**FIRST Year (PGY-2)**  
Clinical Radiation Oncology/Medical Physics/Dosimetry  
Diagnostic Radiology

**PATIENT CARE:**  
**Goal:** Complete a specific cancer-directed history, correct cancer staging and complete physical examination skills on patients.  
**Objective:** The resident shall demonstrate that he/she has learned skills and techniques to obtain complete and thorough history of patients in order to accurately assess patient and stage cancer, and gain written consent for treatment by:

1. Obtaining patient information of history and physical exams through interpersonal and communication skills.
2. Demonstrating knowledge of anatomy, epidemiology, natural history of cancer, and appropriate staging studies (blood work, scans, etc.) tissue diagnosis, and pathology and imaging review.
3. Oral and written demonstration of cancer stages.
4. Correctly interpreting clinical data such as pathology, laboratory, etc.
5. Reviewing all possible treatment options appropriate for specific cases with attending faculty. Faculty member will discuss therapeutic options including advantages and disadvantages of each.
6. Exhibiting knowledge of simulation procedures using CT simulator under the supervision of attending physicians.
7. Exhibiting skills in prescribing treatment, and being familiar with the total dose, dose per fraction and beam energies.
8. Observing and assisting special procedures such as electron beam, brachytherapy, total body irradiation, and radiosurgery.
9. Researching and reviewing major studies in the literature including results and toxicity of therapy.

**MEDICAL KNOWLEDGE:**  
**Goal:** Learn medical knowledge essential to extraordinary care of patients in radiation oncology.  
**Objective:** In order to gain appropriate medical knowledge needed for a PGY-2 resident of radiation oncology, he/she should attend weekly conferences and chart rounds, biweekly education conference/journal club within the department, and monthly Omaha Oncology Journal Club. He/she should demonstrate knowledge in the following:

2. Fundamental physics, radiation biology and basic biology of cancer.
3. Normal tissue tolerance.
4. The concept and interaction of multi-modal therapy for cancer.
5. Conventional radiation therapy including the concept of drawing blocks of multileaf to shape the treatment fields and protect normal tissues.
6. CT anatomy of different regions of the body to familiarize the concept of 3D conformal radiotherapy and its planning process.
7. The concept and its applications of evidence-based medicine.
8. Evidence of knowledge in major clinical trials and landmark studies; their designs and outcomes.
**PRACTICE-BASED LEARNING IMPROVEMENT:**

**Goal:** Identify personal and practice improvement strategies.

**Objective:** Residents will demonstrate the ability to:

1) Recognize limitations in own knowledge base and clinical skills
2) Understand and address the need for lifelong learning
3) Develop skills for obtaining and evaluating up-to-date information from scientific and practice literature and other sources to assist in the quality care of patients. This shall include, but not be limited to:
   a) Use of medical libraries
   b) Use of information technology, including internet-based searches and literature databases (e.g., Medline)
   c) Use of drug information databases
   d) Active participation, in weekly teaching conferences and weekly chart rounds, M&M conferences, and multidisciplinary tumor boards including Thoracic, Head and neck, Breast, GI, GU, CNS, GYN, Lymphoma, and Pediatric.
4) Evaluate caseload and practice experience in a systematic manner. This may include:
   a) Case-based learning
   b) Use of best practices through practice guidelines or clinical pathways
   c) Review of patient records
   d) Obtaining evaluations from patients (e.g., outcomes and patient satisfaction)
   e) Employment of principles of quality improvement in practice
   f) Obtaining appropriate supervision and consultation
   g) Maintaining a system for examining errors in practice and initiating improvements to eliminate or reduce error

**Goal:** Be aware of own limitations, strengths and weaknesses.

**Objective:** A resident shall demonstrate a desire for learning and the ability to comprehend and develop strategies for further learning in order to always provide the best patient care, and continuous self-improvement.

1) Faculty should be able to observe a resident’s ability to identify areas of personal strengths and weaknesses.
2) A resident shall provide to the Program Director twice annually (during evaluation process) a list of strengths and weaknesses. A resident-written list of learning goals should be included as well as steps necessary for success in attaining those goals.

**RESEARCH:**

**Goal:** Develop a research idea to be carried out during the subsequent residency years.

**Objective:** A resident shall present research ideas to the Program Director at the final evaluation meeting of the PGY-2. These ideas will reflect the residents’ individual interests. The resident will be provided:

1) Exposure to ongoing clinical protocols and research projects within the Radiation Oncology Department.
2) Exposure to ongoing clinical protocols and research projects within the University of Nebraska Medical Center.
3) A research rotation during his/her PGY-3 to carry out the proposed research project.
INTERPERSONAL AND COMMUNICATIONS SKILLS:

**Goal:** Develop excellent interpersonal and communication skills that result in the effective exchange of information and collaboration with patients and their families.

