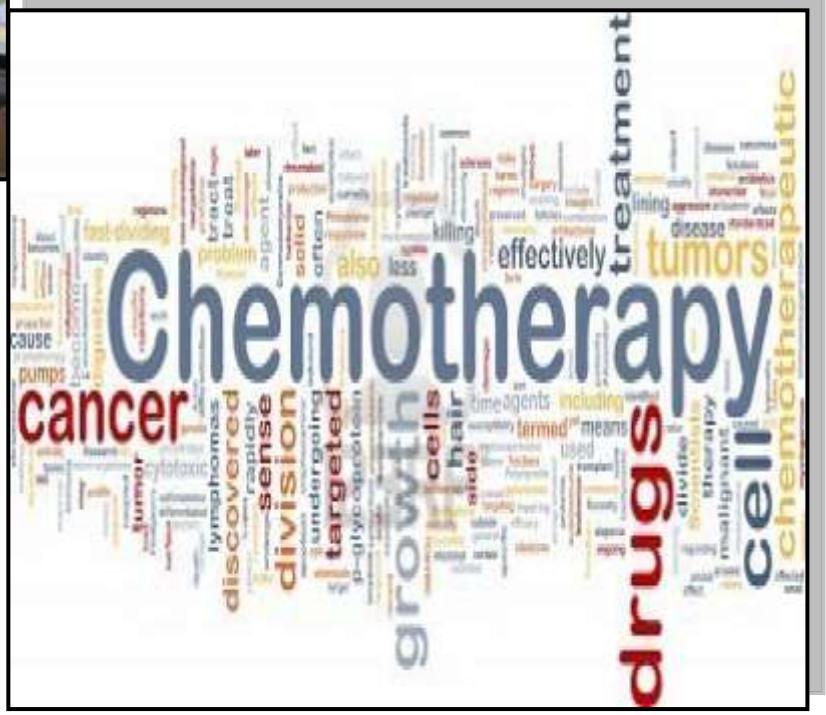
كلية الطب
وحدة ضمان الجودة

Faculty of Medicine
Quality Assurance Unit

Master Degree of Clinical Oncology
Log book

" كراســـــة الأنشـــــطة "
اللازمة لحصول المتدرب على درجة الماجستير في علاج الأورام



2022-2023

Contents

Personal Data

Name……

Date of birth……

Address……

Place of work…….

Telephones……Mobile phone(s)……..

E mail……

Date of registration of the MSc degree----------

Name of hospital	Period of work	Hospital director signature

Academic Information

MBBCh……/……/…… ……..University Grade ……

Grade of Internal Medicine course on graduation ……..

Others……/……/…… ……..University

Others……/……/…… ……..University

**** Aim of the activities book***

To provide one source of evidence for the assessment committee that you attained the desired level of competency required to gain the award.

In this book you will document all clinical, academic and other experiences and skills you attained during your training.

Sections of the book

For each module / course / rotation

You should fill the following sections:-

A- Clinical case log

1- You will first find list with all required cases in the concerned module and the minimum number of cases you must get exposed to and level on participation you should achieve for each type of cases.

2- You should record all clinical cases in the module and each case should be signed by your trainer

Rotation / Attendance proof "multiple pages"
الأماكن التى تدرب بها

MODULE	توقيع مدير المستشفى	توقيع رئيس القسم	أسم المستشفى التى تدرب بها
Head and Neck Cancer			
Central nervous system Malignancies			
Gastrointestinal Cancer			
Skin Cancer			
Breast Cancer			
Thoracic Malignancies			
Bone and Soft Tissue Sarcomas			
Hematological Malignancies			
Genitourinary Cancer			
Gynecological Cancer			
Metastases of unknown Primary			
Pediatric Oncology			
Oncological Emergencies			

2- Clinical case presentation log

Record the cases related to the module that you have presented in a seminar of the activity.

3- Procedures / operations log

1- You will find a list for required procedure, diagnostic – therapeutic operations and level of desired performance you should achieve at the end of training.

2- You will find empty tables to write down the procedure, you level of participation and date and signature of supervisor.

4- Rotation / attendance proof

You should have evidence of achievement the required training hours within each module.

For the whole program fill the following sections.

1- Academic activities

A- Document all academic activities e.g. lecture, journal clubs, workshops, conference, services attended. This documentation should include the level of participation "attendance, preparation, presentation …"

2- Academic achievements

A- Document all outcomes you achieved in the field of:-

- Audit participation
- Research "clinical trial" participation.
- Evidence- based medicine "generation of guidelines" protocols
- …….

3- Formative assessment log

This document all types of formative assessment attended e.g.:- - Mini clinical examination

- Quieses
- ……

Program aims

1/1 To enable candidates to acquire satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of radiation therapy, clinical oncology and enabling the candidates of making appropriate referrals to a sub-specialist.

1/2 To provide candidates with fundamental knowledge of Clinical Oncology regarding; Skillful management of different cancers; professional communication with cancer patients, mastering the indications, contraindications and use of chemotherapy in different cancers. Becoming knowledgeable about current and recent radiotherapy techniques and different radiotherapy equipments, in addition to knowledge of recent National and International policies and treatment recommendations in the field of Clinical Oncology.

1/3 To provide candidates with fundamental knowledge and skills of clinical oncology as regards; dealing with critically ill cancer patients, indications, contraindications and training skills of different radiation and chemotherapy techniques.

1/4 To introduce candidates to the basics of scientific medical research.

1/5 To enable candidates to start professional careers as specialists in Egypt but recognized abroad.

1/6 To enable candidates to perform high standard scientific medical research and learn how to proceed with publications in indexed medical journals.

Curriculum Structure:

Duration of program 36 months

Program Structure

Program Time Table

Duration of program 3 years maximally 5 years divided into

- Part 1

Program-related basic science courses and ILOs + elective courses
Students are allowed to set the exams of these courses after 12 months from applying to the M Sc degree.

- Thesis

For the M Sc thesis;
MSc thesis subject should be officially registered within 6 months from application to the MSc degree,
Discussion and acceptance of the thesis should not be set before 12 months from registering the M Sc subject;
It could be discussed and accepted before passing the second part of examination)

- Part 2

Program –related speciality courses and ILOs
Students are not allowed to set the exams of these courses before 3 years from applying to the MSc degree.

n.b. Fulfillment of the requirements in each course as described in the template and registered in the log book is a pre-request for candidates to be assessed and undertake part 1 and part 2 examinations.

