إعتماد توصيف مقررات برنامج الدكتوراه فى جراحة المخ والأعصاب

نقر نحن الموقعون على هذا أدناه أن توصيف وثيقة البرنامج التعليمى لدرجة الدكتوراه فى جراحة المخ والأعصاب والمقررات الدراسية المكونة له قد تم وضعها بمعرفة الأقسام المعنية

م	اسم المقرر	اسم منسق المقرر	التوقيع	اسم رئيس القسم	التوقيع
١.	الاحصاء الطبي والكمبيوتر	د./ أحمد فتحي حامد		د./ ايمان عبد الباسط محمد	
٢.	أساليب البحث العلمي	د./ أحمد فتحي حامد		د./ ايمان عبد الباسط محمد	
٣.	التقارير الطبية الأولية	د./سهير على محمد		د./مها عبد الحميد هلال	
٤.	التشريح التطبيقى	د./ نصار أيوب عبد اللطيف		د./ عصام صلاح كامل	
٥.	الفسيولوجيا التطبيقية	د./ نوال بدوي على		أ.د./ جلال محمد عبد القادر	
٦.	الباثولوجيا التطبيقية	د./ فاطمة الزهراء صلاح الدين		د./ ايمان محمد صلاح الدين	
٧.	جراحة المخ والأعصاب	د./خالد ناصر		د./ محمد عبد العال	

وكيل الكلية للدراسات العليا

عميد الكلية

Peer Revision

Reviewers	University	Date of Revision
- Prof. Dawlat Salem	Cairo	١٠/١٢/٢٠١١
- Prof. Ahmad K. Mansur	Mansura	٢٨/١١/٢٠١١

Program Specification of Medical Doctorate Degree of Neurosurgery

Sohag university **Faculty of medicine**

A. Basic Information

١- Program Title: M.D in Neurosurgery

٢- Programme Type: Single

٣- Faculty: Faculty of Medicine

٤- Department: Neurosurgery

٥- Coordinator: Dr. Mohamed Ahmed Abdel al

٦- Assistant Coordinator: Assistant lecturer Ahmmed Kamal

٧- External Evaluator: Professor .Roshdy Elkhayat.

٨- Last date of program specifications approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣.

B. Professional Information

١. Program Aims:

The aim of this program is to provide the postgraduate with the advanced medical knowledge and skills essential for mastery of the practice of neurosurgery and necessary for further training and practice in the field of neurosurgery including: through providing:

١. Recent Scientific knowledge essential for the mastery of practice of Neurosurgery according to the international standards.
٢. Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving, decision making and operative skills.
٣. Provision of sound ethical principles related to medical practice
٤. Active participation in community needs assessment and problems identification and creation of new solutions.
٥. Mentainance of learning abilities necessary for continuous medical education.
٦. Mastering research abilities.

٢. Attributes of the Neurosurgery MD degree student:

١. Efficient in carrying out the basics and methodologies of scientific research in Neurosurgery.

٢. The continuous working to add new knowledge in his field.

٣. Applying the analytical course and critical appraisal of the knowledge in his specialty and related fields.

٤. Merging the specialized knowledge with the other related knowledge with conclusion and developing the relationships in between them.

٥. Showing a deep awareness with the ongoing problems, theories, and advanced sciences in his specialty.

٦. Determination of the professional problems and creating solutions for them.

٧. Efficient in carrying out the professional skills in his specialty.

٨. Using advanced suitable technologies which serves his practice.

٩. Efficient communication and leadership of team work in his specialty.

١٠. Decision making through the available information.

١١. Using the available resources efficiently and working to find new resources.

١٢. Awareness with his role in the development of the society and preserve environment.

١٣. Behaving in a way which reflects his credibility, accountability, and responsibility.

١٤. Keeping continuous self development and transfer his experiences and knowledge to others.

٣. Program Intended Learning Outcomes (ILOs)

a) Knowledge and Understanding:

By the end of the study of doctoral program in neurosurgery the Graduate should be able to

a١. Mention the recent advances in the normal structure and function of the human central and peripheral nervous system on the macro and micro levels.

a٢. Mention recent advances in the normal growth and development of the human central and peripheral nervous system.

a٣. List the recent advances in the abnormal structure, function, growth and development of human central and peripheral nervous system

a٤. Learn recent advances in the natural history of neurosurgical diseases.

a٥. Learn recent advances in the causation of neurosurgical diseases and their pathogenesis.

a٦. Enumerate Methods of promoting normal function and structure of the central and peripheral nervous system and preventing their illness.

a٧. List the advances clinical picture and differential diagnosis of neurosurgical diseases.

a٨. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of neurosurgical diseases.

a٩. Describe recent advances in the various therapeutic methods/alternatives used for neurosurgical diseases diseases.

a١٠. Describe recent advances in the structure, mechanism of action, advantages, disadvantages, side effects and complications of the neurosurgical diagnostic and therapeutic methods.

a١١. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of neurosurgery.

a١٢. Learn the principles and fundamentals of quality assurance of professional practice in the field of neurosurgery

a١٣. Learn the effect of professional practice on the environment and the methods of environmental development and maintenance.
a١٤. Learn the recent advances in biostatistics and computer.
a١٥. Learn the recent advances of principles, methodologies, tools and ethics of scientific research.
a١٦. Become able to deal with medico legal aspects

b) Intellectual Skills

By the end of the study of doctoral program in neurosurgery the Graduate should be able to:

b١. Interpret data acquired through history taking to reach diagnosis for neurosurgical problems.
b٢. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for neurosurgical problems.
b٣. Conduct research studies that add to knowledge.
b٤. Formulate scientific papers in the area of neurosurgery.
b٥. Assess risk in professional practices in the field of neurosurgery
b٦. Plan to improve performance in the field of neurosurgery
b٧. Identify neurosurgical problems and find solutions..
b٨. Have the ability to innovate nontraditional solutions to neurosurgical problems.
b٩. Mange Scientific discussion based on scientific evidences and proofs.
b١٠. Criticize researches related to neurosurgery

c) Professional and Practical Skills

By the end of the study of doctoral program in neurosurgery the Graduate should be capable of:

c١. Master of modern professional medical and surgical skills in the area of neurosurgery
c٢. Write and evaluate medical reports.
c٣. Evaluate and develop the methods and tools existing in the area of neurosurgery
c٤. Use the technological methods to serve the professional practice.
c٥. Plan for the development of professional practice and development of the performance of others.
c٦. Be oriented to develop new methods, tools and ways of professional practice.
c٧. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent community problems

d) General and Transferable Skills

By the end of the study of doctoral program in neurosurgery the Graduate should be capable of:

d١. Do the different types of effective communication.
d٢. Using information technology to serve the development of professional practice
d٣. Teach others and evaluating their performance.
d٤. Self and other -assess and identify learning needs.
d٥. Use of different sources for information and knowledge
d٦. Work in a team and team's leadership.
d٧. Manage Scientific meetings administration according to the available time.
d٨. Use appropriate computer program packages.

