

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 MD degree in Orthopedic Surgery and Traumatology

Sohag University

Faculty of Medicine

A. Basic Information

1. Program title: Doctoral degree in Orthopedic Surgery and Traumatology
2. Program type: Single
3. Faculty: Faculty of Medicine
4. Department: Department of Orthopedic Surgery and Traumatology
5. Coordinator: Prof. Dr/ Al-Shazly Saleh
6. Assistant Coordinator: Dr. Ahmad Addosooki
7. External evaluator: Prof. Dr. Osama Farouk, professor of orthopedic surgery, Assiut university
8. Last date of program specifications approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

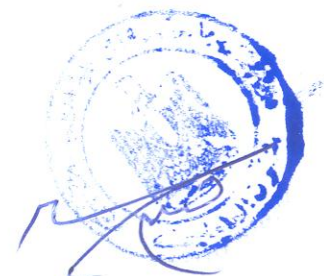
B. Professional Information

1. Program aims

The aim of that program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary to provide further training and practice in the field of orthopedic surgery and traumatology through providing:

1. Recent scientific knowledge essential for the mastery of practice of orthopedic surgery and traumatology according to the international standards.
2. Skills necessary for proper diagnosis and management of patients in the field of orthopedic surgery and traumatology including diagnostic , problem solving , decision making and operative skills.
3. Ethical principles related to practice in the highly sensitive specialty.
4. Active participation in community needs assessment and problem identification.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Updating research interest and abilities.

2. Attributes of the post graduate:



PROGRAM SPECIFICATION of MD degree in Orthopedic Surgery and Traumatology

Sohag University

Faculty of Medicine

A. Basic Information

1. Program title: Doctoral degree in Orthopedic Surgery and Traumatology
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B. Professional Information

1. Program aims

The aim of that program is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary to provide further training and practice in the field of orthopedic surgery and traumatology through providing:

1. Recent scientific knowledge essential for the mastery of practice of orthopedic surgery and traumatology according to the international standards.
2. Skills necessary for proper diagnosis and management of patients in the field of orthopedic surgery and traumatology including diagnostic , problem solving , decision making and operative skills.
3. Ethical principles related to practice in the highly sensitive specialty.
4. Active participation in community needs assessment and problem identification.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Updating research interest and abilities.

2. Attributes of the post graduate:

1. Efficient in carrying out the basics and methodologies of scientific research in Orthopedic Surgery.
2. The continuous working to add new knowledge in his field.
3. Applying the analytical course and critical appraisal of the knowledge in his specialty and related fields.
4. Merging the specialized 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 his specialty.
6. Determination of the professional problems 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. Intended learning outcomes (ILOs)

a) Knowledge and understanding

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

- a1. Mention the recent advances in the normal structure and function of the human musculoskeletal system and its relation to surgical procedures.
- a2. Illustrate the normal growth and development of the human musculoskeletal system and the basic biomechanics of the body.
- a3. List the recent advances in the abnormal structure, function, growth and development of human musculoskeletal system.
- a4. Explain recent advances in the natural history of orthopedic diseases and traumatology problems.
- a5. Explain recent advances in the causation of orthopedic diseases and their pathogenesis.

- a6. Illustrate recent methods of fixation of different fracture pattern.
- a7. List the clinical picture and differential diagnosis of orthopedic diseases.
- a8. Illustrate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of orthopedic diseases.
- a9. Describe recent advances in the various therapeutic methods/alternatives used for orthopedic diseases.
- a10. Explain basic knowledge of physiology, pathology and histology that is related to orthopedic diseases and fractures.
- a11. Define basic knowledge of the general surgery.
- a12. Define recent advanced trauma management.
- a13. Know principles, methodologies, tools and ethics of scientific research.
- a14. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of orthopedic surgery and traumatology.
- a15. Describe the principles and fundamentals of quality assurance of professional practice in the field of orthopedic surgery and traumatology.
- a16. Enumerate the effect of professional practice on the environment and the methods of environmental development and maintenance.
- a17. Enumerate the recent advances in biostatistics and computer.

b) Intellectual skills

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

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for orthopedic diseases.
- b2. Plan from different diagnostic alternatives the ones that help reaching a final diagnosis for orthopedic diseases.
- b3. Plan research studies that add to knowledge.
- b4. Formulate scientific papers in the area of orthopedic surgery and traumatology
- b5. Evaluate risk in professional practices in the field of orthopedic surgery and traumatology
- b6. Plan to improve performance in the field of orthopedic surgery and traumatology
- b7. Analyze orthopedic and traumatology problems and find solutions.

- b8. Have the ability to create nontraditional solutions to orthopedic and traumatology problems.
- b9. Manage scientific discussion based on scientific evidences and proofs.
- b10. Criticize researches related to orthopedic surgery and traumatology
- b11. Interpret data acquired through researches using different statistical tests
- b12. Identify and collect data variables impacting health and disease in the field of orthopedic surgery and traumatology

c) Professional and practical skills

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

- c1. Teach the basic and modern professional skills in the area of orthopedic surgery and traumatology.
- c2. Evaluate and develop methods and tools existing in the area of Orthopedic surgery and traumatology
- c3. Perform endoscopic and imaging evaluation of orthopedic problems.
- c4. Train junior staff through continuous medical education programs.
- c5. Design new methods, tools and ways of professional practice.
- c6. Perform the basic and modern professional skills in conducting researches in the field of orthopedic surgery and traumatology
- c7. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in the field of orthopedic surgery and traumatology

d) General and transferable skills

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

- d1. Present reports in seminars effectively.
- d2. Use appropriate computer program package
- d3. Teach others and evaluate 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 a part of a team and team's leadership.
- d7. Manage scientific meetings according to the available time.
- d8. Write and evaluate medical reports.

