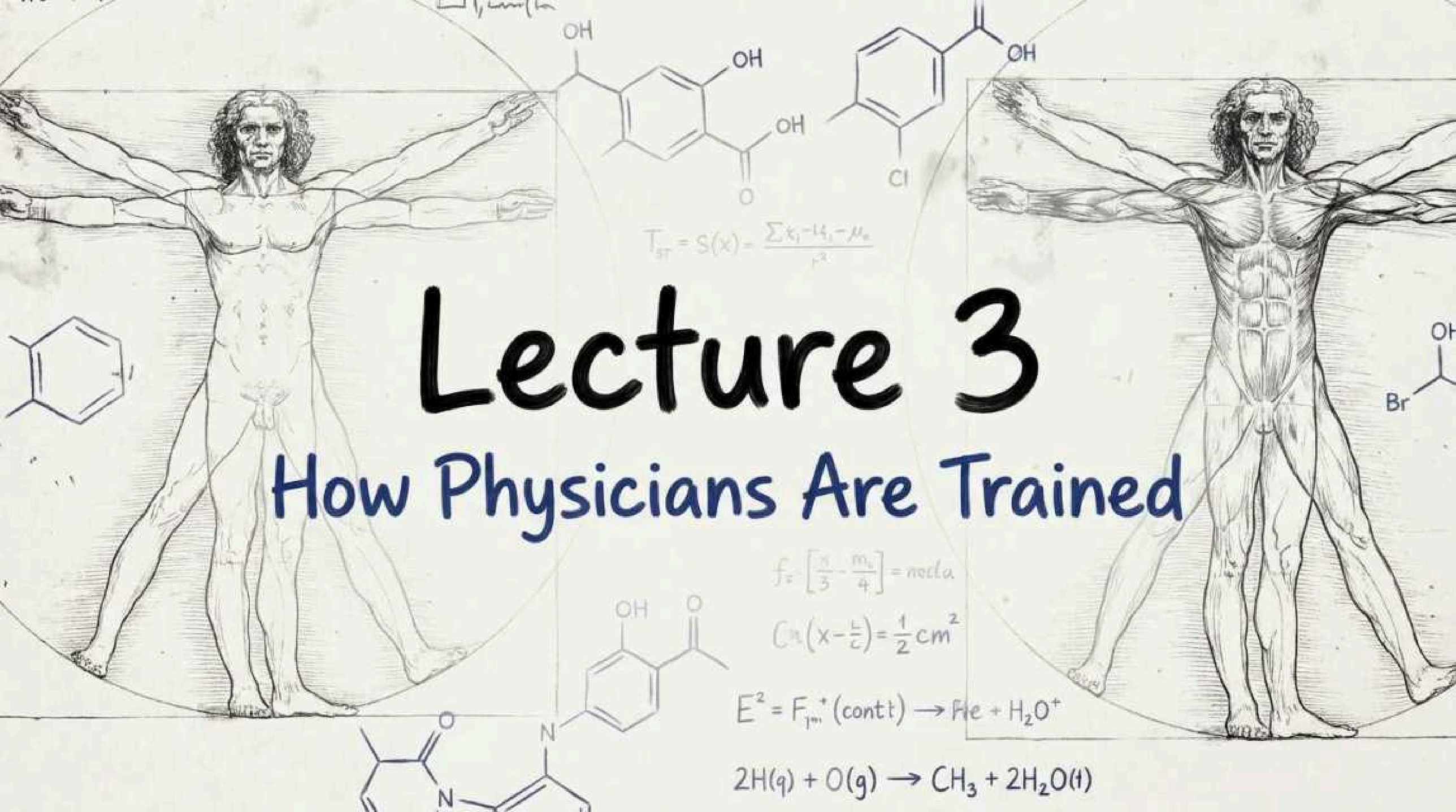


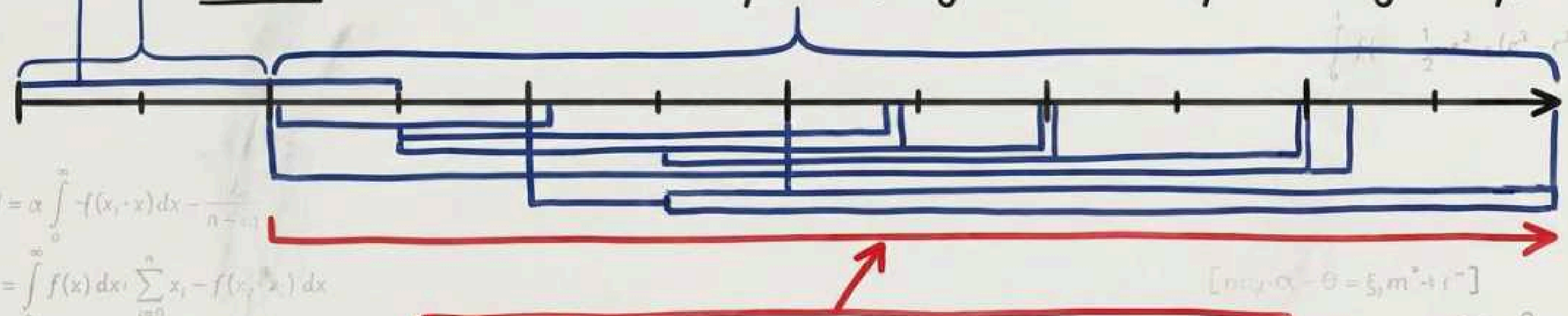
Lecture 3

How Physicians Are Trained

¶ 3.1

The Road to Independent Practice

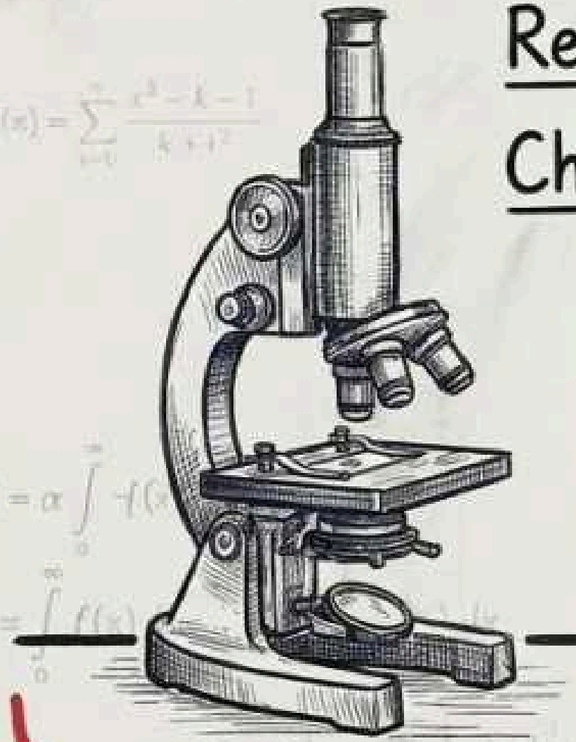
- **Timeframe**: 11+ years after secondary school.
- **Model**: The United States system (stages are broadly similar globally).