٤. Academic Standards

Sohag faculty of medicine adapted the general national academic reference standards(NARS) provided by national authority for quality assurance and accreditation of education (naqaae) for postgraduate programs .this was sponsored by the faculty council NO.٦٨٥٤ session NO.١٧٧ dated ١٨-٥-٢٠٠٩ based on these NARS , academic reference standards (ARS) were suggested for the program . These ARS were revised by external evaluator and sponsored by faculty council decree NO. ٧٥٢٨ in its session no.١٩١, dated ١٥-٣-٢٠١٠. The adoption of NARS and the suggested ARS were approved by University council degree No ٥٨٧, in its cession No.٦٠. Dated ٢٦-١٢-٢٠١١

٥. Curriculum Structure and Contents

٥.a- Program duration :٧ semesters (٣,٥ years)

٥.b- Program structure

٥.b.i- No. of hours per week:

	hours /week		
Subject	Lectures	Practical /Surgical	Clinical
First Part:			
Biostatistics & Computer,	٢	٢	
Research Methodology,	٢	٢	
Primary Medical Reports.	١	٢	
Applied physiology	٢		
Applied Anatomy	٢		
Applied Pathology	٢		
Second Part:			
Neurosurgery	٧	٦,٢٥	٦,٢٥

code	Item		No	%
b.i	Total credit hours	Compulsory	٩٠	١٠٠
		Elective	٠	٠
		Optional	٠	٠
b.iii	credit hours of basic sciences courses		١٤	٢٨
b.iv	credit hours of courses of social sciences and humanities		٠	٠
b.v	credit hours of specialized courses:		٠	٠
b.vi	credit hours of other course			
b.vii	Practical/Field Training		٨	٨,٩٪
b.viii	Program Levels (in credit-hours system): Level ١: ١st part Level ٢: ٢nd Part Level ٣: Thesis		 ١٤ ٥٣ ١٥	 ١٦,٧ ٥٧,٨ ١٦,٧

٦. Program Courses: ٧ Courses are compulsory.

٦,١- Level

Semester…١…..

First part:

a. Compulsory

Course Title	Total No.of hours	No. of hours /week			Program ILOs Covered (By No.)
		Lect.	Practical/ Surgical.	Clinical	
Minors					

BioStatistics & Computer.	٣	٢	٢		a١٤ ,b١ ,c٤ ,d٥,d٨
Research Methodology,	٣	٢	٢		a١٥ ,b٣, b٤,b٨,b٩ ,b١٠,c١,c٦ ,d٥,d٦
Primary Medical Reports.	٢	١	٢		a١٦,b٧,c٢,c٦,d١
Applied Physiology	٢	٢			a٣ ,a٦,b٢,c٦ ,d٣
Applied Anatomy	٢	٢			a١ ,a٢,b٥,c٥ ,d٤
Applied Pathology	٢	٢			a٤ ,a٥ ,a١٤ ,a١٥, b١٠,c٧, d٢,d٥

Second part:

Course Title	Total No. of hours	No. of hours /week			Covered Program ILOs (By No.)
		Lect.	surgical.	Clinical	
Neurosurgery Curriculum	٥٣	٧	٦,٢٥	٦,٢٥	a١,a٧ ,a٨,a٩,a١٠, a١١,a١٢,a١٣ ,b١ ,b٢ ,b٥,b٦,b٨ ,b٩,c١,c٣ ,d٧

٧. Program Admission Requirements

I- General Requirements.

- Candidate should have either MBBch degree from any Egyptian Faculty of Medicine or Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
- Candidate should know how to speak & write English well
- Candidate should have computer skills**.**
- Follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (٤٤), dated ٦/١/٢٠١٠.

II- Specific Requirements

- Master degree in Neurosurgery with at least "Good Rank".

٨. Regulations for Progression and Program Completion

Duration of program is ٩٠ credit hours (≥٧ semesters ≥٣,٥ years), starting from registration till acceptance of the thesis; divided to:

First Part: (١٥ Credit hours ≥٦ months ≥١ semester):

- Program-related basic science, Research Methodology, Ethics & medical reports, Biostatistics and computer.
- At least six months after registration should pass before the student can ask for examination in the ١st part.
- Two sets of exams: ١st in October — ٢nd in April after fulfillment of the credit hours.
- At least ٦٠٪ of the written exam and ٦٠٪ of the total oral and practical/clinical is needed to pass in each course.
- For the student to pass the first part exam, a score of at least ٦٠٪ (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only.
- GPA of ≥١,٣ is needed to pass this level (semester).

Second Part: (٥٠-٦٠ Credit hours ≥٢٤ months= ٤ semesters):

- Program related specialized science of Neurosurgery courses. At least ٢٤ months after passing the ١st part should pass before the student can ask for examination in the ٢nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (٨ Credit hours; with obtaining ≥٧٥٪ of its mark) is a prerequisite for candidates to be assessed and undertake part ١ and part ٢ examinations the credit hours of the logbook are calculated as following:
  - Each Cr. Hr.= ٦٠ working Hrs.
  - Logbook= ٨ Cr. Hr. X ٦٠ working Hrs = ٤٨٠ Working Hrs.
  - Collection of working Hrs. is as following:

Activity		Hrs
Grand rounds	**اجتماع علمى موسع**	**٦**
Training courses	**دورات تدريبية**	**١٢/ day**
Conference attendance	**حضور مؤتمرات علمية** **داخلى** **خارجة**	 **١٢/day** **١٨/day**
Thesis discussion	**حضور مناقشات رسائل**	**٦**
Workshops	**حضور ورش عمل**	**١٢/day**
Journal club	**ندوة الدوريات الحديثة**	**٦**
Seminars	**لقاء علمى موسع**	**٦**
Morbidity and Mortality conference	**ندوة تحليل المخاطر المرضية أوالوفاة**	**٦**
Self education program	**برنامج التعليم الذاتى**	**٦**

- Two sets of exams: ١st in October - ٢nd in April.
- At least ٦٠٪ of the written exam is needed to be admitted to the oral and practical exams.
- ٤ times of oral and practical exams are allowed before the student has to re-attend the written exam.

