إعتماد توصيف مقررات برنامج الدكتوراه فى جراحة الأوعية الدموية

نقر نحن الموقعون على هذا أدناه أن توصيف وثيقة البرنامج التعليمى لدرجة الدكتوراه فى جراحة الأوعية الدموية 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 الجراحى	د./ نصار أيوب عبد اللطيف		د./ عصام صلاح كامل	
٥.	الباثولوجيا الجراحية	د./ فاطمة الزهراء صلاح الدين		د./ ايمان محمد صلاح الدين	
٦.	جراحة الأوعية الدموية	د./ أحمد سيف الإسلام		أ.د./ علاء الدين حسن محمد	

وكيل الكلية للدراسات العليا

عميد الكلية

Peer Revision

Reviewers	University	Date of Revision
- Prof. Dawlat Salem	Cairo	10/12/2011
- Prof. Ahmad K. Mansur	Mansura	28/11/2011

Program Specification of Medical Doctorate Degree of Vascular Surgery

Sohag University **Faculty of medicine**

A. Basic Information

1. Program Title: MD degree in vascular surgry
2. Program Type: Single
3. faculty: Faculty of Medicine
4. Department vascular surgery
5. Coordinator: Dr Ahmad Saif Al-Islam.
6. Assistant coordinator: assistant lect Ahmed Abd-elsalam Hassanin
7. External Evaluator: prof dr/ Hassan bakr
8. Last date of program specifications approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013.

B. Professional Information

1. Programme Aims:

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

1. Recent scientific knowledge essential for the practice of vascular surgery according to the international standards.
2. Skills necessary for proper diagnosis and management of patients including diagnostic, problem solving and decision making and operative skills.
3. Provision of sound ethical principles related to medical practice.
4. Active participation in community needs assessment and problems identification.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Upgrading research interest and abilities.

2. Attributes of the student:

1. Efficient in carrying out the basics and methodologies of scientific research.
2. The continuous working to add new knowledge in the field of vascular surgery.
3. Applying the analytical course and critical appraisal of the knowledge in his specialty and related fields.
4. Merging the vascular surgical knowledge with the other related knowledge with conclusion and developing the relationships in between them.
5. Showing a deep awareness with the ongoing problems, theories, and advanced sciences in the specialty of vascular surgery.

6. Determination of the professional problems in the specialty of vascular surgery and creating solutions for them.
7. Efficient in carrying out the professional skills in his specialty.
8. Using advanced suitable technologies which serves his practice.
9. Efficient communication and leadership of team work in his specialty.
10. Decision making through the available information.
11. Using the available resources efficiently and working to find new resources.
12. Awareness with his role in the development of the society and preserve environment.
13. Behaving in a way which reflects his credibility, accountability, and responsibility.
14. Keeping continuous self development and transfer his experiences and knowledge to others.

3. Program Intended Learning Outcomes (ILOs)

a) Knowledge and Understanding:

By the end of the study of doctoral program in vascular surgery the graduate should be able to:

a1. Mention the recent advances in the normal structure and function of the human body on the macro and micro levels.
a2. Mention recent advances in the normal growth and development of the human body.
a3. List the recent advances in the abnormal structure, function, growth and development of human body.
a4. Enumerate recent advances in the natural history of general surgical diseases.
a5. List recent advances in the causation of vascular diseases and problems.
a6. Enumerate recent advances in the techniques of different vascular surgical operations
a7. List the clinical picture and differential diagnosis of vascular surgical diseases and problems.
a8. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of vascular surgical diseases and problems.
a9. Describe recent advances in the various therapeutic methods/alternatives used for vascular surgical diseases and problems.
a10. Describe recent advances in the mechanism of action, advantages, disadvantages, side effects and complications of endovascular surgery
a11. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of vascular surgery.
a12. Describe the principles and fundamentals of quality assurance of professional practice in the field of vascular surgery
a13. List the effect of professional practice on the environment and the methods of environmental development and maintenance.
a14. Describe the recent advances in biostatistics and computer.
a15. Mention principles, methodologies, tools and ethics of scientific research in the field of vascular surgery.

b) Intellectual Skills

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

b1. Interpret data acquired through history taking to reach a provisional diagnosis for vascular surgical problems.
b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for vascular surgical problems.
b3. Conduct research studies that add to knowledge.

b4. Formulate scientific papers in the area of vascular surgery.
b5. Assess risk in professional practices in the field of vascular surgery.
b6. Plan to improve performance in the field of vascular surgery.
b7. Identify vascular surgical problems and find solutions.
b8. Have the ability to innovate nontraditional solutions to for vascular surgical problems.
b9. Mange Scientific discussion based on scientific evidences and proofs.
b10. Interpret data acquired through researches using different statistical tests
b11. Identify and collect data variables impacting health and disease in the field of vascular surgery
b12. Criticize researches related to vascular surgery

c) Professional and Practical Skills

By the end of the study of doctoral Program in vascular surgery. The Graduate should be able to:

c1. Master the basic and modern professional skills in the area of vascular surgery
c2. Write and evaluate medical reports.
c3. Evaluate and develop methods and tools existing in the area of vascular surgery
c4. Use technological methods to serve the professional practice.
c5. Plan for the development of professional practice and development of the performance of others.
c6. Design new methods, tools and ways of professional practice.
c7. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in the area of vascular surgery

d) General and Transferable Skills

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

d1. Present reports in seminars effectively.
d2. Use the information technology to serve the development of professional practice
d3. Teach others and evaluating their performance.
d4. Assess himself and identify his personal learning needs.
d5. Use different sources for information and knowledge.
d6. Work coherently and successfully as apart of a team and team's leadership.
d7. Manage scientific meetings according to the available time
d8. Use appropriate computer program packages.

