COURSE SPECIFICATION

(Medical Oncology)

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Doctor degree of Medical Oncology MONC 610
(2) Department offering the programme:	Internal Medicine Department
(3) Department responsible for teaching the course:	Medical Oncology Unit Internal Medicine Department
(4) Part of the programme:	Second part
(5) Date of approval by the Department`s council	2/8/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Medical Oncology
(8) Course code:	MONC 610 MO MONC 610 MOTa MONC 610 MOTb MONC 610 MOTb MONC 610 MOTd
(9) Total teaching hours:	Theoretical: 210 hours/20 months Clinical: 240 hours/ 20 months Total: 450 hours/20 months

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

1. To foster the development of personal communication skills with much emphasis on leadership & decision making skills as well as informational technology orientation.
2. To prepare the candidate for Systems-based Practice where they must demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care
3. To give health care professionals an in-depth knowledge of commonly or rarely encountered oncological disorders.
4. To prepare physicians as senior practitioners, educators, researchers, and administrators capable of practicing medical oncology in academic and clinical settings. The curriculum advances students' knowledge of the basic principles of research, including how research is conducted, evaluated, explained to patients, and applied to patient care.
5. Construction of appropriate, optimal management strategies (both diagnostic and therapeutic) for patients with malignant diseases.
6. Provide opportunities to gain knowledge, clinical experience and ethical attitude in practicing oncology and to demonstrate the capability to reconstruct cases scenario.

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories: knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

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

A- Knowledge and Understanding:

A1. Discuss and debate current theories and concepts underpinning professional practice in oncology field.

A2. Discuss, explain & recognize the appropriateness of approaches used in the management of cancer patients and explore the implications of these for the patient, their careers, the practitioner and the service.

A3. Identify and critically appraise the principles and assumptions upon which clinical decisions are based and discuss the issues that influence these.

A4. Identify and evaluate the impact of current initiatives for cancer services improvement within Egypt and internationally.

A5. Identify principles of molecular genetics in the field of oncology

A6. Identify the principles of diagnosis, pathology, staging, and management of neoplastic disorders including solid tumors and hemato-oncology.

A7. To recognize chemotherapeutic drugs and protocols, biologic products, and growth factors and their mechanisms of action; pharmacokinetics, clinical indications, and their limitations, including their effects, toxicity, and interactions.

A8. Identify the applications of Gene therapy.

A9. Identify combined modality therapy of cancer.

A10. Identify concepts of supportive care, including hematologic, oncologic, and infectious disease

A11. Recognize rehabilitation and psychosocial aspects of clinical management of patients with Oncologic disorders

A12. Know the palliative care, including hospital and home care.

A13. Review thoroughly care and management of geriatric patients with hematologic and Oncologic malignancies.

A14. Review thoroughly the use of organs transplantations in oncology as well as post-transplant complications.

A15. Outline clinical epidemiology and proper utilization of medical statistics, designing clinical and experimental trials, data collection, and analysis.

A16. Identify the basic principles of research, including how such research is conducted, evaluated, explained to patients, and applied to patient care.

B- Intellectual activities

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

B1. Analyze, deduce, extrapolate & evaluate laboratory testing results for the initial management of common and unusual oncological disorders.

B2. Critically analyze relevant health and social policy, legal, ethical and professional issues relating to autonomous clinical practice.

B3. Choose relevant research literature and demonstrate a critical understanding of the evidence base underpinning current concepts in the management of cancer patients, exploring the implications of evidence that is ambiguous, contradictory or limited.

B4. Take decision in the diagnosis and appropriate treatment planning.

B5. Explain planned treatment clearly to junior staff

B6. Construct meaningful, supervised research experience with appropriate protected time either in blocks or concurrent with clinical rotations while maintaining the essential clinical experience.

C- Professional/practical skills:

C1. Apply efficiently the use of chemotherapeutic agents and biological products through all therapeutic routes.

C2. Demonstrate competence in the performance and/or (where applicable) interpretation of the serial measurement of tumor masses.

C3. Construct professional courses of combination chemotherapy regimens, targeted therapy, antibiotic regimens for treatment and prophylaxis in the immunosuppressed patient.

