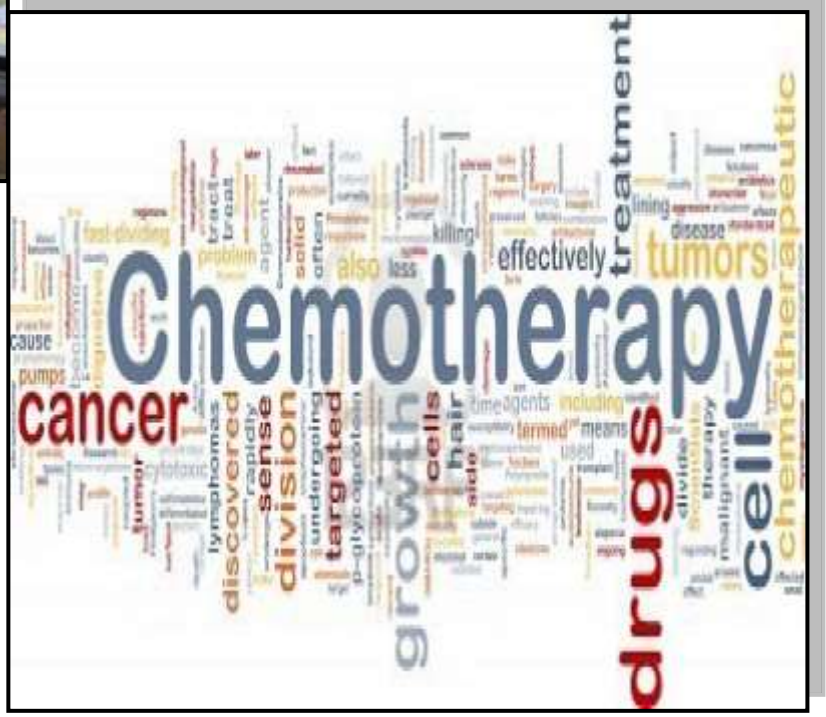
Medical Doctorate (M.D.) Degree of Clinical Oncology Log Book

" كراســـــة الأنشـــــطة "

اللازمة لحصول المتدرب على درجة الدكتوراه علاج ألأورام



2022-2023

Contents

Personal Data:-

Name……

Date of birth……..
Address……..
Place of work……
Telephones………**Mobile phone(s)**…….
E mail……

Name of hospital	Period of work	**Hospital director signature**

Academic Information

MBBCh……/……/…… ……..University
Grade ……MSc… ……..University
Grade ……
Grade of Internal Medicine course on graduation ……..
Others……/……/…… ……..University
……/……/…… ……..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:-

1- 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 of 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 you trainer.

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 examinations
- Quieses

1- Program aims

1/1To enables candidates to master high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of clinical oncology

1/2To 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 enable candidates to perform high standard scientific medical research and learn how to proceed with publications in indexed medical journals.
1/4 To enable candidates to describe the basic ethical and medico-legal principles relevant to Clinical Oncology.
1/5 To enable candidates to have professional careers as a consultant in Egypt and to be recognized abroad.
1/6To enable candidates to continue self-education in subspecialties.
1/7 To enable candidates to assess and analyze different research methodologies and do their own.

5- Program Structure

Program Time Table
Duration of program up to 4 years (could be extended to 6 years) divided into

- Part 1

Program-related basic science courses
- Medical statistics & Research methodology
-: Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
Students are allowed to sit the exams of these courses after 6 months from applying to the M D degree.

- Thesis and 2 published researches
  For the M D thesis;
  MD thesis subject should be officially registered within 6 months from application to the MD degree,
  Discussion and acceptance of the thesis should not be set before 24 months from registering the M D subject;
  It could be discussed and accepted either before or after passing the second part of examination
- Part 2

Program –related speciality courses and ILOs
Students are not allowed to sit the exams of these courses before 4 years from applying to the MD degree.

