



COURSE SPECIFICATION

(Medical Oncology)

Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course.	Postgraduate Master degree of Medical Oncology
(2) Department offering the programme.	Internal Medicine Department
(3) Department responsible for teaching the course.	Medical Oncology Unit
(4) Part of the programme.	Second part
(5) Date of approval by the Department's council	2/08/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title.	Medical oncology
(8) Course code.	MONC 510 MO
(9) Total teaching hours.	Theoretical: 120 hours/45 Weeks Clinical: 210 hours/ 45 Weeks Total: 330 hours/45 Weeks

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows.

The aim of this program is to provide the postgraduate with:

1. Medical knowledge and skills essential for the practice of Medical Oncology efficiently and properly according to the international standards and necessary to gain further training and practice in the field.
2. Skills necessary for proper diagnosis and management of patients in the field of Medical Oncology including diagnostic, problem solving and decision-making.
3. Ethical principles related to the practice in this specialty.
4. Active participation in community needs assessment and problems solving.
5. To allow the candidate to develop his intellectual potential, critical reflection and clinical reasoning skills, enabling an ability to evaluate, enhance and influence his own professional practice and that of others in the context of health care provision in the Egypt and internationally.
6. To provide the candidate with an opportunity to enhance his knowledge of practice developments and develop a critical understanding of these and the underpinning evidence base.
7. Maintenance of abilities necessary for continuous medical education.
8. To enable the candidate to understand and get the best of published scientific research and do the best of published scientific research and do their own research and be aware of different research methodology.
9. To enable the candidate to pursue higher studies.
10. To create a learning environment that allows the candidate to share ideas and experiences and promotes peer discussion, feedback and support.

(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, debate current theories, and concepts undermining Medical Oncology professional practice and demonstrate new insights into complex and conceptually challenging developments in both generic and specialist clinical areas.
- A2. Identify and critically appraise the principles and assumptions upon which clinical decisions are based and discuss the issues that influence these.
- A3. Identify and evaluate the impact of current initiatives for cancer services improvement within Egypt and internationally.
- A4. Discuss 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.
- A5. To Identify the principles of diagnosis, pathology, staging, and management of neoplastic disorders including solid tumors and Hematology Oncology.
- A6. To recognize chemotherapeutic drugs, biologic products, and growth factors and their mechanisms of action; pharmacokinetics, clinical indications, and their limitations, including their effects, toxicity, and interactions.
- A7. To identify multi-agent chemotherapeutic protocols and combined modality therapy of cancer..
- A8. To identify concepts of supportive care, including hematologic, oncologic, and infectious disease
- A9. To comprehend basics of pain management in patients with Oncologic disorders.
- A10. Recognize rehabilitation and psychosocial aspects of clinical management of patients with Oncologic disorders.
- A11. Review the palliative care, including hospital and home care.
- A12. Identify principles of, indications for, and complications of autologous and allogeneic bone marrow or peripheral blood stem cell transplantation and peripheral stem cell harvests, including the management of post-transplant complications.
- A13. Recognize the standards of ethical conduct of research

B- Intellectual skills .

- B1. Organize an appropriate study framework within which to critically investigate a selected relevant Medical Oncology topic in depth.
- B2. Judge Medical Oncology professional practice, through critical evaluation of the theories and concepts presented within the evidence base and critical reflection on own and others clinical practice.
- B3. Organize relevant research literature in Medical Oncology within a defined context and synthesize this information in order to create and justify links within the evidence presented.
- B4. Devise and sustain an argument supported by valid, significant and evaluated evidence, offering new insights and hypotheses when applicable.
- B5. Plan, implement and evaluate clinical and research activities within given time scales.
- B6. Candidate must.
 - a. Design and interpret research studies.
 - b. Critically reflect on the management of complex scenarios and situations in clinical practice, evaluate underpinning theory and policy, and analyze the factors influencing outcome.
 - c. Critically reflect on key learning experiences and evaluate how these have influenced the practice, identifying any development needs because of this, and seeking and acting on feedback from others where applicable.
- B7. Evaluate and justify 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.
- B8. Critically analyze relevant health and social policy, legal, ethical and professional issues relating to autonomous clinical practice.

C- Professional/practical skills;

- C1. Apply valid and reliable literature to critically evaluate the effectiveness and efficiency of approaches to disease and patient management within oncology.
- C2. Apply effective clinical reasoning and an evidence based approach to autonomy in clinical practice.
- C3. Identify, analyze and deal with complex problems relevant to professional practice and evaluate possible solutions.
- C4. Give evidence of continuing professional development within a compiled profile or portfolio of evidence, adaptable for different purposes and audiences.
- C5. Demonstrate the responsible use of informed consent, research methodology, and interpretation of data.
- C6. Demonstrate evidence of recent research productivity through publication (manuscripts or abstracts) in peer-reviewed journals, or abstracts presented at national specialty meetings.

