



PROGRAMME SPECIFICATION
Faculty of Medicine- Mansoura University

(A) Administrative information

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| (1) Programme Title & Code | Master Degree of Orthopaedic surgery OSUR 525 |
| (2) Final award/degree | Master Degree |
| (3) Department (s) | Orthopaedic Surgery Department |
| (4) Coordinator | Dr/ Khalid Nour |
| (5) External evaluator (s) | Prof. Dr/ Gamal Hosny |
| (6) Date of approval by the Department`s council | 11 .5 . 2016 |
| (7) Date of last approval of programme specification by Faculty council | 9/8/2016 |

(B) Professional information

(1) Program Aims:

The overall aim of the program is to:

- 1-** Provide the principles required for management of patients and improvement of patient care.
- 2-** Teaching the candidate the basic skills needed to deal with patients from history taking, examination and communication skills.

- 3- Learn and practice the basic skills of trauma surgery and focusing on management of life saving and resuscitation techniques.
- 4- Teach our candidate how to design a clear and defensible management plan and presenting the plan in scientific way.
- 5- Encourage our candidates to collect and analyze data and information through primary or secondary data collection and/or systematic use of library resources.
- 6- Establish the ability to work effectively within a team.

(2) **Intended Learning Outcomes (ILOs):**

On successful completion of the programme, the candidate will be able to:

A- Knowledge and Understanding

- A1- Discuss the macroscopic and microscopic anatomy of musckluskeletal system.
- A2- Discuss the physiology of bone healing.
- A3- Describe the surgical anatomy of important regions and organs of importance to the musculoskeletal system.
- A4- Identify the general signs and symptoms of fractures and joints injuries.
- A5- Select the appropriate diagnostic tools and therapeutic lines for the most important musckluskeletal system dysfunction including applicable recent modalities.
- A6- Defines the possible early and late complications for regional musckluskeletal system injuries, diseases, infections and tumours.
- A7- List the appropriate lines of treatment modalities for selected common musckluskeletal system injuries.
- A8- Recognize the common descriptive pharmacological terms and how to correctly use the drug pre and post-operative, clinical instruction and follow-up of side effects and toxicity of different drugs.
- A9- Recognize bone metabolism, Ca, magnesium, phosphate metabolism and trace elements.

B- Intellectual activities

The Postgraduate Degree provides opportunities for candidates to achieve and demonstrate the following intellectual qualities:

- B1- Appraise the importance of physical assessment to the diagnosis of musculoskeletal dysfunction.
- B2- Present a complete medical history and physical examination.
- B3- Analyse the clinical and investigational results, with the knowledge and the skill in clinical problem solving.
- B4- Differentiate between different types and classifications of fractures.
- B5- Perform an examination of bone and joint in a chronological manner.
- B6- Interpret complications of major Orthopedic dysfunctions beyond the capacities of institute and or personnel and determine when to refer to a more well equipped location.
- B7- Distinguish and outline management of patients with acute and chronic Orthopedic Surgery conditions requiring short or long-term follow-up, rehabilitation and pain relief.
- B8- Monitor the effectiveness of therapy by identifying clinical and investigative parameters that can be used in assessing the patient's response to treatment and re-evaluate management plan accordingly particularly in musculoskeletal system infections.

C- Professional/practical skills:

C1- Perform routine bedside procedures.

C2- Evaluate musculoskeletal deformities and describe them in a proper way.

C3- Assess the ability to identify appropriate management and leadership styles to motivate and influence individual and group behavior, and resolve conflict through collaborative approaches.

C4- Develop skills in examination of different joints including gait description, joint deformity, joint motion and measurements.

C5- Assess awareness and analysis of differing learning styles, requirements and processes.

D- Communication & Transferable skills

D1- Personal drive, initiative and effectiveness in planning and implementing projects and accomplishing objectives together with the ability to manage time and work to deadlines.

D2- Conduct sincere and effective patient interviews, properly explain their condition and plan of management, obtain consents and convey bad news in a professional way.

D3- Communicate, consult and respect the role of other health-care providers.

D4- Effective oral and written communication using a range of media.

D5- Participate constructively in teams and assess the relevance and importance of the ideas of others.

D6- Effective use of technology for management of information, including use of spreadsheets, databases, word processing.

D7- Numerical skills and the ability to manipulate data and appreciate statistical concepts.

D8- Maintain a professional image, and practice a responsible attitude.

(3) Curriculum structure and contents:

3.a- Duration of the programme (in years or months): up to 36 months.