First Part

1- Course 1: Medical statistics

2- Course 2: Research methodology

3- Course 3: Medicolegal aspect and ethics in medical practice and scientific research

4. Course: 4 Clinical Oncology 1

Unit 1 (physics of radiation)
Unit 2 (Radiobiology)

5. Course 3: Pharmacology and Oncopathology
Unit 1 (Pharmacology)
Unit 2(Oncopathology

6. Course 6: Internal Medicine and General Surgery
Unit 1 (Internal medicine)
Unit 2 (General surgery)

Medical statistics

Requirements

- **Credit points: 1 credit point**
- Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Practical	Percentage of Achieved points
Medical statistics	1 credit point	Pubic Health & Community Medicine			100%
	0.1		Introduction 1 hour	SPSS Introduction 2H	10%
	0.1		Tables and graphics 1 Hour	Data entry and cleaning of data 2H	10%
	0.1		Sampling 1 Hour	Transforming of variables 2H	10%
	0.1		Methodology of data collection 1 Hour	Descriptive statistics 2 H	10%
	0.1		Type of variables 1 Hour	Graphic presentation 2 H	10%
	0.1		Proportion test Chi-square test 1 Hour	Chi square and interpretation of results 2 H	10%
	0.1		Student T test Paired T test 1 Hour	Student, Paired and ANOVA tests 2H	10%
	0.1		ANOVA test 1 Hour	Correlation Regression 2 Hour	10%
	0.1		Non parametric tests 1 Hour	Multiple and logistic Regression 2 H	10%
	0.1		Discrimination analysis factor analysis 1 Hour	Non parametric tests 2 H	10%
			Revision 1 H	Revision 2H	
Student signature			Principle coordinator signature		Head of the department signature

Medical Statistics

Lectures and tutorials

Date	Attendance	Topic	Signature

Research Methodology

Requirements

- **Credit points: 1 credit point**
- Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Research Methodology	1 credit point	Pubic Health & Community Medicine		100%
	0.15		4 hours Introduction & proposal writing	15%
	0.15		4 hours Epidemiological study designs	15%
	0.15		4 hours Screening & theoretical background	15%
	0.24		6 hours Screening practical	24%
	0.15		4 hours Sample size calculation	15%
	0.08		2 hours Research bias	8%
	0.08		2 hours Ethics in research	8%
	-		2 hours Revision	-
Student signature			**Principle coordinator signature**	**Head of the department signature**

Lectures and tutorials

Date	Attendance	Topic	Signature

Medicolegal Aspects and Ethics in Medical Practice and Scientific Research

Requirements

- **Credit points: 1 credit point**

Minimal rate of attendance 80%

Name of the course	Credit points	Responsible department	Attendance	Percentage of Achieved points
Medicolegal Aspects and Ethics in Medical Practice and Scientific Research	1 credit point	Forensic Medicine and Clinical Toxicology	10 hours	100%
	0.2		2 hours Suspicious death. Death and death certificate.	20%
	0.2		2 hours Supportive measures	20%
	0.2		2 hours Toxicological reports	20%
	0.2		2 hours Ethics in research.	20%
	0.2		2 hours Medical ethics.	20%
Student signature			Principle coordinator signature	Head of the department signature

Medicolegal Aspects and Ethics in Medical Practice and Scientific

Lectures and tutorials

Date	Attendance	Topic	Signature

Course 4 Clinical Oncology 1

Unit (Module) 1 (Physics of Radiation)

Requirements

- **Credit points:** 1.5 points for didactic

Name of the course	Credit points	Responsible	Attendance	Percentage of achieved points
Physics of Radiation	0.25	Department of physics, Cairo University	2.5 hours • Structure of matter and radiation • The production and properties of X-rays • The fundamentals of nuclear physics • High energy and teletherapy machines and simulators. • Isotopic therapy machines (Tele- and Brachytherapy)	16.7%

	0.25		2.5 hours •Quality assurance of teletherapy machines and simulators. •Interaction and absorption of radiation in matter. • 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 fo 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).	33.3%
	0.5		5 hours • Brachytherapy (BT):	33.3%