Key Takeaway: The journey is a long, grueling road before a doctor practices independently.

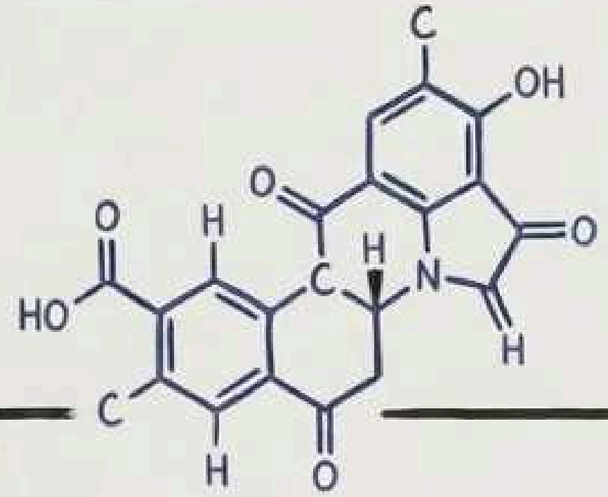
¶ 3.2

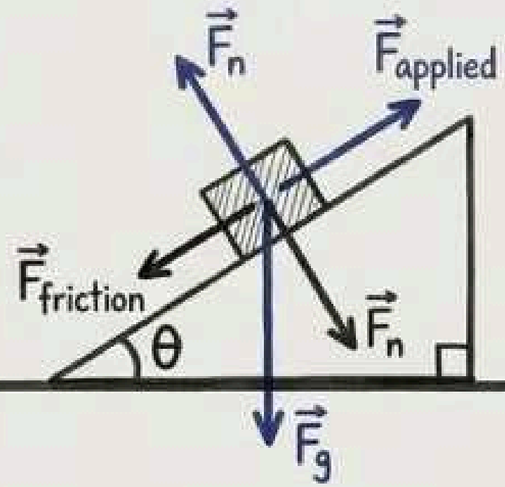
Before Medical School

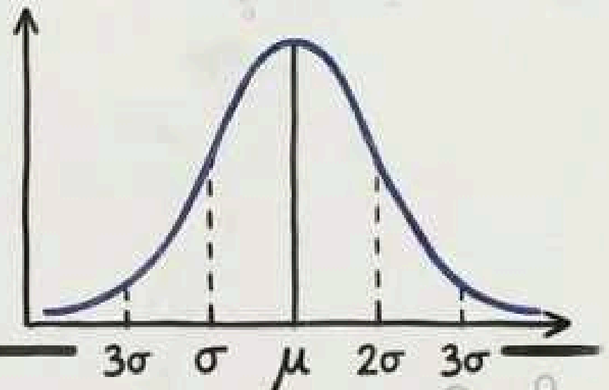


Requirement: 4-year undergraduate degree in core sciences.