4. Academic Standards:

Sohag Faculty of Medicine adopted the general National Academic Standards (NARS) provided by the national authority for quality assurance and accreditation of education (naqaae) for postgraduate programs. This was approved by the Faculty Council decree NO.6754, in its session NO. 177 Dated 18/5/2009, Based on these NARS; Academic Reference Standards (ARS) were

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

5. Curriculum Structure and Contents

5. a- Program duration: 3.5 years (7 semesters)

5. b- Program structure

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

| Subject | hours /week | | |
|------------------------------------|-------------|------------------------|----------|
| | Lectures | Practical/ surgical | Clinical |
| <u>First Part:</u> | | | |
| minors | | | |
| Bio Statistics & Computer | 2 | 2 | |
| Research Methodology | ۲ | ۲ | |
| Primary medical reports | ۱ | ۲ | |
| Applied anatomy | ۲ | | |
| Surgical pathology | ۲ | | |
| Clinical physiology | ۲ | | |
| Biomechanics | 1 | | |
| <u>Second Part:</u> | | | |
| Orthopedic surgery Traumatology | 6.5 | 6.5 | 6.5 |

| 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 | 7 | 6.3 | |
| b.iv | credit hours of courses of social sciences and humanities | 0 | 0 | |
| b.v | credit hours of specialized courses: | 52 | 57.7 | |
| b.vi | credit hours of other course | 8 | 8.8 | |
| b.vii | Practical/Field Training | 8 | 8.9% | |
| b.viii | Program Levels (in credit-hours system): | | | |
| | Level 1: 1 st part | 15 | 16.7 | |
| | Level 2: 2 nd Part | 52 | 57.8 | |
| | Level 3: Thesis | 15 | 16.7 | |

6. Program courses: 9 Compulsory course

6 1- Level of Program

Semester...1.....

First Part:

A. Compulsory

| Course Title | Total hours | No. of hours/week | | | Program ILOs Covered (By No.) |
|--------------------------|-------------|-------------------|------------------------|----------|--------------------------------|
| | | Lecture | practical/ surgical | clinical | |
| Biostatistics, Computer. | 3 | 2 | 2 | | a17,b11,b12,c8,d2,d5 |
| Research methodology | 3 | 2 | 2 | | a13,b3,b4,b8,b10,c6,c7, d5, d6 |
| Primary medical reports | 2 | 1 | 2 | | A13, a14, b1,c2,d3 |
| Applied Anatomy | 2 | 2 | | | a1,a2,b1,c1,d5 |
| Surgical Pathology | 2 | 2 | | | a10,b1,c1,c2,d3,d5 |
| Clinical Physiology | 2 | 2 | | | a10,b1,c1,d3 |
| Biomechanics | 1 | 1 | | | a1,b1,c6,d3 |

Second Part:

A. Compulsory

| | | | | | |
|-------------------------------------|----|-----|-----|-----|---|
| Orthopedic surgery and Traumatology | 52 | 6.5 | 6.5 | 6.5 | a1,a2,a3,a4,a5,a6,a7,a8,a9,a11,a12,a15,a16,b1,b2,b3,b4,b5,b6,b7,b8,b9,b10,c1,c3, c4,c4,c6,d1,d2,d3,d4,d5,d7 |
|-------------------------------------|----|-----|-----|-----|---|

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 Orthopedic 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 Orthopedic 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 $\geq 75\%$ 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 علمي موسع | ٦ |
| Training courses | دورات تدريبية | 12/ day |
| Conference attendance | حضور مؤتمرات علمية داخلي خارجة | ١٢/day 18/day |
| Thesis discussion | حضور مناقشات رسائل | ٦ |
| Workshops | حضور ورش عمل | ١٢/day |
| Journal club | ندوة الدوريات الحديثة | ٦ |
| Seminars | لقاء علمي موسع | ٦ |
| Morbidity and Mortality conference | ندوة تحليل المخاطر المرضية أو الوفاة | ٦ |
| Self education program | برنامج التعليم الذاتي | ٦ |

- 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
- Applied Anatomy: Written Exam (2 hours) + structured oral Exam.
- Surgical Pathology: Written Exam (2 hours) + structured oral Exam.
- Clinical Physiology: Written Exam (2 hours) + structured oral Exam.
- Biomechanics: Written Exam (2 hours) + structured oral Exam.

Part II:

- Orthopedics and Traumatology: Two Written Exam (3 hours for each) + one written exam containing commentary (1.5 hours) + OSCE + Structured oral Exam + Operative exam.

10. Evaluation of program

| Evaluator | Tool | Sample |
|--|---------------|--------|
| 1- Senior students | Questionnaire | 10 |
| 2- Alumni | Questionnaire | 5 |
| 3- Stakeholders (Employers) | Questionnaire | 5 |
| 4-External Evaluator(s) (External Examiner(s)) | Report | 1 |
| 5- Other | | |

Course Specification of Biostatistics and Computer in MD degree in Orthopedic Surgery and Traumatology

Sohag university

Faculty of medicine

1. Program(s) on which the course is given: Biostatistics and Computer in MD degree in Orthopedic Surgery and traumatology
2. Minor or major element of program: minor
3. Department offering the course: Community Medicine and public Health Department
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Biostatistics and Computer in MD degree in Orthopedic Surgery and traumatology

Code: COM 0523-300

| Title | Lecture | Practical | Total | Credit |
|-----------------------|---------|-----------|-------|--------|
| Applied biostatistics | 30 | 30 | 60 | 2 |

