A large, modern, multi-story building with a prominent glass facade and brick accents, set against a clear blue sky with a few clouds. The building has a gabled roof and large windows.

Course Overview

Clinical Applications of Biomedical Sciences I (CABS I)

Block 5, Fall Semester, 2025

Course Directors:

Godwin Dogbey PhD, Amy Hinkelman, PhD, Michael Mahalik, PhD, Jim Powers, DO

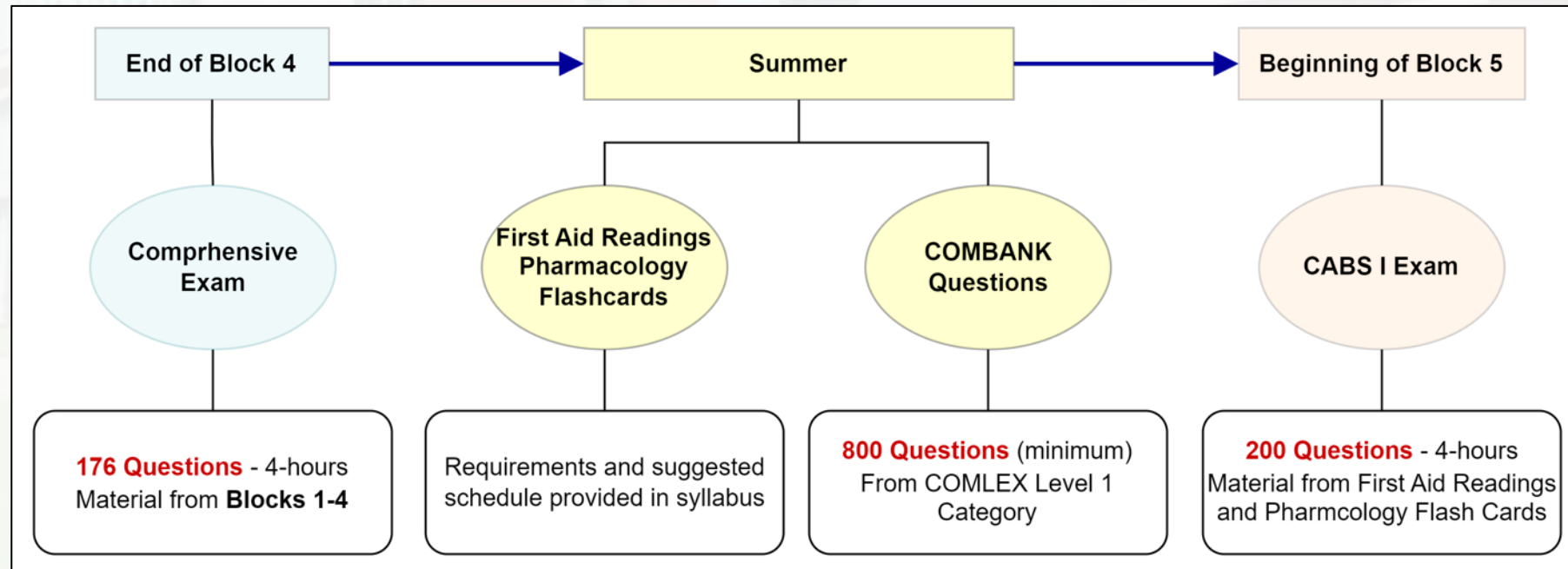
What is “CABS”?