			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.	
			Physics of Modern Radiation therapy: Three-Dimensional Conformal Radiation Therapy/ Intensity-Modulated Radiation Therapy/ Stereotactic Radiotherapy and Radiosurgery/Stereotactic Body Radiation Therapy/ High-Dose-Rate Brachytherapy/ Image-Guided Radiation Therapy/ Proton Beam Therapy	
Student Signature			Principle coordinator signature	Head of the department signature

Physics of Radiation
(Lectures)

Date	Attendance	Topic	Signature

Course 4 Clinical Oncology 1

Unit 2 (Radiobiology)

Requirements

- **Credit points:** 1.5 points for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Radiobiology	0.25	Clinical Oncology	2.5 hours - Normal cell morphology & physiology. - DNA strand breaks and chromosomal aberrations. - Cell survival curve. - Cell, Tissue, and tumor Kinetics. - Radiosenstivity and cell age in mitotic cycle. - Repair of radiation damage and dose-rate effect. - Oxygen effect and Reoxygenation.	16.7%

	0.25		2.5 hours - Linear Energy Transfer and Relative Biologic Effectiveness. - Acute Effects of Total-Body Irradiation. - Radioprotectors. Radiation Carcinogenesis. - Hereditary Effects of Radiation. - Effects of radiation on the embryo and fetus. - Radiation protection.	16.7%
	0.5		5 hours - Molecular techniques in radiobiology. - Cancer Biology. - Time dose and fractionation in radiotherapy. - Alternative radiation Modalities.	33.3%
	0.5		5 hours - Radiosenstizers and Bioreductive drugs. - Gene therapy. - Interaction of Radiation and chemotherapeutic agents. Hyperthermia.	33.3%
Student Signature			**Principle Coordinator Signature**	**Head of department signature**

Radiobiology
(Lectures)

Date	Attendance	Topic	Signature

Course 5 Unit (Module) 1

Internal medicine

Requirements

- **Credit points:** 1 points for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Internal Medicine	0.25	Internal Medicine	2.5 hours ☒ Diabetes Mellitus ☒ Pituitary • Hypopituitarism • Acromegaly • Gigantism ☒ Thyroid • Hypothyroidism • Hyperthyroidism • Thyroiditis • Thyroid malignancies ☒ Parathyroid • Hyperparathyroidism	25%
	0.25		2.5 hours ☒ Suprarenal • Cushing • Addison's • Pheochromocytoma ☒ Renal: • Acute and Chronic renal failure • Golmerulonephritis • Pyelonephritis ☒Metabolic complications of cancer and cancer treatment ☒Hematologic:	25%

			• Anemias • Cytopenia • Bleeding disorders • Myeloproliferative disorders • Myelodysplastic syndromes	
	0.25		2.5 hours ☒ Respiratory system • Pulmonary embolism • Pneumonitis ☒ GIT: • Causes of hepatosplenomegaly • Liver cirrhosis and liver cell failure. • Jaundice • GI bleeding • Inflammatory bowel disease • Crhon's disease • Ulcerative colitis	25%
	0.25		2.5 hours ☒ Heart: • Coronary artery disease • Angina • Infarction • Cardiomyopathy • Systemic Hypertension • Heart failure ☒ Infections	25%
Student signature			Principle coordinator signature	Head of the department signature

Internal Medicine
(Lectures)

Date	Attendance	Topic	Signature

Course 5 Unit (Module) 2

General Surgery

Requirements

- **Credit points:** 1 points for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
General Surgery	0.25	General Surgery	2.5 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 of Breast cancer	25%
	0.25		2.5 hours Describe the etiology, clinical picture, diagnosis	25%

			and management of • Abdominal Swellings • Gastric outlet obstruction • Intestinal obstruction • Jaundice	
	0.25		2.5 hours Describe the etiology, clinical picture, diagnosis and management • Tongue tumors • Lymphadenopathy	25%
	0.25		2.5 hours Describe the etiology, clinical picture, diagnosis and management • Benign and malignant thyroid tumors • Testicular tumors	25%
Student signature			Principle coordinator signature	Head of the department signature