Checkpoint: MCAT (Medical College Admission Test).





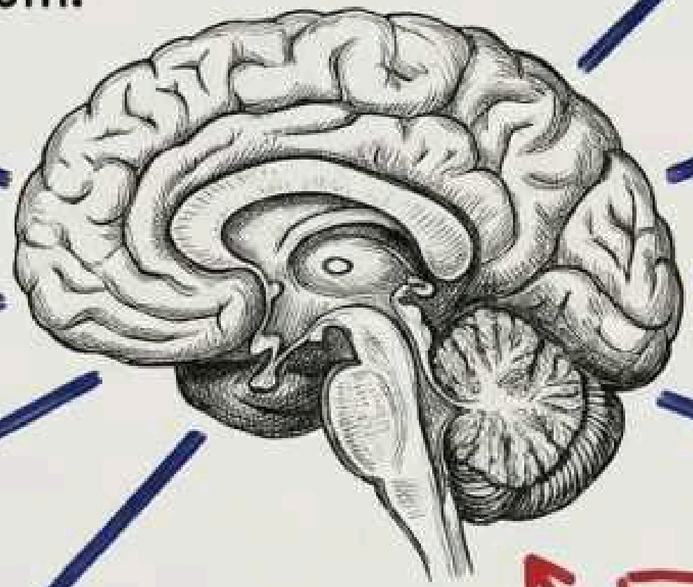


These subjects mirror the Academy's undergraduate prerequisites.

¶ 3.3

Medical School Phase 1: The Preclinical Years

Duration: The first 2 years of the 4-year medical school curriculum.



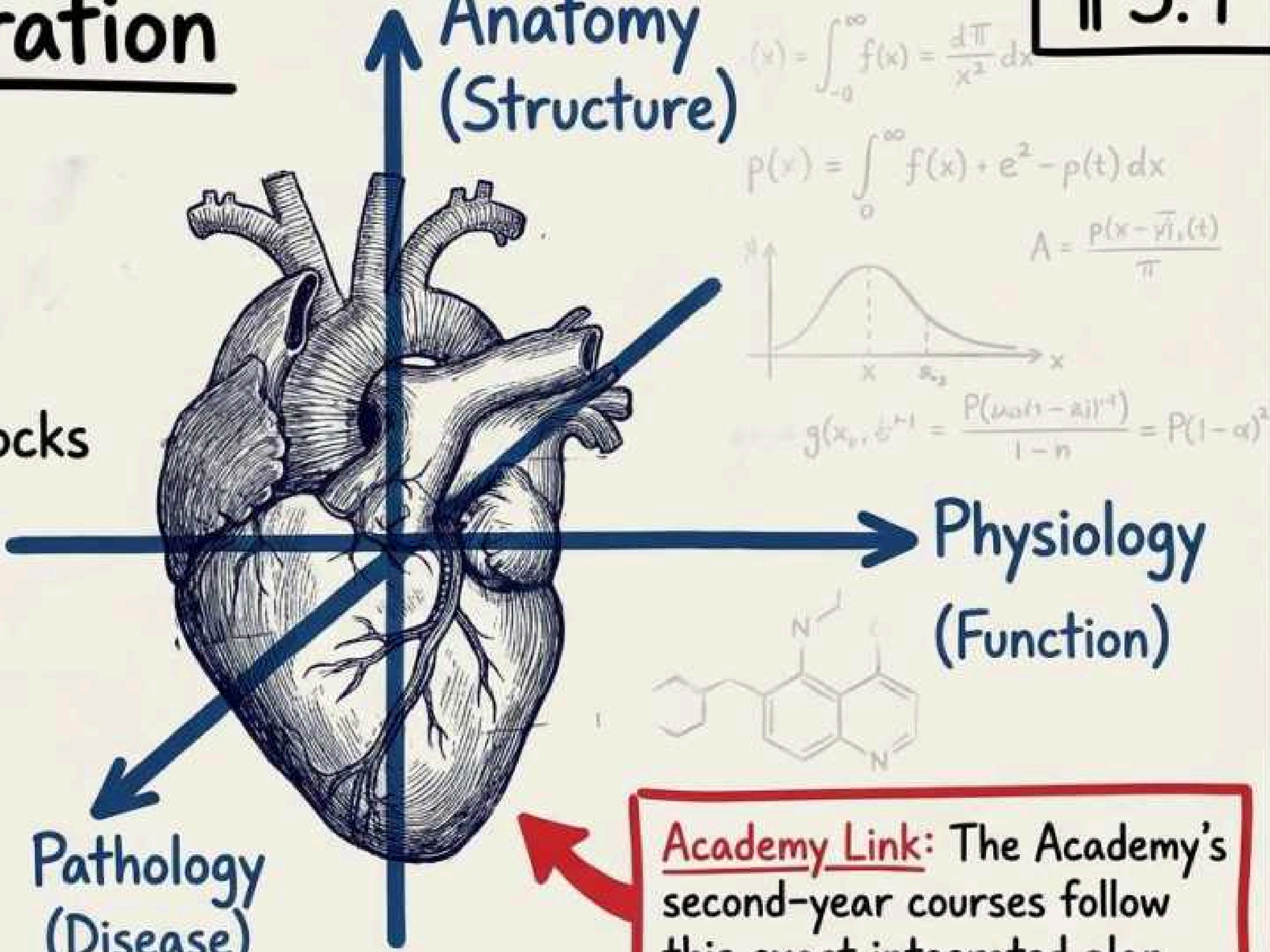
- Anatomy
- Organ Physiology
- Microbiology
- Pharmacology
- Biochemistry
- Genetics
- Immunology
- Pathology

