepared by staff members of the department.

6.2- Essential Books (Text Books)
Gray's Anatomy

6.3- Recommended Books

7- Facilities Required for Teaching and Learning

1- Adequate infrastructure: including teaching places (teaching class, teaching halls, teaching laboratory). Comfortable disks, good source of aeration, bathrooms, good illumination and safety and security tools.
2- Teaching tools: including screens, computers including CD, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.
3- Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr. Esam Salah Kamel.
Head of Department: Dr. Esam Salah Kamel.

Date: 12/9/2009
Course Specification of Histology in Master degree in Neurosurgery

University… Sohag Faculty …Medicine

Course Specifications
Program on which the course is given: Master degree in Neurosurgery.
Major or minor element of program: Minor
Department offering the program: Neurosurgery.
Department offering the course: Histology

Academic year / Neurosurgery 1st part of Master degree

Date of specification approval: Faculty Council No .182 , decree 7163
Date 14/9/2009

A- Basic Information
Title: Course Specification of Histology in Master degree in Neurosurgery

Credit Hours: Lecture:
Tutorial: Practical: hrs. Total:

B- Professional Information

1. Overall Aims of Course
By the end of the course the post graduate students should be able to have the professional knowledge of the Histology of C.N.S.

2. Intended Learning Outcomes of Course (ILOs):
According to the intended goals of the faculty

a) Knowledge and Understanding:
By the end of the course the student should be able to:

a1. Enumerate Methods of promoting normal function and structure of the central and peripheral nervous system and preventing their illness.

b) Intellectual Skills:
By the end of the course the student should have the ability to:

b1. Conduct research studies and/or write a scientific study on a research problem.
b2. Mange Scientific discussion based on scientific evidences and proofs.

c) Professional and Practical Skills:
By the end of the course the student should have the ability to:

c1. Conduct research studies, that adds to knowledge

d) General and Transferable Skills:
By the end of the course the student should have the ability to:

d1. Communicate effectively by all types of effective communication

3. Course contents:

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4– Teaching and Learning Methods

4.1-lectures.
4.2-practical lessons.
4.3- Assignments for the students to empower and assess the general and transferable skills

5- Student Assessment Methods

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Assessment 2…..Final written exam …… week 24
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2-Teaching tools: including screens, computers including CD, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.

3-Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr Hekmat O Abd El-Aziz

Head of Department: Dr Eman  E Abu-Dief

Date:12/9/2009
A- Basic Information

Title:  Course Specification of Physiology in Master degree in Neurosurgery

Code:

Credit Hours:  Lecture:  
Tutorial:  -  Practical:  hrs.  Total:

B- Professional Information

1. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the Physiology of C.N.S.

2. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

c) Knowledge and Understanding:

By the end of the course the student should be able to:

- List the normal structure and function, of human central and peripheral nervous system

f) Intellectual Skills:

By the end of the course the student should have the ability to:

- Formulate scientific papers in area of neurosurgery.
- Manage Scientific discussion based on scientific evidences and proofs.

g) Professional and Practical Skills:

By the end of the course the student should have the ability to:

- Plan for the development of professional practice and development of the performance of others

h) General and Transferable Skills:
By the end of the course the student should have the ability to:

- Use information technology to serve the development of professional practice

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### 4- Teaching and Learning Methods

- **4.1-lectures.**
- **4.2-practical lessons.**
- **4.3- Assignments for the students to empower and assess the general and transferable skills**

### 5- Student Assessment Methods

- **5.1- Assignments for the students to empower and assess the general and transferable skills**
- **5.2-final written exam to assess Knowledge, understanding and intellectual skills.**
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Assessment Schedule

Assessment 1…. Final practical exam…. week 24
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6- List of References

6.1- Course Notes: Lecture notes prepared by staff members of the department.

6.2- Essential Books (Text Books):
  - Gyton text book of physiology.

6.3- Recommended Books:
  - Rosi & Ackerman text book of pathology.
  - Sternberg text book of pathology.

6.4- Periodicals, American journal of pathology
  - Pathology
  - Human pathology


7- Facilities Required for Teaching and Learning:

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2- Teaching tools: including screens, computers including CD, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.
3- Computer program: for designing and evaluating MCQs.

