

# A majority of M2 students found pathology and radiology integration to be an effective teaching mechanism.

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Promoting Radiology Integration through Medical Education (PRIME): Improving Student Competency at an Early Stage

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## INTRODUCTION

- **Problem:** Inconsistent, non-comprehensive radiology education in U.S. medical schools, often taught by non-radiologists (Reference).
- **Gap:** Underrepresentation of radiologists in core faculty, leading to inadequate medical imaging education.
- **Intervention:** PRIME program incorporating radiology content, taught by a radiologist, into the M2 pathology course (Figures 1,2).  
Aim: By 1/30/2023, 20% of ECU BSOM Class of 2025 students will report increased perceived readiness in both testing and clinical contexts due to supplementary instruction received during the M2 pathology course.

## RESULTS

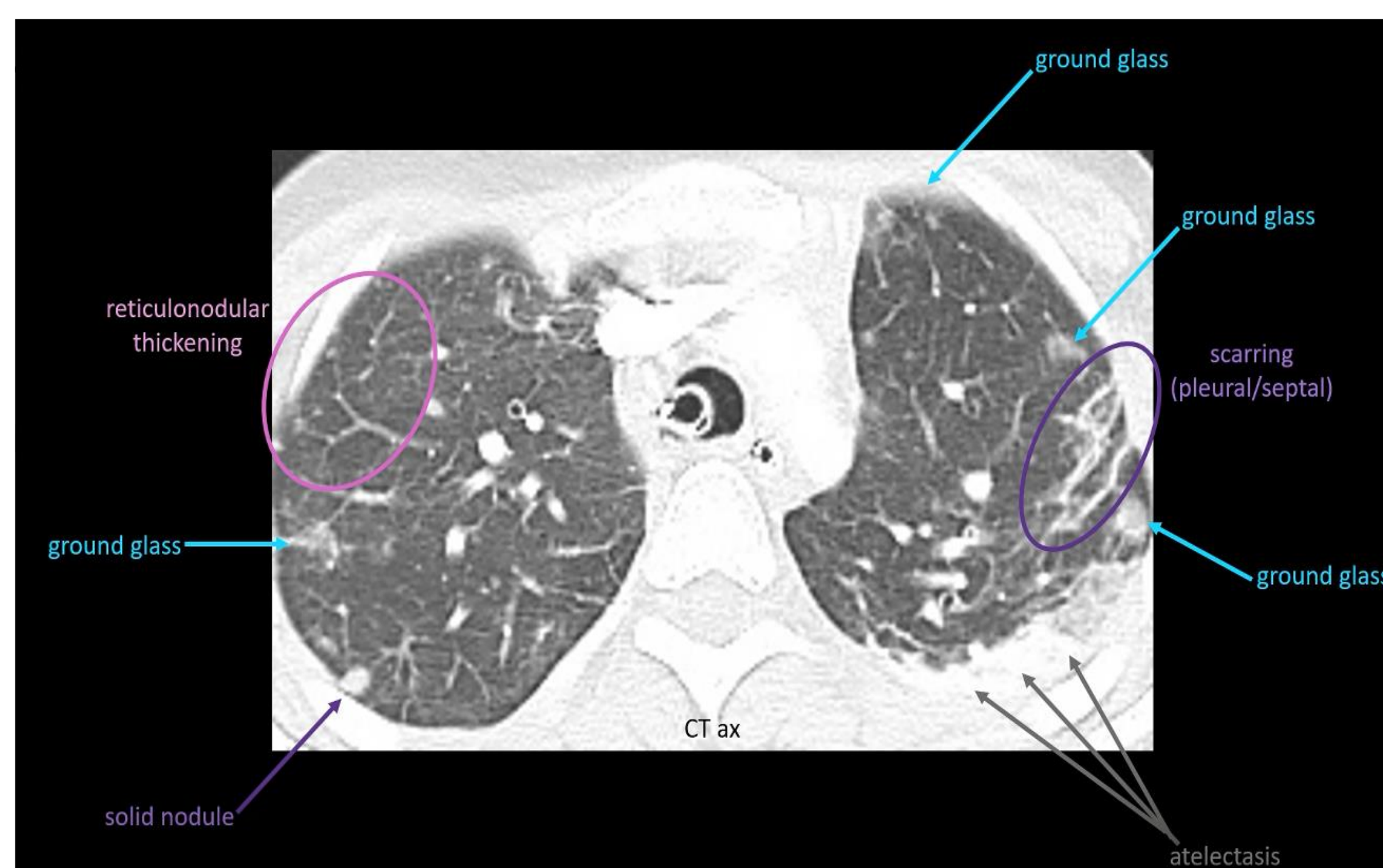
Figure 2. Content Creation: (1) Module Teaching and (2) Quick Hit Reinforcement