C4. Demonstrate methods and tools used in stem cell transplantation

C5. Demonstrate methods and tools used in diagnosis & management of oncological emergencies.

C6. Apply indications, contraindications, limitations, complications, techniques, and interpretation of results of those diagnostic and therapeutic procedures integral to the discipline.

C7. Apply different pain management strategies in patients with Oncologic disorders.

C8. Apply multidisciplinary team work for managing complication

C9. Apply evidence based medicine from updated reference.

D- Communication & Transferable skills

D1. Develop personal attitudes, and coping skills in care for critically ill patients.

D2. Participate in a multidisciplinary case management conference or discussion.

D3. Demonstrate an awareness of and responsiveness to the larger context and system of health care, as well as the ability to call effectively on other resources in the system to provide optimal health care.

D4. Work effectively in various health care delivery settings and systems relevant to their clinical specialty.

D5. Coordinate patient care within the health care system relevant to their clinical specialty.

D6. Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate.

D7. Advocate for quality patient care and optimal patient care systems.

D8. Work in inter-professional teams to enhance patient safety and improve patient care quality.

D9. Participate in identifying system errors and implementing potential systems solutions.

D10. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals.

- To communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds;
- To communicate effectively with physicians, other health professionals, and health related agencies;
- To work effectively as a member or leader of a health care team or other professional group;
- To act in a consultative role to other physicians and health professionals; and,
- To maintain comprehensive, timely, and legible medical records, if applicable.

D11. To demonstrate a commitment to carrying out professional responsibilities and an adherence to ethical principles. Candidates are expected to demonstrate:

- Compassion, integrity, and respect for others;
- Responsiveness to patient needs that supersedes self-interest;
- Respect for patient privacy and autonomy;
- Accountability to patients, society and the profession; and,

- Sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

D12. Educate patients about the rationale, technique, and complications of procedures and in obtaining procedure-specific informed consent.

(3) Course content:

A. Module 1:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching
1. Cancer of the Lung: • **Non-Small Cell Lung Cancer** • **Small Cell Lung Cancer** • **Neoplasms of the Mediastinum** • **Mesothelioma**	10h	10h			20h
2. Advanced Molecular Diagnostics In: • **Pathology** • **Clinical Pathology**	4h				4h
3. Advanced Imaging Methods	2h	6h			8h
4. Organ transplantations • **Hematopoietic Stem Cell Transplantation** • **Liver transplant** • **Other organs**	10h	10h			20h
5. Supportive Care and Quality of Life • **Transfusion Therapy** • **Hematopoietic Growth Factors** • **Infections in the Cancer Patient** • **Management of Cancer Pain** • **Nutritional Support** • **Nausea and Vomiting** • **Oral Complications** • **Pulmonary Toxicity** • **Cardiac Toxicity** • **Gonadal Dysfunction** • **Specialized Care of the Terminally ill**	14.5h	14h			28.5h
6. Paraneoplastic Syndromes	4h	4h			8h
7. Cancer of Unknown Primary Site	4h	8h			12h
8. Cancer of the Head and Neck	4h	8h			12h

B.Module 2:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching
1. Pharmacology of Cancer Chemotherapy • **Alkylating Agents, Cisplatin and Its Analogues** • **Antimetabolites, Topoisomerase Interactive Agents** • **Anti-microtubule and Miscellaneous Agents**	8h	10h			18h
2. Cancer Prevention: Diet and Chemo-preventive Agents	2h				2h
3. Cancer Screening	4h				4h
4. Oncologic Emergencies • **Superior Vena Cava Syndrome** • **Spinal Cord Compression** • **Metabolic Emergencies**	6h	6h			12h
5. Cancers of the Gastrointestinal Tract • **Cancer of the Esophagus** • **Cancer of the Stomach** • **Cancer of the Pancreas** • **Cancer of the Liver** • **Cancer of the Biliary Tree** • **Gastrointestinal Stromal Tumors** • **Cancer of the Colon** • **Cancer of the Rectum and Anal Region**	20h	24h			44h
6. Cancer of the Breast • **Biology, Screening, Diagnosis** • **Early Cancer breast** • **Locally advanced and metastatic Cancer breast**	8h	14h			22h
7. Sarcomas of the Soft Tissues and Bone • **Soft Tissue Sarcoma** • **Sarcomas of Bone**	4.5h	6h			10.5h

