

Cairo University

Faculty of Medicine

Program Specification for M.D. Degree in Orthopedic Surgery

Program type: single

Program code: ORTH 900

Department offering the program: Department of orthopedic surgery

Total credit points: 260 (160 M.Sc. + 100 M.D.)

Academic year: 2015/2016

Date of approval by department council after reviewing: July 2015

Program coordinators:

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Prof. Khaled Fawzy

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External evaluator:

Prof. Adel Al-Adawy, Professor of orthopedics, Faculty of Medicine, Banha University

I- Program aims

The specialty of Orthopaedics and Traumatology involves prevention, diagnostics (including imaging techniques), non-operative, pharmacological and surgical treatments and rehabilitation of degenerative, inflammatory, infectious, metabolic and neoplastic pathologies, as well as the management of musculoskeletal trauma and its post-traumatic consequences. Furthermore it encompasses contributions to the multidisciplinary management of congenital and acquired deformities and functional disorders at any age.

The program is a professional degree at the top of the educational pyramid that present a final extension to the MSc. training program. It is devoted to the very specialized

surgeons in the area of Orthopedic traumatology and diseases including hip and arthroplasty surgery, spine surgery, sports medicine and arthroscopy, orthopedic oncology, hand and Microsurgery, Foot and ankle and deformity surgery, and pediatric orthopedic surgery. It aims to make links between the surgical education process as a whole and assessment processes in particular, absolutely clear.

The intention of this curriculum is to produce orthopedic and trauma surgeons who are safe to screen the range of referrals to the orthopedic and/or trauma service and to deal with the complex cases safely. They should be also capable of doing professional scientific medical research and be involved in research projects.

The candidates should achieve satisfactory levels of basic knowledge, clinical and surgical skills in all aspects of orthopedic practice, interact with community problems, respect ethical values according to community culture, and promote their medical standards through engaging in continuing medical education.

II- Intended learning outcomes of program (ILOs)

A. Knowledge and understanding

By the end of the program the candidate should:

1. Recognize the basic sciences required for understanding of the orthopedic trauma and diseases.
2. Recognize the basic scientific knowledge related to orthopedic trauma and diseases.
3. Identify and discuss common problems related to orthopedic trauma and diseases.
4. Distinguish the basic pathology underlying different orthopedic disorders.
5. Recognize the psychological basis of human musculoskeletal disorders.
6. Distinguish basic concepts of musculoskeletal laboratory procedures related to metabolic and rheumatic bone diseases and other disorders.
7. Describe different management modalities for common musculoskeletal problems.
8. Recognize the principles of surgical procedures that enable the candidate to perform surgeries of musculoskeletal dysfunctions.

B. Intellectual skills

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

1. Analyze symptoms & signs and construct a differential diagnosis of common musculoskeletal complaints.
2. Design an appropriate diagnostic plan for evaluation of common musculoskeletal complaints taking into consideration the nature of the clinical situation and the risks, benefits and costs to the patient.
3. Interpret the results of different investigations related to musculoskeletal dysfunctions.
4. Design treatment plans for common and rare musculoskeletal problems taking into account the cultural and individual needs.
5. Develop judgment and professionalism
6. Able to adapt to new developments

C. Professional and practical skills

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

1. Collect clinical data specially the art of history taking.
2. Examine and identify signs of common and rare musculoskeletal disorders.
3. Perform office clinical procedures related to musculoskeletal dysfunction.
4. Perform simple musculoskeletal laboratory procedures.
5. Offer proper medical treatment for musculoskeletal problems.
6. Perform basic & advanced surgical skills and manage common surgical complications related to musculoskeletal system.
7. Offer surgical interventions whenever indicated

D. General and transferable skills

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

1. Communicate with the patients to gain their confidence.

2. Respond effectively to a patient's emotional and psychosocial concerns.
3. Communicate with other health care providers.
4. Appreciate team working.
5. Achieve computer skills necessary to make the internet use of medical data bases and use the internet for communication.
6. Demonstrate administrative skills to fulfill the paper work needed.
7. Demonstrate leadership skills that enable him to organize work and lead the juniors and paramedical staff
8. Recognize scientific methodologies and have critical reading abilities
9. Obtain information about specific practice, research, or administrative career opportunities as appropriate.
10. Read and interpret a medical report.
11. Write scientific article according to the basics of scientific research.
12. Able to join and lead multidisciplinary teams which will receive, assess and definitively manage the majority of patients who need emergency care
13. Be committed to lifelong learning to ensure that patient safety is maintained and the quality of treatment provided is the best possible.

III- Academic standards

1- Academic reference standards:

The academic standards of orthopedic program is adopted and accredited by the departmental council

2- External references for standards:

- EFORT European Curriculum in Orthopaedics and Trauma: European Education Platform (EEP)
- The curriculum of the British Orthopedic Association (BOA) Training Standards Committee

IV- Program admission requirements

According to the faculty of medicine, Cairo University Bylaws for post Graduate programs (July 2009), applicants should have MBChB or equivalent & Master degree in orthopedics. He should have at least a score of (good) in MSc.