Course Coordinator: Nawal Badwy

Head of Department: Manerva Fahmi

Date: 12/9/2009
Course Specification of Pathology in Master degree in Neurosurgery

Faculty ...Medicine University... Sohag

Course Specifications
Program on which the course is given: Master degree in Neurosurgery.
Major or minor element of program: Minor
Department offering the program: Neurosurgery.
Department offering the course: Pathology

Academic year / Neurosurgery 1st part of Master degree

Date of specification approval: Date of specification approval: Faculty Council No 182, decree 7163
Date 14/9/2009

A- Basic Information
Title: Course Specification of Pathology in Master degree in Neurosurgery

Credit Hours: Lecture: Tutorial: Practical: Total:

B- Professional Information
1. Overall Aims of Course
By the end of the course the post graduate students should be able to have the professional knowledge of the pathology of medical diseases.

2. Intended Learning Outcomes of Course (ILOs):
According to the intended goals of the faculty

a) Knowledge and Understanding:
By the end of the course the student should be able to:

a1. Understand natural history of neurosurgical diseases

a2. Understand the causation of neurosurgical diseases and their pathogenesis.

a3. Describe the structure, mechanism of action, advantages, disadvantages, side effects and complications of the neurosurgical diagnostic and therapeutic methods.

a4. Know the basics and ethics of scientific research.

b) Intellectual Skills:
By the end of the course the student should have the ability to:

b2. Able to solve pathological problems

c) Professional and Practical Skills:
By the end of the course the student should have the ability to:
c1. Identify the macroscopic and microscopic criteria of the altered structure (pathology) of the body and its major organs and systems that are seen in various diseases.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:
d1. Use of different sources for information and knowledge

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Course Coordinator:                  Head of Department: 
DR. Fatma Elzhraa                        DR. Eman mohammes asalh

Date: 12/9/2009
Course Specification of General Surgery in Master degree in Neurosurgery

Faculty ...Medicine University... Sohag

Course Specifications
Program on which the course is given: Master degree in Neurosurgery.
Major or minor element of program: Minor
Department offering the program: Neurosurgery.
Department offering the course: General Surgery
Academic year / Neurosurgery 1st part of Master degree
Date of specification approval: Date of specification approval: Faculty Council No 182, decree 7163
Date 14/9/2009

A- Basic Information
Title: Course Specification of General Surgery in Master degree in Neurosurgery
Code: General Surgery
Credit Hours: Lecture: Tutorial: - Practical: hrs. Total:

B- Professional Information
1. Overall Aims of Course
By the end of the course the post graduate students should be able to have the professional knowledge of the General Surgery.

2. Intended Learning Outcomes of Course (ILOs):
According to the intended goals of the faculty

   a) Knowledge and Understanding:
   By the end of the course the student should be able to:
   • understand scientific development in the field of neurosurgery
   • Understand the mutual influence between professional practice and its impact on the environment

   b) Intellectual Skills:
   By the end of the course the student should have the ability to:
   • Interpret data acquired through history taking to reach a provisional diagnosis for surgical problems.
   • Identify surgical problems related to neurosurgical procedure and find solutions
c) **Professional and Practical Skills:**

By the end of the course the student should have the ability to:

- Use the technological methods to serve the professional practice.

d) **General and Transferable Skills:**

By the end of the course the student should have the ability to:

- Teach others and evaluating their performance

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</table>

4– **Teaching and Learning Methods**
4.1- lectures.
4.2- Clinical lessons.
4.3- Assignments for the students to empower and assess the general and transferable skills

5- Student Assessment Methods

5.1- Assignments for the students to empower and assess the general and transferable skills
5.2- Final written exam to assess Knowledge, understanding and intellectual skills.
5.3- Final oral exam to assess understanding and intellectual skills.
5.4- Final Clinical exam to assess practical skills.
and absenteeism.

Assessment Schedule

Assessment 1…. Final Clinical exam…. week 24
Assessment 2….. Final written exam ……. week 24
Assessment 3 … Final oral exam …. week 24

Weighting of Assessments

<table>
<thead>
<tr>
<th>Final-written Examination</th>
<th>50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral and Clinical Examination</td>
<td>50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>100%</th>
</tr>
</thead>
</table>

Formative only assessments: simple research assignments, log book, attendance, absenteeism

6- List of References:

6.1- Course Notes: lecture notes prepared by staff member of department.

6.2 Essential books:

c1. Brain's Disease of The Nervous System.


6.3- Recommended books:
- Neurology in clinical practice.
- Clinical Neurology.
- Manual of neurologic therapeutics.
- Merret's Neurology.