- The Clinical Application of Biomedical Sciences I (CABS I) is the 1st of a two-part capstone course (CABS I & CABS II) completed prior to starting third year. Both are credit-bearing courses.
- Course Timing
 - **CABS I - last day of Block 4 through Orientation for Block 5**
 - CABS II - beginning of Block 7 through the end of Block 8
- CABS I Course Design
 - Helps consolidate & integrate content from 1st year with requisite knowledge required for 3rd year clinical rotations
 - Highlights & reinforces key biomedical and clinical concepts introduced in year one while previewing core content of courses in Block 5
 - Extensive use of board-style questions facilitates student application of clinical and biomedical knowledge, provides valuable feedback on performance, and helps **prepare them for Block 5 courses and COMLEX-USA Level 1**
- Course Format
 - Self-directed learning with knowledge assessments to reinforce and guide content review for specific organ systems

CABS I Structure

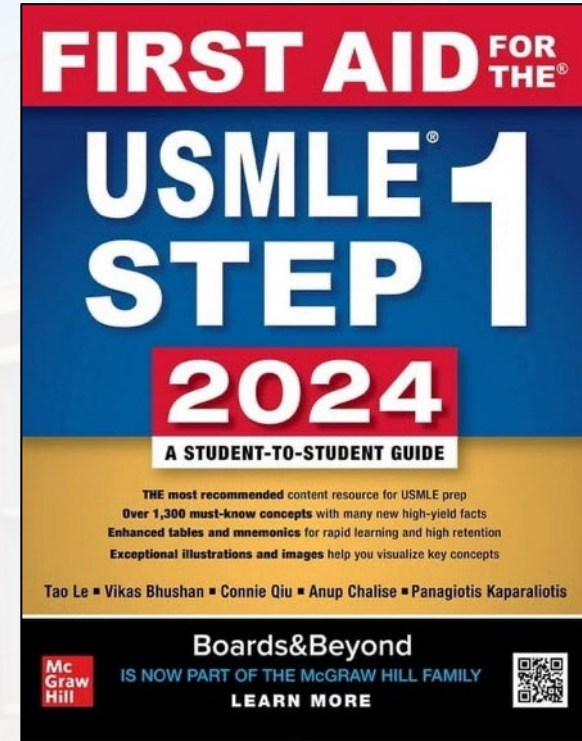
Primary Components

1. Comprehensive Exam (End of Block 4 in Year 1)
2. **First Aid for the USMLE** assigned readings and **Pharmacology Flashcards** (Over summer break)
3. **COMBANK Questions** (Over summer break)
4. CABS I Exam (Beginning of Block 5 in Year 2)