Academy Link: This phase most closely follows the Academy's 1st and 2nd-year Medical School courses.

Systems Integration

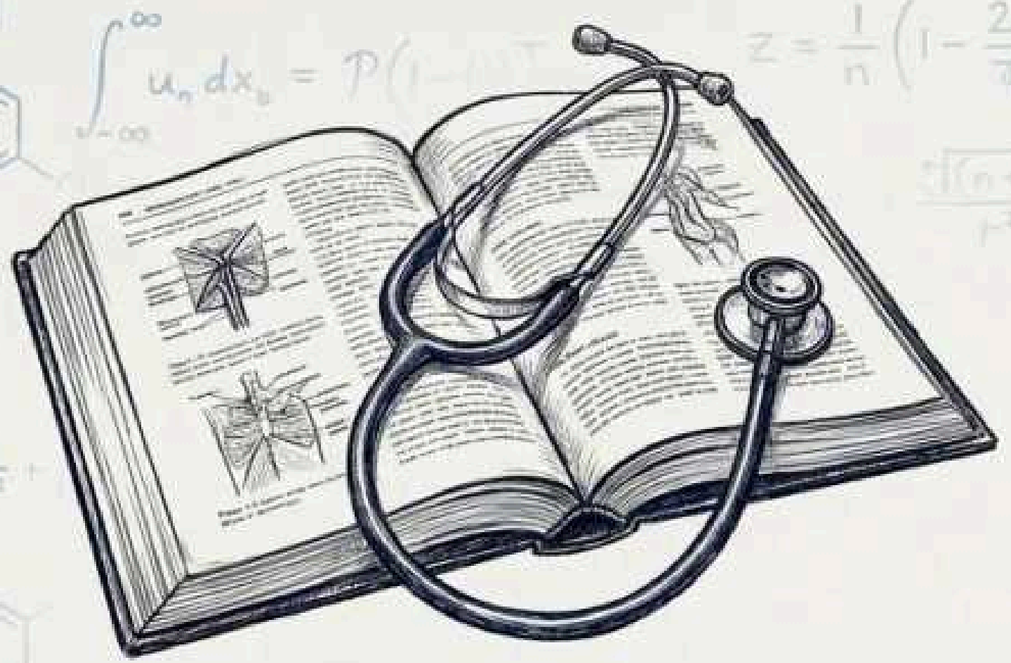
¶ 3.4

- Method: Instead of separate standalone courses, subjects are taught in single organ blocks (e.g., heart, lungs, kidneys).
- Purpose: Helps students see how basic sciences connect at the bedside.



Academy Link: The Academy's second-year courses follow this exact integrated plan.

Knowledge vs. Practice



Introduction to Clinical Medicine (Theory)

Learning how a history is structured and what an examination looks for. (Matches Harvard HST track and Academy limits).



The Bedside (Practice)

Real patients, real teachers. The physical skills that cannot be learned from a book.