Third Part (Thesis) (١٥ Credit hours =٢٤-٤٨ months=٤-٨ semester):

- Documentation of the subject should not be delayed for > ١,٥ years after registration.
- Could start after registration and should be completed, defended and accepted after passing the ٢nd part final examination, after passing of at least ٢٤ months after documentation of the subject of the thesis and after publishing of at least one paper from the thesis in a specialized peer-reviewed journal.
- Accepting the thesis is enough to pass this part.

٩. <u>Methods of student assessments:</u>

Method of assessment	weight	The assessed ILOs
١-Research assignment		- General transferable skills, intellectual skills
٢-Written Exams: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	٥٠٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills

٣-OSCE/ OSPE	٥٠٪	-Practical skills, intellectual skills, general transferable skills
٤-Structured Oral Exams		- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Biostatistics & Computer: Written Exam (٢ hours) + Structured oral Exam+ OSPE
- Research Methodology: Written Exam (٢ hours) + structured oral Exam+ OSPE
- Primary medical reports: Written Exam (٢ hour) + Structured oral Exam+ OSPE
- Applied Anatomy: Written Exam (٢ hour) + structured oral Exam.
- Applied Pathology: Written Exam (٢ hour) + structured oral Exam
- Physiology: Written Exam (٢ hour) + structured oral Exam.

Part II:

- Three written Exams (٣ hours for each) one for Compulsory Neurosurgery, one for optional Neurosurgery and one written exam containing commentary (١،٥ hours) + Structured oral Exam for Anatomy and surgical Pathology + operative + OSCE for general surgery, Neurosurgery and Neurology .

١٠. Evaluation of Program

Evaluator	Tool	Sample
١- Senior students	Questionnaire	٤
٢- Alumni	Questionnair	٢
٣- Stakeholders (Employers)	Questionnaire	٢٠
٤-External Evaluator(s) (External Examiner(s))	Report	١
٥- Other		

Course Specification of Biostatistics and Computer for M.D degree in Neurosurgery

Sohag university **Faculty of medicine**

١. Program on which the course is given: M.D degree in Neurosurgery

٢. Major or minor element of program: Minor

٣. Department offering the program: Neurosurgery

٤. Department offering the course: Community Medicine and public Health.

٥. Academic year / Neurosurgery ١st part of Doctorate degree

٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title Course Specification of Biostatistics and Computer in M.D degree in Neurosurgery

Code: COM ٠٥١٩-٣٠٠

Title	lecture	practical	total	credit
Applied biostatistics	٣٠	٣٠	٦٠	٣

B. Professional Information

١. Overall Aims of Course

- The aim of this program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mystery of the practice of biostatistics
- To use precisely computer programs

٢. 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 is expected to be able to:

a١. Mention different programs of analysis of data and statistical packages

a٢. Define the recent advances of sources of data and methods of collection.

a٣. Summarize data, construct tables and graphs

a٤. Calculate measures of central tendency and measures of dispersion

a٥. Describe the normal curves and its uses

a٦. Illustrate selected tests of significance and the inferences obtained from such tests

a٧. Illustrate selected tests of significance for parametric and non parametric inferences

a٨. Identify factor analysis and discrimination analysis

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

b١. Understand how to collect and verify data from different sources

b٢. Interpret data to diagnose prevalent health problems in Neurosurgery field

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

c١. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent community problems

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

d١. Use appropriate computer program packages.

d٢. Use of different sources for information and knowledge about biostatistics.

٣. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Recent advances in collection, analysis and interpretation of data	٦	٣	٣
-Details of Tests of significance: Proportion test	٦	٣	٣
Chi-square test	٤	٢	٢
Student T test	٦	٣	٣
Paired T test	٥	٣	٢
-Correlation	٥	٢	٣
-Regression	٦	٣	٣
-ANOVA test	٦	٣	٣
-Discrimination analysis	٦	٣	٣
Factor analysis	٤	٢	٢
- parametric and non parametric tests	٦	٣	٣
Total	**٦٠**	**٣٠**	**٣٠**
Credit	**٣**	**٢**	**١**

٤. Teaching and Learning Methods

٤,١- Lectures

٤,٢- Practical sessions

٤,٣- Computer search assignments

٤,٤- Computer application

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢-Written Exam: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
٥,٤ Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment ١……..Final written exam Week: ٢٤

Assessment ٢……..Final Structured Oral Exam Week: ٢٤

Assessment ٣ Attendance and absenteeism throughout the course

Assessment ٤ Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	٥٠	%
Final Structured Oral Exam	٥٠	%
Total	١٠٠	%

Formative only assessments: attendance and absenteeism and Computer search assignments performance.

List of References

- Abhaya Indrayan (٢٠١٢). *Medical Biostatistics*. CRC Press. ISBN ٩٧٨-١-٤٣٩٨-٨٤١٤-٠.
- Charles T. Munger (٢٠٠٣-١٠-٠٣). "Academic Economics: Strengths and Faults After Considering Interdisciplinary Needs".
- Helen Causton, John Quackenbush and Alvis Brazma (٢٠٠٣). *Statistical Analysis of Gene Expression Microarray Data*. Wiley-Blackwell.
- Terry Speed (٢٠٠٣). *Microarray Gene Expression Data Analysis: A Beginner's Guide*. Chapman & Hall/CRC.
- Frank Emmert-Streib and Matthias Dehmer (٢٠١٠). *Medical Biostatistics for Complex Diseases*. Wiley-Blackwell. ISBN ٣-٥٢٧-٣٢٥٨٥-٩.
- Warren J. Ewens and Gregory R. Grant (٢٠٠٤). *Statistical Methods in Bioinformatics: An Introduction*. Springer.