B. Professional Information

1. Overall Aims of Course

1. The aim of this course is to provide the postgraduate student with the advanced medical knowledge and skills essential for computer programs use

2. Intended Learning Outcomes of Courses (ILOs)

a) **Knowledge and understanding:**

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

- a1. Enumerate 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 course, the student is expected to be allowed to:

b1. Identify and collect data variables impacting health and disease in the field of orthopedic surgery and traumatology

b2. Interpret data acquired through researches using different statistical tests

c) Professional and Practical Skills:

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

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

d) General and Transferable Skills:

By the end of the course, the student is expected to 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 | 4 | 2 | 2 |
| Chi-square test | 6 | 3 | 3 |
| Student T test | 6 | 3 | 3 |
| Paired T test | 6 | 3 | 3 |
| -Correlation | 6 | 3 | 3 |
| -Regression | 6 | 3 | 3 |
| -ANOVA test | 4 | 2 | 2 |
| -Discrimination analysis | 6 | 3 | 3 |
| Factor analysis | 6 | 3 | 3 |
| - parametric and non parametric tests | 4 | 2 | 2 |
| Total | 60 | 30 | 30 |
| Credit Hours | 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: | - 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 | % |
| 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, 2008.,Robert Wallace, publisher McGraw-Hill Medical; 15 edition.

6.2- Recommended**Books**

- 1- Dimensions of Community Based projects in Health Care, 2018. Arxer, Steven L., Murphy, John W.; 1st edition.
- 2- Parks Text Book of Preventive & Social Medicine. 2017., K. Park. BanarsidasBhanot Publishers; 23 edition.
- 3- Clinical Epidemiology: The Essentials, 2013, Robert F., Suzanne W. Fletcher, Grant S., publisher Lippincott Williams & Wilkins; 5 edition.

6.3- Periodicals, Web Sites, ...etc

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

7. Facilities Required for Teaching and Learning:

- 1- Adequate conditioned space for staff and assistants.
- 2- Adequate conditioned teaching facilities.
- 3- Audiovisual Aids: Data show, overhead and slide projectors and their requirements

Course Coordinator: Dr/Foad Metry Atya

Head of Department: Prof/ Ahmed Fathy Hammed

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specification of Research Methodology in MD degree in Orthopedic Surgery and Traumatology

Sohag university

Faculty of medicine

1. Program(s) on which the course is given: Research Methodology in MD degree in Orthopedic Surgery and traumatology
2. Minor element of program.
3. Department offering the course: Community Medicine and public Health Department
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Research Methodology

Code: COM 0523-300

| Title | Lecture | Practical | Total | Credit |
|-------------------------|---------|-----------|-------|--------|
| Research methods | ٣٠ | ٣٠ | ٦٠ | ٣ |

B. Professional Information

1- Overall Aims of Course

The aim of this course is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of research principles and influence the students to adopt an analytical thinking for evidence based medicine

2- Intended Learning Outcomes of Courses (ILOs)

a) **Knowledge and understanding:**

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

- b1. Conduct research studies that add to knowledge.

b2. Formulate scientific papers in the area of orthopedic surgery and traumatology

b3. Innovate and create researches to find solutions to prevalent problems in the field of Orthopedic Surgery and traumatology

b4. Criticize researches related to orthopedic surgery and traumatology

c) Professional and Practical Skills:

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

c1. Master the basic and modern professional skills in conducting researches in the field of orthopedic surgery and traumatology

c2. Design new methods, tools and ways of professional practice.

d) General and Transferable Skills:

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

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) | 10 | 5 | 5 |
| Clinical trials, Quasi experimental study | 6 | 3 | 3 |
| Bias and errors | 6 | 3 | 3 |
| Setting a hypothesis | 6 | 3 | 3 |
| Recent advances in screening | 6 | 3 | 3 |
| - Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol - A curriculum | 6 | 3 | 3 |
| Setting an objective -Critical thinking | 6 | 3 | 3 |
| Formulation of papers | 6 | 3 | 3 |
| Total | 60 | 30 | 30 |
| Credit hours | 3 | 2 | 1 |

4- Teaching and Learning Methods

4.1- Lectures.

4.2- Computer search assignments

5- Student Assessment Methods

| Method of assessment | The assessed ILOs |
|---|---|
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| 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 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 throughout the course
 Computer search assignment performance throughout the course

6- List of References

6.1- Essential Books (Text Books)

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6.2- Recommended

Books

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7- Facilities Required for Teaching and Learning:

1. Adequate conditioned space for staff and assistants.
2. Adequate conditioned teaching facilities.
3. Audiovisual Aids: Data show, overhead and slide projectors and their requirements

Course Coordinator: Dr/Foad Metry Atya

Head of Department: Prof/ Ahmed Fathy Hammed

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specification of Primary Medical Report in MD degree in Orthopedic Surgery and Traumatology

Sohag university

Faculty of medicine

1. Program (s) on which the course is given: MD degree in Orthopedic Surgery and traumatology
2. Minor element of program.
3. Department offering the course: Dept. of Forensic Medicine and Clinical Toxicology
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 1st part of Doctoral degree
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A- Basic Information

Title: Primary Medical Report in MD degree in Orthopedic Surgery and raumatology

CODE:FOR 0523-300

| Title | lecture | practical | total | credit |
|------------------------|-----------|-----------|-----------|----------|
| Primary Medical Report | 15 | 30 | 45 | 2 |

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 medical 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 medicine.