4. Academic Standards

Sohag faculty of medicine adopted the general academic reference standard (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 (ARS) were suggested for this program, these ARS were approved by the faculty council decree **NO.7528 in** its cession NO. 177 dated:18/5/2009. based on these NARS; Academic Reference Standards ARS were revised by external evaluator and approved by the

Faculty Council decree NO. 7528 in its cession no. 191, dated: 15/3/2010. The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its cession No.60. dated 26-12-2011.

5. Curriculum Structure and Contents

5. a. program duration: 7 semesters (3.5 years)

5. b. program structure:

5. b. i. No. of hours per week:

	hours /week		
Subject	Lectures	Practical / Surgical	Clinical
First Part:			
Biostatics &Computer	1	2	---
Research methodology	1	2	
Primary medical reports	1	1	
Surgical anatomy	3		
Surgical pathology	3		
Second Part:			
vascular surgery	7	6.25	6.25

code	Item		No	%
b.i	Total credit hours	Compulsory	90	100
		Elective	0	0
		Optional	0	0
b.iii	credit hours of basic sciences courses		6	6.6
b.iv	credit hours of courses of social sciences and humanities		0	0
b.v	credit hours of specialized courses:		53	58.89
b.vi	credit hours of other course			
b.vii	Practical/Field Training		8	8.9
b.viii	Program Levels (in credit-hours system): Level 1: 1st part Level 2: 2nd Part Level 3: Thesis		 15 52 15	 16.7 57.8 16.7

6. Program courses

Number of compulsory programs 6

6.1- Level of PROGRAM

Semester…1…..

First part

a. Compulsory

Course Title	No. of hours	No. of hours /week			PROGRAM ILOs Covered (By No.)
		Lect.	Practical/ surgical	clinical.	
Biostatics &Computer	3	1	2		a.1, a2, a3, a4, a5, a6. a7, a8 a14,b1, b2,b11,b12,c4,d1

					,d2
Research methodology	3	1	2		a1, a2, a3 , a4, a5, a6, a7,a8, b1, b2, b.3, b.4 , b10,c.1, c2, d1, d2
primary medical reports	2	1	1		a.11, b.1 c.2 c.3 d.3 d.5
Surgical anatomy	3	3			a.1 a.2 a.3, b6 c.5 d.5
Surgical pathology	3	3			a.4 a.5 b.8 d.5

b. Second part

Course Title	No. of hours	No. of hours /week			PROGRAM ILOs Covered (By No.)
		Lect.	Practical/ surgical	clinical.	
vascular surgery and its branches	19.5	7	6.25	6.25	a1, a6, a7,a8 ,a9, a10, a11, a12, a13, a15,b1, b2, b5, b6, b7, b8, b9, c1, c5, c6, c7, d4, d6, d7, d8

7. 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. (44), dated 6/1/2010.

II- Specific Requirements

- Master degree in **vascular surgery** with at least "Good Rank".

8. Regulations for Progression and Program Completion

Duration of program is 90 credit hours (≥7 semesters ≥3.5 years), starting from registration till acceptance of the thesis; divided to:

First Part: (15 Credit hours ≥6 months ≥1 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 1st part.
- Two sets of exams: 1st in October — 2nd in April after fulfillment of the credit hours.
- At least 60% of the written exam and 60% 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 60% (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only.
- GPA of ≥1.3 is needed to pass this level (semester).

Second Part: (50-60 Credit hours ≥24 months= 4 semesters):

- Program related specialized science of **vascular surgry** courses. At least 24 months after passing the 1st part should pass before the student can ask for examination in the 2nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (8 Credit hours; with obtaining ≥75% of its mark) is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; the credit hours of the logbook are calculated as following:
  - Each Cr. Hr. = 60 working Hrs.
  - Logbook= 8 Cr. Hr. X 60 working Hrs = 480 Working Hrs.
  - Collection of working Hrs. is as following:

Activity		Hrs
Grand rounds	**اجتماع علمى موسع**	**6**
Training courses	**دورات تدريبية**	**12/ day**
Conference attendance	**حضور مؤتمرات علمية** **داخلى** **خارجة**	 **12/day** **18/day**
Thesis discussion	**حضور مناقشات رسائل**	**6**
Workshops	**حضور ورش عمل**	**12/day**
Journal club	**ندوة الدوريات الحديثة**	**6**
Seminars	**لقاء علمى موسع**	**6**
Morbidity and Mortality conference	**ندوة تحليل المخاطر المرضية أوالوفاة**	**6**
Self education program	**برنامج التعليم الذاتى**	**6**

- Two sets of exams: 1st in October - 2nd in April.
- At least 60% of the written exam is needed to be admitted to the oral and practical exams.
- 4 times of oral and practical exams are allowed before the student has to re-attend the written exam.

Third Part (Thesis) (15 Credit hours =24-48 months=4-8 semester):

- Documentation of the subject should not be delayed for > 1.5 years after registration.
- Could start after registration and should be completed, defended and accepted after passing the 2nd part final examination, after passing of at least 24 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.