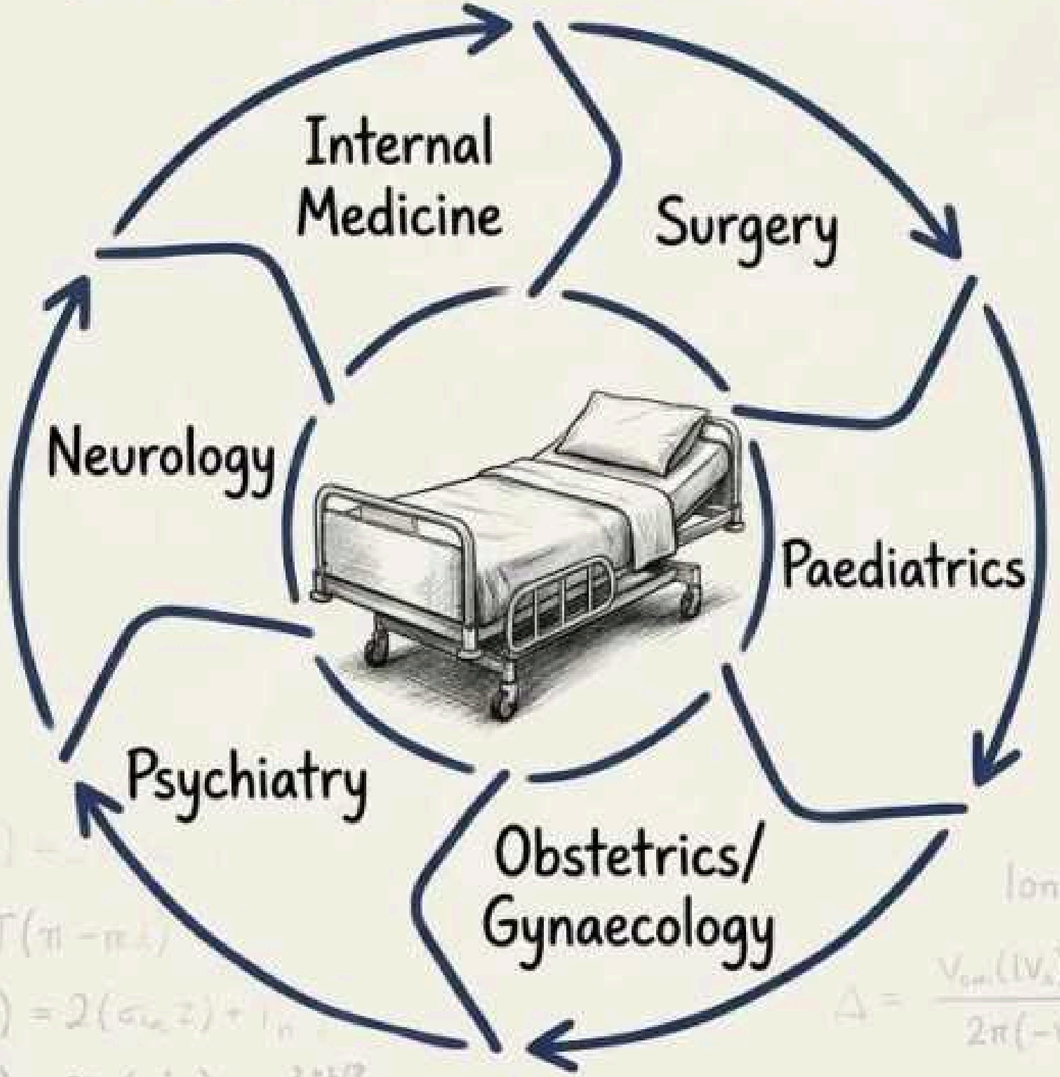
Medical School Phase 2: Clerkships

¶ 3.6

The Clinical Rotations Wheel

Environment: Hospital teams under direct direct supervision.

The Shift:
Where knowledge becomes practice.

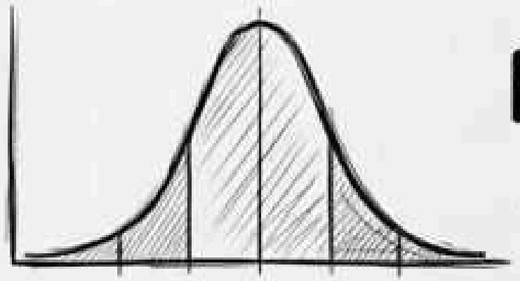


Key Skills:

- Presenting patients
- Building diagnostic lists
- Following treatment plans through

The USMLE Checkpoint (United States Medical Licensing Examination)

¶ 3.7

Step 1	Tests preclinical basic sciences.	 Pass/Fail only (since January 2022).
Step 2 Clinical Knowledge	Tests clinical clerkship knowledge.	 Numerically scored.

Format: Clinical vignettes—short stories requiring the application of knowledge, not just recall.