**Objective:** A resident will learn and demonstrate the ability:

1) To listen to and understand patients and to attend to nonverbal communication
2) To communicate effectively with patients using verbal, nonverbal, and written skills as appropriate to the educational and intellectual levels of patients and their families
3) To demonstrate socio-cultural sensitivity to patients and their families; To respect patients’ cultural, ethnic, religious and economic backgrounds
4) To develop and maintain a therapeutic alliance with patients by instilling feelings of trust, honesty, openness, rapport, and comfort in the relationship with physicians
5) To provide explanations of treatment options to patients that are “jargon-free” and geared toward the educational/intellectual levels of patients and families so that the information is understandable and practical
6) To partner with patients to develop an agreed upon healthcare management plan
7) To understand the impact of physicians’ own feelings and behavior so that it does not interfere with appropriate treatment
8) To educate patients and their families about medical, psychosocial and behavioral issues
9) To ensure that the patient has understood the communication
10) To maintain confidential information that includes but not limited to:
   a. The results of the assessment
   b. Medical information and prognosis
   c. Medical consents
   d. Counseling and palliative care

**Goal:** Communicate effectively as a member of the healthcare team.

**Objective:** The resident will demonstrate the ability to:

1) Communicate effectively and work collaboratively with healthcare professionals involved in the lives of patients and families.
2) Obtain, interpret, and evaluate consultations from other medical specialties. This shall include:
   a. Knowing when to solicit consultation and having sensitivity to assess the need for consultation
   b. Formulating and clearly communicating the consultation question
   c. Discussing the consultation findings with the consultant
   d. Discussing the consultation findings with the patient and family
3) Serve as an effective consultant to other medical specialists and community agencies by demonstrating the abilities to:
   a. Communicate effectively with the requesting party to refine the consultation question
   b. Maintain the role of consultant
   c. Communicate clear and specific recommendations
   d. Respect the knowledge and expertise of the requesting professionals

**Goal:** Develop positive working relationships with MD and non-MD personnel.

**Objective:** Resident will demonstrate ability to:

1) Collaborate with and respect faculty opinions and experiences through careful listening, observation and follow-through skills.
2) Collaborate with and respect non-MD personnel through careful listening, observation and follow-through skills.
PROFESSIONALISM:

Goal: Commitment to carrying out professional responsibilities in patient care.
Objective: The resident shall demonstrate the ability in:
1) Responding to communication from patients and health professionals in a timely manner
2) Establishing and communicating back-up arrangements, including how to seek emergent and urgent care when necessary
3) Using medical records for appropriate documentation of the course of illness and its treatment
4) Providing coverage if resident is unavailable (e.g., when out of town or on vacation)
5) Coordinating care with other members of the medical and/or multidisciplinary team
6) Providing for continuity of care, including appropriate consultation, transfer, or referral if necessary

Goal: Adherence to ethical principles in the delivery of care.
Objective: The resident will demonstrate:
1) Integrity, honesty, compassion and confidentiality.
2) Provide consultation and obtain informed consent/assent for procedures
3) Disclose conflict of interest
4) Respect for patients and their families, and their colleagues as persons, including their ages, cultures, disabilities, ethnicities, genders, socioeconomic backgrounds, religious beliefs, political leanings, and sexual orientations.
5) Understanding of and sensitivity to end of life care and issues regarding provision of care
6) Review their professional conduct and remediate when appropriate.
7) Participation in the review of the professional conduct of their colleagues
8) Awareness of safety issues, including acknowledging and remediating medical errors, should they occur

SYSTEMS-BASED PRACTICE:

Goal: Awareness of and responsiveness to the larger context and system of health care.
Objective: Residents will demonstrate the ability to:
1) Understand diverse systems involved in treating patients of all ages
2) Understand how to use the systems as part of a comprehensive system of care in general and as part of a comprehensive, individualized treatment plan
3) Work effectively in various health care delivery settings and systems relevant to the practice of radiation oncology
4) Coordinate patient care within the health care system relevant to the practice of radiation oncology
5) Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate

Goal: Effective utilization of various resources in the system to provide optimal health care.
Objective: residents will demonstrate ability to:
1) Advocate for quality patient care and optimal patient care systems
2) Work in inter-professional teams to enhance patient safety and improve patient care quality
3) Participate in identifying system errors and implementing potential systems solutions.