2. Intended Learning Outcomes of Courses (ILOs)

a) Knowledge and understanding:

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

- a1. Mention principles and tools to write medical reports
- a2. Define different types of wounds
- a3. Identification of firearms injuries
- a4. Enumerate medicolegal aspect of professional practice
- a5. Mention the principles and fundamentals of ethics and legal aspects of professional practice in the field of orthopedic surgery and traumatology.

b) Intellectual Skills

- By the end of the course, the student is expected to be allowed to:
- b1. Interpret data to write medical reports efficiently
- c) **Professional and Practical Skills:**
By the end of the course, the student is expected to practice the following:
c1. Write and evaluate medical reports
- d) **General and Transferable Skills:**
By the end of the course, the student is expected to be able to:
d1. Teach others how to write medical report

3. Contents

| Topic | No. of hours | Lecture | Practical |
|---|--------------|-----------|-----------|
| The pathology of wounds, chest and abdominal injuries, self inflicted injury | 3 | ١ | ٢ |
| The systemic effect of trauma& Permanent infirmity | 3 | ١ | ٢ |
| Head and spinal injuries | 5 | ٢ | ٣ |
| The medicolegal aspects of firearm injuries | 4 | ١ | ٣ |
| Burn and scold | 3 | 1 | ٢ |
| How to write a medicolegal report& How to write death certificate | 5 | 2 | ٣ |
| The medicolegal aspect of deaths associated with surgical procedures and toxicological sampling | 3 | 1 | ٢ |
| Obligation of physicians (towards patients, colleagues, community) | 5 | 2 | ٣ |
| Consent, and professional secrecy | 3 | 1 | ٢ |
| Types of malpractice, and items of medical responsibility | 4 | 1 | ٣ |
| Medicolegal aspects of organ transplantation, intersex states, euthanasia, assisted reproduction techniques | 3 | 1 | ٢ |
| ethical considerations of medical research involving human subjects | 4 | 1 | ٣ |
| Total hours | ٤٥ | ١٥ | ٣٠ |
| Credit Hours | 2 | 1 | 1 |

4. Teaching and Learning Methods

- 4.1- Lectures
4.2- assignment.

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 | 24 week |
| Assessment 2; Final Structured Oral Exam | 24 week |

Weighting of Assessments

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

6. List of References

Essential books

Simpson's Forensic Medicine, 13th Edition, by Jason Payne-James, Richard Jones, Steven B Karch, John Manlove. published by Hodder & Stoughton Ltd (2011).

Goldfrank's Toxicologic Emergencies, (9th ed.) by Lewis S. Nelson, Robert S. Hoffman, Mary Ann Howland, Neal A Lewin, Lewis R. Goldfrank, Neal E. Flomenbaum. Published by McGraw-Hill (2011)

Emergency Toxicology, Peter Viccellio, (2nd ed.) Published by Lippincott Williams & Wilkins (1998)

Recommended books

Medical ethics. (1997) Robert M Veatch. 2nd edition. Jones & Bartlett publishers

Periodicals and websites.....etc.

Egyptian journals of forensic medicine and clinical toxicology

International journals of forensic medicine and clinical toxicology

www.sciencedirect.com

<https://emedicine.medscape.com>

<https://www.ncbi.nlm.nih.gov/pmc/>

7. Facilities Required for Teaching and Learning:

- 1- Adequate conditioned space for staff and assistants.
- 2- Adequate conditioned teaching facilities.
- 3- Audiovisual Aids: Data show, overhead and slide projectors and their requirements
- 4- Appropriate teaching accommodation, including museums, laboratory equipments and teaching aids (photographs, jars contain soft tissue specimens, bones, firearm cartridges and some instruments used in causing wounds).

Course Coordinator: Dr. Soheir Ali Mohamed

Head of Department: Dr. Soheir Ali Mohamed

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specification of Applied Anatomy in MD degree in Orthopaedic Surgery and Traumatology

University Sohag

Faculty of Medicine

1. Program (s) on which the course is given: MD degree in Orthopaedic Surgery and traumatology
2. Minor or major element of program: minor
3. Department offering the course: Human Anatomy & Embryology Department-
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Course Specification of Applied Anatomy in MD degree in Orthopaedic Surgery and Traumatology

CODE:ANA 0523-300

| Title | Lecture | Practical | Total | Credit |
|-------------------------------|---------|-----------|-------|--------|
| Applied Anatomy module | ٣٠ | - | ٣٠ | 2 |

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 and embryology upper limb, lower limb and vertebral column.

2. Intended Learning Outcomes of Course (ILOs):

a) **Knowledge and understanding:**

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

- a1. Mention the recent advances in the normal structure of the human musculoskeletal system.
- a2. Enumerate recent advances in the normal development of the human musculoskeletal system.

b) **Intellectual Skills**

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

- b1. Interpret data acquired to understand applied anatomy of orthopedic diseases.

c) **Professional and Practical Skills:**

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

- c1. Master the basic and modern professional skills in surgical dissection on anatomical basis

d) **General and Transferable Skills:**

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

- d1. Use of different sources for information and knowledge to learn more about abnormal anatomy of orthopedic diseases.

3. Contents

| Topic | No. of hours | Lecture |
|--|--------------|-----------|
| Introduction | 1 | 5 |
| Anatomy and embryology of the upper limb | 1 | 5 |
| Anatomy and embryology of the vertebral column | 1 | 4 |
| Anatomy of the muscles of the back | 1 | 5 |
| Anatomy and embryology of the lower limb | 1 | 4 |
| Anatomy and embryology of the spinal nerves | 1 | 4 |
| Revision | 1.5 | 3 |
| Total | 30 | ۳۰ |
| Credit | 2 | 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. Written examination 24 Week

Assessment 2. Structured Oral Exam 24 Week

Weighting of Assessments

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

6. List of References

6.1- Essential Books (Text Books)

- Fitzgerald M.J.T. (2016): The anatomical basis of medicine and surgery. By Standing s., ELIS H., Healy J. C., Johnson D. and Williams A. Gray's Anatomy. Elsevier; London, New York. Sydney. Toronto.