6.4-Periodicals, Web Sites:
- http://www.google.com
- http://www.freemedicaljournals.com

7- Facilities Required for Teaching and Learning:

1-Adequate infrastructure: including teaching places (teaching class, teaching halls, teaching laboratory). Comfortable disks, good source of aeration, bathrooms, good illumination and safety and security tools.

2-Teaching tools: including screens, computers including CD, data show, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.

3-Computer program: for designing and evaluating MCQs.

Course Coordinator: ___________________________ Head of Department: ___________________________

Date: ____________
Course Specification of Neurology in Master degree in Neurosurgery

University… Sohag Faculty …Medicine

Course Specifications
Program on which the course is given: Master degree in Neurosurgery.
Major or minor element of program: Minor
Department offering the program: Neurosurgery.
Department offering the course: Neurology

Academic year / Neurosurgery 1st part of Master degree

Date of specification approval: Date of specification approval: Faculty Council No .182 ,decree 7163
Date 14/9/2009

A- Basic Information

Title: Course Specification of Neurology in Master degree in Neurosurgery
Code: Neurology
Credit Hours: Lecture: 
Tutorial: - Practical: hrs. Total:

B- Professional Information

1. Overall Aims of Course
By the end of the course the post graduate students should be able to have the professional knowledge of the Neurological diseases.

2. Intended Learning Outcomes of Course (ILOs):
According to the intended goals of the faculty

   a) Knowledge and Understanding:
      By the end of the course the student should be able to:

      a1. Understand the causation of neurological diseases and their pathogenesis.

      a2. List the clinical picture and differential diagnosis of neurological diseases.

      a3. Describe the various therapeutic methods/alternatives used for neurological diseases.

   b) Intellectual Skills:
      By the end of the course the student should have the ability to:

      b1. Interpret data acquired through history taking to reach a provisional diagnosis for neurological problems.

      b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for neurological diseases.
c) Professional and Practical Skills:

By the end of the course the student should have the ability to:

c1. Be Oriented to develop new methods, tools and ways of professional practice.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:

d1. Assess himself and identify personal learning needs

3. Course contents:

<table>
<thead>
<tr>
<th>Title</th>
<th>Lectures</th>
<th>Tutorial/Practical</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- CVA</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>2- Epilepsy</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>3- Brain tumors</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>4- Headache</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5- Increase intracranial tension</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6- Spinal cord lesions</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

4– Teaching and Learning Methods

4.1-lectures.
4.2-Clinical lessons.
4.3- Assignments for the students to empower and assess the general and transferable skills

5- Student Assessment Methods

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Assessment Schedule

Assessment 1…. Final Clinical exam…. week 24
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Assessment 3 … Final oral exam …. week: 24

Weighting of Assessments
Final-written Examination 50%
Oral and Clinical Examination 50%

Total 100%

Formative only assessments: simple research assignments, log book, attendance, absenteeism

6- List of References:
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Course Coordinator: Dr. Khaled Naser
Head of Department: Dr. Mohamed Abdelal

Date: 12/9/2009
Course Specification of Neurology in Master degree in Neurosurgery

University… Sohag                         Faculty ...Medicine

Course Specifications
Program on which the course is given: Master degree in Neurosurgery.
Major or minor element of program: Minor
Department offering the program: Neurosurgery.
Department offering the course: Neurology
    Academic year / Neurosurgery 1st part of Master degree
Date of specification approval: Date of specification approval:  Faculty Council No 182 , decree 7163
Date 14/9/2009

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Code: Neurology
Credit Hours: Lecture:  
Tutorial: - Practical: hrs. Total:

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     b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for neurological diseases
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By the end of the course the student should have the ability to:

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</tr>
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</tr>
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4– **Teaching and Learning Methods**

4.1-lectures.
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6- List of References:

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6.2 Essential books:

  c3. Brain’s Disease of The Nervous System.
  

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Course Coordinator: Dr. Khaled Naser
Head of Department: Dr. Mohamed Abdelal

Date: 12/9/2009
Course Specification of Neurosurgery in Master degree of Neurosurgery

University… Sohag Faculty ...Medicine

Course Specifications
Program on which the course is given: Master degree in Neurosurgery.
Major or minor element of program: Major
Department offering the program: Neurosurgery.
Department offering the course: Neurosurgery

Academic year / Neurosurgery 1st part of Master degree

Date of specification approval: Date of specification approval: Faculty Council No 182 ,decree 7163
Date 14/9/2009

A- Basic Information

Title: Course Specification of Neurosurgery in Master degree in Neurosurgery
Code: Neurosurgery
Credit Hours: Lecture: Tutorial: - Practical: hrs. Total:

B- Professional Information

1. Overall Aims of Course
By the end of the course the post graduate students should be able to have the professional knowledge of Neurosurgical diseases.