Medical School Phase 3:
Advanced Rotations & The Match

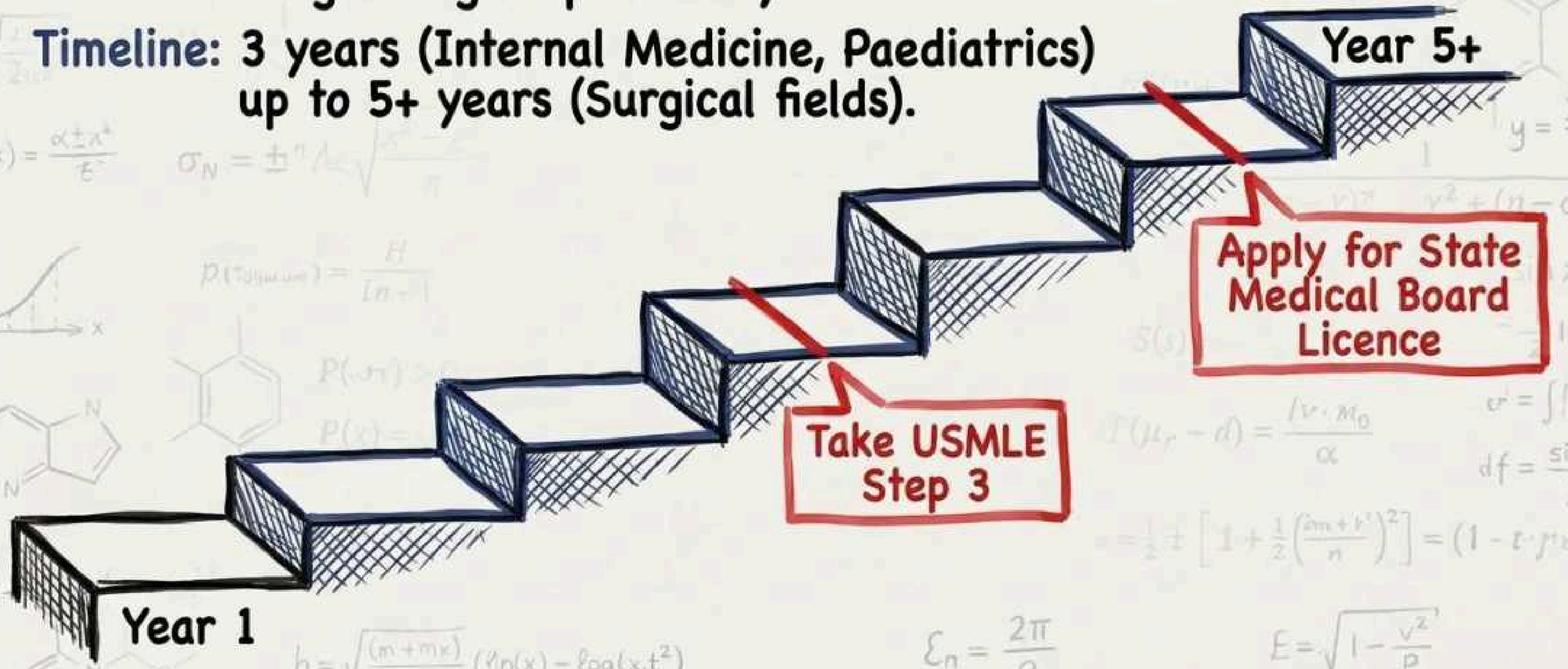


Residency: True Specialty Training

¶ 3.9

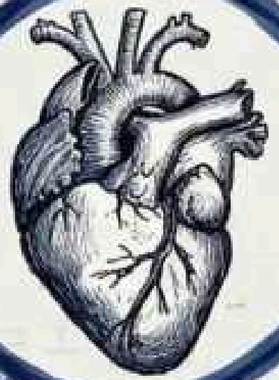
Status: Paid, supervised doctors in training with growing responsibility.

Timeline: 3 years (Internal Medicine, Paediatrics) up to 5+ years (Surgical fields).



Post-Residency: The Lifelong Cycle

¶3.10



Fellowships
(Further specialization,
e.g., Cardiology).



Continuing
Medical
Education
(CME).

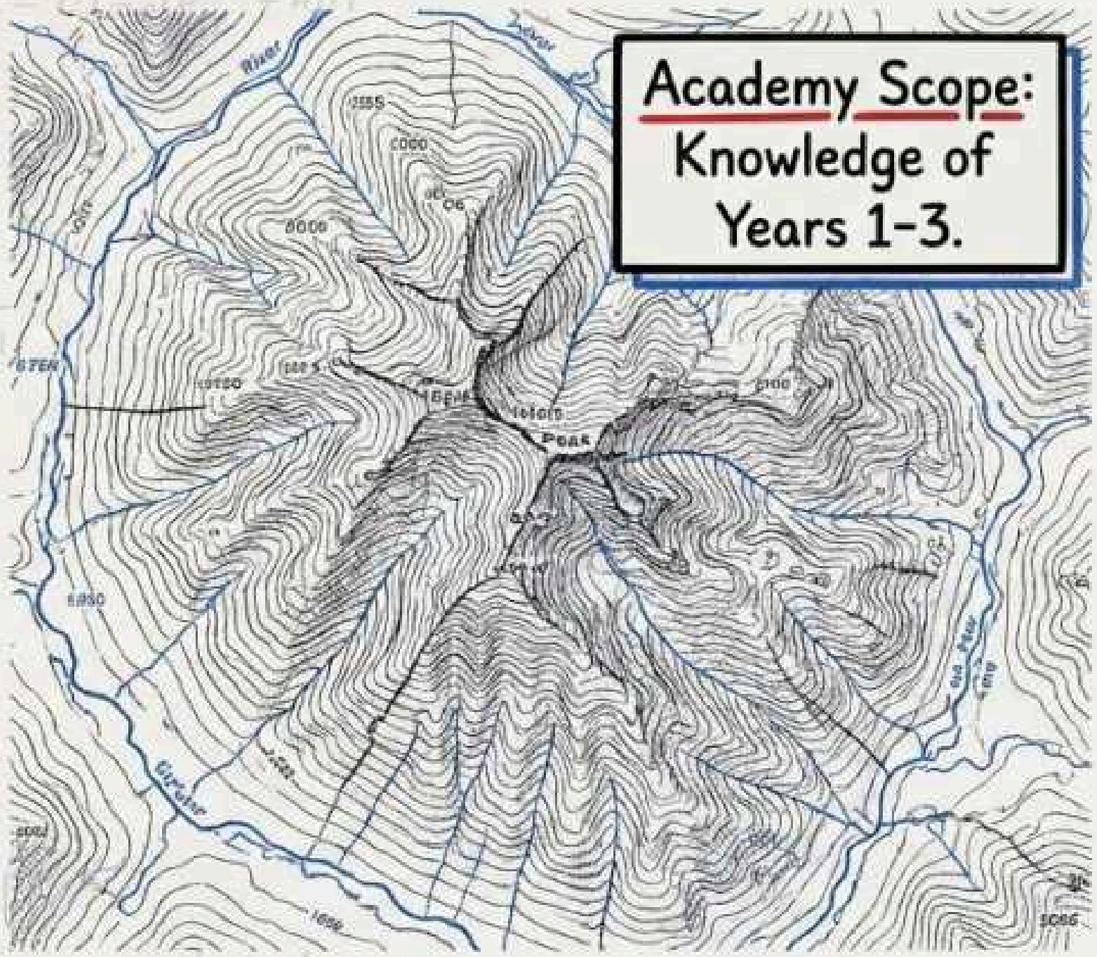
**Medicine keeps changing;
learning never stops.**

