School of Medical Sciences & Technology

Department of Oncology

S.No	Name of the Fellowship	Eligibility	Duration	Fee(₹)
01	Fellowship in Advanced Radiation Techniques	MD/DNB Radio Onco	1 yr	1,00,000
02	Fellowship in Branchy Therapy	MD/DNB Radio Onco	1 yr	1,00,000
03	Fellowship in Theronostics (Molecular Imaging & Therapy)	MD/DNB Nucl Medicine	1 yr	1,00,000
04	Fellowship in Medical Oncology	MD/DNB Gen Med	1 yr	1,00,000
05	Fellowship in Hematology & Oncology	MD/DNB Gen Med, Paed	1 yr	1,00,000
		DM/DNB Med Onco	6 M	1,00,000
06	Fellowship in Pediatric Medical Oncology	MD/DNB Paeds, Gen Med	1 yr	1,00,000
		DM/DNB Med Onco, Haemato	6 M	1,00,000
07	Fellowship in Thoracic Onco Surgery	MS/DNB Gen surg	1 yr	1,00,000
		M.Ch./DNB in CTVS, surg Onco	6 M	1,00,000
08	Fellowship in Gynaec Onco Surgery	MS/DNB OBGY, Gen surg	1 yr	1,00,000
		M.Ch./DNB surg Onco	6 M	1,00,000
09	Fellowship in Gastro Intestinal Onco Surgery	MS/DNB Gen surg	1 yr	1,00,000
		M.Ch./DNB Surg Gastro, Surg Onco	6 M	1,00,000
10	Fellowship in Uro-Onco Surgery	M.Ch./DNB Urology, M.Ch./DNB surg Onco	1 yr	1,00,000
		MS/DNB Gen surg	6 M	1,00,000
11	Fellowship in Head & Neck Onco Surgery	MS/DNB ENT, Gen surg, MDS in OMFS	1 yr	1,00,000
		M.Ch./DNB Surg Onco, Neuro Surg	6 M	1,00,000
12	Fellowship in Ocular Oncology	MS/DNB Ophthal	1 yr	1,00,000
		M.Ch./DNB surg Onco	6 M	1,00,000

13	Fellowship in Neuro Onco Surgery	M.Ch./DNB Neuro Surg	1 yr	
14	Fellowship in Pediatric Surgical Oncology	M.Ch./DNB Paed Surg, Surg Onco	1 yr	

Fellowship in Advanced Radiation Techniques

Course Overview

The Fellowship in Advanced Radiation Techniques is a one-year specialized program aimed at training healthcare professionals in the latest advancements in radiation oncology. This fellowship provides in-depth knowledge and hands-on experience in precision radiation therapies, including IMRT, IGRT, SBRT, proton therapy, and brachytherapy. The course emphasizes clinical decision-making, radiation safety, and the integration of emerging technologies in cancer treatment.

Prerequisites

Criteria	Details
Eligibility	MBBS with MD/DNB in Radiation Oncology or equivalent qualification in a related medical field
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Gain expertise in advanced radiation techniques, including IMRT, IGRT, and SBRT.
- Develop proficiency in radiation planning, dosimetry, and quality assurance.
- Understand the principles and applications of proton therapy and brachytherapy.
- Learn to integrate multimodal therapies for optimal cancer treatment.
- Enhance skills in radiation safety, toxicity management, and patient care.
- Conduct research to advance innovative radiation treatment methodologies.

Curriculum with Semester-wise Syllabus & Modules

Semester 1: Fundamentals & Core Radiation Techniques

Module	Topics Covered
Principles of Radiation Oncology	Basics of radiation physics, radiation biology, and oncology principles
Radiation Safety & Protection	Radiation hazards, safety protocols, and dosimetry
Imaging & Treatment Planning	CT, MRI, PET in radiotherapy, contouring, and treatment planning
External Beam Radiation Therapy (EBRT)	Techniques including 3D-CRT, IMRT, and VMAT
Brachytherapy	Principles, techniques, and applications in various cancers
Clinical Rotations – Radiation Therapy Unit	Hands-on patient care experience in a clinical setting

Semester 2: Advanced Radiation Techniques & Specialized Applications

Module	Topics Covered
Stereotactic Radiosurgery (SRS) & Stereotactic Body Radiotherapy (SBRT)	Applications in CNS, lung, liver, and spine tumors
Proton Therapy & Heavy Ion Therapy	Concepts, benefits, and clinical applications
Adaptive & Image-Guided Radiation Therapy (IGRT)	Real-time imaging, adaptive planning, and motion management
Radiobiology & Personalized Radiation Therapy	Molecular aspects of radiation response and precision oncology
Ethical & Legal Aspects in Radiation Oncology	Informed consent, medico-legal issues in radiotherapy
Research Project & Case Studies	Literature review, clinical case presentations, dissertation submission

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Advanced Radiation Techniques	Master precision-based radiation therapies, including IMRT, IGRT, and SBRT.
2	Proficiency in Radiation Planning & Dosimetry	Develop advanced skills in treatment planning and radiation dose calculations.
3	Application of Proton Therapy & Brachytherapy	Understand and apply cutting-edge radiation delivery methods in oncology care.
4	Integration of Multimodal Therapies	Effectively combine radiation with other cancer treatments for better patient outcomes.
5	Radiation Safety & Toxicity	Ensure patient safety and minimize radiation side

	Management	effects.
6	Research & Innovation in Radiation Oncology	Conduct studies and contribute to advancements in radiation oncology.

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Radiation Therapy Techniques	Ability to perform and manage advanced radiation treatment procedures.
2	Expertise in Radiation Dosimetry & Quality Control	Proficiency in dosimetry calculations and treatment plan verifications.
3	Advanced Knowledge in Proton Therapy & Brachytherapy	Understand and apply the latest advancements in radiation oncology.
4	Skill in Radiation Toxicity Management	Ability to assess and mitigate radiation-related toxicities.
5	Effective Multimodal Treatment Planning	Develop personalized radiation therapy strategies based on patient needs.
6	Competence in Radiation Oncology Research	Engage in clinical research and contribute to scientific advancements in the field.

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits: 40	

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%

Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Conditions	40
Advanced Radiation Techniques	Application of IMRT, IGRT, SBRT	50
Imaging & Treatment Planning	Contouring, Dosimetry	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Adaptive Radiotherapy	Simulation & Execution	40

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."

- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

- Principles and Practice of Radiation Oncology – Theodore L. Phillips, MD
- Clinical Radiation Oncology – Leonard L. Gunderson, Joel E. Tepper
- Radiation Therapy for Head and Neck Cancers – K. Kian Ang, Adam S. Garden
- Proton Therapy – Thomas F. DeLaney, Hanne M. Kooy

Journals & E-Resources

- International Journal of Radiation Oncology
- Journal of Clinical Oncology
- American Society for Radiation Oncology (ASTRO)
- National Cancer Institute (NCI) Radiation Therapy

Fellowship in Brachytherapy

Course Overview

The Fellowship in Brachytherapy is a one-year intensive program designed for healthcare professionals specializing in radiation oncology. The course focuses on cutting-edge brachytherapy techniques, patient safety, and advanced imaging modalities to enhance precision in cancer treatment. It includes clinical rotations, simulation training, and research projects.

Prerequisites

Criteria	Details
Eligibility	MBBS with MD/DNB in Radiation Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Master advanced brachytherapy techniques for various cancer types.
- Learn radiation safety protocols and quality assurance in treatment delivery.
- Develop expertise in treatment planning, simulation, and image-guided brachytherapy.
- Gain knowledge of radiobiology and its applications in personalized radiation therapy.
- Understand ethical and legal considerations in brachytherapy.
- Conduct research to contribute to the advancement of brachytherapy.