First Part

Practice with the academic and clinical departments during year 1

1. **Course 1: Physics of Radiation**
2. **Course 2: Pathology of tumors**
3. **Course 3: Basics of Nuclear Medicine and Radioisotopes Techniques**
4. **Course 4: Radiobiology**
5. **Course 5: Internal Medicine and General surgery related to oncology**
   - **Unit 1: Internal Medicine related to oncology**
   - **Unit 2: General surgery related to oncology**

Course 1
Physics of Radiation

Requirements:

- **Credit points: 3 points for didactic**

Name of the course	Credit points	Responsible	Attendance	Percentage of achieved points
Physics of radiation	0.5	Department of physics, Cairo University	5 hours • Structure of matter and radiation • The production and properties of X-rays • The fundamentals of nuclear physics	16.7%
	0.5		5 hours • High energy and teletherapy machines and simulators. • Isotopic therapy machines (Tele- and Brachytherapy)	16.7%
	0.5		5 hours • Quality assurance of teletherapy machines and simulators. • Interaction and absorption of radiation in matter.	16.7%

	0.5		5 hours • Measurements of radiation and dose measuring devices. • Physical principles of patients and tumor imaging including radiographic image/ tomography/ sonography/ MRI/ isodose imaging.	16.7%
	0.5		5 hours • Dose calculation for external beam: PDD/ TAR/ TPR/ dose calculations/ SSD/ FAD /Isodose curves/ field dose calculations/off axial dose calculation/ tissue inhomogenity. • Principles of external beam modification: isodose distribution/ field arrangement/ single field/ parallel opposing fields/ multiple fields/ wedge fields/ moving fields technique/ weighting/ TBI/ adjacent fields/ electron beam (inhomgenities – field shaping).	16.6%
	0.5		5 hours • Brachytherapy (BT):	16.6%

			Physics of BT sources/ apparatus/ dose calculation. • Radiation protection: background radiation/ dose equivalent/ protective barriers/ protection against scattered & leakage/ protection against sealed sources/ protection against unsealed sources/ radiation survey/ personal area and environmental monitoring/ waste disposal/ storage and transfer of isotopes/ protective regulation in RT/ maximum allowable doses/ Risk estimates national and international regulations and license.	
Student Signature			Principle coordinator signature	Head of the department signature

Physics of Radiation
Lectures

Date	Attendance	Topic	Signature

Course 2
Pathology of Tumors

Requirements:

- **Credit points: 2 points for didactic**

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Pathology	0.5	Pathology	5 hours • Inflammatory reactions • Gangrene • Necrosis • Carcinogenesis.	25%
	1.5		15 hours • Etiology, epidemiology, incidence. • A brief morphology of common tumors (macro & micro), grading & differentiation of tumors. • Natural history, growth characteristics and tumor spread. • Staging systems classification i.e. TNM, FIGO. • Use of specialized pathology techniques e.g. immunohistochemistry, phenotyping, Cluster of differentiation (CD) classifications, FISH, CISH, microarry & geneprint.	75%
Student Signature			Principle coordinator signature	Head of the department

				signature

Pathology of Tumors
Lectures

Date	Attendance	Topic	Signature

Course 3

Basics of Nuclear medicine and radioisotopes techniques

Requirements:

Credit points: 1 points for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Nuclear Medicine	0.75	Nuclear Medicine	7.5 hours Diagnostic Use of radionuclide in Malignancy and related conditions including principles of their use, techniques, indications, interpretation specially in: -Bone Sientigraphy (for primary and secondary bone tumors) - Thyroid scientigraphy (for benign and malignant conditions. - Renal scientigraphy - Hepatic scientigraphy	75%
	0.25		2.5 hour The Rational and technique of recent Nuclear medicine investigations such as PET and PET/CT scan.	25%
Student Signature			Principle Coordinator Signature	Head of department signature

Basics of nuclear medicine and radioisotopes techniques

Date	Attendance	Topic	Signature

Procedure log (Bone scan)

NO.	Level of competency*	Location	Signature

* Level of competency

A- Independent performance
B- Performance under supervision
C- Observed

Procedure log (Thyroid scan)

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance

B- Performance under supervision
C- Observed

Course 4
Radiobiology

Requirements:

- **Credit points: 5 points for didactic**

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Biological radiation effect	1	Clinical Oncology	10 hours - Normal cell morphology & physiology. - DNA strand breaks and chromosomal aberrations. - Cell survival curve. - Cell, Tissue, and tumor Kinetics.	20%
	1		10 hours - Radiosenstivity and cell age in mitotic cycle. - Repair of radiation damage and dose-rate effect. - Oxygen effect and Reoxygenation.	20%
	1		10 hours - Linear Energy Transfer and Relative Biologic Effectiveness. - Acute Effects of Total-Body Irradiation. - Radioprotectors. - Radiation Carcinogenesis.	20%

	1		10 hours - Hereditary Effects of Radiation - Effects of radiation on the embryo and fetus. - Radiation protection. - Effect of radiotherapy on the: - Skin - Hematopoietic system - Digestive system - Lung - Kidney - Liver - Urinary bladder - CNS - Testis - Ovary	20%
	0.5		5 hours - Molecular techniques in radiobiology. - Cancer Biology. - Gene therapy. - Time dose and fractionation in radiotherapy. - Alternative radiation Modalities.	10%
	0.5		5 hours - Radiosenstizers and Bioreductive drugs. - Interaction of Radiation and chemotherapeutic agents. - Hyperthermia	10%
Student Signature			Principle Coordinator Signature	Head of department signature

Radiobiology
Lectures

Date	Attendance	Topic	Signature

Course 5
Unit (Module) 1
Internal medicine related to Oncology

Requirements

- **Credit points 1.5 points for didactic and 5 points for training**
  - Minimal rate of attendance 80% of lectures and training

1.5 credit point for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Internal Medicine	0.5	Internal Medicine	5 hours ☒ Thyroid • Hypothyroidism • Hyperthyroidism • Thyroiditis • Thyroid malignancies ☒ Parathyroid • Hyperparathyroidism ☒ Pituitary • Hypopituitarism • Acromegaly • Gigantism	33%
	0.5		5 hours ☒ Suprarenal • Cushing • Addison's • Pheochromocytoma ☒ Renal: • Acute and Chronic renal failure ☒ Heart • CAD • Angina • Infarction	33%

			Cardiomyopathy	
	0.5		5 hours ☒ Respiratory system • Pulmonary embolism • Bronchogenic Ca • Pleural effusion ☒ GIT: • Liver cirrhosis • Jaundice • Hepatitis • Causes of hepatosplenomegaly	34%
Student signature			Principle coordinator signature	Head of the department signature