General surgery
(Lectures)

Date	Attendance	Topic	Signature

Course 6

Unit (Module) 1 (Pharmacology)

Requirements

- **Credit points:** 1 points for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Pharmacology	0.25	Pharmacology	2.5 hours General pharmacology (pharmacokinetics, pharmacodynamics)	25%
	0.25		2.5 hours Pharmacotherapy of cancer Cytotoxic drugs	25%
	0.25		2.5 hours Pathway of targeted therapy, PKIs& monoclonal antibodies Antiemetic drugs Steroid drugs and nonsteroidal anti-inflammatory drugs	25%
	0.25		2.5 hours Immunosuppressive drugs Hormonal and related agents used in the therapy of cancer Drugs used in the treatment of blood disorders Opiod agonists& antagonists	25%
Student signature			Principle coordinator signature	Head of the department signature

Pharmacology
(Lectures)

Date	Attendance	Topic	Signature

Course 6 Unit (Module) 2
(Oncopathology)

Requirements

- **Credit points:** 1 points for didactic

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Pathology	0.25	Pathology	2.5 hours • Disturbance of cellular growth and differentiation • Neoplasia • Imunohistochemistry • Genetic predisposition to cancer • Cancer cachexia • Paraneoplastic syndromes	25%
	0.75		7.5 hours • Tumors of the respiratory system (upper& lower) and mediastinum • Tumors of the gastro-intestinal tract (GIT) • Tumors of the liver • Tumors of the gall bladder, pancreas and peritoneum • Tumors of the kidney and	75%

			urinary tract except pediatric tumors • Tumors of the male genital system • Tumors of the female genital system • Tumors of the mammary glands • Tumors of the lymphoid system (lymphoma) • Tumors of the thyroid gland • Classifications of bone tumors, central nervous system tumors and gliomas in details	
Student Signature			Principle coordinator signature	Head of the department signature

Oncopathology
Lectures

Date	Attendance	Topic	Signature

Specialized course

Course 7 Clinical Oncology 2

Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	training	Total
Technology of radiotherapy)	30	2,3,4	4.5	40	44.5
Clinical Oncology	70	2,3,4	19.5	83	102.5
	100		24	123	147

Unit (Module) 1
(Clinical Oncology)

Rotation / attendance proof
الأماكن التى تدرب بها

أسم المستشفى التى تدرب بها	توقيع رئيس القسم	توقيع مدير المستشفى

Requirements

- **Credit points:** 24 credit point for didactic (lectures, seminars, tutorial) and 123 point for training.

- Minimal rate of attendance 80% of training and didactic

Course 7 Clinical Oncology

Year 2

(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 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 Positioning - Immobilization techniques - Types of target volumes - Types of simulation	6.25%
	0.5		5 hours - Cobalt 60 - Linear accelerator - Emergency and Palliative Radiotherapy	6.25%
Clinical Oncotherapy	0.5	Clinical Oncology	5 hours ☒**Imaging/staging techniques**	6.25%

			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 • Fractionation and dosing • Hyperthermia	
	1		10 hours ☒ **Chemotherapy** Indications and goals a. Primary cancer b. Recurrent cancer	12.5%

			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 receptor modifiers Progestins and antiprogestins Aromatase inhibitors Androgens and antiandrogens Gonadotropin-releasing hormone analogs Glucocorticoids Miscellaneous agents ☒ **Biologic/Targeted Therapy** • Basic concepts of targeted molecular therapies • Monoclonal antibodies	