Curriculum with Semester-wise Syllabus & Modules

Semester 1: Fundamentals of Brachytherapy

Module	Topics Covered
Principles of Brachytherapy	Basics of radiation physics, radiation biology, oncology principles
Radiation Safety & Protection	Radiation hazards, safety protocols, and dosimetry
Imaging & Treatment Planning	CT, MRI, PET in brachytherapy, contouring, and treatment planning
Low-Dose Rate (LDR) & High-Dose Rate (HDR) Brachytherapy	Techniques, indications, and applications
Interstitial &Intracavitary Brachytherapy	Procedures and clinical applications for cervical, prostate, and breast cancer

Clinical Rotations – Brachytherapy Unit	Hands-on patient care experience in a clinical setting

Semester 2: Advanced Brachytherapy Techniques

Module	Topics Covered
Image-Guided & Adaptive Brachytherapy	Real-time imaging, adaptive planning, and motion management
Intraoperative & Surface Mould Brachytherapy	Concepts, benefits, and clinical applications
Radiobiology & Personalized Brachytherapy	Molecular aspects of radiation response and precision oncology
Ethical & Legal Aspects in Brachytherapy	Informed consent, medico-legal issues in radiotherapy
Research Project & Case Studies	Literature review, clinical case presentations, dissertation submission

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Brachytherapy Techniques	Master cutting-edge brachytherapy procedures, including LDR, HDR, and image-guided techniques.
2	Radiation Safety & Quality Assurance	Implement radiation safety standards and quality assurance measures.
3	Proficiency in Treatment Planning	Develop expertise in brachytherapy treatment planning using advanced imaging and dosimetry techniques.
4	Understanding of Radiobiology	Apply radiobiological principles to optimize cancer treatment outcomes.
5	Ethical & Legal Competency	Ensure adherence to ethical and legal aspects of brachytherapy.
6	Research & Innovation in Brachytherapy	Engage in research and innovation in advanced brachytherapy techniques.

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Advanced Brachytherapy	Ability to implement complex brachytherapy techniques for cancer treatment.
2	Expertise in Imaging & Treatment Planning	Proficiency in utilizing imaging modalities for accurate brachytherapy delivery.
3	Radiation Safety & Protection	Knowledge of radiation safety protocols to minimize risks to patients and staff.
4	Research & Case Study Analysis	Conduct research to improve brachytherapy treatment methodologies.
5	Personalized Brachytherapy	Ability to apply radiobiological principles for patient-specific brachytherapy treatment planning.
6	Proficiency in Ethical & Legal Aspects	Understanding of legal responsibilities and ethical considerations in brachytherapy.

Credits & Assessment Methods

Total Credits: 40

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify.

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Conditions	40
Advanced Brachytherapy Techniques	Application of HDR, LDR, Interstitial, &Intracavitary Brachytherapy	50
Imaging & Treatment Planning	Contouring, Dosimetry	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Adaptive Brachytherapy	Simulation & Execution	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Brachytherapy Cases	50
Recent Advances in Brachytherapy	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Brachytherapy	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

- **Principles and Practice of Brachytherapy** – Phillip M. Devlin
- **Clinical Brachytherapy Physics** – Bruce R. Thomadsen, Mark J. Rivard
- **Perez and Brady's Principles and Practice of Radiation Oncology** – Edward C. Halperin, Luther W. Brady
- **Brachytherapy: Applications and Techniques** – Peter Hoskin
- **Image-Guided Brachytherapy** – GyörgyKovács, Peter Hoskin

Journals & E-Resources

- **International Journal of Radiation Oncology, Biology, Physics** – https://www.redjournal.org/
- **Brachytherapy Journal – American Brachytherapy Society** – https://www.brachyjournal.com/
- **Radiotherapy & Oncology (Green Journal)** – https://www.thegreenjournal.com/
- **National Cancer Institute (NCI) Radiation Oncology Resources** – https://www.cancer.gov/about-cancer/treatment/types/radiation-therapy
- **American Society for Radiation Oncology (ASTRO)** – https://www.astro.org/

Fellowship in Theranostics (Molecular Imaging & Therapy)

Course Overview

The Fellowship in Theranostics (Molecular Imaging & Therapy) is a one-year specialized program designed to train healthcare professionals in the integration of molecular imaging with targeted radionuclide therapy. The course covers key aspects of PET-CT, SPECT, radiopharmaceuticals, and precision medicine, providing hands-on experience in cutting-edge theranostic techniques.

Prerequisites

Criteria	Details
Eligibility	MBBS with MD/DNB in Nuclear Medicine
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Master the principles and applications of molecular imaging and theranostics.
- Gain expertise in the use of PET-CT, SPECT, and hybrid imaging in clinical practice.
- Learn targeted radionuclide therapies, including PRRT and PSMA-based treatments.
- Develop proficiency in radiopharmaceuticals and dosimetry for patient safety.
- Understand ethical, regulatory, and safety aspects of theranostic medicine.
- Conduct research to advance precision oncology through molecular imaging.

Semester-wise Curriculum

Semester 1: Fundamentals of Theranostics

Module	Topics Covered
Basics of Molecular Imaging	PET, SPECT, and hybrid imaging principles
Radiopharmaceuticals & Dosimetry	Production, safety, and therapeutic applications
PET-CT & SPECT in Oncology	Imaging biomarkers for cancer detection
Theranostics& Personalized Medicine	Targeted imaging and therapy strategies
Clinical Rotations – Nuclear Medicine	Hands-on training in PET-CT, SPECT, and therapy

Semester 2: Advanced Theranostics Techniques

Module	Topics Covered
Targeted Radionuclide Therapy	PRRT, PSMA-based therapies, and beta emitters
Dosimetry & Radiation Protection	Treatment planning, safety, and monitoring
Neuroimaging & Cardiac Theranostics	PET-CT applications in neurology and cardiology
Ethical & Regulatory Aspects	Compliance in nuclear medicine
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Molecular Imaging	Master PET-CT, SPECT, and hybrid imaging techniques
2	Proficiency in Radionuclide Therapy	Develop targeted radionuclide therapy skills
3	Application of Dosimetry & Radiopharmaceuticals	Ensure safe and effective treatments
4	Personalized Oncology Approaches	Integrate imaging with precision medicine
5	Ethical & Regulatory Competency	Adhere to guidelines for theranostic applications
6	Research & Innovation in Theranostics	Contribute to advancements in molecular imaging

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Molecular Imaging Techniques	Proficiency in PET-CT, SPECT, and hybrid imaging
2	Expertise in Radionuclide Therapy	Knowledge of targeted radionuclide treatments
3	Radiation Safety & Dosimetry	Understanding of radiation protection measures
4	Research & Case Study Analysis	Conduct research to improve theranostic methods
5	Personalized Medicine Integration	Apply imaging for individualized treatment plans
6	Ethical & Legal Understanding	Ensure adherence to compliance and safety

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify.

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Theranostic Cases	40
Advanced Imaging Techniques	PET-CT, SPECT Interpretation	50
Targeted Radionuclide Therapy	PRRT, PSMA-based Treatment Execution	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Adaptive Theranostics	Simulation & Patient-Specific Planning	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Theranostic Cases	50
Recent Advances in Theranostics	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Theranostics	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Molecular Imaging and Theranostics	Jan Grimm, Jason S. Lewis
Theranostics: From Bench to Bedside	Freddy E. Escorcia, Samuel T. Rosen
Nuclear Medicine Physics: The Basics	Ramesh Chandra
Clinical PET and PET/CT	E. Edmund Kim, Yong-WheeBahk

Journals & E-Resources

Resource	Website/Publisher
European Journal of Nuclear Medicine & Molecular Imaging	Springer
Journal of Nuclear Medicine	Society of Nuclear Medicine & Molecular Imaging
International Atomic Energy Agency (IAEA)	www.iaea.org
National Cancer Institute (NCI) - Theranostics	www.cancer.gov

Fellowship in Medical Oncology

Course Overview

The Fellowship in Medical Oncology is a one-year specialized program designed to train healthcare professionals in the diagnosis, treatment, and management of cancer using systemic therapies such as chemotherapy, targeted therapy, and immunotherapy. The program includes in-depth clinical training, case-based learning, and hands-on experience in oncologic care.

