



## Progress Report of Curriculum Redesign Steering Committee

November/December 2020

### Refined Goals of the Curriculum Redesign

- Provide students with the opportunity to accelerate entry into the clinical curriculum by converting the current two-pass education program into an integrated, one-pass, organ-system-based curriculum.
- Utilize a comprehensive curriculum mapping project to fully integrate content throughout the pre-clerkship curriculum and remove redundancy.
- Utilize national curricular standards (USMLE Content Outline, discipline-specific curricula) to ensure that students are prepared for clinical clerkships as well as to succeed on national standardized examinations.
- Expand current curricular content in areas such as interprofessional collaboration, technological innovation and public health to prepare students for their future practice environments.
- Expand and integrate clinical skills training to enhance learning in diagnosis and clinical reasoning.

### New progress

The CEPC approved the proposed curricular structure (see October 2020 progress report below) on November 19<sup>th</sup>, 2020, in principle. The pre-clerkship curriculum (Phase 1) will consist of the following courses/blocks starting with the Class of 2025 that will begin in fall of 2021:

- Clinically Oriented Anatomy (a cadaver-dissection based anatomy block with integrated microanatomy)
- General Principles (general principles of biochemistry, cell biology and microbial biology)
- Organ Systems 1 (physiology and pathophysiology of the immune, hematopoietic and cardiovascular systems)
- Organ Systems 2 (physiology and pathophysiology of the renal and respiratory systems)
- Organ Systems 3 (physiology and pathophysiology of the gastrointestinal, musculoskeletal, connective tissue and integumentary systems)
- Organ Systems 4 (physiology and pathophysiology of the neurological and reproductive systems and behavioral science)
- Organ Systems 5 (physiology and pathophysiology of the endocrine system and multisystem disorders)
- P3/DOCS (an integrated doctoring course matching clinical skill training and topics in health systems science, population health, interprofessional education, interpersonal communication, professionalism, medical ethics and humanities, and critical appraisal of evidence to content in the organ system blocks).

The start and end dates for these blocks have been determined for the 2021-2022 academic year. For each block teams have been assembled and tasked with developing the curriculum following Kern's six step approach. A proposed schedule format for a typical week has been developed.



Proposed Curricular Structure

Curriculum Overview

Class of 2025	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June
<b>Phase 1</b> 2021 - 2022		P3 Clinically Oriented Anatomy 10 Weeks		P3 General Principles 8 Weeks				Organ Systems 1: Immune & Hematopoietic, Cardiovascular P3 12 Weeks	Organ Systems 2: Renal, Respiratory 7 weeks P3			CBSE
Development of Clinical Skills 1												
<i>Note: Organ system modules of 3-6 weeks end with a week for remediation and/or P3 (clinical integration, communication, public health, interprofessional development)</i>												
<b>Phase 1</b> <b>Phase 2</b> 2022-2023		Organ Systems 3: Gastro, Musk, Conn, Skin P3 7 Weeks P3		Organ Systems 4: Neuro, Behav, Repro 13 weeks P3 P3		CBSE Organ Systems 5: Endocrine, Multiorgan 8 Weeks P3		CBSE Transition 2 Weeks		Clerkships		
Development of Clinical Skills 2												
Basic Medical Spanish												
<i>Note: Organ system modules of 3-6 weeks end with a week for remediation and/or P3 (clinical integration, communication, public health, interprofessional development)</i>												
<b>Phase 2</b> <b>Phase 3</b> 2023-2024		Clerkships					Clerkships			Advanced Clinical Training		
Integration Seminar												
<i>Note: Clerkships can be taken in any order. Clerkships: Family Medicine, Internal Medicine, OB/GYN, Pediatrics, Psychiatry and Surgery. Rotations can begin 2 weeks after completion of clerkships. Rotations (Sub-Internship, Ambulatory, Critical Care and Electives) and available time can be taken in any order.</i>												
<b>Phase 3</b> 2024-2025		Advanced Clinical Training					Advanced Clinical Training			TRIAL		
TRIAL												
<i>Note: Rotations (Sub-Internship, Ambulatory, Critical Care and Electives) and available time can be taken in any order. TRIAL = Transition to Residency: Individualized Asynchronous Learning</i>												



## Progress Report of Curriculum Redesign Steering Committee

October 2020

### Background

In February of 2020, the Associate Dean of Academic Affairs with support from the Dean of the School of Medicine, created the Curriculum Redesign Steering Committee. This group was tasked with leading a redesign of the 4-year School of Medicine MD curriculum. The impetus for change was an effort to refresh our curriculum of more than a decade to reflect current best practices in pacing and course structure, as well as to respond to the NBME's decision to use pass/fail grading for the USMLE Step1 exam.