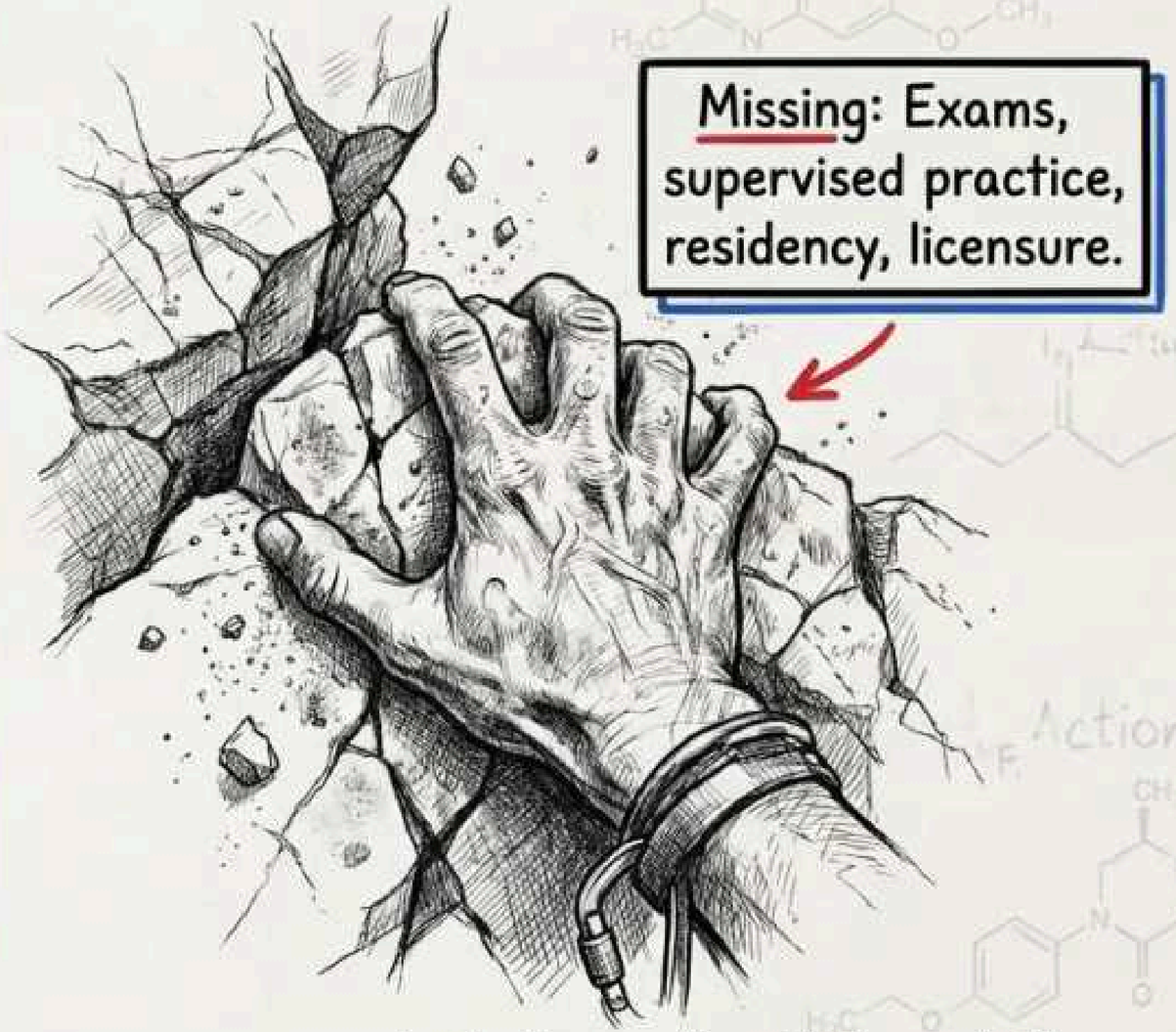


Board Certification
(Exams run by
specialty boards).