Prerequisites

Criteria	Details
Eligibility	MBBS with MD/DNB in General Medicine
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Master the principles and applications of systemic cancer therapies.
- Gain expertise in chemotherapy, targeted therapy, and immunotherapy.
- Develop skills in oncologic emergencies and supportive care.
- Understand personalized cancer treatment approaches.
- Learn ethical and regulatory guidelines in oncology practice.
- Conduct research to advance clinical oncology and patient outcomes.

Semester-wise Curriculum

Semester 1: Fundamentals of Medical Oncology

Module	Topics Covered
Basics of Oncology	Cancer biology, genetics, and staging
Chemotherapy & Pharmacology	Drug mechanisms, side effects, and resistance
Targeted Therapy & Immunotherapy	Molecular targets and immune-based treatments
Oncologic Emergencies	Tumor lysis syndrome, neutropenic sepsis
Clinical Rotations – Oncology Ward	Hands-on training in chemotherapy administration

Semester 2: Advanced Cancer Treatment Approaches

Module	Topics Covered
Precision Medicine in Oncology	Biomarkers, genomics, and personalized therapy
Hematologic Malignancies	Leukemia, lymphoma, and myeloma treatment
Solid Tumors	Breast, lung, GI, and urogenital cancers
Ethical & Regulatory Aspects	Clinical trials, informed consent, and compliance
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Systemic Therapies	Master chemotherapy, targeted, and immunotherapy
2	Proficiency in Cancer Management	Diagnose and treat solid and hematologic malignancies
3	Oncologic Emergency Handling	Effectively manage acute complications in cancer patients
4	Precision Oncology Integration	Utilize biomarkers and genomics for therapy selection
5	Ethical & Regulatory Knowledge	Ensure adherence to oncology guidelines & patient rights
6	Research & Innovation in Oncology	Contribute to clinical research and advancements in treatment

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Chemotherapy Techniques	Knowledge of cytotoxic agents and their administration
2	Expertise in Targeted & Immunotherapy	Application of biologic and immune-based treatments
3	Cancer Patient Supportive Care	Manage side effects, palliative care, and symptom control
4	Research & Clinical Case Analysis	Conduct studies and analyze treatment outcomes
5	Personalized Oncology Approach	Implement precision medicine strategies
6	Ethical & Legal Considerations	Ensure compliance in oncology practice

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify.

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Oncology Cases	40
Chemotherapy Administration	Drug Preparation & Infusion Techniques	50
Targeted & Immunotherapy	Biomarker Testing & Therapy Implementation	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Oncologic Emergency Management	Tumor Lysis, Neutropenic Fever Handling	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Oncology Cases	50
Recent Advances in Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Oncology Practice	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
DeVita, Hellman, and Rosenberg's Cancer: Principles & Practice of Oncology	Vincent T. DeVita, Theodore S. Lawrence
The Biology of Cancer	Robert A. Weinberg
Clinical Oncology	Ajay Vora, Peter Hoskin
Oxford Handbook of Oncology	Jim Cassidy, Donald Bissett

Journals & E-Resources

Resource	Website/Publisher
Journal of Clinical Oncology	American Society of Clinical Oncology (ASCO)
The Lancet Oncology	Elsevier
National Cancer Institute (NCI) – Cancer Research	www.cancer.gov
European Journal of Cancer	Elsevier

Fellowship in Hematology & Oncology

Course Overview

The Fellowship in Hematology & Oncology is a one-year specialized program designed to train healthcare professionals in the diagnosis, management, and treatment of hematologic and oncologic disorders. The course covers key aspects of malignant and benign hematologic diseases, solid tumors, targeted therapies, immunotherapy, and precision medicine, providing hands-on experience in advanced oncologic care.

Prerequisites

Criteria	Details
Eligibility	MBBS with MD/DNB in General Medicine, Pediatrics, or equivalent DM/DNB Medical Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Develop expertise in the diagnosis and treatment of hematologic malignancies and solid tumors.
- Gain proficiency in bone marrow transplantation and cellular therapy.
- Understand the applications of molecular oncology and precision medicine.
- Learn the principles of immunotherapy and targeted therapies in cancer treatment.
- Enhance knowledge of supportive care, palliative oncology, and patient management.
- Conduct research in hematology and oncology to advance clinical practice.

Semester-wise Curriculum

Semester 1: Fundamentals of Hematology & Oncology

Module	Topics Covered
Basics of Hematology & Oncology	Pathophysiology, diagnosis, and classification
Bone Marrow & Stem Cell Biology	Hematopoiesis, bone marrow examination
Chemotherapy & Targeted Therapy	Drug mechanisms, pharmacology, resistance
Hematologic Malignancies	Leukemias, lymphomas, myelomas
Clinical Rotations – Oncology	Hands-on training in patient management

Semester 2: Advanced Hemato-Oncology Techniques

Module	Topics Covered
Bone Marrow Transplantation	Types, indications, and complications
Immunotherapy & Precision Medicine	CAR-T, checkpoint inhibitors, biomarkers
Supportive & Palliative Oncology	Pain management, oncologic emergencies
Research & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Hematologic & Oncologic Disorders	Master the diagnosis and treatment of cancers
2	Proficiency in Bone Marrow Transplantation	Develop skills in stem cell transplantation
3	Application of Immunotherapy & Targeted Therapy	Understand novel cancer treatments
4	Personalized Oncology Approaches	Integrate molecular data with clinical decisions
5	Supportive & Palliative Oncology	Ensure holistic patient care and quality of life
6	Research & Innovation in Oncology	Conduct clinical research and case studies

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Cancer Diagnosis & Staging	Proficiency in evaluating and classifying tumors
2	Expertise in Hematologic & Solid Tumor Therapy	Understanding chemotherapy, targeted drugs
3	Radiation & Surgical Oncology Basics	Integrate radiation and surgery into treatment
4	Research & Case Study Analysis	Conduct clinical research and trials
5	Personalized Medicine Integration	Apply genomic and biomarker-based treatment
6	Ethical & Legal Understanding	Adhere to guidelines for oncology practice

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%
Passing Criteria: Minimum 50% in each component to qualify.	

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Hemato-Oncologic Cases	40
Advanced Oncology Techniques	Chemotherapy, Immunotherapy, Targeted Therapy	50
Bone Marrow Transplantation	Indications, Graft-Versus-Host Disease	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Adaptive Oncology	Personalized Cancer Therapy Planning	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Oncology Cases	50
Recent Advances in Hemato-Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Oncology Practice	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Williams Hematology	Marshall A. Lichtman, Ernest Beutler
Cancer: Principles & Practice of Oncology	Vincent T. DeVita, Theodore S. Lawrence
The MD Anderson Manual of Medical Oncology	Hagop M. Kantarjian, Robert A. Wolff
Hematopoietic Stem Cell Transplantation	Stephen J. Forman, Robert S. Negrin

Journals & E-Resources

Resource	Website/Publisher
Blood Journal	American Society of Hematology (ASH)
Journal of Clinical Oncology	American Society of Clinical Oncology (ASCO)
National Cancer Institute (NCI) - Oncology	www.cancer.gov
The Lancet Hematology	www.thelancet.com/journals/lanhem

Fellowship in Pediatric Medical Oncology

Course Overview

The Fellowship in Pediatric Medical Oncology is a one-year specialized program designed to train healthcare professionals in the diagnosis, treatment, and management of pediatric cancers. The course provides in-depth knowledge and hands-on experience in chemotherapy, targeted therapies, immunotherapy, and supportive care for pediatric oncology patients.