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,

(3) Course content:

A. Module 1:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching
1. Cancer of the Lung: <ul style="list-style-type: none"> • <u>Non-Small Cell Lung Cancer</u> • <u>Small Cell Lung Cancer</u> • <u>Neoplasms of the Mediastinum</u> • <u>Mesothelioma</u> 	6h	12h			18h
2. Advanced Molecular Diagnostics In: <ul style="list-style-type: none"> • <u>Pathology</u> • <u>Clinical Pathology</u> 	3h				3h
3. Advanced Imaging Methods	2h	10h			12h
4. Hematopoietic Therapy <ul style="list-style-type: none"> • <u>Hematopoietic Stem Cell Transplantation</u> 	8h	8h			16h
5. Supportive Care and Quality of Life <ul style="list-style-type: none"> • <u>Transfusion Therapy</u> • <u>Hematopoietic Growth Factors</u> • <u>Infections in the Cancer Patient</u> • <u>Management of Cancer Pain</u> • <u>Nutritional Support</u> • <u>Nausea and Vomiting</u> • <u>Oral Complications</u> • <u>Pulmonary Toxicity</u> • <u>Cardiac Toxicity</u> • <u>Gonadal Dysfunction</u> • <u>Specialized Care of the Terminally ill</u> 	8h	16h			24h
6. Paraneoplastic Syndromes	3h				3h
7. Cancer of Unknown Primary Site	2h	8h			10h
8. Cancer of the Head and Neck	2h	8h			10h
9. Cancers of the Genitourinary System <ul style="list-style-type: none"> • <u>Cancer of the Kidney</u> • <u>Cancer of the Bladder, Ureter, and Renal Pelvis</u> • <u>Cancer of the Prostate</u> • <u>Cancer of the Testis</u> 	6h	8h			14h

B. Module 2:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching
1. Pharmacology of Cancer Chemotherapy <ul style="list-style-type: none"> • <u>Alkylating Agents, Cisplatin and Its Analogues</u> • <u>Antimetabolites, Topoisomerase Interactive Agents</u> • <u>Anti-microtubule and Miscellaneous Agents</u> 	2h	4h			6h
2. Pharmacology of Cancer Bio-therapeutics <ul style="list-style-type: none"> • <u>Interferons, Interleukin-2</u> • <u>New Targeted Anticancer Drugs</u> • <u>Monoclonal Antibodies</u> • <u>Pharmacology of Endocrine Manipulation</u> 	4h				4h
3. Cancer Prevention: Diet and Chemo-preventive Agents	2h				2h
4. Cancer Screening	2h				2h
5. Oncologic Emergencies <ul style="list-style-type: none"> • <u>Superior Vena Cava Syndrome</u> • <u>Spinal Cord Compression</u> • <u>Metabolic Emergencies</u> 	6h	10h			16h
6. Cancers of the Gastrointestinal Tract <ul style="list-style-type: none"> • <u>Cancer of the Esophagus</u> • <u>Cancer of the Stomach</u> • <u>Cancer of the Pancreas</u> • <u>Cancer of the Liver</u> • <u>Cancer of the Biliary Tree</u> • <u>Gastrointestinal Stromal Tumors</u> • <u>Cancer of the Colon</u> • <u>Cancer of the Rectum and Anal Region</u> 	12h	30h			42h
7. Cancer of the Breast <ul style="list-style-type: none"> • <u>Biology, Screening, Diagnosis</u> • <u>Early Cancer breast</u> • <u>Locally advanced and metastatic Cancer breast</u> 	8h	16h			24h
8. Sarcomas of the Soft Tissues and Bone <ul style="list-style-type: none"> • <u>Soft Tissue Sarcoma</u> • <u>Sarcomas of Bone</u> 	4h	10h			14h

C. Module 3:

Subjects	Lecture	Clinical	Laboratory	Field	Total Teaching
1. Cancer of the Endocrine System: <ul style="list-style-type: none"> • <u>Thyroid Tumors</u> • <u>Pancreatic Endocrine Tumors</u> • <u>Carcinoid Tumors and the Carcinoid Syndrome</u> 	4h	6h			10h
2. Cancer of the Skin <ul style="list-style-type: none"> • <u>Melanoma</u> 	2h	4h			6h
3. Neoplasms of the Central Nervous System	2h	4h			6h
4. Lymphomas <ul style="list-style-type: none"> • <u>Non-Hodgkin's Lymphomas</u> • <u>Pathology, Natural history, and Prognosis</u> • <u>Therapy for indolent lymphoma</u> • <u>Therapy for aggressive Lymphoma</u> • <u>Special Types</u> • <u>Hodgkin's Lymphoma</u> 	10h	20h			30h
5. Acute Leukemias <ul style="list-style-type: none"> • <u>Acute Leukemias Diagnosis</u> • <u>AML management</u> • <u>ALL management</u> 	6h	12h			18h
6. Myeloproliferative Disorders	2h	4h			6h
7. Myelodysplastic Syndromes	2h	4h			6h
8. Plasma Cell Neoplasms	4h	6h			10h
9. Gynecologic Cancers <ul style="list-style-type: none"> • <u>Cancer of the Cervix, Vagina, and Vulva</u> • <u>Cancers of the Uterine Body</u> • <u>Gestational Trophoblastic Diseases</u> • <u>Ovarian Cancer, Peritoneal Carcinoma, and Fallopian Tube Carcinoma</u> 	8h	10h			18h
Total	120h	210h			330h

(6) References of the course:

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

6.2: Text books: Essential Hematology, Manual of Clinical Hematology, Post Graduate Hematology, Williams Hematology, Wintrob's 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.
- Equipped Laboratory.
- Computer laboratory

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

Date of Last Approval: 23/08/2016