9. Methods of student assessments:

Method of assessment	weight	The assessed ILOs
1-Research assignment		- General transferable skills, intellectual skills
2-Written Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	50%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
3-OSCE/ OSPE	50%	-Practical skills, intellectual skills, general transferable skills
4-Structured Oral Exams		- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Biostatistics & Computer: Written Exam (2 hours) + Structured oral Exam+ OSPE
- Research Methodology: Written Exam (2 hours) + structured oral Exam+ OSPE

- Primary medical reports: Written Exam (2 hour) + Structured oral Exam+ OSPE

- Surgical anatomy: Written Exam (3 hours) + structured oral Exam

- Surgical pathology: Written Exam (3 hours) + structured oral Exam.

Part II:

- Vascular surgery and its branches: Two Written Exams (3 hours for each) + one written exam containing commentary (1.5 hours) + OSCE + Structured oral Exam + Operative Exam

10. Evaluation of program Intended learning outcomes:

Evaluator	Tool	Sample
1- Senior students	questionnaire	1
2- Alumni	questionnaire	0
3- Stakeholders (Employers)	questionnaire	0
4-External Evaluator(s) (External Examiner(s))	report	1
5- Other		

Course Specifications of Computer and Biostatistics in MD Degree Vascular Surgery

University: sohag Faculty of Medicine

1. Program(s) on which the course is given computer and biostatistics
2. Minor element of program
3. Department offering the program: vascular Surgery department
4. Department offering the course: Community Medicine and public Health.
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Course Specifications of computer and biostatistics in MD degree vascular Surgery
Code: COM0531-300

Title	Lecture	Practical	Total	Credit
Computer and biostatistics	30	30	60	3

B. Professional Information

1. 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 specialty and necessary to provide further training and practice in the field of vascular Surgery through providing recent scientific knowledge essential for the mystery of practice of biostatistics according to the international standards.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding:

By the end of the study of Doctorate program in Vascular the Graduate should be able to:

a1. Describe different programs of analysis of data and statistical packages
a2. Define the recent advances of sources of data and methods of collection.
a3. Summarize data, construct tables and graphs
a4. Calculate measures of central tendency and measures of dispersion
a5. Describe the normal curves and its uses
a6. Illustrate selected tests of significance and the inferences obtained from such tests
a7. Illustrate selected tests of significance for parametric and non parametric inferences
a8. Identify factor analysis and discrimination analysis

b) Intellectual skills:

By the end of the study of Doctorate program in Vascular the Graduate should be able to:

b1. Identify and collect data variables impacting health and disease in the area of vascular surgery.

b2. Interpret data acquired through researches using different statistical tests

c) Professional and practical skills:

By the end of the study of Doctorate program in Vascular the Graduate should be able to:

c1. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in the area of vascular surgery

d) General and Transferable skills:

By the end of the study of Doctorate program in Vascular the Graduate should be able to:

d1. Use appropriate computer program packages.

d2. Use of different sources for information and knowledge about biostatistics.

3. Contents:

Topic	No. of hours	Lecture	Tutorial/ Practical
Recent advances in collection, analysis and interpretation of data	6	3	3
-Details of Tests of significance: Proportion test	6	3	3
Chi-square test	4	2	2
Student T test	6	3	3
Paired T test	6	3	3
-Correlation	6	3	3
-Regression	4	2	2
-ANOVA test	6	3	3
-Discrimination analysis	6	3	3
Factor analysis	6	3	3
- parametric and non parametric tests	4	2	2
Total	**60**	**30**	**30**
Credit	**3**	**2**	**1**

4. Teaching and Learning Methods

4.1- Lectures

4.2- Practical sessions

4.3- Computer search assignments

4.4- Computer application

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills

5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1……..Final written exam Week: 24
Assessment 2……..Final Structured Oral Exam Week: 24
Assessment 3 Attendance and absenteeism throughout the course
Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	50%
Final Structured Oral Exam	50%
Total	100 %

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

6. List of References

6.1- Essential Books (Text Books)

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

6.2- Recommended Books

- Dimensions of Community Health, Boston Burr Ridge Dubuque.
- Short Textbook of preventive and social Medicine. Prentice-Hall International Inc.
- Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo.

6.3- Periodicals, Web Sites, … etc

- American Journal of Epidemiology
- British Journal of Epidemiology and Community Health
- WWW. CDC and WHO sites

7. Facilities Required for Teaching and Learning

a) Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching musieum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.

b) teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video camers,scanner,copiers, colour and laser printers.

Course Coordinator: Dr/Ahmed Fathy Hammed
Head of Department: Prof/Eman Abd El-Baset Mohammed.
Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013

Course Specifications of Research Methods in MD Degree Vascular Surgery

Sohag University **Faculty of Medicine**

1. Minor element of program
2. Department offering the course: Community Medicine Dep.
3. Department offering the program: vascular Surgery department.
4. Academic year: Doctoral Degree 1st part
5. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Course Specifications of research methods in MD degree vascular Surgery
Code: COM0531-300

Title	lecture	practical	total	credit
Research methods	**30**	**30**	**60**	**3**

B. Professional Information

1. Overall Aims of Course

- To influence the students to adopt an analytical thinking for evidence based medicine
- To use precisely the research methodology in researches

2. Intended Learning Outcomes of Courses (ILOs)

a) Knowledge and understanding:

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

a1. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
a2. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
a3. Describe the study design, uses, and limitations.
a4. List the recent advances of principles, methodologies, tools and ethics of scientific research.
a5. Explain the strategies and design of researches.
a6. Describe bias and confounding.
a7. Describe sampling techniques and list advantages of sampling
a8. Identify principles of evidence based medicine.