Prerequisites

Criteria	Details
Eligibility	MBBS with MD/DNB in Pediatrics or Medical Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Develop expertise in pediatric oncology treatment protocols.
- Gain proficiency in chemotherapy, targeted therapies, and immunotherapy.
- Learn about supportive care, including pain management and infection control.
- Understand the principles of hematopoietic stem cell transplantation (HSCT).
- Enhance knowledge in tumor biology, genetics, and personalized medicine.
- Conduct research in pediatric oncology and contribute to advancements in the field.

Semester-wise Curriculum

Semester 1: Fundamentals of Pediatric Oncology

Module	Topics Covered
Basics of Pediatric Oncology	Epidemiology, pathophysiology, and classification
Pediatric Chemotherapy & Toxicities	Drug mechanisms, dosing, and side effects
Immunotherapy & Targeted Therapy	Monoclonal antibodies, CAR-T therapy
Supportive Care in Pediatric Oncology	Infection control, nutrition, and rehabilitation
Clinical Rotations – Pediatric Oncology Unit	Hands-on patient care experience

Semester 2: Advanced Pediatric Oncology

Module	Topics Covered
Hematopoietic Stem Cell Transplantation (HSCT)	Indications, procedure, and complications
Pediatric Solid Tumors	Neuroblastoma, Wilms tumor, bone tumors
Hematologic Malignancies	Leukemias, lymphomas, myelodysplastic syndromes
Ethical & Psychosocial Aspects	Family counseling, end-of-life care
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Pediatric Oncology	Master pediatric cancer treatment strategies
2	Proficiency in Chemotherapy & Targeted Therapy	Develop advanced knowledge in systemic treatments
3	Supportive & Palliative Care Skills	Improve patient outcomes and quality of life
4	HSCT & Advanced Therapies	Learn transplant techniques and emerging treatments
5	Ethical & Family-Centered Care	Engage in compassionate and multidisciplinary care
6	Research & Innovation in Pediatric Oncology	Contribute to pediatric oncology advancements

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Pediatric Oncology Treatments	Develop and apply chemotherapy protocols
2	Expertise in Targeted & Immunotherapy	Implement novel therapeutic strategies
3	Comprehensive Supportive Care	Improve pain management and infection control
4	Research & Case Study Analysis	Conduct research to improve pediatric cancer care
5	HSCT & Transplantation Knowledge	Manage patients requiring stem cell transplantation
6	Ethical & Psychosocial Competency	Address ethical dilemmas and family concerns

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify.

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Pediatric Cancer Cases	40
Advanced Therapy Techniques	Chemotherapy, Targeted Therapy Execution	50
Imaging &Tumor Assessment	Interpretation of MRI, CT, PET-CT Scans	30
OSCE	Clinical Scenarios, Skill Demonstration	40
HSCT Procedures	Stem Cell Transplantation Techniques	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Pediatric Oncology Cases	50
Recent Advances in Pediatric Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Pediatric Cancer Care	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Principles and Practice of Pediatric Oncology	Philip A. Pizzo, David G. Poplack
Pediatric Oncology: A Comprehensive Guide	Richard H. Sills
Pediatric Hematology & Oncology	Edward Estlin, Richard Gilbertson
Clinical Pediatric Oncology	William L. Carroll

Journals & E-Resources

Resource	Website/Publisher
Pediatric Blood & Cancer	Wiley Online Library
Journal of Pediatric Hematology/Oncology	Lippincott Williams & Wilkins
National Cancer Institute (NCI) – Pediatric Oncology	www.cancer.gov
International Society of Pediatric Oncology (SIOP)	www.siop-online.org

Fellowship in Thoracic Onco Surgery

Course Overview

The Fellowship in Thoracic Onco Surgery is a one-year specialized program designed to train healthcare professionals in the surgical management of thoracic malignancies. This fellowship provides in-depth knowledge and hands-on experience in lung cancer surgery, esophageal cancer treatment, mediastinal tumor resections, and minimally invasive thoracic surgical techniques.

Prerequisites

Criteria	Details
Eligibility	MBBS with MS/DNB in General Surgery, MCh/DNB in CTVS or Surgical Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Master the principles and surgical techniques for thoracic oncology.
- Gain expertise in lung cancer surgeries, including lobectomy and pneumonectomy.
- Develop proficiency in minimally invasive thoracic surgery (VATS, robotic surgery).
- Learn to manage esophageal and mediastinal tumors surgically.
- Understand perioperative care, complications, and postoperative management.
- Conduct research in thoracic oncology to contribute to surgical advancements.

Semester-wise Curriculum

Semester 1: Fundamentals of Thoracic Oncology Surgery

Module	Topics Covered
Basics of Thoracic Oncology	Pathophysiology, staging, and diagnosis
Principles of Surgical Oncology	Tumor biology, surgical margins, and techniques
Lung Cancer Surgery	Lobectomy, segmentectomy, pneumonectomy
Mediastinal Tumors &Esophageal Cancer	Surgical approaches and management
Minimally Invasive Techniques	Video-assisted thoracoscopic surgery (VATS)
Clinical Rotations – Surgical Units	Hands-on training in thoracic oncology cases

Semester 2: Advanced Thoracic Onco Surgery Techniques

Module	Topics Covered
Robotic-Assisted Thoracic Surgery	Principles and hands-on applications
Complex Chest Wall & Tracheal Resections	Advanced surgical interventions
Radiation & Chemotherapy Integration	Multimodal treatment approaches
Ethical & Legal Aspects in Onco Surgery	Patient consent, medico-legal considerations
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Thoracic Onco Surgery	Master complex thoracic surgical procedures
2	Proficiency in Minimally Invasive Surgery	Develop skills in VATS and robotic thoracic surgery
3	Application of Multimodal Therapy	Integrate surgery with chemotherapy and radiation
4	Advanced Perioperative Management	Ensure optimal patient care and postoperative outcomes
5	Research & Innovation in Thoracic Oncology	Contribute to advancements in surgical techniques

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Lung Cancer Surgeries	Perform lobectomies, segmentectomies, and pneumonectomies
2	Expertise in Esophageal Cancer Surgery	Perform esophagectomy and reconstruction
3	Proficiency in Minimally Invasive Techniques	Perform VATS and robotic-assisted procedures
4	Research & Case Study Analysis	Conduct clinical research and analyze patient cases
5	Ethical & Legal Understanding	Apply ethical considerations in surgical oncology

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Thoracic Oncology Cases	40
Advanced Surgical Techniques	Lobectomy, Pneumonectomy, VATS, Robotic Surgery	50
Imaging & Treatment Planning	Preoperative evaluation, intraoperative techniques	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Perioperative Management	Postoperative care and complication management	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Thoracic Onco Surgery Cases	50
Recent Advances in Onco Surgery	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Surgical Oncology	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Thoracic Surgery Atlas	Mark K. Ferguson
General Thoracic Surgery	Thomas W. Shields
Video-Assisted Thoracic Surgery (VATS)	Robert J. McKenna
Robotic Thoracic Surgery	Robert E. Merritt

Journals & E-Resources

Resource	Website/Publisher
Journal of Thoracic Oncology	IASLC
Annals of Thoracic Surgery	The Society of Thoracic Surgeons
The Journal of Thoracic and Cardiovascular Surgery	Elsevier
National Cancer Institute (NCI) - Thoracic Oncology	www.cancer.gov

Fellowship in Gynaec Onco Surgery

Course Overview

The Fellowship in Gynaec Onco Surgery is a one-year specialized program designed to train surgeons in the comprehensive management of gynecologic malignancies. The program provides in-depth knowledge and hands-on experience in surgical oncology, chemotherapy, radiation therapy, and multidisciplinary cancer care. The course emphasizes clinical decision-making, minimally invasive techniques, and the integration of emerging technologies in gynecologic oncology.

