



GEISEL SCHOOL OF MEDICINE
AT DARTMOUTH

MEDICAL EDUCATION COMMITTEE MEETING

TUESDAY, MARCH 26, 2013

4:00 – 5:30 PM

DHMC – AUDITORIUM F

MINUTES

1. Call to Order - Richard Simons, MD

The meeting was called to order at 4:00 PM by Dr. Richard Simons with the following attendees:

Voting Members Present: Jonathan (Aaron) Barnes, Jessie Bay, Benjamin Colby, Scottie Eliassen, Sarah Johansen, Carolyn Koulouris, Dean Madden, Harold Manning, Greg Ogrinc, Christiaan Rees

Non-Voting Members Present: John Dick, Diane Grollman, Cynthia Hahn, Virginia Lyons, Brian Reid, Glenda Shoop, Richard Simons, Cynthia Stewart

Guests Present: Craig Donnelly, William Nelson, Rand Swenson

2. Approval of the February meeting minutes

A motion was made and seconded to accept the February meeting minutes. A vote was taken the motion to approve the February minutes as written was approved.

3. Announcements - Richard Simons, MD

Combined Medical Education, Medicine and Neurology Grand Rounds – will be held on March 29, 2013 with Martin A. Samuels, MD, DSc, FAAN, MACP, FRCP, Chair, Department of Neurology at the Brigham and Women's Hospital will be presenting “*How Neurologists Think: What My Mistakes Have Taught Me.*” from 8:00 – 9:00 AM in Auditorium E/F.

LCME Site Visit

Dr. Simons reviewed the LCME’s preliminary concerns related to the educational side of Geisel. The final report is not expected for a few more months (between June-September).

Below are list of concerns that may be seen either as a citation in the final report or as compliance with monitoring.

- There are limited opportunities for inter-professional education and for service learning in general (ie work in the community and have time to reflect). Need service learning opportunities that include preparation and reflection. Currently Ann Davis and Joe O’Donnell are working toward correcting this.
- Although there has been progress toward incorporating more active learning into the basic sciences, the pedagogy remains predominately lecture based. The solution is for the Medical Education Committee to propose a mandate for course directors to incorporate a certain percentage of active/engaged learning in the curriculum. Workshops will be offered in order to assist faculty members with this process

- The student self-study raised concerns about the adequacy of formative feedback. A new tracking system was implemented to track mid-clerkship feedback, but will need to show through data that mid-clerkship feedback is happening on a regular basis to determine the long-term efficacy of this new system.
- Role of the Medical Education Committee is now codified and the process of reviewing courses and components of the curriculum has now been formalized. The LCME acknowledged that there is a good system in place, but they want to know that this is working well and improvements are being made in courses. There were a few courses that have not shown improvement.
- Core institutional learning objectives. – it is unclear how these overarching objectives/competencies are used to design the objectives and learning outcomes of the courses/clerkships.
 - Clerkship directors committee will have to work on this and the MEC will have to review this more regularly. Dr. John Dick is aware that there are areas that require improvement (some have already improved) and will bring reports to the MEC on a quarterly basis.
- Student mistreatment – the AAMC Graduation Questionnaire demonstrated a level of student mistreatment that exceeds the national average. LCME complimented Geisel with initiatives that have already been taken.

Dr. Rand Swenson may be coming back to the Medical Education Committee after the final report has been received as that will shed some light on how serious this is and reflect the kinds of things that need to improve.

Dr. Simons made a note that the average medical school receives around seven citations. At this point, we don't know which of these will be considered citations or "compliance with monitoring."

Dr. Swenson reported that the site visitors were impressed with the vast effort in addressing some concerns, but were also skeptical that some of the solutions may not be sustainable so they will want to see data proving sustainability.

Dr. Swenson will be keeping the MEC informed as more reports from LCME are received.