5 credit point for training

Clinical training	Credit points	Responsible department	Attendance	Percentage of achieved points
Clinical training in Internal Medicine	2	Internal Medicine	**2 weeks in Endocrinology unit** - **Log of 2 cases** a. Hypothyroidism b. Hyperthyroidism c. Thyroiditis d. Thyroid malignancies e. Hyperparathyroidism f. Hypopituitarism g. Acromegaly h. Gigantism i. Cushing disease j. Addison's k. Pheochromocytoma	40%
	1		**1 weeks in Nephrology unit** - **Log of 2 cases** a. Acute and Chronic renal failure	20%
	1		**1 weeks in cardiology unit** - **Log of 2 cases** a. Coronary artery disease b. Angina c. Infarction d. Cardiomyopathy	20%

			Log of 20 ECG.	
	1		**1 weeks in Internal medicine department** - **Log of 2 cases** **Respiratory system** a. Pulmonary embolism b. Bronchogenic Ca **GIT:** a. Liver cirrhosis b. Jaundice c. Hepatosplenomegaly	20%
Student signature			Principle coordinator signature	Head of the department signature

Internal medicine related to Oncology

A-Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation
  A- Plan and carry out
  B- Carry out
  C- Carry out under supervision

Internal medicine related to Oncology

Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation
  A- Plan and carry out
  B- Carry out
  C- Carry out under supervision

Clinical case presentation log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation
  - A- Plan and carry out
  - B- Carry out
  - C- Carry out under supervision

Rotation and attendance in Units

Date	Unit	Duration	Signature of supervisor

Procedure log (ECG)

NO.	Level of competency*	Location	Signature

Course 5 Unit (Module) 2
General Surgery related to Oncology

Requirements

- **Credit points 1.5 points for didactic and 5 points for training**
  - Minimal rate of attendance 80% of lectures and training
  - Practice with clinical cases
  - log of at least 2 cases of each disease mentioned in General Surgery course

1.5 credit point for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
General Surgery	0.5	General Surgery	5 hours Mention the principles of <u>Surgical Oncology</u> 1. Preoperative evaluation 2. Surgery for specific types and sites 3. Biopsy techniques • Fine-needle aspiration • Core, excision • Needle localization biopsy Describe the etiology, clinical picture, diagnosis and management Breast cancer	33%
	0.5		5 hours Describe the etiology, clinical picture, diagnosis and management • Abdominal Swellings • Colorectal Cancer • Jaundice • Testicular tumors	33%
	0.5		5 hours Describe the etiology, clinical picture, diagnosis and	34%

			management • Tongue Cancer • Lymphadenopathy • Benign and malignant thyroid tumors	
Student signature			Principle coordinator signature	Head of the department signature

5 credit point for training

Clinical training	Credit points	Responsible department	Attendance	Percentage of achieved points
Clinical training in General Surgery	1	General Surgery	**1 weeks in General surgery department** - **Log of 2 cases** a. Breast cancer	20%
	1		**1 weeks in General surgery department** - **Log of 2 cases** a. Lymphadenopathy	20%
	1		**1 weeks in General surgery department** - **Log of 2 cases** a. Abdominal swelling b. Colorectal cancer	20%
	1		**1 weeks in General surgery department** - **Log of 2 cases** **a.** Benign and malignant thyroid swellings **b.** Jaundice	20%
	1		**1 weeks in General surgery**	20%

			department - **Log of 2 cases** **a.** Testicular tumors **b.** Tongue cancer	
Student signature			Principle coordinator signature	Head of the department signature

General Surgery related to Oncology

A-Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation
  A- Plan and carry out
  B- Carry out
  C- Carry out under supervision

A-Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation
  A- Plan and carry out
  B- Carry out
  C- Carry out under supervision

B- Clinical case presentation log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation

A- Plan and carry out

B- Carry out

C- Carry out under supervision

C. Rotation and attendance

Date	Unit	Duration	Signature of supervisor

Course 6 Clinical Oncology

Rotation / attendance proof

الأماكن التى تدرب بها

أسم المستشفى التى تدرب بها	توقيع رئيس القسم	توقيع مدير المستشفى

Requirement:

- **Credit points: 24 pints for didactic and 110 points for training**

1st year
(8 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Clinical Oncology	8	Clinical Oncology	Year 1	33.3 % of didactic of the whole course
Technology of Radiotherapy	0.5	Clinical Oncology	5 hours - Organs at Risk and normal tissue tolerance. - Need for precision in Radiotherapy	6.25%
	0.5		5 hours - Patients Positioing - Imoblization techniques - Types of target volumes - Types of simulation	6.25%
	0.5		5 hours - Cobalt 60	6.25%

			✚ Linear accelerator ✚ Emergency and Palliative Radiotherapy	
Clinical Onchotherapy	0.5	Clinical Oncology	5 hours ☒ **Imaging/staging techniques in diagnosis, staging, and follow-up** • Radiographic • Computed tomography (CT) • Ultrasound • Magnetic resonance imaging (MRI) • Positron emission tomography (PET) • Endoscopic imaging techniques ☒ **Surgical Oncology** • Preoperative evaluation • Surgery for specific types and sites • Biopsy techniques a. Fine-needle aspiration b. Core, excision c. Needle localization biopsy ☒ **Radiation Oncology** • Principles of radiation biology • Interactions a. Chemotherapy b. Hormone therapy c. Biologic therapy d. Sequencing of therapy	6.25%

			• Fractionation and dosing • Hyperthermia	
	1		10 hours ☒ **Chemotherapy** Indications and goals a. Primary cancer b. Recurrent cancer Pharmacology a. Pharmacokinetics b. Pharmacodynamics c. Metabolism and clearance d. Pharmacogenomics e. List of drugs Dose and schedule a. Metronomic b. Dose-density c. Dose-intensity d. High-dose Cancer drug development and testing Drug resistance Predicting response and toxicity ☒ **Hormonal Therapies** Estrogens Selective estrogen response modifiers Progestins and antiprogestins Aromatase inhibitors Androgens and antiandrogens	12.5%