			• Tyrosine kinase inhibitors • PARP inhibitors • CDK4/6 inhibitors • MTOR inhibitors • Cellular therapy • Antiangiogenic agents • Gene-directed therapy ☒ **Cancer Immunotherapy** • Cytokines • Immune checkpoint inhibitors: Anti-PD-I Anti-PD-L1, Anti-CTLA4 drugs. • Tumor infiltrating lymphoctes • Tumor vaccines ☒ **Antibody drug conjugates** ☒ **Cancer prevention** • Lifestyle changes • Chemoprevention • Surgical role ☒ **Cancer Screening** ☒ **Assessment of response: RECIST criteria** ☒ **Toxicity grading: NCICTC**	
	1		10 hours ☒ **Breast cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics for breast cancer. • Natural history, typical	12.5%

			clinical presentations and diagnostic work-up, staging, clinico-pathologic manifestations and prognostic factors of breast 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 node biopsy ❖ 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 ❖ Advanced breast cancer • Types/use of systemic therapy (chemotherapy, biologic therapy, targeted therapy, immunotherapy, and 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	12.5%

			multidisciplinary treatment and management and role(s) of radiation therapy for each of the disease sites and categories, including: - Types/use of systemic therapy (chemotherapy, targeted therapy, Immunotherapy) - Esophageal cancer: ❖ Tumor tissue Biomarker testing ❖ 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 ❖ Other systemic treatment including biologic or targeted therapy and immunotherapy. - Stomach cancer ❖ Peri-operative chemotherapy or Pre-operative chemoradiation therapy or post-operative chemoradiation therapy	

				❖ Chemotherapy protocols ❖ Other systemic treatment including biologic or targeted therapy and immunotherapy. Pancreatic cancer: ❖ Post-operative radiation therapy/chemotherapy ❖ Chemoradiation for unresectability ❖ Targeted therapy: Role of PARP inhibitors Hepatobiliary cancers: • Diagnosis and staging • Principles of pathology • Role of surgery • Role of chemotherapy • Role of targeted therapy • Role of immunotherapy Colon cancer • Diagnosis and staging • Principles of pathology and molecular testing • Role of surgery in metastatic and non-metastatic disease • Role of chemotherapy • Role of biologic therapy • Role of immunotherapy Rectal cancer: ❖ Total Neoadjuvant therapy	

			❖ Total mesorectal excision ❖ Management of advanced disease. - 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 - 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** • Soft tissue sarcomas, (extremitities sarcoma, retroperitoneal sarcoma, gastrointestinal stromal tumors (GIST): • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up, staging, clinico-pathological manifestation • Role of postoperative radio/chemoradiotherapy in resectable tumors. • Role of preoperative/definitive radiotherapy in irresectable tumor. Palliative systemic chemotherapy in metastatic disease. • Role of targeted therapy in GIST. • Principles of multidisciplinary management and treatment and, specifically, the role of chemotherapy and	6.25%

				radiation therapy for each of the disease sites and according to disease stage. ☒ 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 chemotherapy in metastatic disease. ☒ **Skin 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 skin cancer. • Role of adjuvant,	

			palliative and radical radiotherapy in non-Melanoma skin cancers(NMSC) • Radiation effects and response on organ of interest and surrounding normal tissue: acute and chronic radiation effects; complications. • Melanoma: staging and principles of pathology and molecular testing • Role of surgery in MSC including different procedures of sentinel LN biopsy • Role of Systemic treatment in MSC including immunotherapy and targeted therapy. •	
	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

(27 credit point for training)

Clinical training	Credit points	Responsible department	Attendance	Percentage of Achieved points
Clinical training in Clinical Oncology department	8	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%
	6		➢ Night shift (From 2pm to 8am) 1/week for 8 weeks	28.6%
	5		➢ Attendance of at least 4	14.3%

			weeks in the Outpatient clinic (3 hours /day)	
	5		➢ Attendance of at least 30% of clinical rounds of each one of the 3 staff groups (4 hours /week for 15 week)	14.3%
	3		➢ 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 Urethral catheterization.	• 10 chest X ray • 10 CT (different forms) • 10 MRI (Different forms) • 10 blood gases