٦. • Matthias Dehmer, Frank Emmert-Streib, Armin Graber and Armindo Salvador (٢٠١١). *Applied Statistics for Network Biology: Methods in Systems Biology*. Wiley-Blackwell. ISBN ٣-٥٢٧-٣٢٧٥٠-٩.

٦,١- Essential Books (Text Books)

١-Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc ٢٠١٠.

٦,٢- Recommended Books

١- Dimensions of Community Health, Boston Burr Ridge Dubuque ٢٠٠٥.

٢- Short Textbook of preventive and social Medicine. Prentice-Hall٢٠٠٨ International Inc.

٣- Epidemiology in medical practice, ٥th edition. Churchill Livingstone. New York, London and Tokyo ٢٠٠٠.

٦,٣- Periodicals, Web Sites, … etc:

١-American Journal of Epidemiology

٢-British Journal of Epidemiology and Community Health

٣- WWW. CDC.com , and WHO sites.

٧. Facilities Required for Teaching and Learning:

١. 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.

٢. 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.

٣. Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr/Ahmed Fathy Hammed

Head of Department: Prof/Eman Abd El-Baset Mohammed

Date: ١٨/١٢/٢٠١١, Revised:١/٩/٢٠١٢, Revised:١/١٢/٢٠١٣

Course Specification of Research Methodology for M.D degree in Neurosurgery

Sohag university **Faculty of medicine**

١. Program on which the course is given: M.D degree in Neurosurgery
٢. Major or minor element of program: Minor
٣. Department offering the program: : Neurosurgery
٤. Department offering the course: Community Medicine and public Health.
٥. Academic year / Neurosurgery ١st part of Doctorate degree
٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title: Course Specification of Research methodology in MD degree in Neurosurgery

Code: COM ٠٥١٩-٣٠٠

Title	lecture	practical	total	credit
research methods	٣٠	٣٠	٦٠	٣

B. Professional Information

١. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of

١. Provision of sound ethical principles related to medical practice.
٢. Active participation in community needs assessment and problems identification.
٣. Upgrading research interest and abilities.

٢. 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 is expected to be able to:

a١. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
a٢. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
a٣. Describe the study design, uses, and limitations.
a٤. Mention the recent advances of principles, methodologies, tools and ethics of scientific research.
a٥. Explain the strategies and design of researches.
a٦. Describe bias and confounding.
a٧. Describe sampling techniques and list advantages of sampling
a٨. Identify principles of evidence based medicine.

b) Intellectual Skills

By the end of the course, the student is expected to be able to:

b١. Conduct research studies that add to knowledge.
b٢. Formulate scientific papers in the area of public health and community medicine

b٣. Innovate and create researches to find solutions to prevalent community health problems

b٤. Criticize researches related to public health and community medicine

c) Professional and Practical Skills:

By the end of the course, the student is expected to be able to:

c١. Master the basic and modern professional skills in conducting researches in the area of public health and community medicine.

c٢. Design new methods, tools and ways of conducting researches. .

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

d١. Use of different sources for information and knowledge to serve research.

d٢. Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

٣. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Details of epidemiological studies (case control, cohort and cross sectional)	١	٣	٣
Clinical trials, Quasi experimental study	١	٣	٣
Bias and errors	١	٣	٣
Setting a hypothesis	١	٣	٣
Recent advances in screening	٠,٥	٣	٣
- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	١	٧	٧
Setting an objective - Critical thinking	١	٤	٤
Formulation of papers	١	٤	٤
Total	**٦٠**	**٣٠**	**٣٠**
Credit hours	**٣**	**٢**	**١**

٤. Teaching and Learning Methods

٤,١- Lectures.

٤,٢- Computer search assignments

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢-Written Exam: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
٥,٤ Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment ١ Final written exam Week: ٢٤
Assessment ٢ Final Structured Oral Exam Week: ٢٤
Assessment ٣ Attendance and absenteeism throughout the course
Assessment ٤ Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	٥٠	%
Final Structured Oral Exam	٥٠	%
Total	١٠٠	%

Any formative only assessments Attendance and absenteeism throughout the course
Computer search assignment performance throughout the course

- **List of References**

- Berg, Bruce L., ٢٠٠٩, *Qualitative Research Methods for the Social Sciences*. Seventh Edition. Boston MA: Pearson Education Inc.
- Creswell, J. (١٩٩٨). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, California: Sage Publications.
- Creswell, J. (٢٠٠٣). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Thousand Oaks, California: Sage Publications.
- Franklin, M.I. (٢٠١٢). *Understanding Research: Coping with the Quantitative-Qualitative Divide*. London and New York: Routledge.
- Guba, E. and Lincoln, Y. (١٩٨٩). *Fourth Generation Evaluation*. Newbury Park, California: Sage Publications.
- Herrman, C. S. (٢٠٠٩). "Fundamentals of Methodology", a series of papers On the *Social Sciences Research Network* (SSRN), online.
- James, E. Alana, Slater, T. and Bucknam, A. (٢٠١١). *Action Research for Business, Nonprofit, and Public Administration - A Tool for Complex Times .* Thousand Oaks, CA: Sage.
- Joubish, Farooq Dr. (٢٠٠٩). *Educational Research* Department of Education, Federal Urdu University, Karachi, Pakistan
- Patton, M. Q. (٢٠٠٢). *Qualitative research & evaluation methods* (٣rd edition). Thousand Oaks, California: Sage Publications.
- Silverman, David (Ed). (٢٠١١). *Qualitative Research: Issues of Theory, Method and Practice*, Third Edition. London, Thousand Oaks, New Delhi, Singapore: Sage Publications
- *Webster's New International Dictionary of the English Language, Second Edition, Unabridged*, W. A. Neilson, T. A. Knott, P. W. Carhart (eds.), G. & C. Merriam Company, Springfield, MA, ١٩٥٠.

٦.

٦,١- Essential Books (Text Books):

١-Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc ٢٠١٠

٦,٢- Recommended Books:

١- Dimensions of Community Health, Boston Burr Ridge Dubuque٢٠٠٦.
٢- Short Textbook of preventive and social Medicine. Prentice-Hall International Inc ٢٠٠٠.

٣- Epidemiology in medical practice, ٥th edition. Churchill Livingstone. New York, London and Tokyo ٢٠٠٥.