3.b- programme structure:

Candidates should fulfill a total of 45 credit hours

●3.b.1: Number of credit hours:

First part: 5 credit hours. **Second part:** 18 credit hours. **Thesis:** 6 credit hours. practical 16 Credit Hours.

| | Course | Code | Credit hours | Total |
|----------|-------------------------------|-----------|--------------|-------|
| 1st part | Surgical anatomy & embryology | OSURG 501 | 1 | 5 |
| | Histology | OSURG 502 | 1 | |
| | Physiology | OSURG 503 | | |
| | Biochemistry | OSURG 504 | 1 | |
| | Pharmacology | OSURG 506 | | |
| | Pathology | OSURG 505 | 1 | |

| | | | | |
|-----------|--|------------------------------|----|----|
| | Microbiology | OSURG 507 | | |
| | General surgery | OSURG 520 OSURG 520 C | 1 | |
| 2nd part | Orthopaedic | OSURG 525 | 8 | 18 |
| | Traumatology | OSURG 525 TR | 9 | |
| | Elective course • Rehabilitation Programs & Ortho • Principle of Microvascular sur | OSURG 525 RO OSURG 525 MS | 1 | |
| PRACTICAL | Practical training | | 14 | 16 |
| | Scientific activity | | 2 | |
| thesis | | | | 6 |
| TOTAL | | | | 45 |

(4) Programme courses:

First part

a- Compulsory courses: 15 weeks

| Course Title | Course Code | NO. of hours per week | | | Total teaching hours (15 weeks) | Programme ILOs covered (REFERRING TO MATRIX) |
|-------------------------------|--------------------------|-----------------------|----------|-----------------------|---------------------------------|--|
| | | Theoretical | | Laboratory /practical | | |
| | | Lectures | Seminars | | | |
| Surgical Anatomy & Embryology | OSURG 501 | | | | 1 | A3 |
| Histology | OSURG 502 | | | | | |
| Physiology | OSURG 503 | | | | 7.5 | |
| Biochemistry | OSURG 504 | | | | | A9 |
| Pharmacology | OSURG 506 | | | | | B8 |
| General Surgical | OSURG 505 | | | | | |
| Microbiology | OSURG 507 | | | | | B8 |
| General Surgery | OSURG 520 OSURG 520 C | | | | 1 | D2,A4 |

Second part: 45 weeks

| Course Title | Course Code | NO. of hours per week | | | | Total Credits | Total teaching hours | Programme ILOs covered (REFERRING TO MATRIX) |
|---|----------------------------|-----------------------|----------|-----------------------|----|---------------|-----------------------------------|--|
| | | Theoretical | | Laboratory /practical | | | | |
| | | Lectures | Seminars | | | | | |
| Orthopaedic Surgery | OSUR 525 | 120 | | | 8 | 120 Hours | A4→A9 B1→B8 C1→C5 D1→ D8 | |
| Traumatology | OSUR 525 TR | 135 | | | | 135 Hours | | |
| Elective: 1. Rehab.programs & orthotics 2. Principle of microvascular surgery | OSUR 525 RO OSUR 525 PM | | | | | 15 Hours | | |
| Log Book | OSUR 525 C OSUR 525 TRC | | | | 16 | 480 Hours | | |
| Thesis | | | | | | | | |

Programme-Courses ILOs Matrix

| Course Title/Code | a1 | a2 | a3 | a4 | a5 | a6 | a7 | a8 | a9 | b1 | b2l | b3 | b4 | b5 | b6 | b7 | b8 | C1 | C2 | C3 | C4 | C5 | d1 | d2 | d3 | d4 | d5 | d6 | d7 | d8 |
|---|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Surgical Anatomy & Embryology/ OSURG 501 | X | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Histology/ OSURG 502 | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Physiology/ OSURG 503 | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Biochemistry / OSURG 504 | | X | | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Pharmacology / OSURG 506 | | | | | | | | X | | | | | | | | | X | | | | | | | | | | | | | |
| Pathology/ OSURG 505 | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Microbiology/ OSURG 507 | | | | | X | | | | | | | | | | | | X | | | | | | | | | | | | | |
| General Surg /OSURG 520, OSURG 520C | | | X | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Orth. Surg./ OSUR525 | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Traumatology /OSUR525TR | | | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

6– Teaching and Learning Methods

6.1 Lectures.

6.2 Practical / surgical /clinical lessons

6.3 Discussion sessions

6.4 Information collection from different sources.

6.5 Attending and participating in scientific meeting and workshops

7- Student Assessment Methods

7.1 **Written examination:** to assess **knowledge and intellectual skills..**

MCQ exam to assess knowledge and intellectual skills.