Prerequisites

Criteria	Details
Eligibility	MBBS with MS/DNB in Obstetrics & Gynaecology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Develop expertise in the diagnosis and surgical management of gynecologic cancers.
- Gain proficiency in minimally invasive and robotic-assisted gynecologic oncology surgeries.
- Understand the role of chemotherapy, radiation therapy, and targeted therapies.
- Learn to manage complications and post-operative care in gynecologic oncology.
- Enhance skills in palliative care, tumor board discussions, and patient counseling.
- Conduct research to advance treatment modalities in gynecologic oncology.

Semester-wise Curriculum

Semester 1: Fundamentals & Core Surgical Techniques

Module	Topics Covered
Principles of Gynaecologic Oncology	Pathophysiology, staging, and diagnosis
Surgical Anatomy for Onco Surgery	Pelvic & abdominal anatomy for tumor resection
Minimally Invasive Surgery	Laparoscopic & robotic-assisted procedures
Radiation & Chemotherapy in Gynaec Cancers	Indications, side effects, and patient management
Clinical Rotations – Surgical Oncology	Hands-on experience in gynecologic oncology surgeries

Semester 2: Advanced Surgical Techniques & Specialized Applications

Module	Topics Covered
Radical Hysterectomy & Pelvic Exenteration	Advanced surgical techniques in cervical & endometrial cancers
Ovarian Cancer Surgery	Cytoreductive surgery & HIPEC
Vulvar & Vaginal Cancer Management	Surgical procedures & reconstruction
Palliative & Reconstructive Surgery	Complex case management & post-op rehabilitation
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Mastery in Gynaecologic Onco Surgery	Expertise in advanced surgical oncology techniques
2	Proficiency in Minimally Invasive Surgery	Competence in laparoscopic and robotic-assisted procedures
3	Integration of Multimodal Therapies	Effective use of surgery, chemotherapy, and radiation therapy
4	Advanced Cancer Management Strategies	Develop patient-centric treatment plans
5	Research & Innovation in Onco Surgery	Contribute to advancements in gynecologic oncology research

Course Outcomes

Sr. No.	Course Outcome	Description
1	Surgical Proficiency in Gynaecologic Cancers	Ability to perform radical surgeries for malignancies
2	Competence in Robotic & Laparoscopic Surgery	Expertise in minimally invasive procedures
3	Knowledge of Adjuvant Therapies	Understanding the role of chemotherapy & radiation
4	Post-operative & Palliative Care	Management of surgical complications & palliative strategies
5	Research & Case Study Analysis	Conduct clinical research to improve treatment outcomes

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%
Passing Criteria: Minimum 50% in each component to qualify.	

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Gynaec Onco Cases	40
Advanced Surgical Techniques	Radical hysterectomy, pelvic exenteration	50
Imaging & Preoperative Planning	MRI, CT interpretation for tumor staging	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Tumor Board Discussion	Multidisciplinary case discussion	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Gynaecologic Onco Cases	50
Recent Advances in Onco Surgery	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Gynaec Oncology	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Principles of Gynecologic Oncology Surgery	Pedro T. Ramirez, Dennis S. Chi
Comprehensive Gynecology	Gretchen M. Lentz, Rogerio A. Lobo
Surgical Techniques in Gynaecologic Oncology	Robert E. Bristow, Dennis S. Chi
Robotic Surgery in Gynaecologic Oncology	Pedro T. Ramirez, Brian M. Slomovitz

Journals & E-Resources

Resource	Website/Publisher
Gynecologic Oncology Journal	Elsevier
International Journal of Gynecological Cancer	IGCS
National Cancer Institute (NCI) - Gynaec Oncology	www.cancer.gov
European Society of Gynaecological Oncology (ESGO)	www.esgo.org

Fellowship in Gastrointestinal Onco Surgery

Course Overview

The Fellowship in Gastrointestinal Onco Surgery is a one-year specialized program designed to train healthcare professionals in the surgical management of gastrointestinal cancers. The course covers advanced surgical techniques, multimodal treatment approaches, and precision oncology in the management of GI malignancies, providing hands-on experience in minimally invasive and robotic-assisted procedures.

Prerequisites

Criteria	Details
Eligibility	MBBS with MS/DNB in General Surgery, M.Ch./DNB Surgical Gastro, Surgical Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Gain expertise in the surgical management of gastrointestinal malignancies.
- Develop proficiency in minimally invasive and robotic-assisted surgical techniques.
- Learn to integrate surgery with chemotherapy, radiotherapy, and immunotherapy.
- Enhance skills in perioperative patient care, nutrition, and rehabilitation.
- Understand the role of personalized medicine in gastrointestinal oncology.
- Conduct research to improve outcomes in gastrointestinal cancer treatment.

Semester-wise Curriculum

Semester 1: Fundamentals of GI Onco Surgery

Module	Topics Covered
Basics of Gastrointestinal Oncology	Pathophysiology, staging, and diagnostic methods
Surgical Principles & Techniques	Open, laparoscopic, and robotic surgeries
Multimodal Treatment Approaches	Chemotherapy, radiotherapy, immunotherapy
Preoperative & Postoperative Care	Nutrition, pain management, and rehabilitation
Clinical Rotations – GI Oncology Unit	Hands-on training in surgical oncology settings

Semester 2: Advanced GI Onco Surgery Techniques

Module	Topics Covered
Minimally Invasive & Robotic Surgery	Laparoscopic, robotic-assisted cancer surgeries
Hepatobiliary & Pancreatic Cancers	Surgical management of liver, gallbladder, pancreas cancers
Colorectal & Gastric Cancers	Advanced resection and reconstruction techniques
Palliative & Reconstructive Surgery	Surgical options for non-resectable cases
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in GI Onco Surgery	Master advanced surgical techniques for GI cancers
2	Proficiency in Minimally Invasive Surgery	Develop skills in laparoscopic and robotic surgeries
3	Integration of Multimodal Therapies	Coordinate surgery with chemotherapy and radiotherapy
4	Perioperative & Palliative Care	Ensure optimal patient care and symptom management
5	Research & Innovation in GI Oncology	Contribute to advancements in surgical oncology

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in GI Cancer Surgery	Proficiency in performing complex cancer surgeries
2	Expertise in Laparoscopic & Robotic Surgery	Skill development in advanced surgical methods
3	Surgical Oncology Case Management	Ability to diagnose and treat GI malignancies
4	Research & Evidence-Based Practice	Conduct research and publish findings
5	Personalized Treatment Approaches	Implement individualized patient care strategies

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%
Passing Criteria: Minimum 50% in each component to qualify.	