٦,٣- Periodicals, Web Sites, … etc:

١-American Journal of Epidemiology

٢-British Journal of Epidemiology and Community Health

٣- WWW. CDC.com , and WHO sites.

٧. Facilities Required for Teaching and Learning:

١-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.

٢-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.

٣-Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr/Ahmed Fathy Hammed

Head of Department: Prof/Eman Abd El-Baset Mohammed

Date: ١٨/١٢/٢٠١١, Revised:١/٩/٢٠١٢, Revised:١/١٢/٢٠١٣

Course Specification of Primary Medical Report for M.D degree in Neurosurgery

Sohag university **Faculty of medicine**

Course Specifications

١. Program on which the course is given: P in M.D degree in Neurosurgery

٢. Major or minor element of program: Minor

٣. Department offering the program: Neurosurgery

٤. Department offering the course: Forensic Medicine and Clinical Toxicology.

٥. Academic year / Neurosurgery ١st part of Doctorate d: Neurosurgery degree

٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title: Course Specification of Primary medical Report in MD degree in Neurosurgery

Code:FOR٠٥١٩-٣٠٠

Title	Lecture	Practical	Total	Credit
Primary medical report	١٥	٣٠	٤٥	٢

B. Professional Information

١. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the medicolegal problems.

٢. 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:

a١. Become able to deal with medicolegal aspects

b) Intellectual Skills:

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

b١. Identify neurosurgical legal problems and find solutions

c) Professional and Practical Skills:

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

c١. Writ and evaluate medical reports.

d) General and Transferable Skills:

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

d١.Do the different types of effective communication

٣. Course contents:

Topic	No. of hours	Lecture	Practical
The pathology of wounds, chest and abdominal injuries, self inflicted injury	١	١	٢
The systemic effect of trauma& Permanent infirmity	.٥	١	٢
Head and spinal injuries	١	٢	٤
The medicolegal aspects of firearm injuries	.٥	١	٢
Burn and scold	.٥	١	٢
How to write a medicolegal report& How to write death certificate	.٥	١	٢
The medicolegal aspect of deaths associated with surgical procedures and toxicological sampling	١	١	٢
Obligation of physicians (towards patients, colleagues, community)	.٥	٢	٤
Consent, and professional secrecy	.٥	١	٢
Types of malpractice, and items of medical responsibility	.٥	١	
Medicolegal aspects of organ transplantation, intersex states, euthanasia, assisted reproduction techniques	.٥	٢	٤
ethical considerations of medical research involving human subjects	.٥	١	٢
Total hours	**٤٥**	**١٥**	**٣٠**
Credit	**٢**	**١**	**١**

٤. Teaching and Learning Methods

٤,١-lectures.

٤,٣- Assignments

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢-Written Exam: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
٥,٤ assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment ١…..Final written exam …….. week: ٢٤

Assessment ٢ … Final Structured Oral Exam …. week: ٢٤

Weighting of Assessments

Final-written Examination	٥٠٪
Structured Oral Exam	٥٠ %
Total	١٠٠٪

Formative only assessements: simple research Assignments, attendance, absenteeism

List of References

- Saks, Michael J.; Faigman, David L. (٢٠٠٨). "Failed forensics: how forensic science lost its way and how it might yet find it". *Annual Review of Law and Social Science* ٤: ١٤٩–١٧١. doi:١٠,١١٤٦/annurev.lawsocsci.٤,١١٠٧٠٧,١٧٢٣٠٣.
- Solomon, John (٢٠٠٧-١١-١٨). "FBI's Forensic Test Full of Holes". *The Washington Post*. p. A١. Retrieved ٢٠٠٨-٠٣-٠٥.
- Santos, Fernanda (٢٠٠٧-٠١-٢٨). "Evidence From Bite Marks, It Turns Out, Is Not So Elementary". *The New York Times*. Retrieved ٢٠٠٨-٠٣-٠٥.
- McRoberts, Flynn (٢٠٠٤-١١-٢٩). "Bite-mark verdict faces new scrutiny". *Chicago Tribune*. Retrieved ٢٠٠٨-٠٣-٠٥.
- McRoberts, Flynn (٢٠٠٤-١٠-١٩). "From the start, a faulty science". *Chicago Tribune*. Retrieved ٢٠٠٨-٠٧-١٣. [*dead link*]
- ^ Polloack, Andrew. "DNA Evidence Can Be Fabricated, Scientists Show". *New York Times*. http://www.nytimes.com/٢٠٠٩/٠٨/١٨/science/١٨dna.html. August ١٧, ٢٠٠٩
- Raloff, Janet (٢٠٠٨-٠١-١٩). "Judging Science". *Science News*. pp. ٤٢ (Vol. ١٧٣, No. ٣). Archived from the original on ٢٠٠٨-٠٢-٢٨. Retrieved ٢٠٠٨-٠٣-٠٥.
- Holmgren, Janne A.; Fordham, Judith (January ٢٠١١). "The CSI Effect and the Canadian and the Australian Jury". *Journal of Forensic Sciences* ٥٦ (S١): S٦٣–S٧١. doi:١٠,١١١١/j.١٥٥٦-٤٠٢٩,٢٠١٠,٠١٦٢١.x
- "'Badly Fragmented' Forensic Science System Needs Overhaul". The National Academies. February ١٨, ٢٠٠٩. Retrieved ٢٠٠٩-٠٣-٠٩.

٦.

٦,١-Essential Books:

- Simpson's Forensic Medicine by Knight, B ١٩٩٠
- Medical ethics. by Jones & Barlett ٢٠٠٦

٦,٢-Recommended Books:

٦,٣ Periodicals and websites:

Forensic Science International, Egyptian Journals of Forensic Medicine and Clinical Toxicology, International Journals of Forensic Medicine and Clinical Toxicology

Web sites: www.sciencedirect.com

٧. Facilities Required for Teaching and Learning:

١. 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.
٢. 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.