			Gonadotropin-releasing hormone analogs Glucocorticoids Miscellaneous agents ☒ **Biologic/Targeted Therapy** • Basic concepts of targeted molecular • therapies • Monoclonal antibodies • Tumor vaccines • Cellular therapy • Antiangiogenic agents • Cytokines • Gene-directed therapy ☒ **Cancer prevention** • Lifestyle changes • Chemoprevention • Surgical role ☒ **Cancer Screening**	
	1		10 hours ☒ **Breast cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics for breast cancer. • Natural history, typical clinical presentations and diagnostic work-up, staging, clinico-pathologic manifestations and prognostic factors of breast	12.5%

			cancer. • Principles of multidisciplinary treatment and management for early stage breast cancer, including: ❖ Ductal carcinoma in-situ (DCIS) ❖ Early stage invasive carcinoma ❖ The role of radiation therapy and systemic therapy in breast conservation therapy (BCT) for early stage breast cancer (DCIS and invasive) ❖ Surgical techniques: breast conserving surgery; axillary dissection; sentinel nodebiopsy ❖ Selection factors and contra-indications to BCT ❖ Appropriate management of lymph node regions • Principles of multidisciplinary management and treatment of: ❖ Locally advanced breast cancer ❖ Inflammatory breast	

			cancer ❖ Types/use of systemic therapy (chemotherapy, hormonal therapy) ❖ Role of radiation therapy (post-mastectomy) • Radiation effects of the breast and surrounding normal tissue. • Expected therapeutic outcomes of treatments, including expected control rates. • Supportive care and follow up	
	1		10 hours ☒ **Gastrointestinal cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics, potential preventative and screening methods. • Natural history, typical clinical presentations, diagnostic workup and staging, clinico-pathologic manifestations and prognostic factors of GIT cancer. • Principles of multidisciplinary treatment and	12.5%

			management and role(s) of radiation therapy for each of the disease sites and categories, including: - Types/use of systemic therapy (chemotherapy, targeted therapy) - Esophageal cancer: ❖ Definitive or palliative treatment for distal and proximal esophageal cancer, including surgery, radiation therapy alone, pre-operative and post-operative radiation therapy and chemotherapy and definitive chemoradiation therapy - Pre-operative/post-operative radiation therapy for stomach cancer - Pancreatic cancer: ❖ Post-operative radiation therapy/chemotherapy ❖ Chemoradiation for unresectability - Rectal cancer: ❖ Adjuvant radiation therapy ❖ Pre-operative/post-	

			operative radiation therapy - Chemoradiation for anal canal cancer • Expected therapeutic outcomes of treatments, including expected control rates. • Principles of treatment of primary site lymph node region for each of the disease categories and stage of disease. • Principles of radiological physics and radiobiology appropriate to radiation therapy for each of the disease categories, including: - Importance of time dose factors, including radiotherapy timing in relation to surgery; integration of radiotherapy and systemic therapy. - Isodose distributions for various sized electron fields for different electron beam energies. - Principles of chemoradiation sensitization.	

			• In-depth knowledge of controversial areas or unusual situations in each of the disease categories, including: - Adjuvant therapy of colon cancer - Pros and cons of pre-operative and post operative radiation for rectal cancer - Chemoradiation for anal canal cancer. • Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects; complications.	
	0.5		5 hours ☒ **Oncological emergency** • Septic shock • Febrile neutropenia • Cord compression • Superior vena cava obstruction. • Cardiac tamponade. • Convulsions. • Encephalopathy. • Renal failure. • Hypercalcemia. • Tumor lysis syndrome. • Bleeding.	6.25%

	0.5		☒ **Sarcoma and skin Cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up(including role of broncoscopy and mediastinoscopy), staging, clinico-pathological manifestation and prognostic factors of sarcoma and skin cancer. Principles of multidisciplinary management and treatment and, specifically, the role of chemotherapy and radiation therapy for each of the disease sites and according to disease stage: Soft tissue sarcomas, (extremitities sarcoma, retroperitoneal sarcoma, gastrointestinal stromal tumors (GIST): ❖ Role of postoperative radio/chemoradiotherapy in resectable tumors.	6.25%

			❖ Role of preoperative/definitive radiotherapy in irresctable tumor. Palliative systemic chemotherapy in metastatic disease. ❖ Role of targeted therapy in GIST. Bone sarcoma (Osteosarcoma, Ewing's sarcoma, chondrosarcoma: ❖ Role of preoperative and postoperative chemotherapy in resectable tumors. ❖ Role of definitive and palliative radiotherapy in irresectable tumors. ❖ Role of chemtherapy in metastatic disease. skin cancers: ❖ Role of adjuvant, palliative and radical radiotherapy in non Melanoma skin cancers(NMSC) ❖ Role and different procedures of sentinel LN biopsy and surgery in MSC. ❖ Systemic treatment in MSC.	

			• Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects; complications.	
	1		Seminars *Attendance of at least 50% of the clinical seminars (at least 1/week for 5 weeks) *Presentation of at least 1 time in the seminar	12.5%
	0.5		Conference and workshop	6.25%
	0.5		Formative assessment	6.25%
Student signature			Principle coordinator signature	Head of department signature

Year 1 (14 credit point for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Clinical Oncology department	5	Clinical Oncology department	➢ Practice with clinical cases for at least 5 weeks in the department including interpretation of their different radiologic and laboratory investigation ➢ Log of oncology cases as mentioned below ➢ Procedures log as mentioned below	35.7%
	4		➢ Night shift (From 2pm to 8am) 1/week for 8 weeks	28.6%
	2		➢ Attendance of at least 4 weeks in the Outpatient clinic (3 hours /day)	14.3%
	2		➢ Attendance of at least 30% of clinical rounds of each one of the 3 staff groups (4 hours /week for 15 week)	14.3%
	1		➢ Formative assessment	7.1%
Student signature			Principle coordinator Signature	Head of the department signature

Oncology cases log:

Log of:

Gastrointestinal tumors			
Case	**Minimal Number**	**Case**	**Minimal Number**
Cancer of the Esophagus	5	Cancer of the Small Intestine	3
Cancer of the Stomach	5	Gastrointestinal Stromal Tumors	5
Cancer of the Pancreas	5	Cancer of the Colon	10
Cancer of the Liver	10	Cancer of the Rectum	10
Cancer of the Biliary Tree	5	Cancer of the Anal Region	5
Skin Cancer			
Case	**Minimal Number**	**Case**	**Minimal Number**
Cutaneous Melanoma	3	Kaposi sarcoma	3
Basal cell carcinoma	5	Merkle cell carcioma	1
Squamous cell carcinoma	5		
Breast Cancer			
Case	**Minimal Number**	**Case**	**Minimal Number**
Ductal Carcinoma *In Situ*	3	Local and Regional Recurrence	10
Lobular Carcinoma *In Situ*	3	Metastatic Breast Cancer	15
Paget's Disease	2	Male Breast Cancer	3
Early-Stage Breast Cancer	5	Nonepithelial Neoplasms	2
Locally Advanced and Inflammatory Breast Cancer	10	Lymphoma of the Breast	1
Bilateral Breast Cancer	5		

Bone and Soft Tissue Sarcomas			
Case	**Minimal Number**	**Case**	**Minimal Number**
Soft tissue Extremities/ Trunk Sarcoma	5	Osteosarcoma	8
Abdominal/retroperitoneal sarcoma	5	Chondrosarcoma	5
Desmiod tumors	2	Ewing's sarcoma	8
Dermatofibrosarcoma	2	Malignant Fibrous histiocytoma of bone	3
Oncological Emergencies			
Case	**Minimal Number**	**Case**	**Minimal Number**
Superior Vena Cava Syndrome	5	Increased Intracranial Tension	5
Spinal Cord Compression	5	**Urologic Emergiencies**	3
Metabolic Emergencies	5	-Urinary Bleeding	
-Tumor Lysis Syndrome		-Urinary Obstruction	
-Hypercalcemia		-Others	
-Others			