Year 3

(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 whole didactic of the course
Technology	2	Clinical	20 hours Documentation of treatment	25%

of Radiotherapy		Oncology	parameter & verification methods. - Treatment planning of various body sites and tumors	
	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 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 +/-	12.5%

			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	12.5%

			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: • Role of chemotherapy, biologic therapy and immunotherapy. Nasopharynx: ❖ Role of chemotherapy and radiation; altered vs. standard fractionation Nasal cavity/paranasal sinuses: ❖ Role of surgery and 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 ☒ **Thoracic Cancer** • Epidemiologic and etiologic risk factors, tumor markers/molecular genetics. • Natural history, clinical presentation and diagnostic work-up(including role of bronchoscopy and mediastinoscopy), staging, clinico-pathological manifestation and prognostic factors of thoracic tumors. • Principles of multidisciplinary	12.5%

			management and treatment and, specifically, the role of chemotherapy and radiation therapy for each of the disease sites and according to disease stage: - Non-small cell lung cancer: ❖ Resectable tumor ✓ Surgery: types of surgery appropriate for lung cancer ✓ Role of pre-operative (chemo-) radiation ✓ Role of post-operation radiation ✓ Role of post-operation chemotherapy or chemoradiation ❖ Irresectable tumors ✓ Definitive and palliative radiation and chemoradiation options, including altered fractionation, hypofractionation and split course. ✓ Palliative chemotherapy in advanced disease. ✓ Role of targeted therapy and immunotherapy in NSCLC - 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. ❖ Role of chemotherapy and immunotherapy in extensive disease 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 irresectable 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. • Role of chemotherapy and immunotherapy in advanced disease.	
	1		Seminars *Attendance of at least 50% of the clinical seminars (at least 1/week for 5 weeks) *Presentation of at least 1 time	12.5%

			in the seminar	
	1		Conference and workshop	12.5%
	0.5		Formative assessment	6.25%
Student signature			Principle coordinator signature	Head of department signature

(48 credit point for training in Unit 1)

Clinical	Credit	Responsible	Attendance	Percentage

training	points	department		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**	**Case**	**Minimal**

	Number		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 • Shielding and tissue compensator	• 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.

Year 4

(8 credit point for didactic)

Name of the course	Credit points	Responsible department	Attendance	Percentage of achieved points
Clinical oncology	8	Clinical oncology	Year 4	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 risk factors, tumor markers/molecular genetics, including prevention and screening methods. • Natural history, typical clinical presentations, diagnostic workup and staging, clinico-pathologic	12.5%

			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 - Castration naïve metastatic prostate cancer: definition and management - Biochemical failure: definition and management - Castration-resistant metastatic and non-metastatic prostate cancer:	

			definitions and management - Role of androgen deprivation therapy - Role of other hormonal therapy - Role of chemotherapy - Role of radiation therapy in metastatic prostate cancer - Role of PARP inhibitors. - Bladder cancer: • definitive radiation; pre-operative and post-operative radiation, • Role of surgery • Role of definitive chemoradiation for invasive carcinoma • Role of chemotherapy, targeted therapy, immunotherapy, and antibody drug conjugate in bladder cancer - 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
			  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 - Vulvar cancer - Vaginal cancer Including the use of chemotherapy, surgery, and	12.5%

			other modalities of treatment: biologic/targeted therapy and immunotherapy. • Principles of radiological physics and radiobiology appropriate for radiation therapy to each of these 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.	
	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 IMRT, if appropriate)for each of the disease sites and according to disease stage: • physics and radiobiology appropriate to radiation	12.5%

			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): role of craniospinal irradiation ❖ Ependymoma: role of involved field radiation therapy ❖ Glioma: low grade or high grade intact brain stem	6.25%

			❖ 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

(48 credit point for training in Unit 1)

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	33.3%

			mentioned below ➢ Procedures log as mentioned below	
	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 Number**	**Case**	**Minimal 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**	**Case**	**Minimal**

	Number		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 Metastases	10
Bone Metastases	10	Pleural and Pericardial Effusion	3
Lung Metastases	10	Malignant Ascites	5

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

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

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

First: Attendance

Date	Attendance	Topic	Signature

B- Clinical Seminars

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

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

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 chemotherapy

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 competency*	Location	Signature

* 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

Postgraduate student's program
Rotation in training assessment

**** 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)
Demonstrate the competency of continuous evaluation of different types of care provision to patients in the different area of his field.								
Appraise scientific evidence.								
Continuously improve patient care based on constant self-evaluation and life-long learning.								
Participate in clinical audit and research projects.								