7.2 **Clinical examination (OSCE):** to assess **practical and intellectual skills.**

7.3 **Structured Oral examination:** to assess **knowledge.**

Assessment Schedule

➤ 1ST PART

| Exam | Mark | | | | Total |
|------------------------|------------|-----------|-----------|-----------|------------|
| | Written | MCQ | Oral | Clinical | |
| Anatomy | 72 | 18 | 60 | | 150 |
| Histology | 72 | 18 | 60 | | 150 |
| Physiology | 48 | 12 | 40 | | 100 |
| Biochemistry | 48 | 12 | 40 | | 100 |
| Pharmacology | 48 | 12 | 40 | | 100 |
| Pathology | 72 | 18 | 60 | | 150 |
| Microbiology | 72 | 18 | 60 | | 150 |
| General Surgery | 144 | 36 | 60 | 60 | 300 |

2ND PART

| Exam | Mark | | | | | Total |
|--------------------|---------|-----|------|----------|-----------|-------|
| | Written | MCQ | Oral | Clinical | practical | |
| Orthopaedic | 112 | 28 | 50 | 50 | 50 | 290 |
| Trauma | 112 | 28 | 50 | 50 | 50 | 290 |
| Elective | 16 | 4 | | | | 20 |
| | | | | | | 600 |

8-Programme admission requirements:

•General requirements:

- According to the faculty postgraduate bylaws.

9-Regulations for progression and programme completion:

- Student must complete minimum of 45 credit hours in order to obtain the Master degree, which include the courses of first and second parts, thesis and activities of the log book.
- Registration for the M.Sc. thesis is allowed 6 months from the day of registration to the programme.

Log book fulfillment:

- Student must fulfill a minimum of 16 credits of log book activities including conferences attendance or speaking.
- Lectures and seminars of the previously described courses must be documented in the log book and signed by the lecturer.
- Any workshops, conferences and scientific meetings should be included in the log book.
- Continuous assessment: in a weekly seminar, monthly meeting.
- Final assessment: written, oral and clinical exams at the end of the first and second part.

| Aim | Intended learning outcomes (ILOS) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----------------------------------|----|----|----|----|----|----|----|----|--------------|----|----|----|----|----|----|----|-----------|----|----|----|----|---------------|----|----|----|----|----|----|----|
| | knowledge | | | | | | | | | intellectual | | | | | | | | practical | | | | | communication | | | | | | | |
| | A1 | A2 | A3 | A4 | A5 | A6 | A7 | A8 | A9 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | C1 | C2 | C3 | C4 | C5 | D1 | D2 | D3 | D4 | D5 | D6 | D7 | D8 |
| 1 | | | * | * | * | * | * | * | | * | * | * | * | | * | * | * | | | | | | * | | | | | | | |
| 2 | | | | | | | | | | | * | | | * | | | | * | | | | | | | | | | | | |
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١- المعرفة والفهم:

| المقررات التي تحقق المعايير الأكاديمية للبرامج | مخرجات التعلم المستهدفة ILOs | (ARS) Benchmark | (NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الماجستير في جراحة العظام) |
|---|------------------------------|--|--|
| 1-General surgical pathology 2-Surgical anatomy 3-Orthopaedic surgery 4-Traumatology 5- Elective rehabilitation programs & orthotics 6-Principles of microvascular surgery 7-Log book | A1,A9 | A1- Discuss the macroscopic and microscopic anatomy of musckluskeletal system. A9- Recognize bone metabolism, Ca, magnesium, phosphate metabolism and trace elements. | 1) Theories, concepts and specialized knowledge of the learning area and also sciences appropriate to the professional practice. |
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book 6- Microbiology | A5.A7 | A5- Select the appropriate diagnostic tools and therapeutic lines for the most important musckluskeletal system dysfunction including applicable recent modalities. A7- List the appropriate lines of treatment modalities for selected common musckluskeletal system injuries. | 2) Mutual influence between professional practice and its impacts on the environment. |
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | A7 | A7- List the appropriate lines of treatment modalities for selected common musckluskeletal system injuries. | 3) Scientific developments in the field of specialization |
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book 6- pharmacology | A8 | A8- Recognize the common descriptive pharmacological terms and how to correctly use the drug pre and post-operative, clinical instruction and follow-up of side effects and toxicity of different drugs. | 4) Moral and legal ethics of the professional practice in the area of specialization. |
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | A4 | A4- Identify the general signs and symptoms of fractures and joints injuries. | 5) The concepts and principles of quality of the professional practice in the area of specialization. |