Procedure log of:

Observe:	**Log of under supervision**:
• 10 Pleural tapping. • 10 Pleurodesis and handling of intercostals tube. • 10 Aseptic venepuncture and use of infusion pump. • Radiotherapy prescription • Dose calculation • Quality assurance • Radiotherapy Assessment and the Care of Patients on Treatment	• 10 Central venous devises insertion and care. • 10 Lumbar puncture and intrathecal injections. • Handling and preparation of chemotherapy. • Management of complications of chemotherapy. • Patient Positioning • Immobilization Techniques • Simulation (conventional and CT) • Target volume determination • Field arrangement • Shielding and tissue compensator
Independently Perform:	**Order and interpret:**
• 10 Cannula insertion. • 10 Ascitic tap and paracentesis. • 10 Nasogastric tube placement and central feeding.	• 10 chest X ray • 10 CT (different forms) • 10 MRI (Different forms) • 10 blood gases

• 10 Urethral catheterization.	

2nd year
(8 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Clinical oncology	8	Clinical Oncology	Year 2	33.3% of the whole didactic of the course
Technology of Radiotherapy	2	Clinical Oncology	20 hours ✚ Documentation of treatment parameter & verification methods. ✚ Treatment planning of various body sites and tumors	25%
	0.5		10 hours ✚ Photon beam ✚ Electron beam	6.25%
Clinical Oncology	1	Clinical Oncology	10 hours ☒ **Hematological malignancy** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up, staging, clinico-pathological manifestation and prognostic factors of hematological malignancies. • Principles of	12.5%

			multidisciplinary management and treatment and, specifically, the role of chemotherapy and radiation therapy for each of the disease sites and according to disease stage: - Lymphoma: use of radiation for non-Hodgkin's lymphoma and Hodgkin's Disease - Hodgkin's Disease: appropriate use of irradiation +/- chemotherapy by stage of disease - Non-Hodgkin's Lymphoma: use of radiation by stage/extent of disease +/- chemotherapy - Multiple myeloma/leukemia: role of radiation therapy for bone marrow transplant or SC transplant. Role of chemotherapy - Acute Leukemias (ALL/AML): the use of different chemotherapy schedules according to risk adapted management. Role of BMT - Chronic Leukemias (CLL/CML): the use of chemotherapy and targeted	

			therapy according to disease stage and symptoms (observation vs. Active treatment in CLL), the role of BMT • Principles of treatment of the lymph node region for each of the disease categories by stage of disease. • Principles of radiological physics and radiobiology appropriate to radiation therapy for each of the disease categories. • knowledge of controversial areas or unusual situations in each of the disease categories, including those regarding: • Hodgkin's Disease/Non-Hodgkin's Disease: doses and treatment fields according to each stage of disease • CNS lymphoma. • Radiation effects and response on organ of Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects;	

			complications.	
	1		10 hours ☒ **Head and neck Cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up(including ENT endoscopy and laryngescopy), staging, clinico-pathological manifestation and prognostic factors of head and neck tumors. • Principles of multidisciplinary management and treatment and, specifically, the role of chemotherapy and radiation therapy (including brachytherapy, altered fractionation 3-D CRT and IMRT, if appropriate)for each of the disease sites and according to disease stage: Nasopharynx: ❖ Role of chemotherapy and radiation; altered vs. standard fractionation Nasal cavity/paranasal sinuses: ❖ Role of surgery and	12.5%

			radiation, including altered fractionation; role of brachytherapy - Salivary glands: ❖ Role of surgery and indications for treatment with post-operative radiation - Oral cavity: ❖ Indications for treatment with radiation and application of brachytherapy techniques - Tonsillar fossa and faucial arch, oropharynx, including base of tongue: ❖ Pre-operative/post-operative and definitive radiation therapy (including hyperfractionation) and use of chemotherapy - Hypopharynx: ❖ Use of surgery and/or radiation therapy for each sub-site by stage - Larynx: ❖ Use of definitive radiation therapy including altered fractionation and post-operative radiation for each sub-site and stage ❖ Chemoradiotherapy for laryngeal preservation ❖ Appropriate role of	

			definitive radiation therapy vs. surgery for different disease locations. • Principles of treatment of primary site and lymph node regions for each of the disease sites and stage of disease; know indications for treatment for each site and stage of disease. • Principles of radiological physics and radiobiology appropriate to radiation therapy for each of the disease categories: - Importance of time-dose factors - Repopulation - Principle of chemoradiation sensitization - Principles of hyperfractionation/ altered fractionation - Principles of field alignment; use of electron fields • Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects; complications.	
	1		10 hours	12.5%

			☒ **Thoracic Cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up(including role of broncoscopy and mediastinoscopy), staging, clinico-pathological manifestation and prognostic factors of thoracic tumors. • Principles of multidisciplinary management and treatment and, specifically, the role of chemotherapy and radiation therapy (including brachytherapy, altered fractionation 3-D CRT and IMRT, if appropriate)for each of the disease sites and according to disease stage: Non-small cell lung cancer: ❖ Resectable tumor ✓ Role of pre-operative (chemo-) radiation ✓ Role of post-operation radiation ✓ Role of post-operation chemotherapy or chemoradiation ❖ Unrespectable tumors	

			✓ Definitive and palliative radiation and chemoradiation options, including altered fractionation, hypofractionation and split course. ✓ Palliative chemotherapy in advanced disease. ❖ Surgery: ✓ types of surgery appropriate for lung cancer ✚ Small cell lung cancer: ❖ Chemoradiation for limited stage disease, sequencing of irradiation and chemotherapy (sequential vs. concurrent) ❖ Elective cranial radiation (pros and cons) ❖ Appropriate role of definitive radiation therapy vs. surgery for different disease locations. ✚ Mediastinal tumors (eg. Thymic tumors) ❖ Principles of Surgical Resection ❖ Principles of Radiation Therapy ❖ Principles of Chemotherapy ❖ Postoperative radiotherapy or chemoradiotherapy	