2. Intended Learning Outcomes of Course (ILOs):
According to the intended goals of the faculty

a) Knowledge and Understanding:
By the end of the course the student should be able to:

a1. Mention the recent advances in the normal structure and function of the human central and peripheral nervous system on the micro levels.
a2. List the clinical picture and differential diagnosis of neurosurgical diseases.
a3. Enumerate common diagnostic and laboratory techniques necessary to establish diagnosis of neurosurgical diseases.
a4. Know the principles and fundamentals of quality assurance of professional practice in the field of neurosurgery.

b) Intellectual Skills:
By the end of the course the student should have the ability to:

b1. Interpret data acquired through history taking to reach a provisional diagnosis for neurosurgical problems.
b1. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for neurosurgical diseases.
b2. Plan to improve performance in the field of neurosurgery
b3. Have the ability to innovate nontraditional solutions to neurosurgical problems.
b4. Criticize researches related to neurosurgery

c) Professional and Practical Skills:

By the end of the course the student should have the ability to:
c1. Master of the basic and modern professional medical and surgical skills in the area of neurosurgery.

d) General and Transferable Skills:

By the end of the course the student should have the ability to:
d1. Manage Scientific meetings administration according to the available time.
d2. d-2learn himself continuously

3. Course contents:

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Practical</th>
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<tbody>
<tr>
<td>1- General Pathology:</td>
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<tr>
<td>1.1. Inflammation &amp; repair.</td>
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<td>1.2. Cell response to injury and aging.</td>
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<td>1.3. Disturbances of circulation.</td>
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<td>1.4. Infection.</td>
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<td>1.5. General pathology of tumors.</td>
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<td>1.6. Genetic diseases.</td>
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<td>2- Endocrine system:</td>
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<td>2.1. Diseases of pituitary gland &amp; pineal body.</td>
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<td>3- The musculoskeletal system:</td>
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<tr>
<td>3.1. Motor neuron diseases &amp; neuropathies</td>
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<td>4- Nervous system:</td>
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<tr>
<td>4.1. Meningitis, encephalitis and brain abscess.</td>
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<td>4.2. Demyelinating diseases</td>
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<td>4.3. Degenerative diseases</td>
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<td>4.4. Hydrocephalus.</td>
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<td>4.5. Cerebral edema.</td>
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<td>4.6. Space occupying lesion.</td>
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<td>4.7. Intracranial hemorrhages.</td>
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<tr>
<td>4.8. Spina bifida</td>
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<tr>
<td>4.9. Arnold Chiari malformation</td>
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<td>4.10. Spinal disc prolapse.</td>
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<td>4.11. Spinal canal stenosis.</td>
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<td>4.14. Tumors of spinal cord</td>
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<td>Total</td>
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</table>
4. Teaching and Learning Methods

4-1 Lectures.
4-2 Clinical lessons.
4-3 Surgical lessons.
4-4 Seminars.
4-5 Assignments for the students to empower and assess the general and transferrable skills.
4-6 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

5-1 Methods of student assessment

Research assignment for the students to empower and assess the general and transferrable skills.

Log book to assess Clinical, surgical, general and transferrable skills.
Final written exam to assess knowledge and understanding.
Final commentary written exam to assess intellectual skills.
Final oral exam to assess knowledge and understanding.
Final clinical exam (OSCE) to assess Clinical skills.

Assessments schedule:

Assessment 1…. log book (formative exam). week :80
Assessment 2…. Final clinical exam…. week 96
Assessment 3…..Final written exam ……. week 96
Assessment 4 … Final oral exam …. week: 96

Weighting of Assessments

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weighting</th>
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<tbody>
<tr>
<td>Final-written Examination</td>
<td>separate exam</td>
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<td>Final Oral Examination</td>
<td>50 %</td>
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</table>

Total 100%

Formative only assessements: simple research assignments, log book, attendance, absenteeism

6- List of References
6.1- Course Notes: Lecture notes prepared by staff members of the department.

6.2- Essential Books (Text Books):

6.3- Recommended Books:

6.4- Periodicals, American journal of pathology
Pathology
Human pathology

Course Coordinator: Dr. Khaled Naser
Head of Department: Dr. Mohamed Abdelal

Date: 12/9/2009