The Map vs. The Mountain

¶ 3.11





A map can show you the whole route and name every peak, but reading it is not the same as making the climb. Those missing elements are exactly what make a physician.

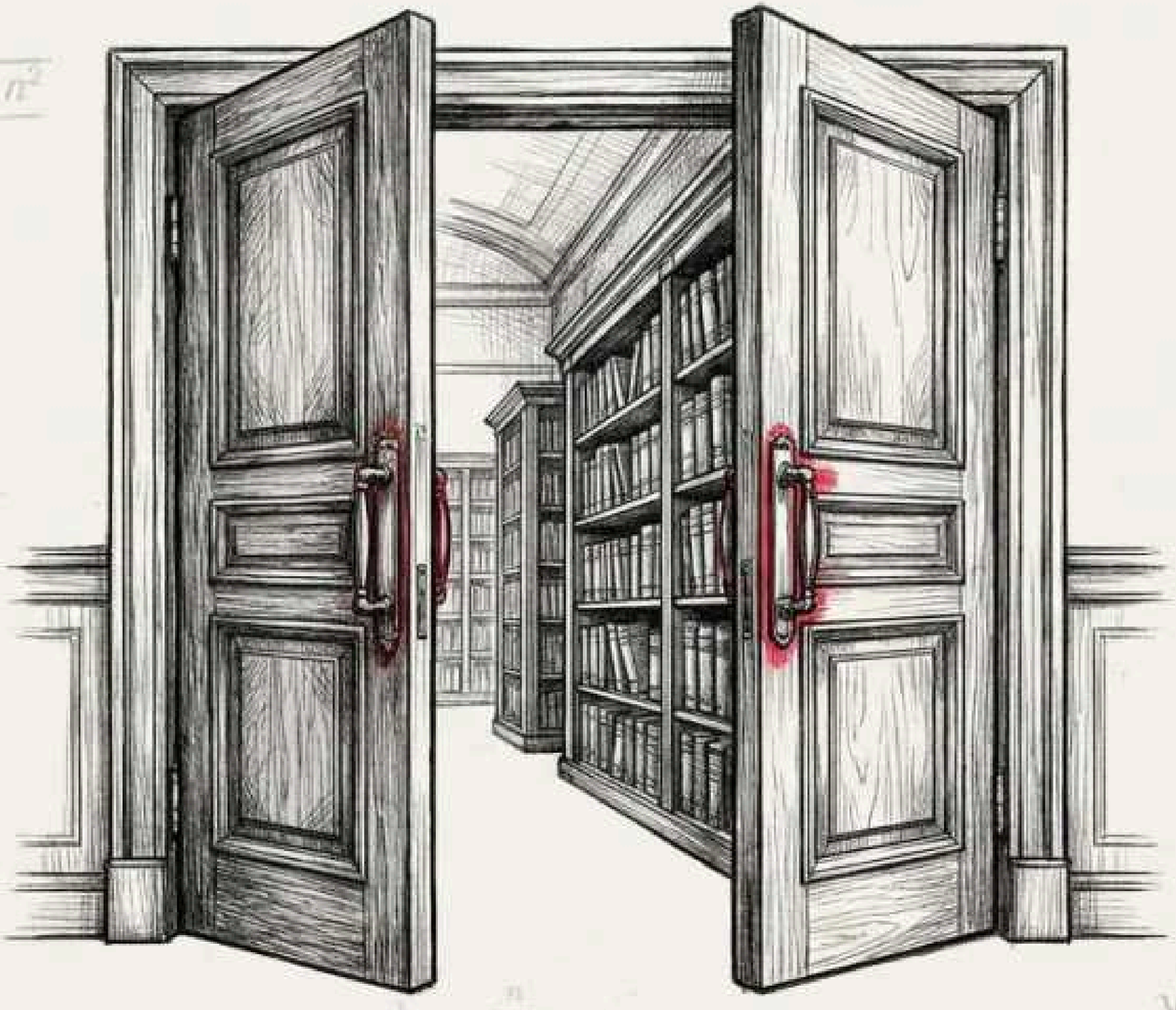
The Trust Question

Which stage of the long road from student to independent doctor surprised you most?

What does the length of that road suggest about how much trust you should place in a confident health claim from someone who has not travelled it?

Coming up in Lecture 4

¶ 3.13



A tour of the Medical School library itself: its years, its courses, and how to find your way through them.