C. Module 3:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching
1. Cancer of the Endocrine System: • **Thyroid Tumors** • **Pancreatic Endocrine Tumors** • **Carcinoid Tumors and the Carcinoid Syndrome**	6h	6h			12h
2. Cancer of the Skin • **Melanoma**	4h	6h			10h
3. Neoplasms of the Central Nervous System	4h	4h			8h
4. Lymphomas • **Non-Hodgkin's Lymphomas** • **Pathology, Natural history, and Prognosis** • **Therapy for indolent lymphoma** • **Therapy for aggressive Lymphoma** • **Special Types** • **Hodgkin's Lymphoma**	20h	18h			38h
5. Acute Leukemias • **Acute Leukemia; Diagnosis** • **AML management** • **ALL management**	8h	12h			20h
6. Myeloproliferative Disorders	3h	4h			7h
7. Myelodysplastic Syndromes	3h	4h			7h
8. Plasma Cell Neoplasms	4.5h	6h			10.5h

D. Module 4:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching
1. Pharmacology of Cancer Bio-therapeutics • **Interferons, Interleukin-2** • **New Targeted Anticancer Drugs** • **Monoclonal Antibodies** • **Pharmacology of Endocrine Manipulation**	8h	12h			20h
2. Cancers of the Genitourinary System • **Cancer of the Kidney** • **Cancer of the Bladder, Ureter, and Renal Pelvis** • **Cancer of the Prostate** • **Cancer of the Testis**	16h	18h			34h
3. Gynecologic Cancers • **Cancer of the Cervix, Vagina, and Vulva** • **Cancers of the Uterine Body** • **Gestational Trophoblastic Diseases** • **Ovarian Cancer, Peritoneal Carcinoma, and Fallopian Tube Carcinoma**	16h	18h			34h
4. Nutritional support	4h	6h			10h
5. Hospice and palliative care	2.5h	6h			8.5h
6. Ethics • **Medical ethics** • **Medical malpractice** 7. Principles of clinical in research 8. Research methodology	6h				6h
Total;	210h	240h			450h

(4) Teaching methods:

4.1: Power Point presentation.

4.2: Case discussion.

4.3: Focus group.

4.4: Clinical rounds.

(5) Assessment methods:

5.1: Written exam for assessment of A1-16, B1-6,

5.2: MCQ exam for assessment of A1-16, B1-6,

5.3: Commentary exam for assessment of A1-16, B1-6, C6

5.4: Structured Oral exam for assessment of A1-16, B1-6, C1-9, D1-12.

5.5: OSCE for assessment of A1-16, B1-6, C1-9, D1-12.

Assessment schedule:

Assessment: Final exam at 20th month.

Percentage of each Assessment to the total mark:

Written exam: 180 Marks: 36 % of total Medical Oncology marks.

Commentary; 60 marks: 12% of total Medical Oncology marks.

MCQ; 60 marks: 12% of total Medical Oncology marks.

OSCE: 100 Marks: 20% of total Medical Oncology marks.

Structured Oral exam: 100 Marks: 20% of total Medical Oncology marks.

Medical Oncology marks represent 55.6% of total marks of second part.

(6) References of the course:

6.1: Hand books: BETHESDA Hand book of Clinical Hematology, Hand book of Cancer Chemotherapy.

6.2: Text books: Essential Hematology, Manual of Clinical Hematology, Post Graduate Hematology, Williams Hematology, Wintrobes Clinical Hematology, Hollan-Frei Cancer Medicine, DeVita Cancer Principles and Practice of Oncology

6.3: Journals: American Society of Hematology (ASH), European Hematology Association (EHA)

(7) Facilities and resources mandatory for course completion:

- Lectures Halls.
- Data show.
- Outpatient clinics.
- Patients wards.

Course coordinator:
Prof. Sameh Shamaa
Prof. Tawfik Elkhodary
Dr. Ziad Emarah

Head of the department:
Prof. Salah El-Gamal

Date of First approval: 22/12/2010
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