4. **HAE Course Objectives** – *Virginia Lyons, PhD*

Dr. Virginia Lyons presented course objective number 16 with a note that this is not really a change. The objective is written the same for both session (I and II) and technically, this should only appear as a course objective for part II. Dr. Lyons requested approval of removing course objective 16 from HAE I. Currently the course objective reads as follows: "To provide constructive suggestions to colleagues during peer review exercises to aid their professional development." ***A motion was made and seconded to accept the removal of course objective 16 from HAE I.*** Discussion ensued and the question was asked that rather than eliminating this objective, can it be implemented in HAE I. There was some concern that adding feedback midway (timing) could cause dissension within the group. Another thought was that this could be a great opportunity for students to learn to give feedback. However, if the course objective is not being met, it does need to be eliminated. After the discussion, Dr. Lyons mentioned that she will explore the possibility of implementing peer feedback into HAE I after consulting with her faculty. At this time she would prefer to remove the objective since it is not being met for HAE I. ***A vote was taken and the motion to remove course objective was passed with all members in favor.***

5. **Curriculum Redesign Communications Committee Presentation** – *Richard Simons, MD*

Dr. Richard Simons presented on curriculum redesign and invited several working group leaders to join this medical education committee meeting to be available for questions and to absorb feedback. Dr. Simons reminded the committee that this is not up for voting at this meeting. The framework will be discussed

further in upcoming town hall meetings (April 3 at 12:15 at DHMC and at 5:30 PM in Kellogg Auditorium), focus groups and departmental meetings. Following these discussions the curriculum redesign proposal will be subject to the approval of the Medical Education Committee (tentatively May) and a full faculty vote (tentatively June). If the curriculum redesign is approved, all courses will then come before this committee for approval.

Dr. Simons presented a PowerPoint presentation of the curriculum redesign first draft of four-year framework representing the collective group's work (including faculty and student members of the working groups, totaling about 100 people who have been working on this frame work). See the attached slides for full details.

Major innovations in the proposed four-year framework include:

- Markedly enhanced use of active learning techniques
- A four-year, cross-departmental and clinically-relevant curriculum in the biomedical sciences
- A four-year core curriculum and elective master's program in healthcare evaluation and innovation
- An enhanced 18+ month longitudinal clinical curriculum paired with complementary mentored small group teaching
- Intensified coverage of critical longitudinal themes including ethics, humanities, and practice resilience.

The following points were noted throughout Dr. Simons' presentation:

- Dr. Swenson noted the launching of some of the threads that will be revisited throughout the curriculum.
- Clinical skills intersession will begin in about May (right now they start in June) – with this they could start a month or two earlier, depending on how long the introduction to clinical skills takes.
- Discussion about core faculty members teaching small group sessions and the added time that will be required by faculty, which needs to be sustainable without faculty burnout. Dr. Dean Madden expressed concerns about how best to present the feedback taken from the Medical Education Committee and submit it to the Curriculum Redesign working group. His suggestion was to submit documentation of the Medical Education Committee's expectations. Dr. Simons encouraged feedback at this meeting as well as at the town hall meetings.
- A faculty vote must be taken before this can be moved forward (which will need to happen in order to get funding). If approved, the Medical Education Committee will need to vote on all courses as this committee has oversight of the curriculum.
- Glenda Shoop will begin attending working group meetings in an effort to address some concerns raised by the Medical Education Committee.
- Dr. John Dick spoke about the core biomedical curriculum, currently focused on medicine and surgery that will include clinically-relevant advanced pathophysiology sessions integrated into clinical experiences by teams of clinicians and basic scientists. Piloting of some of a more student led, student driven program is slated to begin soon. There may be some logistical challenges (i.e. no basic scientists at the VA or CPMC), but the solution to that may be arranging video conferences with basic scientists located here.
- Dr. Sarah Johansen spoke about the benefit of clinical longitudinal curriculum, particularly the importance of maintaining small group facilitators, students having more regular time in their practice so they can build some longitudinal experiences with patients and feel more useful and more prepared in the practices and the students' ability to see specialties earlier. Currently looking at sites that do this best and utilize those people (clinical faculty). More robust faculty development will be available for preceptors (i.e. OCER is providing more faculty development as well as Dr. Leslie Fall's effort with on-doctoring facilitators).