6.2- Recommended Books

- Stevens A. and Lowe J. S. (2015): Human histology; 5th edition; edited by Elsevier Mosby

- Colored Atlas of anatomy.

- Martini F. H., Timmons M. J. and McKinley M.P. (2015): Human anatomy; 10 edition.

- Tortora G. J. and Nielson M.T. (2016): Principles of human anatomy 14 edition; Edited by John Wiley and Sons ; United states.

- McMinn R.M.H. (2017): Lasts anatomy regional and applied chapter 7; 14 edition, edited by Longman group UK.

7. Facilities Required for Teaching and Learning

Data show device for lectures.

Course Coordinator: Dr. Mohamed Al-Badry

Head of Department: Dr. Mohamed Al-Badry.

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specification of Surgical Pathology in MD degree in Orthopaedic Surgery and Traumatology

University Sohag

Faculty of Medicine

1. Program (s) on which the course is given: MD degree in Orthopaedic Surgery and traumatology
2. Major or minor element of program: Minor
3. Department offering the course: Pathology Department
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Surgical Pathology in MD degree for Orthopaedic Surgery and Traumatology

CODE:PAT 0523-300

| Title | Lecture | Practical | Total |
|---------------------------|---------|-----------|-------|
| Surgical Pathology module | 30 | ----- | 30 |

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 orthopedic diseases.

2. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) **Knowledge and Understanding:**

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

- a1. Develop understanding of recent advances of general and systemic pathology.
- a2. Become familiar with etiology, pathogenesis and pathologic manifestation of diseases especially musculoskeletal & soft tissue disorders.
- a3. Define and discuss the main disease categories that may affect the body (general pathology).

b) **Intellectual Skills:**

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

- b2. Correlate gross and histopathology with the clinical basis of diseases especially musculoskeletal & soft tissue disorders.
- b3. Interpret data acquired to understand pathophysiology of orthopedic disease
- b4. Interpret in a professional manner a pathology report.

c) **Professional and Practical Skills:**

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

- c1. Identify the macroscopic and microscopic criteria of the altered structure (pathology) of the body and its major organs and systems that are seen in various diseases.

- c2. 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).
- c3. Write a report commenting on a pathological specimen

d) General and Transferable Skills:

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

- d1. Teach others the surgical pathology of orthopedic disease
- d2. Effectively utilize various computer based instruction tools and E-learning of Pathology and utilize a variety of computer-based self assessment tools.

3. Course contents:

| Topic | No. of hours | Lecture | Practical |
|--|--------------|-----------|-----------|
| 1- General Pathology: | | | |
| 1.1. Inflammation & repair. | 2 | 2 | |
| 1.2. Cell response to injury and aging. | 2 | 2 | |
| 1.3. Disturbances of circulation. | 2 | 2 | |
| 1.4. Bacterial infection & Pott's disease. | 2 | 2 | |
| 1.5. Osteoporosis, rickets & osteomalasia. | 2 | 2 | |
| 1.6. General pathology of tumors. | 2 | 2 | |
| 2- Musculoskeletal system: | | | |
| 2.1. Osteomyelitis. | 2 | 2 | |
| 2.2. Bone tumors. | 3 | 3 | |
| 2.3. Soft tissue tumors. | 2 | 2 | |
| 2.4. Osteodystrophies. | 3 | 3 | |
| 2.5. Arthritis & synovitis. | 2 | 2 | |
| 2.6. Tumors of joints. | 2 | 2 | |
| 2.7. Plasma cell dyscrasia & multiple myeloma. | 2 | 2 | |
| 2.8. Bone lymphoma. | 2 | 2 | |
| Total | 30 | 30 | |
| Credit Hours | 1 | 1 | |

4. Teaching and Learning Methods

- 4.1. Lectures.

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 |

Assessment Schedule

Assessment 1. Written examination 24 week

Assessment 2. Structured Oral Exam 24 week

Weighting of Assessments

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

6. List of References

6.1- Essential Books (Text Books):

- Muir's text book of pathology, 15th edition, 2014
- Robbins pathologic basis of diseases, 10th edition, 2017

6.2- Recommended Books:

- Rosi & Ackerman text book of pathology, 11th edition, 2017
- Sternberg text book of pathology, 6th edition, 2015

6.3- Periodicals, websites:

American journal of pathology

Pathology journal

Human pathology journal

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

7. Facilities Required for Teaching and Learning:

- a. Library & textbooks.
- b. Computer & data show.
- c. Internet connection.

Course Coordinator: Dr. Eman Mohammed Salah El-Deen

Head of Department: Dr. Afa Al- Nashar

Date: 18/12/2011, **Revised:** 1/9/2012, **Revised:** 1/12/2013, **Revised:** 1/12/2018

Course Specification of Clinical Physiology in MD degree in Orthopaedic Surgery and Traumatology

Sohag University

Faculty of Medicine

1. Program on which the course is given: MD degree in Orthopaedic Surgery and Traumatology
2. Major or minor element of program: Minor
3. Department offering the course: Medical Physiology Department
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Clinical Physiology in MD degree in Orthopaedic Surgery and Traumatology
CODE : PHY0523-300

| Title | Lecture | Practical | Total |
|----------------------------|---------|-----------|-------|
| Clinical Physiology module | 30 | ---- | 30 |

B. Professional Information

1. Overall Aims of Course

By the end of the program the postgraduate student should be able to manage orthopedic disease patients and trauma cases, and perform all of the general surgical procedures and most of special surgical procedures. Also he should master the basics of scientific research and apply the analytic methods for knowledge in the orthopedic surgery field

2. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) **Knowledge and Understanding:**

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

- a1. Enumerate recent advances of pain transmission
- a2. Identify the effect of spinal cord injury
- a3. List Hormonal control of Calcium homeostasis
- a4. Enumerate recent advances in development of shock and how to correct
- a5. Identify body response to trauma

b) **Intellectual Skills:**

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

- b1. Interpret data acquired to understand pathophysiology of orthopedic disease

c) **Professional and Practical Skills:**

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

- c1. Assess the function of the skeletal system.
- c2. identify the conditions with acid base disturbance

d) **General and Transferable Skills:**

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

- d1. Teach others the physiology of the musculoskeletal system and its relation to orthopedic disease

3. Course contents:

| Topic | No. of hours | lectures |
|---|--------------|----------|
| Cardio-vascular system -hemorrhage & shock -tissue fluid formation & oedema | 5 | 5 |
| Endocrine physiology of endocrine -parathyroid gland and phosphorus ,calcium homeostasis | 5 | 5 |
| Kidney - water balance -acid base balance | 5 | 5 |
| Blood -hemostasis | 5 | 5 |
| Physiology of C.N.S. Hypothalamus And body response to trauma Pain sensation | 5 | 5 |
| Metabolism -fever & its mechanism | 5 | 5 |
| Total | 30 | 30 |
| Credit | 1 | 1 |

4. Teaching and Learning Methods

4.1. Lectures.

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 |

Assessment Schedule

| | |
|------------------------------------|---------|
| Assessment 1. Written examination | 24 Week |
| Assessment 2. Structured Oral Exam | 24 Week |

Weighting of Assessments

| | | |
|--------------------------------|----|---|
| Final-term written examination | 50 | % |
|--------------------------------|----|---|

| | | |
|----------------------|-----|---|
| Structured Oral Exam | 50 | % |
| Total | 100 | % |

6. List of References

Guyton and Hall Textbook of Medical Physiology, John E. Hall, 13th edition, Elsevier Health Sciences, 2015.

6.2- Recommended Books

Ganong's Review of Medical Physiology, 25th Edition, McGraw Hill Professional, 2015.

7. Facilities Required for Teaching and Learning:

- a. Library & textbooks.
- b. Computer & data show.
- c. Internet connection.

Course Coordinator: Dr. Hoda Mostafa

Head of Department: Dr: Hoda Mostafa

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specification of Medical Biomechanics in MD degree in Orthopaedic Surgery and Traumatology

University Sohag

Faculty of Medicine

1. Program on which the course is given: MD degree in Orthopaedic Surgery and Traumatology
2. Major or minor element of program: Minor
3. Department offering the course: **Medical Biomechanics** Department
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Biomechanics in MD degree in Orthopaedic Surgery and Traumatology

Code: BIO 0523-300

| Title | Lecture | Practical | Total |
|--------------|---------|-----------|-------|
| Biomechanics | 15 | -- | 15 |

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 biomechanics of orthopedic diseases.

2. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) **Knowledge and Understanding:**

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

- a1. Mention the recent advances in the normal function of the human musculoskeletal system from the mechanical point of view

b) **Intellectual Skills:**

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

- b1. Interpret data acquired to understand biomechanics of orthopedic diseases.

c) **Professional and Practical Skills:**

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

- c1. Design new methods and tools to evaluate biomechanics of orthopedic disease.

d) **General and Transferable Skills:**

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

- d1. Teach others the biomechanics of orthopedic disease

3. Course contents

| Topic | No. of hours | Lecture |
|---|--------------|-----------|
| Introduction and basic principles of biomechanics | 3 | 3 |
| Biomechanics of instrumentation | 3 | 3 |
| Biomechanics of hip | 3 | 3 |
| Biomechanics of knee | 3 | 3 |
| Biomechanics of spine | 3 | 3 |
| Total | 15 | 15 |
| Credit | 1 | 1 |

4. Teaching and Learning Methods

4.1. Lectures.

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 |

Assessment Schedule

| | |
|------------------------------------|---------|
| Assessment 1. Written examination | 24 Week |
| Assessment 2. Structured Oral Exam | 24 Week |

Weighting of Assessments

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

6. List of References

6.1- Essential Books (Text Books)

1. Text book of Biochemistry For Medical students 8th edition by DM Vasudevan 2016
2. Harper's illustrated Biochemistry 31 edition by victor Rod well et al 2018

6.2- Recommended Books

1. Lectures notes on clinical Biochemistry, Whitby et al 1993
2. Lippincott's illustrated reviews Biochemistry, Champe, PC, Harvey, RA, 8th edition 2010

6.3- Periodicals, Web Sites, ... etc

<http://www.ncbi.nlm.gov/>
<http://www.vlib.org/>
[www.genome.ad.jp/kegg/regulation.](http://www.genome.ad.jp/kegg/regulation)
Findarticle.com

7. Facilities Required for Teaching and Learning:

- a. Library & textbooks.
- b. Computer & data show.
- c. Internet connection.