b) Intellectual Skills

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

b1. Conduct research studies that add to knowledge.
b2. Formulate scientific papers in the area of vascular surgery
b3. Innovate and create researches to find solutions to problems in the area of vascular surgery
b4. Criticize researches related to vascular surgery

c) Professional and Practical Skills:

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

c1. Master the basic and modern professional skills in conducting researches in the area of public health and community medicine.
c2. Design new methods, tools and ways of conducting researches

d) General and Transferable Skills:

d1. Use of different sources for information and knowledge to serve research.
d2. Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

3. Contents:

Topic	No. of hours	Lecture	Tutorial/ Practical
Details of epidemiological studies (case control, cohort and cross sectional)	7	3.5	3.5
Clinical trials, Quasi experimental study	7	3.5	3.5
Bias and errors	7	3.5	3.5
Setting a hypothesis	7	3.5	3.5
Recent advances in screening	7	3.5	3.5
- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	11	5.5	5.5
Setting an objective - Critical thinking	7	3.5	3.5
Formulation of papers	7	3.5	**3.5**
Total	**60**	**30**	**30**
Credit hours	**3**	**1**	**2**

4. Teaching and Learning Methods

4.1- Lectures.
4.2- Computer search assignments

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1……..Final written exam		Week: 24
Assessment 2……..Final Structured Oral Exam		Week: 24
Assessment 3	Attendance and absenteeism throughout the course	
Assessment 4	Computer search assignment performance throughout the course	

Weighting of Assessments

Final-term written examination	50	%
Final Structured Oral Exam	50	%
Total	100	%

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

6. List of References:

6.1- Essential Books (Text Books)

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

6.2- Recommended Books

Dimensions of Community Health, Boston Burr Ridge Dubuque.

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

Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo.

6.3- Periodicals, Web Sites, … etc

1-American Journal of Epidemiology

2-British Journal of Epidemiology and Community Health

WWW. CDC and WHO sites

7. Facilities Required for Teaching and Learning:

1. Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching musieum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.
2. teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video camers,scanner,copiers, colour and laser printers.

Course Coordinator: Dr/Ahmed Fathy Hammed

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

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013

Course Specifications of Primary Medical Reports in MD Degree Vascular Surgery

Sohag University **Faculty of Medicine**

1. Program on which the course is given: primary medical reports
2. Minor element of program
3. Department offering the program: vascular Surgery department
4. Department offering the course: Forensic Medicine and Clinical Toxicology
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Course Specifications of primary medical reports in MD degree vascular Surgery

Code: FOR0531-300

Title	lecture	practical	total	Credit
Primary medical report	**30**	**15**	**45**	**3**

B. Professional Information

1. Overall Aims of Course

1. Provide basic knowledge of medicolegal aspects of different types of general and special types of wounds
2. Provide basic knowledge of different medicolegal aspects of surgical practice.
3. Provide basic knowledge of medical ethics and malpractice.
4. Describe the theories and principles that govern ethical decision-making, especially of the major ethical dilemmas in surgery

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding:

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

a1. List the basics and legal aspects of writing primary medical reports

b) Intellectual skills

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

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

c) Professional and practical skills.

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

c1. Writ and evaluate medical reports.

c2. Evaluate and develop methods and tools existing in the area of general surgery.

d) General and transferrable skills

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

d1. Present reports in seminars effectively

d2. Use of different sources for information and knowledge.

3. Contents:

Topic	No. of hours	Practical	Lecture
The pathology of wounds, chest and abdominal injuries, self inflicted injury	1	1.5	2.5
The systemic effect of trauma& Permanent infirmity	.5	1	2.5
Head and spinal injuries	1	1.5	2.5
The medicolegal aspects of firearm injuries	.5	1	2.5
Burn and scold	.5	1.5	2.5
How to write a medicolegal report& How to write death certificate	.5	1	2.5
The medicolegal aspect of deaths associated with surgical procedures and toxicological sampling	1	1.5	2.5
Obligation of physicians (towards patients, colleagues, community)	.5	1	2.5
Consent, and professional secrecy	.5	1.5	2.5
Types of malpractice, and items of medical responsibility	.5	1	2.5
Medicolegal aspects of organ transplantation, intersex states, euthanasia, assisted reproduction techniques	.5	1.5	2.5
ethical considerations of medical research involving human subjects	.5	1	2.5
Total hours	**45**	**15**	**30**
Credit	**3**	**1**	**2**

4. Teaching and Learning Methods

4.1- Lectures.

4.2- Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1……..Final written exam Week: 24
Assessment 2……..Final Structured Oral Exam Week: 24
Assessment 3 Attendance and absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50	%
Final Structured Oral Exam	50	%
Total	100	%

Formative only assessments: attendance and absenteeism and assignments performance.

6. List of References

6.1-Essential Books:

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

6.2-Recommended Books:

Periodicals and websites:

Forensic Science International, Egyptian Journals of Forensic Medicine and Clinical Toxicology, International Journals of Forensic Medicine and Clinical Toxicology www.sciencedirect.com

7. Facilities Required for Teaching and Learning

Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching musieum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.

a. Teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video cambers, scanner, copiers, color and laser printers

Course Coordinator: Dr/ Soheir Ali Mohamed

Head of Department: Dr/ Maha Abdelhameed Helal

Date: 18/12/2011, Revised: 1/9/2012, Revised:1/12/2013

Course Specifications of Human Anatomy & Embryology in MD Degree Vascular Surgery

Sohag University **Faculty of Medicine**

1. Program(s) on which the course is given: MD in vascular surgery.
2. Minor element of program.
3. Department offering the program: vascular Surgery department
4. Department offering the course: Human Anatomy & Embryology
5. Academic year / Level: post graduate.
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information:

Title: Human Anatomy & Embryology **for MD in vascular surgery**
Code:ANA0531-300

Title	Lecture	Practical	Total	Credit
Anatomy and Embryology	**45**		**45**	**3**

B. Professional Information:

1. Overall Aims of Course:

By the end of the course the student should be able to have the have the professional knowledge about the anatomy of vascular system

2. Intended Learning Outcomes of Course (ILOs):

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 vascular system in human body on the macro levels.

a2. Mention recent advances in the normal growth and development of the vascular system in human body.

a3. List the recent advances in the abnormal structure, function, growth and development of the vascular system in human body.

b) Intellectual skills:

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

b1. Plan to improve performance in the field of vascular surgery

c)Professional and practical skills:

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

c1.Train junior staff through continuous medical education programs.

d) General and transferrable skills

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

d1. Use of different sources for information and knowledge

3. Contents:

Topic	No. of hrs	lecture	practical
1. Anatomy of the arteries and veins in the neck.	8		8
2. Anatomy of the arteries and veins in the chest.	8		8
3. Anatomy of the arteries and veins in the abdomen .	7		7
4. Anatomy of the arteries and veins in the pelvis .	7		7
5. Anatomy of the arteries and veins in the upper limbs.	7		7
6. Anatomy of the arteries and veins in the lower limbs.	8		8
Total	**45**		**45**
Credit	**3**		**3**

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

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1……..Final written exam Week: 24

Assessment 2……..Final Structured Oral Exam Week: 24

Assessment 3 Attendance and absenteeism throughout the course

Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	50	%
Final Structured Oral Exam	50	%
Total	100	%

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

6. **List of References:**

6.1- Essential Books (Text Books)

Gray's Anatomy

6.2 - Recommended Books

A colored Atlas of Human anatomy and Embryology.

6.3-Periodicals , Web sites, …etc

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

Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching musieum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.

teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video camers,scanner,copiers, colour and laser printers.

Course Coordinator: Dr . Salwa Ouies.

Head of Department: Dr. Mohamed A. Eldsoky

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013

Course Specifications of Pathology in MD degree vascular Surgery

Sohag University **Faculty of Medicine**

1- Program on which the course is given: MD in vascular surgery.

2- Major or minor element of program: Minor

3- Department offering the program: Vascular-surgery

4- Department offering the course: Pathology

5- Academic year / Vascular-surgery 1st part of Doctorate degree

6- Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information:

Title: Pathology in MD degree vascular Surgery

Code: PAT0531-300

Title	Lectures	Practical	Total hours	Credit
Pathology	**45**		**45**	**3**

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):

a) Knowledge and understanding:

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

a1. Mention recent advances in the natural history of vascular surgical diseases.

a2. List recent advances in the causation & pathogenesis of vascular surgical diseases and problems.

b) Intellectual skills:

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

b1. Have the ability to innovate nontraditional solutions to vascular surgical problems.

c) Professional and practical skills

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

c1. Evaluate pathological reports.

d) General and transferrable skills

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

d1. Use of different sources for information and knowledge.

3. Course contents:

Topic	No. of hours	Lecture	Practical
1- General Pathology:	10	10	
1.1. Inflammation & repair.	3	3	
1.2. Cell response to injury and aging.	3	3	

1.3. Disturbances of circulation.	2	2	
1.4. General pathology of tumors.	2	2	
2- Blood vessels:	33	33	
2.1. Vascular response to injury & trauma.	3	3	
2.2. Congenital anomalies.	3	3	
2.3. Arteriovenous fistula.	3	3	
2.4. Atherosclerosis & hypertension.	3	3	
2.5. Vasculitis.	3	3	
2.6. Aneurysm & dissections.	3	3	
2.7. Thrombophelibitis & phelibothrobosis.	3	3	
2.8. Varicose veins.	3	3	
2.9. Vascular benign tumors & tumor like lesions.	3	3	
2.10. Malignant vascular tumors.	3	3	
2.11. Vascular replacement & angioplasty.	3	3	
3- The musculoskeletal system:	2	2	
3.1. Motor neuron diseases & neuropathies	2	2	
Total	**45**	**45**	
Credit	**3**	**3**	

4. Teaching and Learning Methods

4.1. Lectures.
4.2. Gross and histopathology (Jars & slides).
4.3. Practical lessons
4.4. Assignments for the students to empower and assess the general and transferable skills

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1……..Final written exam Week: 24
Assessment 2……..Final Structured Oral Exam Week: 24
Assessment 3 Attendance and absenteeism throughout the course
Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	50	%
Final Structured Oral Exam	50	%
Total	100	%

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

6. **List of References**

6.1- Essential Books (Text Books):

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

6.2- Recommended Books:

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

6.3- Periodicals,Web sites …..etc

American journal of pathology
Pathology
Human pathology
Web Sites: http://www.ncbi.nlm.nih.gov/pubmed/

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

1. **Adequate infra structures**: including: teaching places (teaching classes, teaching halls, teaching museum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.
2. **Teaching tools**: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video cameras, scanner, copiers, color and laser printers.

Course Coordinator: Dr. Fatma El Zhhraa Salah El Deen

Head of Department: Dr. Eman Muhammad Salah El Deen

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013

Course Specifications of Vascular Surgery of MD Degree in Vascular Surgery

Sohag University **Faculty of Medicine**

1. Program(s) on which the course is given: Vascular surgery
2. Major element of program.
3. Department offering the program: Vascular Surgery department
4. Department offering the course: Vascular Surgery department
5. Academic year / Level: 2nd part
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Course Specifications of Vascular surgery of MD Degree in Vascular Surgery

Code: VAS0531-300

Title	lecture	surgical	clinical	Total
Vascular surgery	28	12.5	12.5	53

B. Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to have the professional knowledge and skills about the vascular surgery.