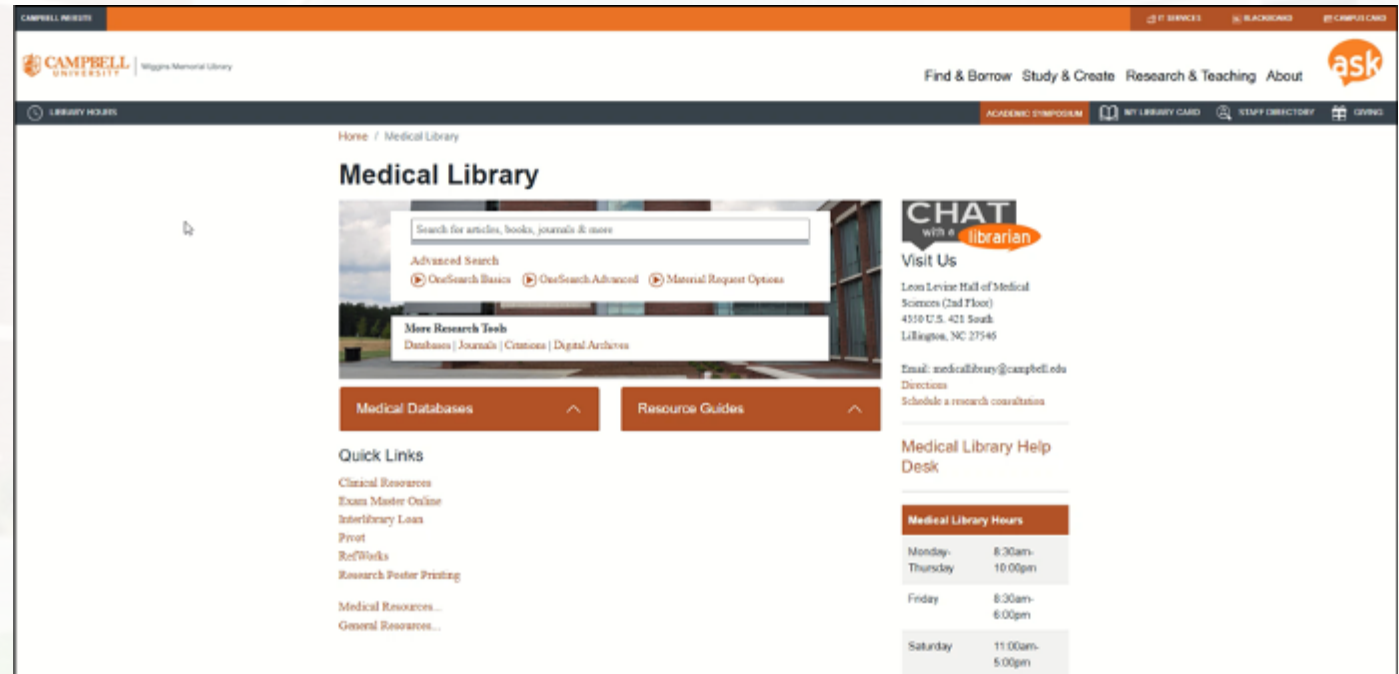
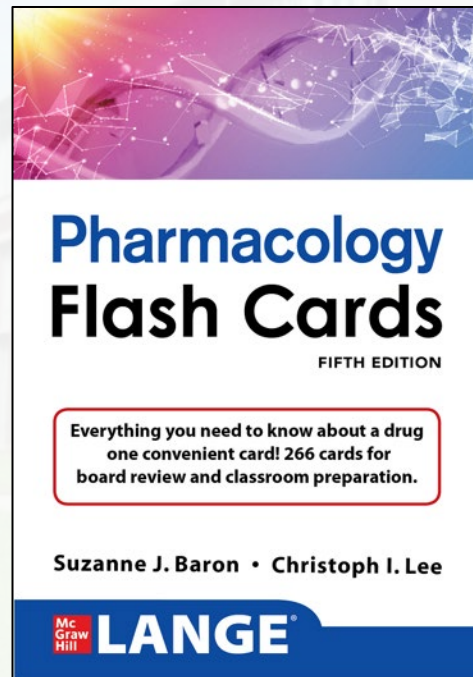
First Aid for the USMLE Step 1

- Recommend either the 34th edition (2024) or 35th edition (2025)
- Readings assigned based on discipline and/or organ system
- A good strategy is to interleave study with associated Pharmacology Flashcards
- Corresponding COMBANK questions can then be used to assess/reinforce learning
- An example weekly schedule for completion of First Aid readings, Pharmacology cards and COMBANK questions is provided in the syllabus appendix



Pharmacology Flash Cards

- Lange Pharmacology Flashcards, 5th Edition – available electronically through the Medical Library
- 266 cards but **ONLY responsible for the 50 cards** identified in the “50 Pharm Card List by Class” posted on the CABS I Course Blackboard page.
- 11 drug classes – introductory card describes high-yield basic principles of the drug class
- Clinical vignettes & key concepts for each drug-specific card - closely aligned with content review for Level 1/Step 1



CABS I Example Schedule

Week 1: First Aid and Pharmacology Flashcards

Reference	Topic	First Aid 2023 Page Numbers	First Aid 2024 Page Numbers
First Aid for USMLE	MSK, Skin, and Connective Tissue - Anatomy and Physiology	450-462	450-462
	MSK, Skin, and Connective Tissue - Pathology	462-481	462-481
	MSK, Skin, and Connective Tissue - Pharmacology	494-497	494-497
Lange Pharmacology Flash Cards	7. Endocrine and Metabolic Agents Card 182 – Colchicine	p. 496	p. 496
	10. Anti-Inflammatory Agents Card 237 – Acetaminophen Card 236 – Celecoxib Card 247 - Glucocorticoids	p. 494 p. 495 p. 496	p. 494 p. 495 p. 496