			❖ Unresectable Disease, Definitive and palliative radiotherapy. ➢ Pleural Mesothelioma: ❖ Role of surgery in resectable disease; Role of adjuvant radio or chemoradiotherapy. ❖ Role of palliative chemotherapy or radiotherapy in irresctable tumors • Principles of treatment of primary site and lymph node regions for each of the disease sites and stage of disease; know indications for treatment for each site and stage of disease. • Principles of radiological physics and radiobiology appropriate to radiation therapy for each of the disease categories: ➢ Importance of time-dose factors ➢ Repopulation ➢ Principle of chemoradiation sensitization ➢ Principles of hyperfractionation/altered fractionation ➢ Principles of field alignment; use of electron	

			fields • Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects; complications.	
	1		Seminars *Attendance of at least 50% of the clinical seminars (at least 1/week for 5 weeks) *Presentation of at least 1 time in the seminar	12.5%
	1		Conference and workshop	12.5%
	0.5		Formative assessment	6.25%
Student signature			Principle coordinator signature	Head of department signature

Year 2 (48 credit point for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Clinical Oncology department	16	Clinical Oncology department	➢ Practice with clinical cases for at least 4 month in the department including interpretation of their different radiologic and laboratory investigation ➢ Log of oncology cases as mentioned below ➢ Procedures log as mentioned below	33.3%
	16		➢ Night shift (From 2pm to 8am) 2/week for 16 weeks	33.3%
	8		➢ Attendance of at least14 weeks in the Outpatient clinic (3 hours /day)	16.7%
	5		➢ Attendance of at least 30% of clinical rounds of each one of the 3 staff groups (4 hours /week for 38 week)	10.4%
	3		➢ Formative assessment	6.3%
Student signature			Principle coordinator Signature	Head of the department signature

Oncology cases log

Log of:

Module: **HEAD AND NECK CANCER**			
Case	**Minimal Number**	**Case**	**Minimal Number**
Oral cavity tumors	8	Lip , Ear , Nose tumors	5
Nasopharyngeal cancer	15	Salivary gland tumors	8
Maxillary cancer	8	Orbit	5
Larynx	20	Recurrent cases	15
Hypo pharynx	8	Thyroid cancer	8

Module: **Thoracic Malignancies**			
Case	**Minimal Number**	**Case**	**Minimal Number**
Non small cell lung cancer, early stage	5	Small cell lung cancer, extensive stage	5
Non small cell lung cancer, locally advanced stage	5	Pleural Mesothelioma	3
Non small cell lung cancer, Metastatic disease	5	Thymoma and thymic carcinoma	1
Small cell lung cancer, Limited stage	2		

Module: **Hematological Malignancies**			
Case	**Minimal Number**	**Case**	**Minimal Number**
Hodgkin's Lymphoma	10	Acute Myeloid Leukemia.	5
Non-Hodgkin's Lymphoma, Indolent type	10	Chronic Lymphoblastic Leukemia.	3
Non-Hodgkin's Lymphoma, Aggressive type	10	Chronic Myeloid Leukemia.	3
Non-Hodgkin's Lymphoma, Extranodal	5	Plasma cell tumors.	3
Acute Lymphoblastic Leukemia.	2		

Procedure log of:

Observe:	**Log of under supervision**:
• 3D-CRTH technique • IMRT technique • Sterotaxy technique • Brachytherapy technique • IGRT technique	• 10 Pleural tapping. • 10 Pleurodesis and handling of intercostals tube. • 10Aseptic venepuncture and use of infusion pump. • Radiotherapy prescription • Dose calculation • Quality assurance • Radiotherapy Assessment and the Care of Patients on Treatment
Independently Perform:	**Order and interpret:**
• 10 Central venous devises insertion and care. • 10 Lumbar puncture and intrathecal injections. • Handling and preparation of chemotherapy. • Management of complications of chemotherapy. • Patient Positioning • Immobilization Techniques • Simulation (conventional and CT) • Target volume determination • Field arrangement	• 10 chest X ray • 10 CT (different forms) • 10 blood gases • 10 Cannula insertion. • 10 Ascitic tap and paracentesis. • 10 Nasogastric tube placement and central feeding. • 10 Urethral catheterization.

• Shielding and tissue compensator	

3rd year
(8 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Clinical oncology	8	Clinical oncology	Year 3	33.3% of the didactic of the course
Technology of Radiotherapy	0.5	Clinical oncology	5 hours - Brachytherapy. - 3-DCRTH	6.25%
	0.5		5 hours - IMRT - stereotaxy	6.25%
	0.5		5 hours - IGRT - Quality assurance	6.25%
	0.5		5 hours - Total skin irradiation - TBI, SHBI.	6.25%
	0.5		5 hours - Beam modification devices	6.25%
Clinical Oncology	1	Clinical Oncology	10 hours ☒ **Genitourinary Cancer** • Epidemiologic and etiologic	12.5%

			risk factors, tumor markers/molecular genetics, including prevention and screening methods. • Natural history, typical clinical presentations, diagnostic workup and staging, clinico-pathologic manifestations and prognostic factors of GIT cancer. • Principles of multidisciplinary treatment and management and role(s) of radiation therapy for each of the disease sites/categories, including: - Early stage/low risk prostate cancer: role of brachytherapy, external beam therapy, including 3-D CRT and IMRT - Intermediate risk and high risk (locally advanced) prostate cancer: role of external beam therapy, including 3-D CRT and IMRT, and/or brachytherapy; adjuvant use of hormonal therapy - Post-operative treatment of prostate cancer with radiation: adjuvant vs.	

			salvage radiation +/- hormonal therapy - Metastatic prostate cancer: role of radiation and/or hormonal therapy - Bladder cancer: definitive radiation; pre-operative and post-operative radiation, role of definitive chemoradiation for invasive carcinoma - Testicular cancer: seminoma - Renal neoplasms: role of radiation for renal cell carcinoma • Treatment of primary site and lymph node regions for each of the disease sites and stage of disease. • Principles of radiological physics and radiobiology as appropriate to radiation therapy for each of the disease categories: - Importance of time-dose factors for bladder cancer - Principles of radiation sensitization with hormonal therapy (prostate cancer) and chemotherapy (bladder cancer) • Basic knowledge of areas	

			of controversy in each of the disease categories: - Prostate cancer: ❖ Treatment of lymph node region for early stage prostate cancer; locally-advanced, post-operative prostate cancer ❖ Observation for early stage prostate cancer ❖ Hormonal therapy vs. observation vs. salvage for biochemical failure following radiation therapy or brachytherapy - Bladder cancer: ❖ Chemoradiation for invasive bladder carcinoma vs. Cystectomy. ❖ Pre/ postoperative radiation therapy - Testis: ❖ Surveillance in Stage I carcinoma ❖ Controversies in the determination of treatment volume and dose (para-aortic only vs. hockey-stick) ❖ Issue regarding sterility and second malignant tumor that may be associated with the disease and with radiation treatment.	

			• Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects; complications.	
	1		10 hours ☒ **Gynecological Cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up, staging, clinico-pathological manifestation and prognostic factors of gynecologic malignancies. • Principles of multidisciplinary treatment and management for each site and stage: - Cervical cancer - Endometrial cancer - Ovarian cancer - Vulval cancer - Vaginal cancer Including the use of chemotherapy, surgery, and other modalities of treatment. • Principles of radiological physics and radiobiology appropriate for radiation therapy to each of these	12.5%

			sites: - Time dose parameters, including treatment duration for cervical cancer - Specific medical knowledge: ❖ Cervix: ✓ Time-dose parameters (treatment duration) ✓ Use of concomitant chemoradiation ✓ Use of neoadjuvant chemotherapy ✓ Role of post-operative radiation therapy ❖ Endometrial: ✓ Indications for pre-operative/post-operative XRT (pelvis and extended field) and brachytherapy ✓ Radiation therapy alone for endometrial cancer ❖ Vulva: ✓ Definitive chemoradiation, including inguinal radiation ✓ Indications for post-operative radiation therapy ❖ Vaginal: ✓ Use of external beam radiation and brachytherapy	

			❖ Ovarian: ✓ Use of adjuvant chemotherapy ✓ Use of cytoreductive chemotherapy. ❖ Indications for whole abdominal/pelvic radiation post-operatively. • Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects; complications.	
	1		10 hours ☒ **CNS tumors** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up), staging, clinico-pathological manifestation and prognostic factors of CNS tumors. • Principles of multidisciplinary management and treatment and, specifically, the role of chemotherapy and radiation therapy (including brachytherapy, altered fractionation 3-D CRT and	12.5%

			IMRT, if appropriate)for each of the disease sites and according to disease stage: • physics and radiobiology appropriate to radiation therapy for each of the disease categories • chronic radiation effects; complications.	
	0.5		5 hours ☒ **Pediatric Cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up(including role of broncoscopy and mediastinoscopy), staging, clinico-pathological manifestation and prognostic factors of pediatric cancers. • Principles of multidisciplinary management and treatment and, specifically, the role of chemotherapy and radiation therapy for each of the disease sites and according to disease stage: Childhood CNS: ❖ Medulloblastoma (PNET):	6.25%

			role of craniospinal irradiation ❖ Ependymoma: role of involved field radiation therapy ❖ Glioma: low grade or high grade intact brain stem ❖ Craniopharyngioma: role of post-operative radiation therapy Childhood solid tumors: ❖ Wilms: radiation therapy treatment by stage ❖ Neuroblastoma ❖ Retinoblastoma ❖ Rhabdomyosarcoma: known usual radiation treatment approach by site and disease extent ❖ Lymphoma: use of radiation for non-Hodgkin's lymphoma and Hodgkin's Disease • Pinciples of radiological physics and radiobiology appropriate to radiation therapy for each of the disease categories. • Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects;	

			complications.	
	1		Seminars *Attendance of at least 50% of the clinical seminars(at least 1/week for 5 weeks) *Presentation of at least 1 time in the seminar	12.5%
	0.5		Conference and workshop	6.25%
	0.5		Formative assessment	6.25%
Student signature			Principle coordinator Signature	Head of the department signature

Year 3 (48 credit point for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Clinical Oncology department	16	Clinical Oncology department	➢ Practice with clinical cases for at least 4 month in the department including interpretation of their different radiologic and laboratory investigation ➢ Log of oncology cases as mentioned below ➢ Procedures log as mentioned below	33.3%
	16		➢ Night shift (From 2pm to 8am) 2/week for 16 weeks	33.3%
	8		➢ Attendance of at least14 weeks in the Outpatient clinic (3 hours /day)	16.7%
	5		➢ Attendance of at least 30% of clinical rounds of each one of the 3 staff groups (4 hours /week for 38 week)	10.4%
	3		➢ Formative assessment	6.3%
Student signature			Principle coordinator Signature	Head of the department signature

Oncology cases log

Log of:

Module: **Central Nervous System Malignancies**			
Case	**Minimal Number**	**Case**	**Minimal Number**
Cerebral Astrocytomas	5	Craniopharyngiomas	2
Brainstem Gliomas	2	Acoustic Neuromas (Vestibular Schwannomas)	2
Cerebellar Astrocytomas	2	Glomus Jugulare Tumors	1
Optic, Chiasmal, and Hypothalamic Gliomas	2	Chordomas and Chondrosarcomas	2
Oligodendrogliomas	2	Hemangioblastomas	2
Ependymomas	3	Choroid Plexus Papillomas and Carcinomas	2
Meningiomas	5	Spinal Axis Tumors	5
Primitive Neuroepithelial Tumors	2	Pineal Region Tumors	3
Medulloblastomas	5	Pituitary Adenomas	5

Module: **Genitourinary Cancer**			
Case	**Minimal**	**Case**	**Minimal**

	Number		Number
Bladder Cancer	10	Ureteric and renal pelvis Cancer	2
Prostate cancer	3	Penial and Urethral Cancer	3
Kidney Cancer	5		

Module: **Gynecological Cancer**			
Case	**Minimal Number**	**Case**	**Minimal Number**
Cervix Cancer	3	Gestational Trophoblastic Diseases	5
Uterine Body cancer	3	Ovarian Cancer and Peritoneal Carcinomatosis	5
Vulval and vaginal Cancer	2		

Module: **Metastases Of Unknown Primary**			
Case	**Minimal Number**	**Case**	**Minimal Number**
Brain Metastases	10	Liver Metasease	10
Bone Metastases	10	Pleural and Pericardial Effusion	3
Lung Metastases	10	Malignant Ascites	5

Module: **Pediatric Oncolgy**			
Case	**Minimal**	**Case**	**Minimal**

	Number		Number
Leukemias	3	**Brain Tumors**	3
Lymphomas	5	-Ependymoma	
Soft Tissue Sarcomas	5	-Medulloblastoma	
Retinoblastoma	3	-Astrocytoma	
Neuroblastoma	3	Germ Cell Tumors	2
Wilm's Tumor	3	Primary Hepatic tumors	3
Ewing's Sarcoma and Peripheral PNETs	3		

Procedure log of:

Log of under supervision:	Independently Perform:
• 10 Pleural tapping. • 10 Pleurodesis and handling of intercostals tube. • 10 Aseptic venepuncture and use of infusion pump. • Radiotherapy prescription • Dose calculation • Quality assurance • Radiotherapy Assessment and the Care of Patients on Treatment • 3D-CRTH technique • IMRT technique • Sterotaxy technique • Brachytherapy technique • IGRT technique	• 10 Central venous devises insertion and care. • 10 Lumbar puncture and intrathecal injections. • Handling and preparation of chemotherapy. • Management of complications of chemotherapy. • Patient Positioning • Immobilization Techniques • Simulation (conventional and CT) • Target volume determination • Field arrangement • Shielding and tissue compensator

Order and interpret:
• 10 chest X ray • 10 CT (different forms) • 10 blood gases • 10 Cannula insertions. • 10 Ascitic tap and paracentesis. • 10 Nasogastric tube placement and central feeding. • 10 Urethral catheterization.