2. Intended Learning Outcomes of Course (ILOs):

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 body on the macro micro levels.
a2. Mention recent advances in the techniques of different vascular surgical operations.
a3. List the clinical picture and differential diagnosis of vascular surgical diseases and problems.
a4. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of vascular surgical diseases and problems.
a5. Describe recent advances in the various therapeutic methods/alternatives used for vascular surgical diseases and problems.
a6. Describe recent advances in the mechanism of action, advantages, disadvantages, side effects and complications of endovascular surgery
a7. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of vascular surgery.
a8. Enumerate the principles and fundamentals of quality assurance of professional practice in the field of vascular surgery
a9. List 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 be able to:

b1. Interpret data acquired through history taking to reach a provisional diagnosis for vascular surgical problems.
b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for vascular surgical problems.
b3. Assess risk in professional practices in the field of vascular surgery
b4. Plan to improve performance in the field of vascular surgery
b5. Identify vascular surgical problems and find solutions.
b6. Have the ability to innovate nontraditional solutions to vascular surgical problems
b7. Mange Scientific discussion based on scientific evidences and proofs.

c) Professional and practical skills:

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

c1. Master the basic and modern professional clinical and surgical skills in the area of vascular surgery
c2. Train junior staff through continuous medical education programs.
c3. Design new methods, tools and ways of professional practice.
c4. Use technological methods to serve the professional practice.

d) General and Transferable skills:

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

d1. Assess himself and identify his personal learning needs
d2. Work coherently and successfully as a part of a team and team's leadership.
d3. Manage scientific meetings according to the available time.
d4. Use the information technology to serve the development of professional practice

3. Contents:

Topic	No. of hours	lectures	surgical	clinical
I. Basic approaches to vascular Problems	**55**	**20**	**17.5**	**17.5**
Initial patient evaluation.	27.5	10	10	7.5
Evaluation and selection of patients for vascular intervention.	27.5	10	7.5	10
II. Basic principles in vascular surgery.	**55**	**20**	**17.5**	**17.5**
Embryology of the vascular system.	11	4	3.5	3.5
Anatomy of commonly exposed arteries.	11	4	3.5	3.5
Basic considerations of the arterial wall in health and disease.	11	4	3.5	3.5
Essential homodynamic principles.	11	4	3.5	3.5
Principles of homeostasis.	11	4	3.5	3.5
III. Vascular diagnosis :Basic technique and applications	**55**	**20**	**17.5**	**17.5**
Vascular Laboratory.	9.5	2.5	3.5	3.5
Physiologic assessment of peripheral arterial occlusive disease.	6.5	2.5	2	2
Physiologic Assessment of the venous	6.5	2.5	2	2

System.				
Arterial Duplex Scanning.	6.5	2.5	2	2
Venous Duplex Scanning.	6.5	2.5	2	2
Computed topography and three-dimensional reconstruction in evaluation of vascular disease.	6.5	2.5	2	2
Magnetic resonance imaging and angiography.	6.5	2.5	2	2
Principles of arteriography and venography.	6.5	2.5	2	2
IV. Arterial diseases	**55**	**20**	**17.5**	**17.5**
Arterial wall pathology in atherosclerosis.	9.5	3.5	3.5	3.5
Atherogenosis and the medical management of atheroscrosis.	6.5	2.5	2	2
Thrombangitis obliterans (Burger's disease).	6.5	2.5	2	2
Takaysu's disease: Non-specific aortoarteritis.	6.5	2.5	2	2
Arterial aneurysms.	6.5	2.5	2	2
Arterial fibodysplasia.	6.5	2.5	2	2
Pathologic intimal hyperplasia as a response to vascular injury and reconstruction.	6.5	2.5	2	2
Uncommon arteriopathies.	6.5	2.5	2	2
V. Fundamental therapeutic and technical considerations	**55**	**20**	**17.5**	**17.5**
Anti-thrombotic therapy.	8	3	2.5	2.5
Circulation enhancing drugs.	8	3	2.5	2.5
Principles of thrombolytic therapy.	8	3	2.5	2.5
Basic vascular surgical techniques.	8	3	2.5	2.5
Techniques for thromboemboleetomy of native arteries and bypass grafts.	8	3	2.5	2.5
Endartereetomy.	7.5	2.5	2.5	2.5
Fundamental techniques in Endovascular Surgery.	7.5	2.5	2.5	2.5
VI. Vascular grafts	**55**	**20**	**17.5**	**17.5**
Vascular conduits: An overview.	11	4	3.5	3.5
Arterial autografts.	11	4	3.5	3.5
The autogenous vein.	11	4	3.5	3.5
Biologic grafts for lower limb revascularization.	11	4	3.5	3.5
Prosthetic grafts.	11	4	3.5	3.5
Endovascular grafts.	11	4	3.5	3.5
VII. Common Complication of Vascular Surgery : Prevention and management	**56**	**20**	**18**	**18**
Cardiac complications and screening.	6	2	2	2
Pulmonary Complications in vascular	6	2	2	2