- Dr. Greg Ogrinc presented additional information on the Healthcare Evaluation and Innovation component, which is a theme across all four years, and is where a lot of the material for the master's program will come in.
- Dr. William Nelson asked who will decide which electives are okay for the masters program. Dr. Simons thought that the approval process will be at the college level, so the program office will make recommendations and then final approval would need to come from the council on graduate education at the college. Once approved, a decision on what electives will count may go through Geisel as well.
- Clinical immersion Training (phase II) – basically expanded ICE session into a much more robust program – 2 weeks. Dr. Dick spoke with enthusiasm about expanding the clinical skills, making students more comfortable with coming into clinical environment. Phase II will start earlier and end in June (14 months). 3rd year student, Jessie Bay, suggested shortening phase I to allow phase II to start even earlier than already proposed to allow students more time to decide what they want to do for the rest of their careers, but as Dr. Simons clarified, this is already a challenge with phase II starting earlier which is already shortening the foundational science phase. This topic has been discussed among working groups. Because the students would like more time to explore electives and interests before deciding what they are going to specialize in, one suggested solution might be to look at the third year and the duration of the clerkships.
- There was a question asked about the option of awarding a MD in 3 years, to shorten the time in medical school and graduate more MDs. In order to be accredited, a medical school must have 131 weeks of medical school, which Geisel currently has more of and could potentially shorten to 131 weeks, but that would impose even more of a limit on elective time. Dr. Simons summarized the students request to have more elective opportunities early on and to start doing sub I's a month earlier in order to have more elective time before making a final decision. At PennState students have 2 months of electives without starting earlier, because of the duration of clerkships. One thought was to move GAM (Geriatrics/Ambulatory Medicine) to 4th year, but Dr. Dick felt that would not be ideal. Another thought was to modify the medicine clerkship (which is currently all inpatient) by making it one month inpatient and one month outpatient, which would allow GAM to be eliminated. Carolyn Koulouris suggested looking at the objectives and see where they overlap; GAM is not stand alone in its objectives. Ms. Koulouris also noted that having electives first is not very useful, where elective time late in the year would be more useful, particularly when combined with the right advisor as a multi-pronged approach. Dr. Simons recognized that politically, it is difficult to shorten clerkships, but suggested that this be considered.
- Dr. Dick spoke about the Integrated ICU month (will happen during phase III) that would revisit some of the basic science themes. This is still in early formation and is being designed to meet the objectives of continuing connective biomedical sciences in a true clinical application. The ICU setting was chosen as this situation happens frequently in this setting. This is not going to be a clerkship, but instead will occur in the simulation center combined with going into the intensive care unit and is slated to occur in 2018.
- Dr. William Nelson spoke further about the ethics component of the curriculum. Dr. Nelson shared the vision of not teaching ethics as just a course, but beginning as an evolution instead, starting with the foundation of medicine and fundamentals of ethical practice. Envisioning this as a theme running integrated into all four years. This coordinated effort would avoid unnecessary redundancy.
- Dr. Craig Donnelly spoke about practice resilience a component that doesn't end as stress is inevitable in everything, including medical school, residency and life in general. Dr. Donnelly is working with Dr. Ann Davis to develop a way to bring science to life. Practice resilience has basis in brain science in things like satisfaction/happiness/balancing with personal life. The idea is to teach skills that students will have that they can carry throughout life to be a good doctor, be happy with their career and happy with life in general. These resiliency exercises could happen in many different instances (i.e. while you're scrubbed in). This will be taught in three different segments, 30 hours over or 4 years and will provide experiential

based learning in small groups/lecture, embedded in clinical experience and stealth (unanticipated teachable moments). The timing of this teaching will be set to come before anticipated times of stress.