٣. Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr. Soheir Ali Mohamed

Head of Department: Dr. Maha Abdel Hamed Hilal

Date: ١٨/١٢/٢٠١١, Revised:١/٩/٢٠١٢, Revised:١/١٢/٢٠١٣

Course Specification of Human Anatomy & Embryology for M.D degree in Neurosurgery

Sohag university **Faculty of medicine**

١. Program on which the course is given: M.D degree in Neurosurgery

٢. Major or minor element of program: Minor

٣. Department offering the program: Neurosurgery

٤. Department offering the course: Human Anatomy & Embryology

٥. Academic year / Neurosurgery ١st part of Doctorate degree

٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A- Basic Information

Title: Course Specification of Human Anatomy & Embryology in MD degree in Neurosurgery

Code: ANA ٠٥١٩-٣٠٠

Title	Lecture	Practical	Total	Credit
Anatomy	٣٠		٣٠	٢

B- Professional Information

١. Overall Aims of Course

By the end of the course the post graduate students should be able to have the professional knowledge of the anatomy of central and peripheral nervous system .

٢. 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:

a١. Mention the recent advances in the normal structure and function of the human central and peripheral nervous system on the macro levels.

a٢. Mention recent advances in 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:

b١. Suggest and apply solution to 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:

c١. Design and teach the development of professional practice and development of the performance of others

d) General and Transferable Skills:

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

d١. Self-assess and identify personal learning needs

٣. Course contents:

Topic	No. of hours	Lecture	Practical
Anatomy of head and neck	٦	٦	
neuroanatomy	٦	٦	
Anatomy of the spine	٤	٤	

Anatomy of upper and lower limbs	٤	٤	
Embryology of CNS	٦	٦	
Embryology of the muscloskeletal system	٤	٤	
Total	**٣٠**	**٣٠**	
Credit	**٢**	**٢**	

٤. Teaching and Learning Methods

٤,١-Lectures.

٤,٢-practical lessons.

٤,٣- Assignments for the students to empower and assess the general and transferable skills

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢-Written Exam: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
٥,٤-OSPE	-Practical skills, intellectual skills
٥,٥ assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment ١…. Final Structured Oral Exam …. Week:٢٤

Assessment ٢…..Final written exam …….. Week:٢٤

Assessment ٣ … Final OSPE …. Week:٢٤

Weighting of Assessments

Final-written Examination ٥٠٪

Structured Oral Exam and OSPE Examination ٥٠ %

Total ١٠٠٪

Formative only assessements : simple research assignments , attendence ,absenteeism

List of References

- Rose, F., "Cerebral Localization in Antiquity". Journal of the History of the Neurosciences, ٢٠٠٩, ١٨(٣), ٢٣٩-٢٤٧.
- Ginn, S. R., & Lorusso, L., "Brain, Mind, and Body: Interactions with Art in Renaissance Italy". Journal of the History of the Neurosciences, ٢٠٠٨, ١٧(٣), ٢٩٥-٣١٣.
- Neher, A., "Christopher Wren, Thomas Willis and the Depiction of the Brain and Nerves". Journal of Medical Humanities, ٢٠٠٩, ٣٠(٣), ١٩١-٢٠٠.

- Kuypers HG, Ugolini G (February ١٩٩٠). "Viruses as transneuronal tracers". *Trends in Neurosciences* ١٣ (٢): ٧١–٥. doi:١٠,١٠١٦/٠١٦٦-٢٢٣٦(٩٠)٩٠٠٧١-H. PMID ١٦٩٠٩٣٣.
- Rinaman L, Schwartz G (March ٢٠٠٤). "Anterograde transneuronal viral tracing of central viscerosensory pathways in

rats". *The Journal of Neuroscience* ٢٤ (١١): ٢٧٨٢–٦. doi:١٠,١٥٢٣/JNEUROSCI.٥٣٢٩-٠٣,٢٠٠٤. PMID ١٥٠٢٨٧٧١.

٦. • Norgren RB, McLean JH, Bubel HC, Wander A, Bernstein DI, Lehman MN (March ١٩٩٢). "Anterograde transport of HSV-١ and HSV-٢ in the visual system". *Brain Research Bulletin* **٢٨** (٣): ٣٩٣–٩. doi:١٠,١٠١٦/٠٣٦١-٩٢٣٠(٩٢)٩٠٠٣٨-Y. PMID ١٣١٧٢٤٠.

٦,١- Essential Books (Text Books) Gray's Anatomy ١٩٧٠

٦,٢- Recommended Books

A colored Atlas of Human anatomy and Embryology ٢٠٠٥

٧. Facilities Required for Teaching and Learning

١. 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.

٢. 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.

٣. Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr . Salwa Ouies.

Head of Department: Dr. Mohamed A. Aldsoky.

Date: ١٨/١٢/٢٠١١, Revised:١/٩/٢٠١٢, Revised:١/١٢/٢٠١٣

Course Specification of Medical Physiology in M.D degree in Neurosurgery

Sohag university **Faculty of medicine**

١. Program on which the course is given in M.D degree in Neurosurgery

٢. Major or minor element of program: Minor

٣. Department offering the program: Neurosurgery

٤. Department offering the course: Medical Physiology

٥. Academic year / Neurosurgery ١st part of Doctorate degree

٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title: Course Specification of Medical Physiology in MD degree in Neurosurgery

Code: PHY ٠٥١٩-٣٠٠

Title	lecture	practical	Total	Credit
Medical Physiology	٣٠		٣٠	٢

B. Professional Information

١. 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.

٢. 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:

a١. List the recent advances in the abnormal , function, growth of human central and peripheral nervous system

a٢. Mention 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:

b١. Interpret different diagnostic alternatives the ones that help reaching a final diagnosis for neurosurgical diseases.

c) Professional and Practical Skills:

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

c١. Be trained 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:

d١. Teach others and evaluating their performance

٣. Course contents:

Topic	No. of hours	Lecture	Practical
I-shock & haemorrhage	٢	٢	
II-regulation of arterial blood pressure	٣	٣	
III- regulation of respiration	٢	٢	
IV-regulation of blood PH	٣	٣	

V-blood volume	٣	٣	
VI-blood coagulation	٢	٢	
VII-thalamus, sensory pathways & motor neuron lesion	٢	٢	
VIII-pancreas	٣	٣	
IX-regulation of cerebral blood flow.	٢	٢	
X-calcium ion homeostasis	٣	٣	
XI-potassium ion regulation in intracellular fluid	٢	٢	
XII- CSF formation & regulation of intracranial tension. hr).	٣	٣	
Total	**٣٠**	**٣٠**	
Credit	**٢**	**٢**	

٤. Teaching and Learning Methods

٤,١- Lectures.