Course Coordinator: Dr .Aida Abdeen

Head of Department: Dr. Nagwa Sayed Ahmed

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013, **Revised:**1/12/2018

Course Specification of Orthopaedic Surgery and Traumatology in MD degree in Orthopaedic Surgery and traumatology

Sohag University

Faculty of Medicine

1. Program (s) on which the course is given: MD degree in Orthopaedic Surgery and Traumatology
2. Minor or major element of program: major
3. Department offering the course: Orthopaedic Surgery and Traumatology department
4. Department offering the program: Orthopedic Surgery and Traumatology Department
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

A. Basic Information

Title: Orthopaedic Surgery and Traumatology

CODE:ORT 0523-300

| Title | Lecture | Surgical | Clinical | Total | Credit |
|--------------------------------------|---------|----------|----------|-------|--------|
| Orthopaedic Surgery and Traumatology | 390 | 390 | 390 | 1170 | 52 |

B. Professional Information

1. Overall Aims of Course

By the end of the program the student should be able to manage orthopedic disease patients and trauma cases, and perform all of the general surgical procedures and most of special surgical procedures. Also he should master the basics of scientific research and apply the analytic methods for knowledge in the orthopedic surgery field.

2. Intended Learning Outcomes of Course (ILOs):

a) Knowledge and understanding:

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

- a1. Mention the relation of the recent advances in the normal structure and function of the human musculoskeletal system to surgical procedures
- a2. Enumerate recent advances in the normal growth of the human musculoskeletal system.
- a3. List the recent advances in the abnormal structure, function, growth and development of human musculoskeletal system.
- a4. Enumerate recent advances in the natural history of orthopedic diseases and traumatology problems.
- a5. Enumerate recent advances in the causation of orthopedic diseases and traumatology problems and their pathogenesis.
- a6. Enumerate recent methods of fixation of different fracture pattern.
- a7. List the clinical picture and differential diagnosis of orthopedic diseases.
- a8. Enumerate recent advances in the common diagnostic and laboratory techniques necessary to establish diagnosis of orthopedic diseases.
- a9. Describe recent advances in the various therapeutic methods/alternatives used for orthopedic diseases.

- a10. Enumerate recent advances in the knowledge of the general surgery.
- a11. Define recent advances in the trauma management.
- a12. Enumerate the principles and fundamentals of quality assurance of professional practice in the field of orthopedic surgery and traumatology.
- a13. Enumerate 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 is expected to be able to:

- b1. Interpret data acquired through history taking to reach a provisional diagnosis for orthopedic diseases.
- b2. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for orthopedic diseases.
- b3. Conduct research studies that add to knowledge.
- b4. Formulate scientific papers in the area of orthopedic surgery and traumatology.
- b5. Assess risk in professional practices in the field of orthopedic surgery and traumatology.
- b6. Plan to improve performance in the field of orthopedic surgery and traumatology.
- b7. Identify orthopedic and traumatology problems and find solutions.
- b8. Have the ability to innovate nontraditional solutions to orthopedic and traumatology problems.
- b9. Manage scientific discussion based on scientific evidences and proofs.
- b10. Criticize researches related to orthopedic surgery and traumatology.

c) Professional and Practical Skills:

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

- c1. Master the basic and modern professional clinical and surgical skills in the area of orthopedic surgery and traumatology.
- c2. Evaluate and develop methods and tools existing in the area of orthopedic surgery and traumatology.
- c3. Perform endoscopic and imaging evaluation of orthopedic problems.
- c4. Train junior staff through continuous medical education programs.
- c5. Design new methods, tools and ways of professional practice

d) General and Transferable Skills:

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

- d1. Present reports in seminars effectively.
- d2. Use appropriate computer program packages for computer assisted navigation surgery
- d3. Teach others orthopedic surgery and traumatology and evaluate their performance.
- d4. Assess himself and identify his personal learning needs.
- d5. Use of different sources for information and knowledge of orthopedic diseases and traumatology.
- d6. Manage scientific meetings according to the available time.

3. Contents

| Topic | Total No. of hours | lectures | surgical | clinical |
|--|---------------------------|-----------------|-----------------|-----------------|
| GENERAL PRINCIPLES | 70 | 20 | 20 | 20 |
| Surgical Techniques and Approaches | | | | |
| ARTHRODESIS | 50 | 10 | 20 | 20 |
| Arthrodesis of Ankle, Knee, and Hip Arthrodesis of Shoulder, Elbow, and Wrist | | | | |
| ARTHROPLASTY | 80 | 40 | 20 | 20 |
| Introduction and Overview | | | | |
| Arthroplasty of Ankle and Knee | | | | |
| Arthroplasty of Hip | | | | |
| Arthroplasty of Shoulder and Elbow | | | | |
| AMPUTATIONS | 60 | 20 | 20 | 20 |
| General Principles of Amputations | | | | |
| Amputations About Foot | | | | |
| Amputations of Lower Extremity | | | | |
| Amputations of Hip and Pelvis | | | | |
| Amputations of Upper Extremity | | | | |
| Amputations of Hand | | | | |
| INFECTIONS | 70 | 30 | 20 | 20 |
| General Principles of Infection | | | | |
| Osteomyelitis | | | | |
| Infectious Arthritis | | | | |
| Tuberculosis and Other Unusual Infections | | | | |
| TUMORS | 80 | 40 | 20 | 20 |
| *General Principles of Tumors | | | | |
| *Benign Tumors of Bone | | | | |
| *Benign (Occasionally Aggressive) Tumors of Bone | | | | |
| *Malignant Tumors of Bone | | | | |
| * Soft Tissue Tumors and Nonneoplastic Conditions Simulating Bone Tumors | | | | |
| NONTRAUMATIC SOFT TISSUE DISORDERS | 50 | 10 | 20 | 20 |
| * Nontraumatic Soft Tissue Disorders | | | | |
| * Miscellaneous Nontraumatic Disorders | | | | |
| CONGENITAL ANOMALIES | 60 | 20 | 20 | 20 |
| * Congenital Anomalies of Lower Extremity | | | | |
| * Congenital and Developmental Anomalies of Hip and Pelvis | | | | |