- Preparing residents as teachers needs to have a place in the curriculum.
- Suggestions or questions should be sent to Dr. Simons who will forward them to Dr. Tim Lahey so they can begin to work on some of these suggestions. Current concerns that need to be addressed include:
 - How do we make sure topics that are taught early on are revisited?
 - Operational issues (captured by Glenda Shoop)
 - More elective time in 3rd year
- Dr. Johansen reminded everyone to visit the FAQ's on the website and to attend the town hall meetings that are coming up (sign up for break-out groups).
- Dr. Madden suggested more aggressive supervision and engagement than what has happened before.
- Dr. Simons suggested continuing this discussion about the proposal at the next meeting and postpone the vote until the May meeting. See the enclosed Curriculum Redesign Framework.
- Contact Pam Gile or Dr. Cathy Pipas if you are interested in having someone come talk to your department

6. Adjourned – 6:00 PM

UPCOMING SCHEDULED MEETINGS:

Apr. 16	May 21	June 18	July 16
Aud. A	Aud. A	Aud. A	Aud. A

HAEI and HAEII

course objective #16

- To provide constructive suggestions to colleagues during peer review exercises to aid their professional development.

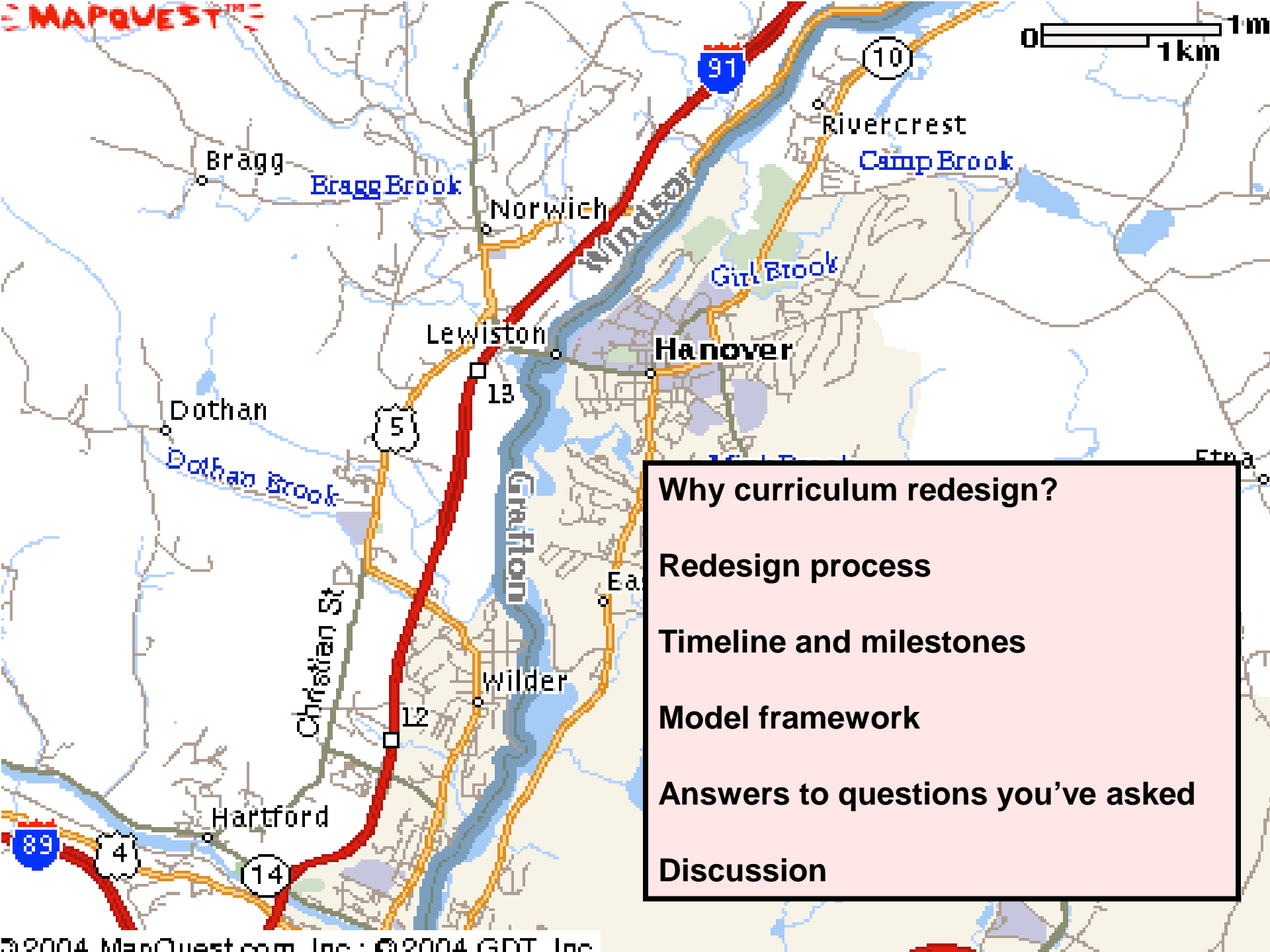




Curriculum Redesign

First Draft of Four-Year Framework

April 2013



Why curriculum redesign?