٤,٢-practical

٤,٣- Assignments for the students to empower and assess the general and transferable skills

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢-Written Exam: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
٥,٤ assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment ١…..Final written exam week ٢٤

Assessment ٢ … Final Structured Oral Exam week: ٢٤

Weighting of Assessments

Final-written Examination ٥٠٪

Structured Oral Exam ٥٠ %

Total ١٠٠٪

Formative only assessements : simple research assignments , attendence ,absenteeism

List of References

- Coolen, Kuhn, Sollich (٢٠٠٥). *Theory of Neural Information Processing Systems*. London, UK: Oxford University Press.
- ^ Bennett, Max R (٢٠٠١). *History of the Synapse*. Australia: Hardwood Academic Publishers.
- ^ Purves, Augustine, Fitzpatrick, Hall, LaMantia, McNamara, White (٢٠٠٨). *Neuroscience*. Sunderland, MA USA: Sinauer Associates Inc.
- ^ Levin & Luders (٢٠٠٠). *Comprehensive Clinical Neurophysiology*. New York: W.B. Saunders Company.
- *Guyton-medical physiology ١١th edition*. elsevier.

- ^ Carpenter (١٩٩٦). *Neurophysiology*. London: Arnold.

٦,١- Essential Books (Text Books):

- Gyton text book of physiology ٢٠٠٥.

٦٢- Recommended Books:

- Ritchard text book of learn٢٠١٠
- Ganoning text book of physiology٢٠١٠.

٦,٣- Periodicals, American journal of physiology

Web Sites: http://www.ncbi.nlm.nih.gov/pubmed/

٦. Facilities Required for Teaching and Learning:

١. 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.
٢. 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.
٣. Computer program: for designing and evaluating MCQs.

Course Coordinator: dr. Hoda Mostafa

Head of Department: Dr :Ahmed Mostafa .

Date: ١٨/١٢/٢٠١١, Revised:١/٩/٢٠١٢, Revised:١/١٢/٢٠١٣

Course Specification of Pathology in MD degree in Neurosurgery

Sohag university **Faculty of medicine**

١. Program on which the course is given: MD degree in Neurosurgery.

٢. Major or minor element of program: Minor

٣. Department offering the program: Neurosurgery

٤. Department offering the course: Pathology

٥. Academic year / Neurosurgery ١st part of Doctorate degree

٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title: Course Specification of Pathology in MD degree in Neurosurgery

Code:PAT٠٥١٩-٣٠٠

Title	Lecture	Practical	Total	Credit
Pathology	٣٠		٣٠	٢

B. Professional Information

١. 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.

٢. 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:

a١. Mention advances in the natural history of neurosurgical diseases.

a٢. Mention recent advances in the causation of neurosurgical diseases and their pathogenesis.

a٣. Describe etiology, pathogenesis and pathologic manifestation of diseases especially diseases of the central & peripheral nervous system and spinal cord.

a٤. Be able to describe correlation of gross and histopathology with the clinical basis of diseases especially diseases of the central & peripheral nervous system and spinal cord.

b) Intellectual Skills:

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

b١. Criticize pathological researches related to neurosurgery

b٢. Able to apply solutions for pathological problems

c) Professional and Practical Skills:

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

c١. To be trained to 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.

c٢. To be trained to 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:

d١. Use of different sources for information and knowledge.

٣. Course contents:

Topic	No. of hours	Lecture	Practical
١- General Pathology:	٨	٨	
١,١. Inflammation & repair.	١	١	
١,٢. Cell response to injury and aging.	٢	٢	
١,٣. Disturbances of circulation.	١	١	
١,٤. Infectious diseases.	١	١	
١,٥. General pathology of tumors.	١	١	
١,٦. Genetic diseases.	٢	٢	
٢- Endocrine system:	٥	٥	
٢,١. Diseases of pituitary gland & pineal body.	٥	٥	
٣- The musculoskeletal system:	٥	٥	
٣,١. Motor neuron diseases & neuropathies	٥	٥	
٤- Nervous system:	١٢	١٢	
٤,١. Meningitis, encephalitis and brain abscess.	١	١	
٤,٢. Demyelinating diseases	١	١	
٤,٣. Degenerative diseases	١	١	
٤,٤. Hydrocephalus.	١	١	
٤,٥. Space occupying lesion.	٢	٢	
٤,٦. Intracranial hemorrhages.	٢	٢	
٤,٧. Spina pifida & Arnold Chiari malformation	١	١	
٤,٨. Spinal disc prolapsed & spinal canal stenosis.	١	١	
٤,٩. Spondylolithesis.	١	١	
٤,١٠. Tumors of the brain & spinal cord	١	١	
Total	**٣٠**	**٣٠**	
Credit	**٢**	**٢**	

٤. Teaching and Learning Methods

٤,١-lectures.

٤,٢- Assignments for the students to empower and assess the general and transferable skills

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢-Written Exam: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
٥,٣-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
٥,٤ assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment ١…..Final written exam Week ٢٤

Assessment ٢ … Final Structured Oral Exam Week: ٢٤

Weighting of Assessments

Final-written Examination	٥٠٪
Structured Oral Exam	٥٠ %
Total	١٠٠٪

Formative only assessments: simple research assignments, attendance, absenteeism

٦. **List of References** :Robbins, Stanley (٢٠١٠). *Robbins and Cotran pathologic basis of disease.* (٨th ed. / ed.). Philadelphia: Saunders/Elsevier. ISBN ٩٧٨-١-٤١٦٠-٣١٢١-٥.

٦,١- Essential Books (Text Books):

- Muir's text book of pathology ٢٠٠٨.
- Robbins pathologic basis of diseases ٢٠١٠.

٦,٢- Recommended Books:

- Rosi &Ackerman text book of pathology ٢٠٠٥ .
- Sternberg text book of pathology٢٠٠٨ .