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of GI Oncology Cases	40
Minimally Invasive Surgery	Laparoscopic & Robotic Procedures	50
Tumor Resection Techniques	Colon, Stomach, Liver, Pancreas Surgeries	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Palliative Surgical Techniques	Symptom Relief & Quality of Life Management	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on GI Oncology Cases	50
Recent Advances in GI Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in GI Oncology	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Surgical Oncology of the GI Tract	Irving Taylor, Robin Phillips
Minimally Invasive Cancer Surgery	Theodore N. Pappas, Douglas S. Tyler
Principles & Practice of Gastrointestinal Oncology	Leonard L. Gunderson, Joel E. Tepper
Robotic GI Surgery	Vinay Kumaran, Deepak Govil

Journals & E-Resources

Resource	Website/Publisher
Journal of Gastrointestinal Oncology	Springer
Annals of Surgical Oncology	Society of Surgical Oncology
International Journal of GI Cancer	Wiley
National Cancer Institute (NCI) - GI Oncology	www.cancer.gov

Fellowship in Uro-Onco Surgery

Course Overview

The Fellowship in Uro-Onco Surgery is a one-year specialized program designed to provide advanced training in the surgical management of urological malignancies. The fellowship covers prostate, bladder, kidney, testicular, and penile cancers, with a focus on minimally invasive techniques, robotic-assisted surgeries, and multidisciplinary approaches.

Prerequisites

Criteria	Details
Eligibility	MBBS with MS/DNB in General Surgery or MCh/DNB in Urology or Surgical Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Develop expertise in the surgical management of urological cancers.
- Gain proficiency in robotic-assisted and minimally invasive surgical techniques.
- Learn about multimodal treatment strategies, including systemic therapy and radiation.
- Enhance skills in oncologic reconstruction and organ-preserving surgeries.
- Understand the principles of cancer staging, pathology, and molecular diagnostics.
- Conduct clinical research and contribute to advancements in uro-oncology.

Semester-wise Curriculum

Semester 1: Fundamentals of Uro-Oncology

Module	Topics Covered
Principles of Urological Oncology	Tumor biology, genetics, and staging
Diagnostic Imaging & Biopsy Techniques	MRI, PET-CT, ultrasound, and biopsy methods
Minimally Invasive & Robotic Surgery	Laparoscopic and robotic-assisted techniques
Prostate Cancer Management	Radical prostatectomy, active surveillance
Clinical Rotations – Uro-Oncology Unit	Hands-on training in urologic cancer surgeries

Semester 2: Advanced Uro-Onco Surgery Techniques

Module	Topics Covered
Kidney & Bladder Cancer Surgery	Nephrectomy, cystectomy, reconstructive options
Testicular & Penile Cancer Management	Orchiectomy, lymph node dissection, penile reconstruction
Multimodal Therapy in Uro-Oncology	Chemotherapy, immunotherapy, and radiation
Ethical & Legal Aspects	Informed consent, medico-legal challenges
Research Project & Case Studies	Clinical research, case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Urological Cancer Surgeries	Master complex surgical procedures for urological malignancies
2	Proficiency in Minimally Invasive Techniques	Gain hands-on experience in laparoscopic and robotic-assisted procedures
3	Integration of Multimodal Therapies	Effectively combine surgical, systemic, and radiation therapies
4	Reconstruction & Organ Preservation	Perform oncologic reconstruction techniques
5	Ethical & Regulatory Competency	Adhere to ethical and legal aspects of uro-oncology
6	Research & Innovation in Uro-Oncology	Conduct studies and contribute to oncologic advancements

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Uro-Oncologic Surgical Techniques	Ability to perform major uro-oncologic procedures
2	Expertise in Minimally Invasive Surgery	Skilled in laparoscopic and robotic urological surgeries
3	Advanced Knowledge of Systemic Therapies	Understand chemotherapy, targeted therapy, and immunotherapy
4	Radiation Oncology in Uro-Oncology	Application of radiation therapy in urological cancers
5	Research & Case Study Analysis	Conduct research and contribute to scientific advancements

Sr. No.	Course Outcome	Description
6	Ethical & Legal Understanding	Ensure adherence to compliance and patient safety

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify.

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Uro-Oncologic Cases	40
Advanced Surgical Techniques	Robotic-assisted and laparoscopic procedures	50
Multimodal Therapy Planning	Chemotherapy, radiation, and surgery integration	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Organ-Preserving Surgeries	Partial nephrectomy, prostate-sparing techniques	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Uro-Oncologic Cases	50
Recent Advances in Uro-Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Uro-Oncology	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Campbell-Walsh Urology	Alan J. Wein, Louis R. Kavoussi
Urologic Oncology: A Multidisciplinary Approach	Peter T. Scardino, Michael W. Kattan
Robotic Urologic Surgery	Ashok K. Hemal, Mani Menon
Urological Cancer Management	Mark S. Soloway

Journals & E-Resources

Resource	Website/Publisher
Journal of Urology	American Urological Association
European Urology	European Association of Urology
National Cancer Institute (NCI) - Urology	www.cancer.gov
Society of Urologic Oncology	www.suonet.org

Fellowship In Head & Neck Onco Surgery

Course Overview

The Fellowship in Head & Neck Onco Surgery is a one-year specialized program designed to train healthcare professionals in the diagnosis, surgical management, and multidisciplinary treatment of head and neck cancers. This program provides extensive hands-on experience in oncologic surgeries, reconstructive techniques, and the integration of radiation and chemotherapy in treatment planning.

Prerequisites

Criteria	Details
Eligibility	MBBS with MS/DNB in General Surgery, ENT, or M.Ch./DNB in Surgical Oncology or Neuro Surgery MDS in OMFS
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Develop expertise in head and neck cancer diagnosis and staging.
- Master surgical techniques for tumor resection and reconstructive procedures.
- Gain proficiency in multidisciplinary cancer management, including radiation and chemotherapy.
- Understand the principles of organ preservation and minimally invasive approaches.
- Ensure patient safety, functional outcomes, and post-surgical rehabilitation.
- Conduct research to advance head and neck oncology treatment strategies.

Semester-wise Curriculum

Semester 1: Fundamentals of Head & Neck Oncology

Module	Topics Covered
Basics of Head & Neck Oncology	Anatomy, pathology, and staging of cancers
Diagnostic Approaches	Imaging, biopsy techniques, and molecular testing
Surgical Techniques in Oncology	Principles of tumor resection and neck dissection
Radiation & Chemotherapy Integration	Combined modality approaches
Clinical Rotations – Surgical Units	Hands-on training in tumor resection procedures

Semester 2: Advanced Surgical Techniques & Reconstruction

Module	Topics Covered
Advanced Oncologic Surgery	Skull base, thyroid, laryngeal, and salivary gland tumors
Microvascular Reconstruction	Free flap techniques and reconstructive surgery
Endoscopic & Robotic Surgery	Minimally invasive approaches in head & neck oncology
Postoperative Care & Rehabilitation	Speech, swallowing, and functional recovery
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Head & Neck Oncology	Master surgical and diagnostic techniques
2	Proficiency in Multidisciplinary Care	Develop skills in coordinating with radiation and medical oncology teams
3	Application of Reconstructive Surgery	Gain hands-on experience in microvascular and local flap techniques
4	Minimally Invasive & Organ Preservation Techniques	Learn robotic and endoscopic approaches
5	Postoperative Care & Rehabilitation	Focus on speech, swallowing, and functional recovery
6	Research & Innovation in Head & Neck Oncology	Contribute to advancements in surgical oncology

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Head & Neck Cancer Surgery	Proficiency in tumor resection and reconstruction
2	Expertise in Multidisciplinary Treatment	Knowledge of combined modality therapy
3	Radiation Safety & Postoperative Care	Understanding of radiation protocols and recovery techniques
4	Research & Case Study Analysis	Conduct research to improve oncologic outcomes
5	Personalized Treatment Planning	Develop individualized surgical and medical plans
6	Ethical & Legal Understanding	Ensure adherence to compliance and patient safety