### Radiologist-Led Module Content

Patterns of Pulmonary Opacities

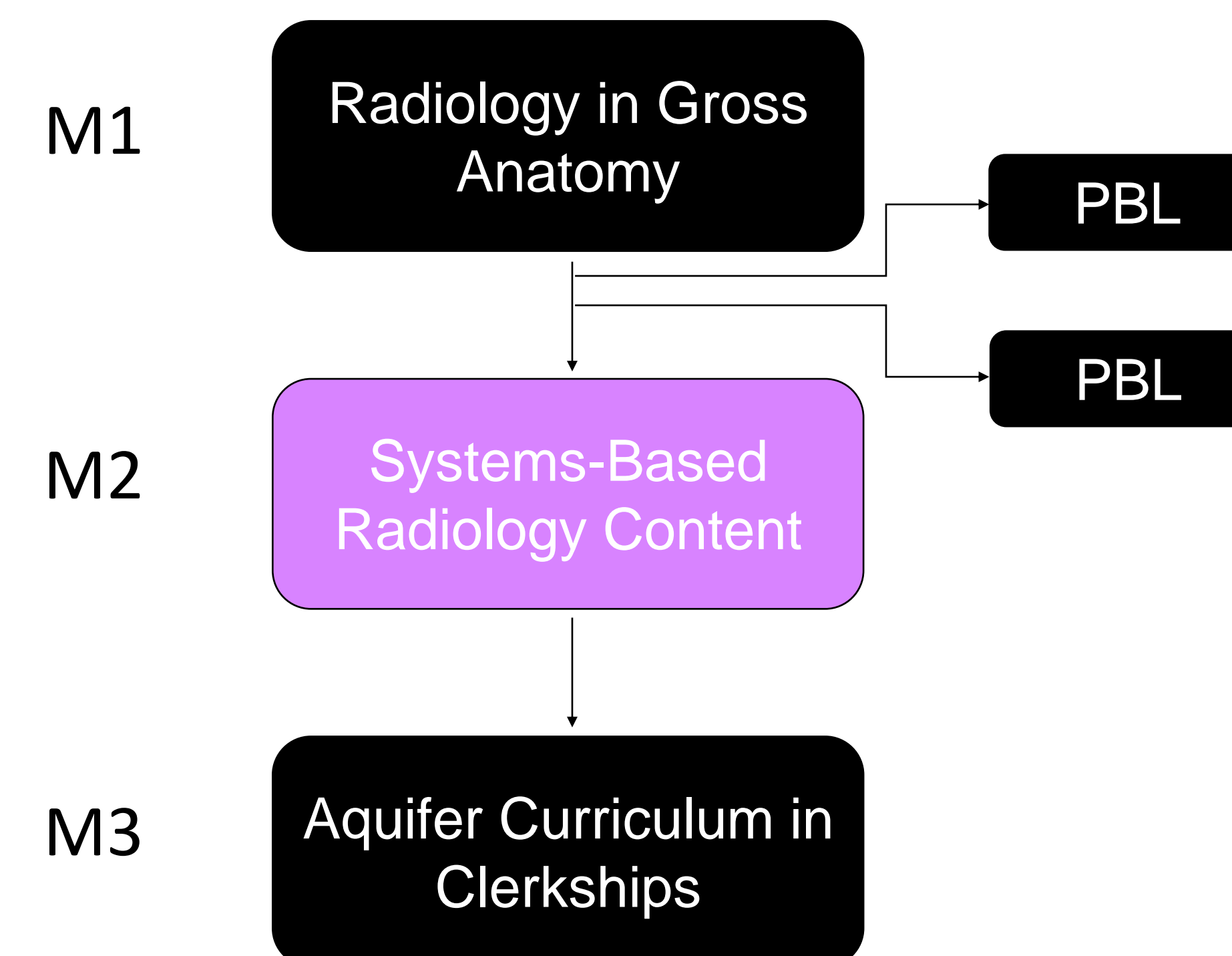
**Opacification = decreased air-to-tissue ratio**

- Airspace:** less gas in alveoli
  - Atelectasis
  - Consolidation
  - Ground-glass
- Linear:** thickened interstitium
- Nodular:** discrete lesions
  - Micronodule <3-4 mm
  - Mass >3 cm
- Reticulonodular**



## INTERVENTION

Figure 1. Incorporation of Prime in Curriculum



## RESULTS (continued)

### Primary Survey

### Primary Survey Results

Response Rate	96%
Current: Sufficient Radiology Instruction in Curriculum	15%
Welcomed Introduction of Radiology Teaching Modules & Quick Hits	72%
Focus on High-Yield Topics is Sufficient	78%
Quick Hits Files Effective Tool	86%
Quick Hits Files Should be Compiled for Step 1 Study	82%

### Student Feedback: Positives

- I really love the radiology portion of pathology. SO thankful for Dr. Montoya for being so generous with her time and expertise.
- Helpful to have commentary about how to understand the image.
- I really enjoyed them and it added to my learning.
- Supplements our education well.
- Very nice tie-in to our pathology content we had learned in class .... good clinical relevance ....
- ... make me feel more comfortable and confident going into M3.
- Radiology in anatomy during flipped classrooms was chaotic because the environment was not suitable for those exercises.

### Student Feedback: Improvement Opportunities

- Should not be incorporated into formal assessments.
- I would like it to be integrated into our curriculum.
- We're already very pressed for time with everything else.
- Time. Never enough time.
- I truly can't accurately evaluate the utility of these presentations because I truly don't know what I'm expected to know about radiology in the clinic.

## FUTURE DIRECTIONS

- Survey M3 students following Step 1 and clerkships: were modules effective?
- Expand modules to include additional organ system radiology content..

## REFERENCES

Branstetter BF 4th, Faix LE, Humphrey AL, Schumann JB. Preclinical medical student training in radiology: the effect of early exposure. AJR Am J Roentgenol. 2007 Jan;188(1):W9-14. doi: 10.2214/AJR.05.2139. PMID: 17179333.

Results: A majority of students welcomed the radiology modules and quick hits and felt they were an effective teaching mechanism. Limited time to complete the modules was frequently identified as a student concern.