General skills	could	strongly				strongly

	not judge (0)	disagree(1)	(2)	(3)	(4)	(5)	(6)	agree (7)
Practice skills of evidence-based Medicine (EBM).								
Educate and evaluate students, residents and other health professionals.								
Design logbooks.								
Design clinical guidelines and standard protocols of management.								
Appraise evidence from scientific studies related to the patients' health problems.								
Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.								
Use information technology to manage information, access on- line medical information; for the important topics.								
Master interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals, including:- • Present a case. • Write a consultation note. • Inform patients of a diagnosis and therapeutic plan Completing and maintaining comprehensive. • Timely and legible medical records. • Teamwork skills.								

General skills	could not	strongly				strongly

	judge (0)	disagree(1)	(2)	(3)	(4)	(5)	(6)	agree (7)
Create and sustain a therapeutic and ethically sound relationship with patients.								
Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.								
Work effectively with others as a member or leader 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, and business practices.								
Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.								
Work effectively in health care delivery settings and systems related to specialty including good administrative and time management.								
Practice cost-effective healthcare and resource allocation that does not compromise quality of care.								

General skills	could not judge (0)	strongly disagree(1)	(2)	(3)	(4)	(5)	(6)	strongly agree (7)
Advocate for quality patient care and assist patients in dealing with system complexities.								
Design, monitor and evaluate specification of under and post graduate courses and programs.								
Act as a chair man for scientific meetings including time management								

Elective Course 1

Requirements

- **Credit points:** 1.5 credit point.

- Minimal rate of attendance 80% of lectures and 80% of training

One of these courses

- Advanced medical statistics.
- Evidence based medicine.
- Advanced infection control.
- 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

Elective Course 2

Requirements

- **Credit points:** 1.5 credit point.

- Minimal rate of attendance 80% of lectures and 80% of training

One of these courses

- Advanced medical statistics.
- Evidence based medicine.
- Advanced infection control.
- 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

Academic activities

Lecture, journal club, conference, workshop

Activity	Your role **	Date	Signature of supervisor

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

Formative assessment

Exam	Score	*Degree	Date	Signature

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

الرسائل العلمية

عنوان الرسالة

عربـــــــــــــــــي :

انجلـــــــــــــــــيزي :

المشرفـــــــــــــون :

..... -1
..... -2
..... 3
..... -4

تاريخ القيــد لدرجــة : ..... / /

تاريخ التسجيل الموضوع: .....

المتابعة الدوريـــــــــة : .....

التاريخ	ما تم انجازه من بروتوكول البحث	المتبقي	توقيع المشرفين

Declaration

Course Structure Mirror	Responsible (Course) Coordinator Name:	Signature	Date
First Part			
-Course 1			
-Course 2			
-Course 3			
Course 4 Unit 1			
Course 4 Unit 3			
Course 5 Unit 1			
Course 5 Unit 2			
Course 6 Unit 1			
Course 6 Unit 2			
Second Part			
Course 7 Unit 1			
Course 7 Unit 2			
- Elective Course (1) Certificate Dates:			
- Elective Course (2) Certificate Dates:			
- M. D. Thesis Acceptance Date:			
- Fulfillment of required contact Credit points prior to final examination			
Clinical Oncology M.D. Degree Principle Coordinator:			
Date approved by Clinical Oncology Department Council:			

يعتمد ،

رئيس القسم

أ.د/