A-Clinical Rotation, Outpatient clinic, Case log and Night Shift

Clinical Rotation

Duration from -to	Location	Signature of supervisor		Duration from -to	Location	Signature of supervisor

Outpatient clinic

Date/ Duration from -to	Signature of supervisor		Date/ Duration from -to	Signature of supervisor

Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

A- Plan and carry out
B- Carry out
C- Carry out under supervision

Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation

A- Plan and carry out

B- Carry out

C- Carry out under supervision

Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation

A- Plan and carry out

B- Carry out

C- Carry out under supervision

Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation

A- Plan and carry out

B- Carry out

C- Carry out under supervision

Clinical case log

H.N	Diagnosis of case	Level of participation *	Location	Signature of supervisor

* Level of participation

A- Plan and carry out

B- Carry out

C- Carry out under supervision

Clinical rounds log

Group A

Date	Attendance	Case presentation	Signature of supervisor

Clinical rounds log

Group A

Date	Attendance	Case presentation	Signature of supervisor

Clinical rounds log

Group B

Date	Attendance	Case presentation	Signature of supervisor

Clinical rounds log

Group B

Date	Attendance	Case presentation	Signature of supervisor

Clinical rounds log

Group C

Date	Attendance	Case presentation	Signature of supervisor

Clinical rounds log

Group C

Date	Attendance	Case presentation	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

Night Shift

Date	Signature of supervisor		Date	Signature of supervisor

B- Clinical Seminars log

First: Attendance

Date	Attendance	Topic	Signature

B- Clinical Seminars log

First: Attendance

Date	Attendance	Topic	Signature

B- Clinical Seminars log book

First: Attendance

Date	Attendance	Topic	Signature

B- Clinical Seminars

Second: Case presentation

Date	Staff group*	Case	Signature

*Staff group

A- Group A
B- Group B
C- Group C

Post graduate teaching
First: lectures

Date	Title of lecture	Signature of Staff member

Post graduate teaching
First: lectures

Date	Title of lecture	Signature of Staff member

Post graduate teaching
Second: Tutorial

Date	Title of Tutorial	Signature of Staff member

Post graduate teaching
Second: Tutorial

Date	Title of Tutorial	Signature of Staff member

Post graduate teaching
Third: Clinical Teaching

Date	Title of Clinical Teaching	Signature of Staff member

Post graduate teaching
Third: Clinical Teaching

Date	Title of Clinical Teaching	Signature of Staff member

C- Procedures log book
Chest X ray

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book
CT

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book
MRI

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book
Blood gases

NO.	Level of competency*	Location	Signature

A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book
Cannula insertion

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Ascitic tap and paracentesis

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Nasogastric tube placement and central feeding

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Urethral catheterization

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Pleural aspiration

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book

Pleurodesis and handling of intercostals tube

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Aseptic venepuncture and use of infusion pump

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Central venous device insertion and care

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book
Lumbar puncture and interthecal injection

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book
Handling and prescription of chemotherapy

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book
Management of complication of cchemotherapy

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book
Patient positioning

NO.	Level of competency*	Location	Signature

A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book
Immobilization technique

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book

Simulation (conventional and CT)

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book

Target volume determination

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Field arrangement

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Shielding and tissue compensator

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book

Radiotherapy prescription

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book

Dose calculation

NO.	Level of competency*	Location	Signature

* Level of competency
  A- Independent performance
  B- Performance under supervision
  C- Observed

C- Procedures log book

Quality assurance

NO.	Level of	Location	Signature

	competency*		

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Radiotherapy assessment and the care of patients on treatment

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

3D-CRTH technique

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

IMRT technique

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Sterotaxy technique

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

Brachytherapy technique

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

C- Procedures log book

IGRT technique

NO.	Level of competency*	Location	Signature

* Level of competency
A- Independent performance
B- Performance under supervision
C- Observed

Academic activities

Journal club, conference, workshop

Activity	Your role **	Date	Signature of supervisor

** Your role:-
A- Attendance
B- Organization
C- Presentation

Formative assessment and MCQ

Exam	Score	Grade*	Date	Signature

*Degree
A- Excellent
B- Very good
C- Good
D- Pass

**** Name:***

**** Period of training From:***

To:

**** Site:***

****Rotation***

General skills	could not judge (0)	strongly disagree(1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).								
Appraises evidence from scientific studies.								
Conduct epidemiological studies and surveys.								
Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.								

General skills	could not	strongly				strongly

	judge (0)	**disagree(1)**	**(2) (3)**		**(4) (5)**		**(6)**	**agree (7)**
Facilitate learning of students other health care professionals including their evaluation and assessment.								
Maintain therapeutic and ethically sound relationship with patients.								
Elicit information using effective nonverbal, explanatory, questioning, and writing skills.								
Provide information using effective nonverbal, explanatory, questioning, and writing skills.								
Work effectively with others as a member of a health care team or other professional group.								
Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.								
Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices.								

General skills	**could not judge (0)**	**strongly disagree(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**strongly agree (7)**
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.								
Work effectively in relevant health care delivery settings and systems including good administrative and time management								
Practice cost-effective health care and resource allocation that does not compromise quality of care.								
Assist patients in dealing with system complexities.								

Elective Course

Requirements

- **Credit points:** 2 credit point.
  - Minimal rate of attendance 80% of lectures and 80% of training

One of these courses

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education.
- Quality assurance of clinical practice.
- Hospital management
-

Name of the elective course: ----------

Elective Course Lectures

Date	Attendance	Topic	Signature

Elective Course Practical skills

Date	Attendance	Topic	Signature

Declaration

Course Structure Mirror	Responsible (Course) Coordinator Name:	Signature	Date
First Part			
Course 1 Physics of Radiation			
Course 2 Pathology of tumors			
Course 3 Basics of Nuclear medicine and radioisotpes techniques			
Course 4 Radiobiology			
Course 5			
Unit 1 Internal Medicine related to Oncology			
Unit 1 General Surgery Medicine related to Oncology			
Second Part			
Course 6 Clinical Oncology			
Unit 1 Technology of Radiotherapy			
Unit 2 Clinical Oncology			
- Elective Course (s) Certificate (s) Dates:			
- Master Degree Thesis Acceptance Date:			
- Fulfillment of required credit points prior to final examination			
Clinical Oncology M Sc Degree Principle Coordinator:			
Date approved by Clinical Oncology Department Council:			

يعتمد ،
رئيس القسم
أ.د/