surgery.				
Renal complications.	6	2	2	2
Preioperative hemorrhage.	6	2	2	2
Blood loss and transfusion in vascular surgery.	4	2	1	1
Technical adequacy and graft thrombosis.	4	2	1	1
Vascular thrombosis due to hypercoagulable states.	3	1	1	1
Infection in prosthetic vascular grafts.	3	1	1	1
Anastomotic and other pseudoaneurysms.	3	1	1	1
Aortoentric fistulae.	3	1	1	1
Ischemic neuropathy.	3	1	1	1
Lymphatic complications of vascular surgery.	3	1	1	1
Postoperative sexual dysfunction after aortoiliac .	3	1	1	1
Angiographic and percutaneous vascular intervention: Complications and quality improvement.	3	1	1	1
VIII. Acute ischemia and its sequalae	**56**	**20**	**18**	**18**
Acute limb ischemia.	14	5	5	4
Arterialthromboembolism.	14	5	5	4
Atherombolism and microthromobocmbolic syndromes	14	5	4	5
(bluetoe syndrome and disseminated atheroembolism)	14	5	4	5
IX. Vascular trauma.	**56**	**20**	**18**	**18**
The epidemiology of vascular trauma.	10	4	3	3
Vascular injuries of the extremities.	10	4	3	3
Thoracic abdominal trauma.	9	3	3	3
Cervieothoracie vascular injuries.	9	3	3	3
Compartment syndrome pathophysiology recognition and management.	9	3	3	3
Causalgia and Post – traumatic pain syndromes.	9	3	3	3
X. Management of chronic ischemia of lower extremities	**56**	**20**	**18**	**18**
The chronically Ischemic leg : Over view .	6	2	2	2
Natural history and non – operative treatment of chronic lower extremity ischemia.	6	2	2	2
Direct reconstruction of aortoiliac occlusive disease.	6	2	2	2

Thromboendartreetomy for lower extremity arterial occlusive disease.	6	2	2	2
Extra – anatomic bypass.	6	2	2	2
Profundoplasty.	4	2	1	1
Secondary arterial reconstructions in the lower extremity.	4	2	1	1
Endovascular interventions in the management of chronic lower extremity ischemia.	3	1	1	1
Lumber sympathectomy: Indications and technique .	3	1	1	1
Adventitial cystic disease of the popliteal artery.	3	1	1	1
Popliteal artery entrapment.	3	1	1	1
Management of foot lesions in diabetic patients.	3	1	1	1
Vasculogenic impotence	3	1	1	1
XI. Neurovascular conditions involving the upper extremity	**56**	**20**	**18**	**18**
Upper extremity ischemia. Overview, approach to diagnosis.	6	2	2	2
Evaluation of acute and chronic ischemia of upper limb.	6	2	2	2
Arteriosclerotic occlusive disease of the brachioccphalic arteries.	6	2	2	2
Upper extremity revascularization.	6	2	2	2
Occlusive and vasospastic diseases involving distal upper extremity arteries	6	2	2	2
Raynaud s syndrome	6	2	2	2
neurogenic thoracicoutlct syndrome	6	2	2	2
Arterial complications of thoracic outlet syndrome.	4	2	1	1
Subclavian- axillary vein thrombosis.	4	2	1	1
Upper extremity sympathcctomy .	3	1	1	1
Occupational vascular problems.	3	1	1	1
XII. Arterial aneurysms	**56**	**20**	**18**	**18**
Overview.	6	2	2	2
Abdominal aortic and iliac aneurysms.	6	2	2	2
Endovascular treatment of aortic aneurysms.	6	2	2	2
Ruptured abdominal aortic aneurysms.	6	2	2	2
Thoracoabdominal aortic aneurysms.	6	2	2	2
Dissection of the descending thoracic aorta .	6	2	2	2
Femoral and popliteal aneurysms.	4	2	1	1

Upper extremity aneurysms.	4	2	1	1
Splanchinic artcry aneurysms.	3	1	1	1
lnfeetfd aneurysms.	3	1	1	1
Overview.	3	1	1	1
Abdominal aortic and iliac aneurysms.	3	1	1	1
XIII. Arteriovenous communications and congenital vascular	**56**	**20**	**18**	**18**
Overview.	9	3	3	3
Hemodynamies and pathophysiology of arteriovenous fistula.	9	3	3	3
Diagnostic evaluation of artcriovenous fistulae.	9	3	3	3
Arteriovenous fistulae of the aorta and its major branches	9	3	3	3
peripheral arteriovenous fistulae	9	3	3	3
congenital vascular malformations	11	5	3	3
XIV. angioaccess	**56**	**20**	**18**	**18**
hemodialysis access	13	5	4	4
peritoncals access	13	5	4	4
long-term venous access	15	5	5	5
Iatrogenic complications of arterial and venous catheterization	15	5	5	5
XV. Management of visceral ischemic syndromes	**56**	**20**	**18**	**18**
diagnosis of intestinal ischemia	10	4	3	3
treatment of acute intestinal ischemia caused by arterial occlusion	10	4	3	3
non –occlusive mesenteric ischemia	9	3	3	3
Intestinal ischemia caused by venous thrombosis .	9	3	3	3
Treatment of chronic visceral ischemia .	9	3	3	3
Colon ischemia following aortic reconstruction .	9	3	3	3
XVI. Management of portal hypertension	**56**	**20**	**18**	**18**
Portal hypertension: An overview.	15	5	5	5
Initial management of upper G T hemorrhage in patients with portal hypertension.	15	5	5	5
Percutaneous interventions in portal hypertension.	13	5	4	4
Operative therapy for portal hypertension.	13	5	4	4
XVII. Management of endovascular disorders	**56**	**20**	**18**	**18**

