

Title of Clerkship: **Radiology/Pathology Clerkship UTMC**

Required: 3<sup>rd</sup> year

Departments: Radiology and Pathology

Type of Clerkship: Clinical   x   Non-Clinical/Research        Basic Science       

Clerkship Site: The University of Toledo Medical Center

Course Number: RAD1762

Blocks Available: All blocks with the exception of June

Number of Students/ Block: 9

Faculty Robert Booth, MD, Nicole Dominiak, MD, Cara Gatto-Weis, MD, Amira Gohara, MD, William Gunning, PhD, Brooke Koltz, MD, Mary R. Smith, MD, Lauren Stanoszek, MD, PhD, Toledo Radiological Associates

Elective Description/ Requirements: Students will spend 2 weeks in the Department of Radiology and 2 weeks in the Department of Pathology. The overall course will bridge radiology and pathology subspecialties to prepare students to best utilize departmental resources (i.e. testing, consultation, procedures) as they transition into clinical practice.

Students will participate in a plethora of clinical activities in the Department of Radiology including ½ day subspecialty assignments in Cardiothoracic, Gastrointestinal, Genitourinary, Musculoskeletal, and Neuroradiology as well as ½ day modality based experiences in diagnostic radiography/mammography, CT, MRI, ultrasound and nuclear medicine.

While in Pathology students will participate in all anatomic and clinical activities in the Department of Pathology including surgical pathology, cytology, hematology, chemistry, immunology, microbiology, molecular pathology, genomics & transplant immunology.

Students will attend all radiology and pathology departmental case conferences provided during the rotation and various interdisciplinary conferences when available.

Length of Clerkship: 4 weeks

#### PATHOLOGY

Links to EPOs: Educational Course Objectives:

- |                |  |
|----------------|--|
| MK-1           | 1. Describe the normal structure and function of all organ systems   |
| MK-2           | 2. Describe the molecular, biochemical and cellular mechanisms related to normal and abnormal function                               |
| MK-3           | 3. Describe the pathogenesis of common disorders.  |
| MK-4           | 4. Describe the altered structure and function (pathology and pathophysiology) associated with various diseases                      |
| MK-5           | 5. Describe the clinical manifestations of common diseases   |
| Mk13           | 6. Discuss and interpret laboratory tests and correlate them to specific disease as well as gross and microscopic pathology changes. |
| Mk11, PB 8     | 7. Incorporate patients specific variable into ordering and interpreting tests as well as special studies on pathology specimens.    |
| PB7, PB8, MK11 | 8. Communicate effectively with clinicians when reporting lab or biopsy results.   |
| PC8, PC10      | 9. Demonstrate honesty and integrity in all interactions with colleagues and staff.  |

#### RADIOLOGY

- |   |   |
|---|---|
| IPC-2, PC7-PC10, PBL-1, SBP-1, SBP-2        | 10. Defend common radiology tests, including their accuracy, limitations and risks by utilizing ACR Appropriateness Criteria for common conditions. |
| IPC-2, MK1-MK4, PBL-7, PC7-PC10             | 11. Discuss and interpret clinical cases which provide clinical, radiologic, and pathologic correlations on various disease processes.              |
| MK1-MK4, PBL-7, PC7-PC10                    | 12. Incorporate patient specific variables into ordering and interpreting appropriate imaging and lab tests.  |
| PC-6, PC-7                                  | 13. Identify the different interventional procedures performed by radiology including their contraindications, risks and benefits.                  |
| IPC-1, MK2-MK4, PB-4, PB-5, PC-7, PC-8      | 14. Identify radiation, contrast, and MRI safety concerns to minimize and quantify risk from common imaging studies.                                |
| IPC-1, IPC-2, PB-2, PB-3, PC-8, PC-9, PC-10 | 15. Communicate effectively with patients and clinicians when reporting imaging or lab results or consulting on test appropriateness.               |

Professionalism: UT/COM students will meet or exceed the institutional standards for professionalism as stated in the current Educational Program Objectives and the current Educational Course Objectives for the Sponsoring Department.

Instructional Methods:	<ul style="list-style-type: none"> <li>-Problem-solving exercises (web-based case modules)</li> <li>-Small-group, Clinical skills and Didactic Sessions</li> <li>-Lecture/Didactic sessions (web-based)</li> <li>-Independent study</li> <li>-Observation of technologies used in lab medicine to include but not limited to microbiology, transfusion medicine, immunology, clinical chemistry, hematology and molecular</li> <li>-Observation of and participation in daily radiology cases</li> <li>-Observation of image guided procedures</li> <li>-Observation of and participation of technologies used in radiology including but not limited to CT, MRI, US, DR, and DM.</li> <li>-Observation of and participation in surgical pathology and post-mortem examination</li> <li>-Observation of and participation in fine needle aspiration and cytopathology</li> <li>-Case discussions and clinical pathological correlation with individual faculty</li> <li>-Didactic sessions to include but not limited to neuropathology, hematopathology, molecular pathology, cytopathology and genomics.</li> <li>-Review of teaching slides and discussion with faculty (scope time)</li> <li>-Case discussions with radiology and pathology correlation</li> <li>-Didactic sessions to include but not limited to subspecialty radiology in emergency, neuroradiology, GI/GU, musculoskeletal, cardiothoracic, interventional, and vascular.</li> <li>-Review of teaching cases and discussion with faculty (PACS time)</li> </ul>
Evaluation Methods:	<ol style="list-style-type: none"> <li>1. Attendance</li> <li>2. Evaluation of participation in small-group discussion during case conferences</li> <li>3. Faculty/resident observation and assessment of clinical skills</li> <li>4. 360-degree evaluations of communication skills and behavior on modality rotations by technologists</li> <li>5. Professionalism assessment module Alliance of Medical Student Educators in Radiology (AMSER)</li> <li>6. End of rotation AMSER shelf-exam</li> <li>7. Test skills with unknown slides and clinical cases</li> </ol>
Prerequisites:	Successful completion of blocks 1-7
Clerkship Directors:	Amira Gohara, MD, Haitham Elsamaloty, M.D.
Clerkship Coordinators:	Radiology - Mary Carroll
Phone Number:	419-383- 3403
Email:	<a href="mailto:Mary.Carroll@utoledo.edu">Mary.Carroll@utoledo.edu</a>
	Pathology – Cynthia Reinsel
	419-383-3477
	Cynthia.reinsel@utoledo.edu
Special Requirements:	None