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| 6- General surgery Microbiology | A5 | A5- Select the appropriate diagnostic tools and therapeutic lines for the most important musculoskeletal system dysfunction including applicable recent modalities. | 6) The basics and ethics of scientific research. |
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ب - القدرات الذهنية :

| المقررات التي تحقق المعايير الأكاديمية للبرامج | مخرجات التعلم المستهدفة ILOs | (ARS) Benchmark | (NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الماجستير في جراحة العظام) |
|---|------------------------------|---|--|
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | B7 | B7- Distinguish and outline management of patients with acute and chronic Orthopedic Surgery conditions requiring short or long-term follow-up, rehabilitation and pain relief. | 1) Analyze and evaluate of information in the field of specialization and make full use of such information to solve problems. |
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | B4 | B4- Differentiate between different types and classifications of fractures. | 2) Solve specific problems on the basis of limited and contradictory information. |
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | B6 | B6- Interpret complications of major Orthopedic dysfunctions beyond the capacities of institute and or personnel and determine when to refer to a more well equipped location. | 3) Demonstrate a high level of competence in the coordination of different sources of knowledge to solve professional problems.. |
| 1-Orthopaedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | B2 | B2- Present a complete medical history and physical examination. | 4) Carry out a research study and / or writing a scientific methodology study on research problem. |

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| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | B2 | B2- Present a complete medical history and physical examination. | 5) Assess and analyze risks of the professional practice in the field of specialization. |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | B5 , B7 | B5- Perform an examination of bone and joint in a chronological manner. B7- Distinguish and outline management of patients with acute and chronic Orthopedic Surgery conditions requiring short or long-term follow-up, rehabilitation and pain relief. | 6) Plan to improve performance in the field of specialization |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book 6- Microbiology | B8 | B8- Monitor the effectiveness of therapy by identifying clinical and investigative parameters that can be used in assessing the patient's response to treatment and re-evaluate management plan accordingly particularly in musculoskeletal system infections. | 7) Make career decisions in different professional aspects |

ج - المهارات العملية:

| المقررات التي تحقق المعايير الأكاديمية للبرامج | مخرجات التعلم المستهدفة ILOs | (ARS) Benchmark | (NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الماجستير في جراحه العظام) |
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| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | C4 | C4- Develop skills in examination of different joints including gait description, joint deformity, joint motion and measurements. | 1) Apply modern and principle professional skills in the area of specialization. |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery | C2 | C2- Evaluate musculoskeletal deformities and describe them in a proper way. | 2) Write and evaluate technical reports. |

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| 5-Log book | | | |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | C3 | C3- Assess the ability to identify appropriate management and leadership styles to motivate and influence individual and group behavior, and resolve conflict through collaborative approaches. | 3) Adopt assessment methods and tools existing in the area of specialization |

د- مهارات الاتصال:

| المقررات التي تحقق المعايير الأكاديمية للبرامج | مخرجات التعلم المستهدفة ILOs | (ARS) Benchmark | (NARS) المعايير القومية الأكاديمية القياسية العامة لبرامج قطاع الدراسات العليا (درجة الماجستير في جراحه العظام) |
|--|------------------------------|--|---|
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | D3 , D4 | D3- Communicate, consult and respect the role of other health-care providers. D4- Effective oral and written communication using a range of media. | 1) Communicate effectively in different aspects. |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book 6- General surgery | D2 | D2-Conduct sincere and effective patient interviews, properly explain their condition and plan of management, obtain consents and convey bad news in a professional way. | 2) Demonstrate efficient IT capabilities in such a way that serves in the development of the professional practice. |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery | D1 | D1- Personal drive, initiative and effectiveness in planning and implementing projects and accomplishing objectives together with the ability to | 3) Adopt self-assessment and specify his needs of personal learning. |