٦,٣- Periodicals, American journal of pathology

Pathology

Human pathology

Web Sites: http://www.ncbi.nlm.nih.gov/pubmed/

٧. **Facilities Required for Teaching and Learning:**

١. ١-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.
٢. 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.
٣. Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr. Fatma Elzhraa

Head of Department: Dr: Eman mohammed Salah

Date: ١٨/١٢/٢٠١١, Revised:١/٩/٢٠١٢, Revised:١/١٢/٢٠١٣

Course Specification of Neurosurgery for MD degree in Neurosurgery

Sohag university **Faculty of medicine**

١. Program on which the course is given: Doctorate degree in Neurosurgery

٢. Major or minor element of program: Major

٣. Department offering the program: : Neurosurgery

٤. Department offering the course: Neurosurgery

٥. Academic year / Neurosurgery second part of Doctorate degree

٦. Date of specification approval: Faculty council No. "٢٥٠", decree No. "١٣٧٨" dated ٢٨/١٢/٢٠١٣

A. Basic Information

Title**:** Course Specification of Neurosurgery in MD degree in Neurosurgery

Code:NEU٠٥١٩-٣٠٠

Title	lecture	surgical	clinical	Total	Credit
Neurosurgery module	٤٢٠	٣٧٥	٣٧٥	١١٧٠	٥٣

B. Professional Information

١. 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.

٢. 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:

a١. Mention the recent advances in the normal structure and function of the human central and peripheral nervous system on the micro levels.

a٢. List the clinical picture and differential diagnosis of neurosurgical diseases.

a٣. Describe recent advances in the various therapeutic methods/alternatives used for neurosurgical diseases.

a٤. Describe recent advances in the structure, mechanism of action, advantages, disadvantages, side effects and complications

a٥. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of neurosurgery.

a٦. Mention the principles and fundamentals of quality assurance of professional practice in the field of neurosurgery

a٧. Mention the effect of professional practice on the environment and the methods of environmental development and maintenance.

b) Intellectual Skills:

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

b١. Interpret data acquired through history taking to reach a provisional diagnosis for neurosurgical problems.

b٢. Interpret data acquired through history taking to reach a provisional diagnosis for neurosurgical problems.

b٣. Have the ability to innovate nontraditional solutions to neurosurgical problems.

b٤. Mange Scientific discussion based on scientific evidences and proofs.

b.٥ 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:

c١. Master of the basic and modern professional medical and surgical skills in the area of neurosurgery

c٢. Identify various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, and degenerative) and mechanisms of diseases and the way through which they operate in the body (pathogenesis).

c٣. Evaluate and develop the 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:

d١. Manage Scientific meetings administration according to the available time.

d٢. Using information technology to serve the development of professional practice

٣. Course contents:

Topic	No. of hours	Lecture	Surgical/ practical	Clinical
History, examination and diagnostic procedures	١١٧	٤٢	٣٧,٥	٣٧,٥
-Anesthesia preoperative care and operative techniques	١١٧	٤٢	٣٧,٥	٣٧,٥
- Cranial and spinal trauma	١١٧	٤٢	٣٧,٥	٣٧,٥
- Neuro- oncology	١١٧	٤٢	٣٧,٥	٣٧,٥
- Vascular neurosurgery	١١٧	٤٢	٣٧,٥	٣٧,٥
- Infections of the CNS	١١٧	٤٢	٣٧,٥	٣٧,٥
- Developmental anomalies	١١٧	٤٢	٣٧,٥	٣٧,٥
- Disorders of peripheral and cranial nerves and autonomic nervous system	١١٧	٤٢	٣٧,٥	٣٧,٥
- Pain	١١٧	٤٢	٣٧,٥	٣٧,٥
- Benign spine lesions	١١٧	٤٢	٣٧,٥	٣٧,٥
Total	**١١٧٠**	**٤٢٠**	**٣٧٥**	**٣٧٥**
Credit	**٥٣**	**٢٨**	**١٢,٥**	**١٢,٥**

٤. Teaching and Learning Methods

٤-١ Lectures.

٤-٢ Clinical lessons.

٤-٣ Surgical lessons .

٤-٤ Seminars.

٤-٥ Assignments for the students to empower and assess the general and transferrable skills.

٤-٦Attending and participating in scientific meetings, conferences, workshops and testis discussion to acquire the general and transferrable skills needed.

٥. Student Assessment Methods

Method of assessment	The assessed ILOs
٥,١- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
٥,٢- Log book	- General transferable skills
٥,٣-Written Exam: -Short essay: ٤٠٪ -structured questions: ٢٥٪ -MCQs: ٢٠٪ -Commentary, Problem solving: ١٥٪	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,

٥,٤-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
٥,٥-OSCE	-Practical skills, intellectual skills General transferable skills
٥,٦ assignment	-General transferable skills, intellectual skills

Assessments schedule:

Assessment ١…. log book (formative exam) Week: ٨٠
Assessment ٢…. Final written exam …. Week: ٩٦
Assessment ٣…..Final OSCE …….. Week: ٩٦
Assessment ٤ … Final Structured Oral Exam …. Week: ٩٦

Weighting of Assessments

- Final Written Examination. Separate exam.

Passing in the written exam is a condition to attend the following exams:

Final-term written examination	٥٠%
Structured Oral Exam	٣٠٪
OSCE	٢٠٪
Total	١٠٠٪

Formative only assessment: simple research assignment, log book, attendance and absenteeism.

٦. List of References

- Oliver Adunka; Craig Buchman (١١ October ٢٠١٠). *Otology, Neurotology, and Lateral Skull Base Surgery: An Illustrated Handbook*. Thieme. pp. ٣٥٣–. ISBN ٩٧٨-٣-١٣-١٤٩٦٢١-٨. Retrieved ١٢ August ٢٠١٣.
- Greenberg, Mark S (٢٠١٠-٠٢-١٥). *Handbook of Neurosurgery*. ISBN ٩٧٨١٦٠٤٠٦٣٢٦٤.

٦,١- Course Notes: Lecture notes prepared by staff members of the department .

٦,٢- Essential Books (Text Books):

- Hand book of Neurosurgery ٢٠١٠.

٦,٣- Recommended Books:

- Youmans text book of neurosurgery ٢٠٠٥ .

٦,٤- Periodicals, American journal of pathology

Pathology
Human pathology

Web Sites: http://www.ncbi.nlm.nih.gov/pubmed/

٧. Facilities Required for Teaching and Learning:

١. 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.
٢. 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.
٣. Computer program: for designing and evaluating MCQs.

Course Coordinator: Dr/ khaled Naser

Head of Department: Dr/Mohammed Abd-Elaal

Date: ١٨/١٢/٢٠١١, Revised:١/٩/٢٠١٢, Revised:١/١٢/٢٠١٣