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Head & Neck Cancers	40
Advanced Surgical Techniques	Oncologic resection & Reconstruction	50
Imaging & Treatment Planning	Preoperative planning & contouring	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Postoperative Care & Rehabilitation	Speech & Swallowing Therapy	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Head & Neck Oncology Cases	50
Recent Advances in Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Head & Neck Surgery	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Head and Neck Cancer: A Multidisciplinary Approach	William Mendenhall, Paul M. Harari
Principles and Practice of Head and Neck Surgery	Jatin P. Shah, Snehal G. Patel
Reconstruction of the Head and Neck	Eric Genden, Mark Urken
Atlas of Head and Neck Surgery	James I. Cohen, Gary L. Clayman

Journals & E-Resources

Resource	Website/Publisher
International Journal of Head and Neck Oncology	Springer
Journal of Clinical Oncology	ASCO
National Cancer Institute (NCI) – Head & Neck	www.cancer.gov

Fellowship in Ocular Oncology

Course Overview

The Fellowship in Ocular Oncology is a one-year specialized program designed to train healthcare professionals in the diagnosis, treatment, and management of ocular cancers. This fellowship covers advanced imaging, surgical techniques, radiation therapy, and systemic treatments for intraocular and adnexal malignancies, providing hands-on experience in comprehensive oncological eye care.

Prerequisites

Criteria	Details
Eligibility	MBBS with MS/DNB in Ophthalmology or M.Ch./DNB Surgical Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Gain expertise in the diagnosis and classification of ocular tumors.
- Develop proficiency in ocular imaging, biopsy techniques, and histopathology.
- Master surgical techniques for intraocular, orbital, and eyelid tumors.
- Learn radiation therapy applications such as brachytherapy and proton beam therapy.
- Understand systemic chemotherapy and targeted therapies for ocular cancers.
- Conduct research and case studies to advance knowledge in ocular oncology.

Semester-wise Curriculum

Semester 1: Fundamentals of Ocular Oncology

Module	Topics Covered
Basics of Ocular Oncology	Epidemiology, pathology, and genetics of eye tumors
Ocular Imaging & Diagnostics	Fundus photography, OCT, fluorescein angiography
Biopsy & Histopathology	FNAC, incisional/excisional biopsy techniques
Retinoblastoma & Uveal Melanoma	Clinical features, staging, and management
Clinical Rotations – Oncology Clinics	Hands-on training in diagnosis and treatment

Semester 2: Advanced Ocular Oncology Techniques

Module	Topics Covered
Radiation Therapy in Ocular Tumors	Brachytherapy, proton beam therapy
Chemotherapy & Targeted Therapy	Systemic &intravitreal chemotherapy strategies
Surgical Management of Ocular Tumors	Enucleation, exenteration, and orbital reconstruction
Multidisciplinary Approach in Ocular Oncology	Collaboration with oncologists and radiation specialists
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Ocular Tumor Diagnosis	Master diagnosis and classification of ocular cancers.
2	Proficiency in Imaging & Biopsy	Develop skills in advanced imaging and biopsy techniques.
3	Surgical & Radiation Therapy Skills	Perform surgeries and radiation-based treatments for eye tumors.
4	Chemotherapy & Systemic Treatment	Understand systemic approaches for ocular cancers.
5	Multidisciplinary Treatment Planning	Collaborate with other specialists for holistic patient care.
6	Research & Innovation in Ocular Oncology	Contribute to scientific advancements in the field.

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Ocular Imaging	Proficiency in fundus photography, OCT, and angiography.
2	Expertise in Ocular Tumor Biopsy	Perform FNAC and biopsy procedures effectively.
3	Radiation Therapy Knowledge	Understand and apply brachytherapy and proton beam therapy.
4	Surgical Oncology Skills	Conduct enucleation, exenteration, and reconstructive surgery.
5	Personalized Oncology	Develop targeted treatment plans for patients.

Sr. No.	Course Outcome	Description
	Treatment	
6	Ethical & Legal Considerations	Adhere to ethical and legal standards in ocular oncology.

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Ocular Tumors	40
Advanced Imaging Techniques	OCT, Fundus Photography Interpretation	50
Surgical Management	Enucleation, Tumor Excision	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Radiation Therapy Applications	Brachytherapy, Proton Beam Therapy	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Ocular Oncology Cases	50
Recent Advances in Ocular Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Ocular Oncology	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Ocular Oncology: Principles and Practice	Arun D. Singh, Bertil E. Damato
Clinical Ophthalmic Oncology	Jerry A. Shields, Carol L. Shields
Radiation Therapy for Ocular and Orbital Tumors	Dan Gombos, Julian C. Britto
Atlas of Ocular Oncology	Deepak P. Edward, Hans E. Grossniklaus

Journals & E-Resources

Resource	Website/Publisher
British Journal of Ophthalmology	BMJ Journals
Journal of Ocular Oncology	Springer
American Academy of Ophthalmology (AAO)	www.aao.org

Fellowship in Neuro Onco Surgery

Course Overview

The Fellowship in Neuro Onco Surgery is a one-year advanced program designed to provide specialized training in the surgical management of brain and spinal cord tumors. The fellowship focuses on state-of-the-art techniques, including minimally invasive neuro-oncological procedures, intraoperative imaging, stereotactic navigation, and adjuvant therapies.

Prerequisites

Criteria	Details
Eligibility	MBBS with MCh /DNB in Neurosurgery
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Master surgical techniques for treating benign and malignant brain and spinal tumors.
- Gain expertise in stereotactic, endoscopic, and minimally invasive neuro-oncological procedures.
- Develop proficiency in intraoperative monitoring, neuronavigation, and imaging technologies.
- Understand the integration of surgery with radiotherapy and chemotherapy in neuro-oncology.
- Enhance skills in patient management, postoperative care, and rehabilitation.
- Conduct research to contribute to advancements in neuro-oncology.

Semester-wise Curriculum

Semester 1: Fundamentals of Neuro-Onco Surgery

Module	Topics Covered
Neuroanatomy & Tumor Pathology	CNS tumors, histopathology, and molecular markers
Imaging & Intraoperative Navigation	MRI, CT, PET, neuronavigation techniques
Basic Surgical Techniques	Biopsy, tumor resection, skull base approaches
Neurophysiological Monitoring	Electrophysiology, intraoperative brain mapping
Clinical Rotations – Neurosurgical Oncology	Hands-on patient management

Semester 2: Advanced Neuro-Oncology Techniques

Module	Topics Covered
Stereotactic & Robotic Neurosurgery	Gamma knife, CyberKnife, robotic-assisted surgery
Endoscopic Neurosurgery	Pituitary adenomas, ventricular tumors
Spinal Tumors & Skull Base Surgery	Minimally invasive and reconstructive techniques
Multimodal Treatment Strategies	Integration with chemotherapy & radiotherapy
Ethical & Regulatory Aspects	Informed consent, medico-legal concerns
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Expertise in Neurosurgical Oncology	Master tumor resection and surgical precision
2	Proficiency in Minimally Invasive Techniques	Develop expertise in stereotactic and robotic procedures
3	Integration of Multimodal Therapies	Combine surgery with adjuvant cancer treatments
4	Imaging & Surgical Navigation Skills	Use neuronavigation for accurate tumor excision
5	Ethical & Regulatory Competency	Ensure compliance in neuro-oncological practice
6	Research & Innovation in Neuro-Oncology	Contribute to advancements in surgical oncology

Course Outcomes

Sr. No.	Course Outcome	Description
1	Mastery in Neurosurgical Techniques	Perform complex neurosurgical procedures
2	Proficiency in Neuro-Imaging & Navigation	Utilize MRI, CT, and PET for surgical planning
3	Radiation & Chemotherapy Integration	Plan multimodal treatment approaches
4	Research & Case Study Analysis	Conduct clinical research in neuro-oncology
5	Ethical & Legal Understanding	Ensure adherence to compliance & safety
6	Patient-Centered Surgical Planning	Develop individualized surgical strategies