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| 5-Log book | | manage time and work to deadlines. | |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | D6 | D6-Effective use of technology for management of information, including use of spreadsheets, databases, word processing. | 4) Use different resources for information and knowledge. |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | D8 | D8- Maintain a professional image, and practice a responsible attitude. | 5) Establish rules and indicators for assessing the performance of others. |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book | D1 ,D5 | D1- Personal drive, initiative and effectiveness in planning and implementing projects and accomplishing objectives together with the ability to manage time and work to deadlines. D5- Participate constructively in teams and assess the relevance and importance of the ideas of others. | 6) Collaborate effectively within multidisciplinary team and lead teams in different professional contexts. |
| 1-Orthopedic surgery 2-Traumatology 3- Elective rehabilitation programs & orthotics 4-Principles of microvascular surgery 5-Log book 6- General surgery | D2 ,D6 | D2-Conduct sincere and effective patient interviews, properly explain their condition and plan of management, obtain consents and convey bad news in a professional way. D6-Effective use of technology for management of information, including use of spreadsheets, databases, word processing. | 7) Demonstrate a high level of competence in the time management. |
| 1-Orthopedic surgery | D1 | D1- Personal drive, | 8) Continuous self-education. |

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| 2-Traumatology 3- Elective rehabilitation programs & orthotics 4- Principles of microvascular surgery 5- Log book | | initiative and effectiveness in planning and implementing projects and accomplishing objectives together with the ability to manage time and work to deadlines. | |
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Course coordinator:
Dr. Khalid Nour
Head of the department:
Prof dr. Hani Elmowafi
Date:

المعايير الأكاديمية القياسية
لدرجة الماجستير في جراحه العظام
جامعه المنصوره

قرر مجلس قسم جراحه العظام اعتماد المعايير الاتيه لدرجة الماجستير :

A- Knowledge and Understanding

- A1- Discuss the macroscopic and microscopic anatomy of musckluskeletal system.
- A2- Discuss the physiology of bone healing.
- A3- Describe the surgical anatomy of important regions and organs of importance to the musculoskeletal system.
- A4- Identify the general signs and symptoms of fractures and joints injuries.
- A5- Select the appropriate diagnostic tools and therapeutic lines for the most important musckluskeletal system dysfunction including applicable recent modalities.
- A6- Defines the possible early and late complications for regional musckluskeletal system injuries, diseases, infections and tumours.
- A7- List the appropriate lines of treatment modalities for selected common musckluskeletal system injuries.
- A8- Recognize the common descriptive pharmacological terms and how to correctly use the drug pre and post-operative, clinical instruction and follow-up of side effects and toxicity of different drugs.
- A9- Recognize bone metabolism, Ca, magnesium, phosphate metabolism and trace elements.

B- Intellectual activities

The Postgraduate Degree provides opportunities for candidates to achieve and demonstrate the following intellectual qualities:

- B1- Appraise the importance of physical assessment to the diagnosis of musculoskeletal dysfunction.
- B2- Present a complete medical history and physical examination.
- B3- Analyse the clinical and investigational results, with the knowledge and the skill in clinical problem solving.
- B4- Differentiate between different types and classifications of fractures.
- B5- Perform an examination of bone and joint in a chronological manner.
- B6- Interpret complications of major Orthopedic dysfunctions beyond the capacities of institute and or personnel and determine when to refer to a more well equipped location.
- B7- Distinguish and outline management of patients with acute and chronic Orthopedic Surgery conditions requiring short or long-term follow-up, rehabilitation and pain relief.
- B8- Monitor the effectiveness of therapy by identifying clinical and investigative parameters that can be used in assessing the patient's response to treatment and re-evaluate management plan accordingly particularly in musculoskeletal system infections.

C- Professional/practical skills:

- C1- Perform routine bedside procedures.
- C2- Evaluate musculoskeletal deformities and describe them in a proper way.

C3- Assess the ability to identify appropriate management and leadership styles to motivate and influence individual and group behavior, and resolve conflict through collaborative approaches.

C4- Develop skills in examination of different joints including gait description, joint deformity, joint motion and measurements.

C5- Assess awareness and analysis of differing learning styles, requirements and processes.

D- Communication & Transferable skills

D1- Personal drive, initiative and effectiveness in planning and implementing projects and accomplishing objectives together with the ability to manage time and work to deadlines.

D2- Conduct sincere and effective patient interviews, properly explain their condition and plan of management, obtain consents and convey bad news in a professional way.

D3- Communicate, consult and respect the role of other health-care providers.

D4- Effective oral and written communication using a range of media.

D5- Participate constructively in teams and assess the relevance and importance of the ideas of others.

D6- Effective use of technology for management of information, including use of spreadsheets, databases, word processing.

D7- Numerical skills and the ability to manipulate data and appreciate statistical concepts.

D8- Maintain a professional image, and practice a responsible attitude.

رئيس القسم

إ.د/ هاني الموافي