| Topic | Total No. of hours | lectures | surgical | clinical |
|---|---------------------------|-----------------|-----------------|-----------------|
| * Congenital Anomalies of Trunk and Upper Extremity | | | | |
| OSTEOCHONDROSIS | ٥٠ | 10 | 20 | 20 |
| Osteochondrosis or Epiphysitis and Other Miscellaneous Affections | | | | |
| NERVOUS SYSTEM DISORDERS IN CHILDREN | ٥٠ | 10 | 20 | 20 |
| Cerebral Palsy | | | | |
| Paralytic Disorders | | | | |
| Neuromuscular Disorders | | | | |
| FRACTURES AND DISLOCATIONS IN CHILDREN | ٨٠ | 20 | 30 | 30 |
| THE SPINE | | | | |
| * Spinal Anatomy and Surgical Approaches | | | | |
| *Fractures, Dislocations, and Fracture-Dislocations of Spine | | | | |
| *Arthrodesis of Spine | | | | |
| *Pediatric Cervical Spine | | | | |
| * Scoliosis and Kyphosis | | | | |
| * Lower Back Pain and Disorders of Intervertebral Discs | | | | |
| * Infections of Spine | | | | |
| * Other Disorders of Spine | | | | |
| SPORTS MEDICINE | ٦٠ | 20 | 20 | 20 |
| Ankle Injuries | | | | |
| Knee Injuries | | | | |
| Shoulder and Elbow Injuries | | | | |
| Recurrent Dislocations | | | | |
| Traumatic Disorders | | | | |
| ARTHROSCOPY | ٨٠ | 20 | ٣٠ | ٣٠ |
| General Principles of Arthroscopy | | | | |
| Arthroscopy of Lower Extremity | | | | |
| Arthroscopy of Upper Extremity | | | | |
| FRACTURES AND DISLOCATIONS | ٨٠ | 20 | ٣٠ | ٣٠ |
| General Principles of Fracture Treatment | | | | |
| Fractures of Lower Extremity | | | | |
| Fractures of Hip | | | | |
| Fractures of Acetabulum and Pelvis | | | | |
| Fractures of Shoulder, Arm, and Forearm | | | | |
| Malunited Fractures | | | | |

| Topic | Total No. of hours | lectures | surgical | clinical |
|--|---------------------------|-----------------|-----------------|-----------------|
| Delayed Union and Nonunion of Fractures | | | | |
| Acute Dislocations | | | | |
| Old Unreduced Dislocations | | | | |
| PERIPHERAL NERVE INJURIES | 60 | 20 | 20 | 20 |
| MICROSURGERY | 50 | 10 | 20 | 20 |
| THE HAND | 60 | 20 | 20 | 20 |
| Basic Surgical Technique and Aftercare | | | | |
| Acute Hand Injuries | | | | |
| Flexor and Extensor Tendon Injuries | | | | |
| Fractures, Dislocations, and Ligamentous Injuries | | | | |
| Nerve Injuries | | | | |
| Wrist Disorders | | | | |
| Special Hand Disorders | | | | |
| Paralytic Hand | | | | |
| Cerebral Palsy of the Hand | | | | |
| Arthritic Hand | | | | |
| Compartment Syndromes and Volkmann Contracture | | | | |
| Dupuytren Contracture | | | | |
| Carpal Tunnel, Ulnar Tunnel, and Stenosing Tenosynovitis | | | | |
| Tumors and Tumorous Conditions of Hand | | | | |
| Hand Infections | | | | |
| Congenital Anomalies of Hand | | | | |
| THE FOOT AND ANKLE | 90 | 50 | 20 | 20 |
| Surgical Techniques | | | | |
| Disorders of Hallux | | | | |
| Pes Planus | | | | |
| Lesser Toe Abnormalities | | | | |
| Rheumatoid Foot | | | | |
| Diabetic Foot | | | | |
| Neurogenic Disorders | | | | |
| Disorders of Nails and Skin | | | | |
| Disorders of Tendons and Fascia | | | | |
| Fractures and Dislocations of Foot | | | | |
| Total | 1170 | 390 | 390 | 390 |
| Credit | 52 | 26 | 13 | 13 |

4. Teaching and Learning Methods

- 4.1 Lectures.
- 4.2 Practical / surgical /clinical lessons
- 4.3 Discussion sessions.
- 4.4 Information collection from different sources.
- 4.5 Attending and participating in scientific meeting and workshops

5. Student Assessment Methods

| 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 Computer search assignment | -General transferable skills, intellectual skills |

Assessment Schedule

| | |
|--|-------------|
| Assessment 1 ... Assignment | Week: 30-31 |
| Assessment 2 ... Written exam | Week: 96 |
| Assessment 3.... OSCE ... | Week: 96 |
| Assessment 4..... Structured Oral Exam | Week: 96 |

Weighting of Assessments

Final-Written Examination Separate exam
Passing in the written exam is a condition to attend the following exams

| | | |
|-----------------------|-----|---|
| Structured Oral Exams | 50 | % |
| OSCE | 50 | % |
| Total | 100 | % |

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

6. List of References

6.1- Essential Books (Text Books)

Campell's Operative Orthopedic

6.2- Recommended Books:

- o Manual of internal fixation
- o Stanley's Surgical approaches

Periodicals and Web Sites:

Spine Journal

British bone and joint Journal

American bone and joint Journal

Journal of hand and microsurgery

7. Facilities Required for Teaching and Learning

- Adequate infrastructure including teaching rooms, comfortable desks.
- Teaching tools including screen, slide Projector, computer and data show.

Course Coordinator: Dr .Ahmad Addosoki

Head of Department: Prof. Dr. El Shasly S. Mousa

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