COMBANK Body System Questions:

- Musculoskeletal System: **361 questions available**

Example schedule provided in CABS 1 Syllabus Appendix

Course Grading

- The CABS I course grade is reported as **Pass/Fail**
- Passing defined as achieving a score of **70%** or higher
- To achieve a passing score of 70%, must earn a **minimum of 560 points** out of 800 possible points

Course Component	Timing	Point Value
Comprehensive Exam	End of Block 4	200
COMBANK Questions	Over the summer	300
CABS I Exam	Beginning of Block 5	300
		800 points total

CABS I – Comprehensive Exam



Course Component	Point Value	Criteria	Criteria Met	Points Earned
Comprehensive Exam	200	Score \geq 30%	Yes	200 points
		Score $<$ 30%		0 points
COMBANK Questions	300			
CABS I Exam	300			

- 200 points come from completion of the Comprehensive Exam at the **end of Block 4**
- Half-length, board-style, 176-question COMBANK assessment
- Covers high-yield clinical and biomedical topics covered during Blocks 1-4
- Student performance can help guide their study and focus on areas of relative weakness as they complete the CABS I course over the summer

Thursday, May 22, 2025	Friday, May 23, 2025	Time
Integrated Exam 3	Comprehensive Exam	8:00
Weeks 7 - 9 & Review	Covering Previous Materials from Blocks 1 - 4 Mandatory Formative Exam	8:30
		9:00
		9:30
		10:00
		10:30
		11:00
		11:30
PCC Question Set 4		11:30
Due 2 pm		12:00
PCC Assignments (All)		12:00
Due 2 pm		12:30
FMP Assignments 07/08		12:30
Due 2 pm		1:00
Study Time	APPS COMMITTEE MEETING	1:30
		2:00
		2:30
		3:00
		3:30
		4:00
		4:30
	Remediation Starts	

CABS I – COMBANK Questions (3 Components)

Course Component	Point Value	Criteria	Criteria Met	Points Earned
Comprehensive Exam	200			
COMBANK Questions (TrueLearn)	300	Completion of 10, 40-Question Sets - total of 400 questions	Yes	100 points
			No	0 points
		Correctly answer $\geq 50\%$ of the remaining 400 questions	Yes	100 points
			No	2 points for every % of correctly answered questions
		Completion of ≥ 800 total questions	Yes	100 points
			No	0 points
CABS I Exam	300			

Note: ALL 800 required TrueLearn/COMBANK questions **must come from the COMLEX Level 1 Category**

- Students may elect to do questions from the USMLE Step 1 Category however, these **will not** count towards the total 800 questions
- **10 Question Sets**, each corresponding to a specific discipline. Sets have 40 questions each for a total of **400 questions**
- **Remaining 400** can be selected from any available questions within the **COMLEX-USA Level 1 Question Bank**
- Example scoring: A student who scores 30% correct will earn **60 of 100 points** (30 x 2 points)
- If not satisfied with % of correct questions, students may complete additional questions to try and raise their total % correct

What's Next After Completing 800 Questions?

Once a student completes a minimum of 800 questions, they may choose either of the following options:

- Students satisfied with the % of correct questions:
 - Students satisfied with their % correct score on the additional 400 questions (after the discipline question sets) should notify Medical Education by sending them an email with a screenshot showing completion of at least the 400 additional questions with their corresponding % correct score and request Med Ed to record this score.
 - They can then continue doing questions without any negative impact on their score (based on % of additional questions answered incorrectly).
- Students **not** satisfied with their % of correct questions:
 - Students not satisfied with their % correct score may continue to complete additional questions in an attempt to raise their total % correct score.
 - Students choosing this option, should notify Medical Education once they have achieved their desired score

COMBANK Requirements

Why does CUSOM require the completion of so many questions?