Redesign process
Timeline and milestones
Model framework
Answers to questions you've asked
Discussion

WHY REDESIGN?

Medical practice is changing

Evidence regarding effective learning

LCME requirements

Geisel needs assessment



GEISEL
— SCHOOL OF —
MEDICINE
AT DARTMOUTH

MISSION

To develop an integrated and clinically-driven curriculum that utilizes 21st century educational techniques to prepare medical students to be outstanding physician leaders



Redesign that's right for Geisel

Who We Are

- Close knit community
- Value critical thinking
- Dedicated to mentorship and teaching
- Strong clinically-relevant foundational sciences
- Expertise in healthcare delivery sciences

Redesign Approach

- Closer faculty-student links
- Enhanced student case analysis
- Improved mentorship and evidence-based teaching
- Cross-departmental teams teaching foundational sciences
- Enhanced healthcare evaluation and innovation

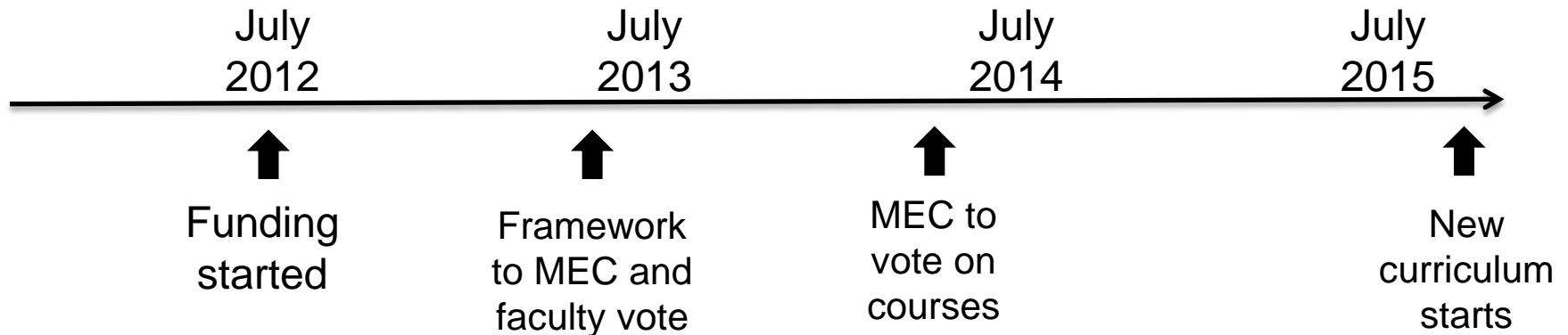


Curriculum Redesign Objectives

1. To promote active learning and critical thinking
2. To enhance integration of clinical & basic sciences
3. To engage students in outstanding longitudinal clinical training
4. To provide novel training to be scholars and leaders in healthcare evaluation and innovation
5. To improve incorporation of ethics, humanities, professionalism, mentorship, and practice resilience into the curriculum