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Neuro-Oncology Cases	40
Advanced Surgical Techniques	Microscopic, endoscopic, and robotic surgery	50
Imaging & Navigation	MRI, CT-based surgical planning	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Adaptive Neuro-Oncology	Patient-Specific Planning & Execution	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Neuro-Oncology Cases	50
Recent Advances in Neuro-Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Neuro-Oncology	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Principles of Neurosurgery	Setti S. Rengachary, Richard G. Ellenbogen
Neuro-Oncology: The Essentials	Mark Bernstein, Mitchel S. Berger
Brain and Spine Tumors: Current Clinical Oncology	Andrew H. Kaye, Edward R. Laws
Minimally Invasive Neurosurgery	KekiTurel, R. Dharker

Journals & E-Resources

Resource	Website/Publisher
Journal of Neuro-Oncology	Springer
Neurosurgical Review	Springer
Society for Neuro-Oncology	www.soc-neuro-onc.org
National Cancer Institute (NCI) - Brain Tumors	www.cancer.gov

Fellowship in Pediatric Surgical Oncology

Course Overview

The Fellowship in Pediatric Surgical Oncology is a one-year specialized program aimed at training surgeons in the diagnosis, management, and surgical treatment of pediatric malignancies. The course provides expertise in tumor resection, minimally invasive surgical techniques, and multimodal cancer therapies, with a strong emphasis on multidisciplinary patient care.

Prerequisites

Criteria	Details
Eligibility	M.Ch./DNB Paediatric Surgery, Surgical Oncology
Duration	1 Year
Mode of Study	Clinical, Theoretical, Hands-on Training
Assessment	Theory, Practical Exams, Clinical Logbook, Research Project

Course Objectives

- Gain expertise in the surgical management of pediatric tumors, including neuroblastoma, Wilms' tumor, and sarcomas.
- Develop proficiency in minimally invasive and robotic-assisted surgical techniques.
- Understand the integration of surgery with chemotherapy and radiotherapy.
- Learn the principles of tumor biology, pathology, and pediatric oncology care.
- Enhance skills in perioperative management, patient safety, and long-term follow-up.
- Conduct research in pediatric oncology to advance surgical treatment strategies.

Semester-wise Curriculum

Semester 1: Fundamentals & Core Surgical Techniques

Module	Topics Covered
Principles of Pediatric Oncology	Tumor biology, staging, and pathology
Pediatric Surgical Anatomy	Specific considerations in pediatric surgery
Surgical Approaches to Pediatric Tumors	Open, laparoscopic, and robotic techniques
Perioperative Care & Complications	Preoperative evaluation, anesthesia, ICU care
Clinical Rotations – Pediatric Oncology Unit	Hands-on patient care experience

Semester 2: Advanced Pediatric Surgical Oncology

Module	Topics Covered
Complex Tumor Resections	Liver, renal, and soft tissue tumor surgeries
Multimodal Treatment Strategies	Surgery with chemotherapy & radiotherapy
Minimally Invasive & Robotic Surgery	Laparoscopic and robotic techniques
Pediatric Onco-Surgical Emergencies	Acute tumor-related emergencies
Research Project & Case Studies	Literature review, clinical case presentations

Program Outcomes

Sr. No.	Program Outcome	Description
1	Mastery in Pediatric Onco-Surgical Techniques	Perform safe and effective tumor resections
2	Expertise in Minimally Invasive Surgery	Develop laparoscopic & robotic surgical skills
3	Integration of Surgery & Oncology Care	Combine surgical treatment with chemotherapy & RT
4	Perioperative & Postoperative Management	Ensure best outcomes with pre/post-op care
5	Ethical & Patient-Centered Care	Focus on compassionate pediatric oncology treatment
6	Research & Innovation in Pediatric Oncology	Contribute to advancements in the field

Course Outcomes

Sr. No.	Course Outcome	Description
1	Competence in Tumor Resections	Ability to manage complex pediatric malignancies
2	Expertise in Pediatric Surgical Techniques	Master open, laparoscopic, & robotic approaches
3	Proficiency in Perioperative Care	Understand ICU management & post-op care
4	Research & Case Study Analysis	Conduct research to improve pediatric outcomes
5	Ethical & Multidisciplinary Care	Collaborate with oncologists for best treatments
6	Advancements in Pediatric Oncology	Apply latest research in pediatric oncology surgery

Credits & Assessment Methods

Component	Credits
Theory & Lectures	10
Clinical Rotations & Case Studies	10
Hands-on Training & Procedures	10
Research & Dissertation	10
Total Credits	**40**

Assessment Pattern

Assessment Type	Weightage
Theory Examination (MCQs, Long & Short Answer)	30%
Clinical & Practical Exam (Case-Based Discussion, OSCE)	30%
Clinical Logbook & Case Reports	20%
Research Presentation & Dissertation	20%

Passing Criteria: Minimum 50% in each component to qualify

Exam Pattern

Theory Examination

- Section A (MCQs – 30 Marks)
- Section B (Short Answer Questions – 30 Marks)
- Section C (Long Answer Questions – 40 Marks)

Practical Examination

Component	Details	Marks
Clinical Case Presentation	Diagnosis & Management of Pediatric Tumors	40
Advanced Surgical Techniques	Tumor Resection, Minimally Invasive Surgery	50
Perioperative Management	ICU care, Complication Handling	30
OSCE	Clinical Scenarios, Skill Demonstration	40
Multimodal Treatment Planning	Integrated Approach with Chemotherapy & RT	40

Viva Voce (Oral Examination) (Total: 100 Marks)

Component	Details	Marks
Case Presentations	Discussion on Pediatric Oncology Cases	50
Recent Advances in Pediatric Oncology	Journal Article Discussion	20
Ethical & Legal Considerations	Medical Ethics in Pediatric Oncology	30

Research/Dissertation Submission (Total: 100 Marks)

Component	Marks
Originality & Scientific Merit	30
Methodology & Data Analysis	30
Presentation & Discussion	20
Conclusion & Clinical Relevance	20

Final Weightage & Passing Criteria

Exam Component	Total Marks	Minimum Passing Marks
Theory (Paper 1 & 2)	200	50% (100/200)
Practical Exam	200	50% (100/200)
Viva Voce	100	50% (50/100)
Dissertation	100	50% (50/100)
Total (Overall)	**600**	**50% Aggregate Required**

Additional Notes

- To pass the fellowship, a minimum of 50% marks in each section (Theory, Practical, Viva, and Dissertation) is required.
- Distinction: Candidates scoring 75% and above will be awarded "Distinction."
- Failure in Practical or Viva: If a candidate fails in the practical or viva, they must reappear for the failed component in the next examination cycle.

Recommended Books & E-Resources

Textbooks

Title	Author(s)
Pediatric Surgical Oncology	A. Coran, Arnold G. Coran, N. Radhakrishnan
Principles and Practice of Pediatric Oncology	Philip A. Pizzo, David G. Poplack
Pediatric Oncology: A Comprehensive Guide	Caroline A. Hastings, Jeffrey M. Lipton
Minimally Invasive Pediatric Surgery	Shawn D. St. Peter, George W. Holcomb

Journals & E-Resources

Resource	Website/Publisher
Journal of Pediatric Surgery	Elsevier
Pediatric Blood & Cancer	Wiley
American Society of Pediatric Hematology/Oncology	www.aspho.org
National Cancer Institute (NCI) - Pediatric Oncology	www.cancer.gov