CUSOM's data analysis shows a direct correlation between **total number of questions** a student completes and a **higher score/pass rate** on their NBOME licensing exams.

- For example, the CUSOM DO Classes of 2017-2023 (2024 – first class without scores) students scoring > 700 (*mean* = 500; *passing* = 400) on COMLEX-USA Level 1 completed between **5,000 & 20,000 questions**
- While COMLEX Level 1 is Pass/Fail, a **numerical score** is still provided on **COMLEX Level 2-CE**
- To meet these question totals, students will eventually need to supplement COMBANK questions with questions from other banks
 - *COMQUEST*, Kaplan, U-World (only if taking USMLE or have completed other test banks)

CABS I - CABS I Exam

Course Component	Point Value	Criteria	Criteria Met	Points Earned
Comprehensive Exam	200			
COMBANK Questions	300			
CABS I Exam	300	Performance on 200 question exam	1.5 points for every question answered correctly	

- 300 points come from the final exam taken on the **first day of Block 5**
- **200 questions** covering content from the assigned readings in **First Aid for the USMLE Step 1** and the **50 Pharmacology flash cards**.
- Each exam question will be worth 1.5 points



Thursday, July 24, 2025	Friday, July 25, 2025	Time
	CABS - I - Exam	8:00
ARRIVAL		8:30
MS-2 ORIENTATION		9:00
Session 1	200 Questions from USMLE First Aid and USMLE Pharm Cards	9:30
		10:00
		10:30
		11:00
		11:30
Locker Assignment		12:00
Lunch (Provided) With Academic Advisors		12:30
		1:00
FREE TIME	FREE TIME	1:30
		2:00
		2:30
		3:00
		3:30
		4:00
		4:30

CUSOM-Provided Preparation for COMLEX Level 1 – CABS I is just one component!

1. CUSOM Curriculum**

2. CABS I

1. Comprehensive Exam – end of Block 4
2. COMBANK Questions – summer between Blocks 4 and 5
3. CABS I Exam – beginning of Block 5

3. CABS II

- COMBANK Questions
- Qualifying Exams (Block 7 and 8)
- Kaplan Course

4. Dr. Rizk's Biochemistry/Genetics Board Review Program (Block 7)

5. Kaplan Board Review in Block 8: 4-weeks (3 days/week, 7 hours/day)

6. Kaplan Full-length Practice Exams (Block 8)

7. CBSSA USMLE Practice Exam (Optional – CUSOM pays for 1 attempt)

- Three offerings during Block 8
- Performance strongly correlates with potential to pass USMLE

That's a lot of preparation! 😊

CABS I – Additional Notes

- **Pay close attention to the CABS I syllabus** – provides more detail regarding the specific requirements and grade determination
- Utilize a plan that will allow you to **pace yourself** in completing the course required readings, flashcards and COMBANK questions
 - More manageable and less stressful
 - Will enhance learning, retention, integration, and opportunities for interleaving, spaced practice, and focused study based on question performance

- Reminder regarding question requirements
 - All 800 required TrueLearn/COMBANK questions must come from the **COMLEX Level 1 Category**
 - Students may elect to do questions from the USMLE Step 1 Category; however, these will NOT count towards the **total 800 questions**
 - The 176 questions from the Comprehensive Block 4 Exam do NOT count towards the 800 required questions
 - As such, in order to meet the minimum requirement of 800 questions, your **total # of questions** reported in TrueLearn should be **at least 976** (176 from the Comprehensive Exam + the 800 required questions)

Thoughtfully do this work now...

Your Future Self Will Thank You!

- Utilize this time well
- *Do the work—and take the time to *learn* from the things you miss or do not know*
- ***DO TAKE TIME OFF DURING THE SUMMER***
- **Make a *PLAN*:** sketch a schedule (blocking out vacation & other planned activities)
- The more you do now...the easier next year will be