The steering committee began to meet at the beginning of the Covid-19 pandemic and for several months met sporadically due to other acute pressures on the curricular and student affairs aspects of the School of Medicine. Over the past three months, the committee has met 2-3 hours per week with a primary focus on refining the plans for the first phase of the curriculum. The committee has welcomed several faculty members as guests and experts to think about various aspects of the curriculum redesign and has sought feedback in various faculty and committee meetings.

### Goals of the Curriculum Redesign

- Streamlining the pre-clerkship curriculum to a one-pass, organ-system based design allowing earlier entry into the clinical environment
- Increasing integration of clinical and basic science topics throughout all phases of the curriculum
- Enhancing focus on clinical skill development and mastery throughout the curriculum and culminating with an expanded final curricular phase focused on preparation for residency training

### Progress to date

The committee has utilized Kern's framework as a scaffold for the curriculum redesign process (Kern, D. E. 1998. Curriculum development for medical education: A six step approach. Baltimore: Johns Hopkins University Press).

### *Needs Assessments (General and Targeted)*

- The committee has utilized the published literature, review of curricula at multiple other schools, and other internal and external resources to inform the general needs assessment regarding the curricular redesign.
- The committee's targeted needs assessment has focused on student performance data, student satisfaction data from formal surveys, informal measures of student satisfaction and faculty feedback, and student and faculty assessments of student entrustability via the Core Entrustable Professional Activities Prior to Entering Residency from the AAMC.

### *Goals and Objectives*

- The committee has reviewed overall goals and objectives for the curriculum and, with faculty direction, will continue to assess and modify the goals and objectives for specific curricular units.

### *Educational Strategies*

- Throughout the four-year curriculum, the redesign process will develop guidance and resources regarding increasing the proportion of active learning opportunities and settings for clinical learning.



### Implementation

- The general structure of the organ-systems content of phase 1 of the curriculum has been developed. Phase 1 will comprise the pre-clinical curriculum beginning in August of students’ first year and extending to about the end of February of their second year. Please see below for additional detail about proposals for curricular structure.
- Recommendations have been made regarding additional structural aspects of the development of clinical skills and introduction to clinical medicine courses in later phases.

### Evaluation and Assessment

- The evaluation plan for the curriculum redesign process will be considered in concert with the current efforts to revise the program evaluation process for the MD curriculum.
- Assessment strategies for all phases of the curriculum have been discussed and recommendations will be presented to the appropriate committees over the coming months.

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Development of Clinical Skills 1												
<i>Note: Each organ system module of 3-6 weeks ends with a week for remediation and integration/P3 (clinical integration, communication, public health, interprofessional development)</i>												
<b>Phase 1</b> <b>Phase 2</b> 2022-2023		Organ Systems 3: Gastro, Musk, Conn, Skin P3 7 Weeks P3		Organ Systems 4: Neuro, Behav, Repro 13 weeks P3		CBSE	Organ Systems 5: Endocrine, Multiorgan 8 Weeks P3	Transition 2 Weeks		Clerkships		
Development of Clinical Skills 2												
Basic Medical Spanish												
<i>Note: Each organ system module of 3-6 weeks ends with a week for final NBME exam, remediation and integration/P3 (clinical integration, communication, public health, interprofessional development)</i>												
<b>Phase 2</b> <b>Phase 3</b> 2023-2024		Clerkships					Clerkships					Advanced Clinical Training
Integration Seminar												
TRIAL												
<i>Note: Clerkships can be taken in any order. Clerkships: Family Medicine, Internal Medicine, OB\GYN, Pediatrics, Psychiatry and Surgery Rotations can begin 2 weeks after completion of clerkships. Rotations (Sub-Internship, Ambulatory, Critical Care and Electives) and available time can be taken in any order.</i>												
<b>Phase 3</b> 2024-2025		Advanced Clinical Training										
TRIAL												
<i>Note: Year 4 Rotations (Sub-Internship, Ambulatory, Critical Care and Electives) and available time can be taken in any order.</i>												
<i>TRIAL = Transition to Residency: Individualized Asynchronous Learning</i>												

