

Title of Clerkship:	Radiology/Pathology Clerkship UTM		
Elective Year:	4 th Year		
Departments:	Radiology and Pathology		
Type of Elective:	Clinical <u> x </u>	Non-Clinical/Research <u> </u>	Basic Science <u> </u>
Clerkship Site:	The University of Toledo Medical Center		
Course Number:	INDI 799		
Blocks Available:	All blocks		
Number of Students/ Block:	16		
Faculty	Vasuki Anandan, MD, Robert Booth, MD, Luis De Las Casas, MD, Cara Gatto-Weis, MD, Amira Gohara, MD, William Gunning, PhD, Kenneth Hensley, PhD, Robert Mrak, MD, PhD, Kenneth Muldrew, MD, Mary R. Smith, MD, Jill Zyrek, MD, Jacob Bieszczad, MD, Mark Buehler, MD, Robert Coombs, MD, Haitham Elsamaloty, MD, Terrence Lewis, MD, Hassan Semaan, MD, Lee Woldenberg, MD, Jacob Zeiss, MD		
Elective Description/ Requirements:	<p>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.</p> <p>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.</p> <p>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.</p> <p>Students will attend all radiology and pathology departmental case conferences provided during the rotation and various interdisciplinary conferences when available.</p>		
Length of Clerkship:	4 weeks		
Links to EPOs:	Educational Course Objectives:		
K5, K15, K16, S7, S9, S11 P3, P7	1.	Defend common radiology tests, including their accuracy, limitations and risks by utilizing ACR Appropriateness Criteria for common conditions.	
K1-K5, K7, S7-11, P7	2.	Discuss clinical cases which provide clinical, radiologic, and pathologic correlations on various disease processes.	
K1-K4, S4, P7	3.	Distinguish the basic principles of cytology and surgical pathology to describe and recognize benign versus malignant tumors.	
K1-K5, S7-11	4.	Incorporate patient specific variables into ordering appropriate imaging and laboratory tests.	
K4, S7, P4	5.	Review and analyze dermatopathology cases.	
K4, S7, P4	6.	Interpret lab tests in hematology, microbiology, chemistry, immunology, blood bank, flow cytometry and histocompatibility & transplant immunology.	
K4, S7, S11, P4	7.	Dissect and examine post mortem specimens. Determine mode of death in forensic cases.	
K10, S7, P5-P7	8.	Discuss genomics concepts and testing.	
S6, S7	9.	Identify the different interventional procedures performed by radiology and pathology including their contraindications, risks and benefits.	
K2-5, K16, S1, S9, P5	10.	Identify radiation, contrast, and MRI safety concerns to minimize and quantify risk from common imaging studies.	
S1, S9-S11, P4, P7	11.	Communicate effectively with patients and clinicians when reporting imaging and pathology results or consulting on test appropriateness.	
K15-16, P1, P6, P7	12.	Become aware of laboratory and imaging costs and the need to reduce unnecessary tests.	
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"> -Problem-solving exercises (web-based case modules) -Small-group, Clinical skills and Didactic Sessions -Lecture/Didactic sessions (web-based) -Independent study -Observation of technologies used in lab medicine to include but not limited to microbiology, transfusion medicine, immunology, clinical chemistry, hematology and molecular -Observation of and participation in daily radiology cases -Observation of image guided procedures -Observation of and participation of technologies used in radiology including but not limited to CT, MRI, US, DR, and DM. -Observation of and participation in surgical pathology and post-mortem examination -Observation of and participation in fine needle aspiration and cytopathology -Case discussions and clinical pathological correlation with individual faculty -Didactic sessions to include but not limited to neuropathology, hematopathology, molecular pathology, cytopathology and genomics. -Review of teaching slides and discussion with faculty (scope time) -Case discussions with radiology and pathology correlation -Didactic sessions to include but not limited to subspecialty radiology in emergency, neuroradiology, GI/GU, musculoskeletal, cardiothoracic, interventional, and vascular. -Review of teaching cases and discussion with faculty (PACS time)
Evaluation Methods:	<ol style="list-style-type: none"> 1. Attendance 2. Evaluation of participation in small-group discussion during case conferences 3. Faculty/resident observation and assessment of clinical skills 4. 360-degree evaluations of communication skills and behavior on modality rotations by technologists 5. Professionalism assessment module Alliance of Medical Student Educators in Radiology (AMSER) 6. End of rotation AMSER shelf-exam 7. Test skills with unknown slides and clinical cases
Prerequisites:	Successful completion of blocks 1-7
Clerkship Directors:	Amira Gohara, MD, Jacob Bieszczad, MD
Clerkship Coordinators:	Radiology - Mary Carroll
Phone Number:	419-383-3428
Email:	Mary.Carroll@utoledo.edu
	Pathology - Jennifer Reynolds
	419-383-3477
	Jennifer.Reynolds4@utoledo.edu
Special Requirements:	None
AAMC Hot Topics	Clinical Pathology
Addressed in this Elective	Clinical problem solving/decision making
Clerkship:	Communication skills
<i>(please make selection from attached Hot Topic list)</i>	Diagnostic Imaging
	Evidence Based Medicine
	Health Care Quality Improvements
	Health Care Systems
	Medical ethics
	Medical Jurisprudence
	Medical Socioeconomics
	Practice Management
	Women's Health