Admission to the program is open during July. Training prior to registration may be accredited according to departmental and hospital evaluation.

V- Program structure and contents

Program duration: Two years.

Program structure: Total Credit points 260

Program Matrix of Orthopedics M.D. Degree: Appendix I

Code	Courses			Credit points
ORTH 800	Master degree			160
ORTH932Ta	Compulsory courses	Advanced Orthopedic Surgery	Orthopedic trauma	8
ORTH932Tb			Orthopedic diseases	8
Total				16
ORTH910	Elective Courses Choose 1 course from each group	Group A	Human Genetics	1
ORTH903			Molecular biology	1
ORTH932BM		Group B	Biomechanics	1
ORTH932SI			Sports injuries	1
Total				2
	Scientific activities			2
ORTH932C	Training program (Orthopedic Surgery and trauma)			40
	M.D. thesis			40

Total	260
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Practical Training Program:

According to the Faculty of Medicine, Cairo University Bylaws for postgraduate Programs (July 2009), all the students should complete the training program in the orthopedic department or one of the hospitals accredited by the department committee. They should spend **36 month at least** in order to acquire the needed credit points. The student is expected to attend the outpatient clinics, inpatient section and the operating room to share in patients care under the supervision of senior staff members. During this period the students will attend the orthopedic surgery courses and will participate in the scientific activities of the department.

All students should attend:

1. Post-graduate orthopedic review lectures (At least 60%).
2. Orthopedic clinical examination for post-graduates lectures (At least 60%).
3. Basic orthopedic course (At least once).
4. At least 3 other specialized courses arranged by the orthopedic department.

M.D. Thesis:

All master-degree students should prepare a thesis in orthopedic trauma or disorders. The department and the ethical committees must approve the protocol of the research. The thesis will be supervised by one or more senior staff members and may include other specialties according to the nature of the research. In order to be legible to the final exam, the thesis should be evaluated and approved by committee of three professors including one of the supervisors and an external professor.

Scientific Activities:

The students should participate in the scientific activities of the departments and participate in the discussions which include:

- Journal club once every one- two weeks.
- Seminars (including recent topics and controversial issues) once weekly.
- Scientific meetings arranged by the department.
- Attendance of Thesis discussions.

- Staff rounds.
- Orthopedic department annual conference.

Each activity is monitored and given credit points registered in a special section in the training logbook. The student should collect the required points before being allowed to sit for final exam.

VI- Regulations for progression and program completion

After submitting documents needed for registration and registration is accepted, the student submits a protocol for M.D. thesis. Before submitting to the final examination he should finish the thesis and get approval, complete the training program, and collect the required credit points.

The candidate will receive his degree after passing this final examination.

M.D. degree should be obtained within a maximum of 8 years after registration date.

VII- Assessment

A: Assessment Tools:

- **Supervision & Monitoring of the Training program:**

According to the Faculty of Medicine, Cairo University Bylaws for Training Programs, professors carry continuous assessment during the program. A training program logbook will be kept for each student to document all his/her clinical, laboratory and/or operative/procedural activities as well as his/her participation in different scientific activities. The logbook will be checked every year by the orthopedic department. The head of the department should allow the students to undergo the final examination when they complete their training program, collect the credit points needed, and submit evidence of completion of audits and research and evidence showing attendance at relevant specialty courses and meetings.

Formal Assessment

According to the Faculty of Medicine, Cairo University Bylaws for postgraduate Programs (July 2009), students should be assessed at the end of the program. The candidate

should have three written exams, in three separate days, (three-hours each) including short essay questions, and MCQ (including problem solving) + oral exam + clinical exam

The written exam will be held in May/ November (3 days):

Day one: Orthopedic diseases (3 hours)

Day two: Orthopedic trauma: (3 hours)

Day three: Elective Courses: (3 hours)

The candidate should choose one course from each group of elective Courses.

This will be followed by the clinical and oral exams in separate days

C. WEIGHING OF ASSESSMENT: Marks allocated to courses

(50 marks for each credit point)

Course		written	oral	Clinical/practical	total
Orthopedic diseases & trauma		200 + 200	200	200	800
Group I	Human Genetics	25	25	0	50
	Molecular biology				
Group II	Biomechanics	25	25	0	50
	Sports injuries				

Remarks: Passing mark in the exam is 60%

VIII- Evaluation of program intended learning outcomes

Evaluator	Tool	Sample
Senior	Questionnaire at the end of the program	All the PG students
Alumni	The faculty is currently developing an alumni Office for postgraduates	All assistant lecturers of the department.
Stakeholders	A meeting will be arranged during the annual conference of the department	Available representatives from: <ul style="list-style-type: none"> ✓ Army hospital ✓ National medical insurance ✓ Medical syndicate ✓ Ministry of health
External Evaluator	Review the program and courses attending the final exam	<ul style="list-style-type: none"> ✓ Once before implementation ✓ Bi-annual report

Date of approval by department council: 8/11/2016

Program Coordinators

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Prof. Aly Almofty

Head of Department

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