Curriculum Draft 2020-10-15

### Phase 1: Foundations of Medicine

- Enhanced integration of physiology, pathophysiology, and pharmacotherapy
  - Single-pass organ-system based curriculum
  - Less but specifically-planned redundancy
  - More engagement through active learning modes
- Enhanced introduction to clinical medicine

### Phase 2: Core Clerkships

- Earlier start of the core clerkship phase in the spring of the second year

- Enhanced incorporation of basic science topics including health systems science and diagnostic reasoning skills throughout the clinical phase of the curriculum
- Early specialty experience

### Phase 3: Advanced and Additional Clinical Experiences

- Opportunities for earlier career exploration, electives, and clinical skill mastery



**Curriculum Detail for Phase 1, Foundations of Medicine**

## Co 2025, Phase 1

<p><b>Fall 1</b></p> <p>Clinically Oriented Anatomy <span style="float: right; color: red;">Block</span></p> <p>General Principles <span style="float: right; color: red;">Block</span></p>
<p><b>Spring 1</b></p> <p>Organ Systems 1 <span style="float: right; color: red;">Block</span></p> <p style="padding-left: 20px;">Immune, Hematopoietic <span style="float: right; color: red;">Module</span></p> <p style="padding-left: 20px;">Cardiovascular <span style="float: right; color: red;">Module</span></p> <p>Organ Systems 2</p> <p style="padding-left: 20px;">Renal</p> <p style="padding-left: 20px;">Respiratory</p>
<p><b>Fall 2</b></p> <p>Organ Systems 3</p> <p style="padding-left: 20px;">Gastrointestinal</p> <p style="padding-left: 20px;">Skin and connective tissue, Musculoskeletal</p> <p>Organ Systems 4</p> <p style="padding-left: 20px;">Nervous</p> <p style="padding-left: 20px;">Reproductive</p>
<p><b>Spring 2</b></p> <p>Organ Systems 5</p> <p style="padding-left: 20px;">Endocrine</p> <p style="padding-left: 20px;">Multisystem</p>

Phase 1, Foundations of Medicine









Phase 2, Clerkships

Phase 3, Advanced Clinical Training

- OS modules focus on integration of Physiology, Pathophysiology, Pharmacology
- Interspersed weeks for
  - Remediation
  - P3/DOCS
    - Clinical Medicine
    - Clinical Skills
    - Public Health
    - P3
    - Interprofessional development
    - Professional identity formation



### Steering Committee Members

	<p><b>Samuel Campbell MD</b> Professor of Surgery; Assistant Dean for Clinical Sciences</p>
	<p><b>Lauren Cobbs MD, MEd</b> Associate Professor of Medical Education; Associate Dean for Student Affairs</p>
	<p><b>Ebstesam Islam, MD, PhD</b> Assistant Professor of Internal Medicine; Chair of the Curriculum and Educational Policy Committee</p>
	<p><b>Michaela Jansen, PharmD, PhD</b> Associate Professor Cell Physiology and Molecular Biophysics; Assistant Dean for Basic Sciences</p>
	<p><b>Lara Johnson, MD, MHS</b> Professor of Pediatrics; Director of the Year 4 Curriculum</p>
	<p><b>Betsy Jones, EdD</b> Professor and Chair, Department of Medical Education</p>
	<p><b>Brian Pomeroy, MD, MEd</b> Associate Professor of Pediatrics; Assistant Dean of Assessment and Program Evaluation</p>
	<p><b>Simon Williams, PhD</b> Professor of Medical Education; Associate Dean for Academic Affairs</p>



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