Renovascular disease: An overview.	7	3	2	2
Pathophysiology, functional studies, and medical therapy of renovascular hypertension.	6	2	2	2
Radiographic evaluation and treatment of renovasclar disease.	6	2	2	2
Renal artery imaging: Alternatives to angiography.	6	2	2	2
Renal artery fibrodysplasia and renovascular hypertension.	6	2	2	2
Atherosclerotic renovascular disease: Evaluation and management of ischemic nephropathy.	6	2	2	2
Techniques of operative management.	6	2	2	2
Renal artery aneurysms and arteriovenous fistulae.	6	2	2	2
Acute occlusive involving the vessels.	6	2	2	2
XVIII. Management of extracainial cerebrovascular disease	**56**	**20**	**18**	**18**
Functional considerations in cerebrovascular disease.	4	2	1	1
Diagnosis, evaluation, and medical management of patients with ischemic cerebrovascular disease.	4	2	1	1
Anatomy and angiographic diagnosis of extracrainial and intracranial vascular disease.	6	2	2	2
The role of non-invasive studies in the diagnosis and management of ccebrovascular disease.	6	2	2	2
Indications, surgical techniques, and results for repair of extracrainial occlusive lesions.	6	2	2	2
Vertebrobasilar ischemia : Indications, techniques, and results of surgical repair	6	2	2	2
Extracrainial fibromuscular arterial dysphasia.	6	2	2	2
Aneurysms of extracrainial carotid arteries.	6	2	2	2
Uncommon disorders affecting the carotid arteries.	6	2	2	2
Postoperative management and complications following carotid endrtrectomy	6	2	2	2
XIX. Management of venous diseases	**56**	**20**	**18**	**18**
Venous disease: An overview.	3	1	1	1
Pathophysiology and natural history of acute DVT.	3	1	1	1

Clinical and diagnostic evaluation of deep venous thrombosis.	3	1	1	1
Interventional treatments for iliofemoral venous thrombosis.	3	1	1	1
Caval interruption procedures.	3	1	1	1
Superficial thrombophlebitis : Diagnosis and management .	3	1	1	1
Pathophysiology of chronic venous insufficiency.	3	1	1	1
Practical approach to the diagnosis and classification of chronic .	3	1	1	1
Non-operative treatment of chronic venous insufficiency.	3	1	1	1
Varicose veins: Treatment by surgery and sclerotherpay.	3	1	1	1
Management of perforce vein incompetence.	3	1	1	1
Surgical treatment of deep venous valvular incipience.	3	1	1	1
Surgical treatment of chronic deep venous obstruction.	4	2	1	1
Endovascular treatment of chronic occlusions of large veins	4	2	1	1
Diagnosis and management of tumors of inferior vena cava .	6	2	2	2
Surgical treatrnent of superior vena cava syndrome.	6	2	2	2
XX. Management of lymphatic disorders	**56**	**20**	**18**	**18**
Lymphoedema An overview.	12	4	4	4
Circulatory dynamics and pathophysiology of lymphatic system.	12	4	4	4
Non-operative management of chronic lymphoedema.	12	4	4	4
Excisional operations of chronic lymphoedema.	10	4	3	3
Lymphatic reconstructions.	10	4	3	3
XXI. Extremity amputation for vascular disease	**56**	**20**	**18**	**18**
An overview of extremity amputations.	10	4	3	3
Patient evaluation and preparation for amputations.	10	4	3	3
Lower extremity amputation levels: Indications, determining the appropriate level, technique, and prognosis.	9	3	3	3

Complications of amputation.	9	3	3	3
Rehabilitation of the person with an amputation.	9	3	3	3
Upper extremity amputation.	9	3	3	3
Total	**1170**	**420**	**375**	**375**
Credit	**53**	**28**	**12.5**	**12.5**

4. Teaching and Learning Methods

4.1- lectures.
4.2- clinical lessons.
4.3- surgical lessons.
4.4 -field training in the operative theatre
4.5- Assignments for the students to empower and assess the general and transferable skills
4.6- Attendance workshops, conferences and thesis discussion
4.6 -attendance in the outpatient clinic and inpatient department

5. Student Assessment:

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Log book	- General transferable skills
5.3-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.4-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.5-OSCE	-Practical skills, intellectual skills General transferable skills
5.6 assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1…Log book…. Week:80
Assessment 2 …Final OSCE … Week:96
Assessment 3…. Final written exam…. Week:96
Assessment 4…..Final Structured Oral Exam … Week:96

Weighing of Assessments

Final written exam is separate exam
Passing in the written exam is a condition to attend in the following exams.

Structured Oral Exam	50%
OSCE /surgical examination	50%
Total	**100%**

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

6. List of Reference

6.1- Essential Books (Text Books)

Vascular Surgery (Robert B.Rutherfords)

6.2- Recommended Books:

Vascular Surgery theory and practice
Vascular and Endovascular surgery

Anatomical Exposures in Vascular Surgery
Operative surgery fundamental international techniques in Vascular Surgery (Rob & Smith)

6.3-Periodicals, Web sites, etc

Journal of vascular surgery
Journal of vascular access

7. Facilities Required for Teaching and Learning

a. Adequate infra structures: including: teaching places(teaching classes, teaching halls, teaching musieum, illustrative images), comfortable disks, good source of aeration, good illumination, safety and security methods.
b. Teaching tools: including screens, computers, data show, projectors, flip charts, white boards, video players, digital video camers, scanner, copiers, colour and laser printers.

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