Curriculum Redesign Timeline



Framework design

**Course and
syllabus design**

Implementation

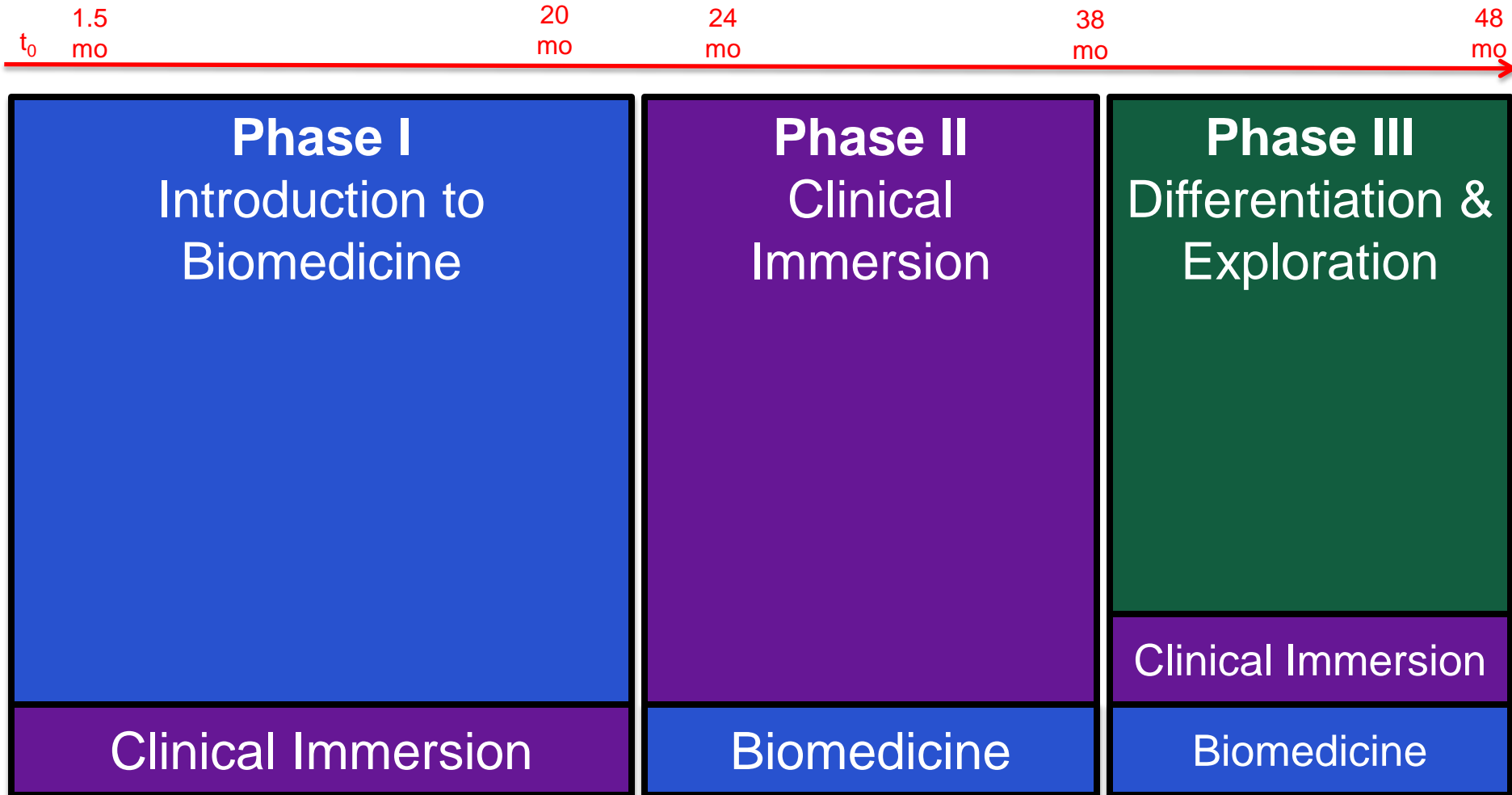


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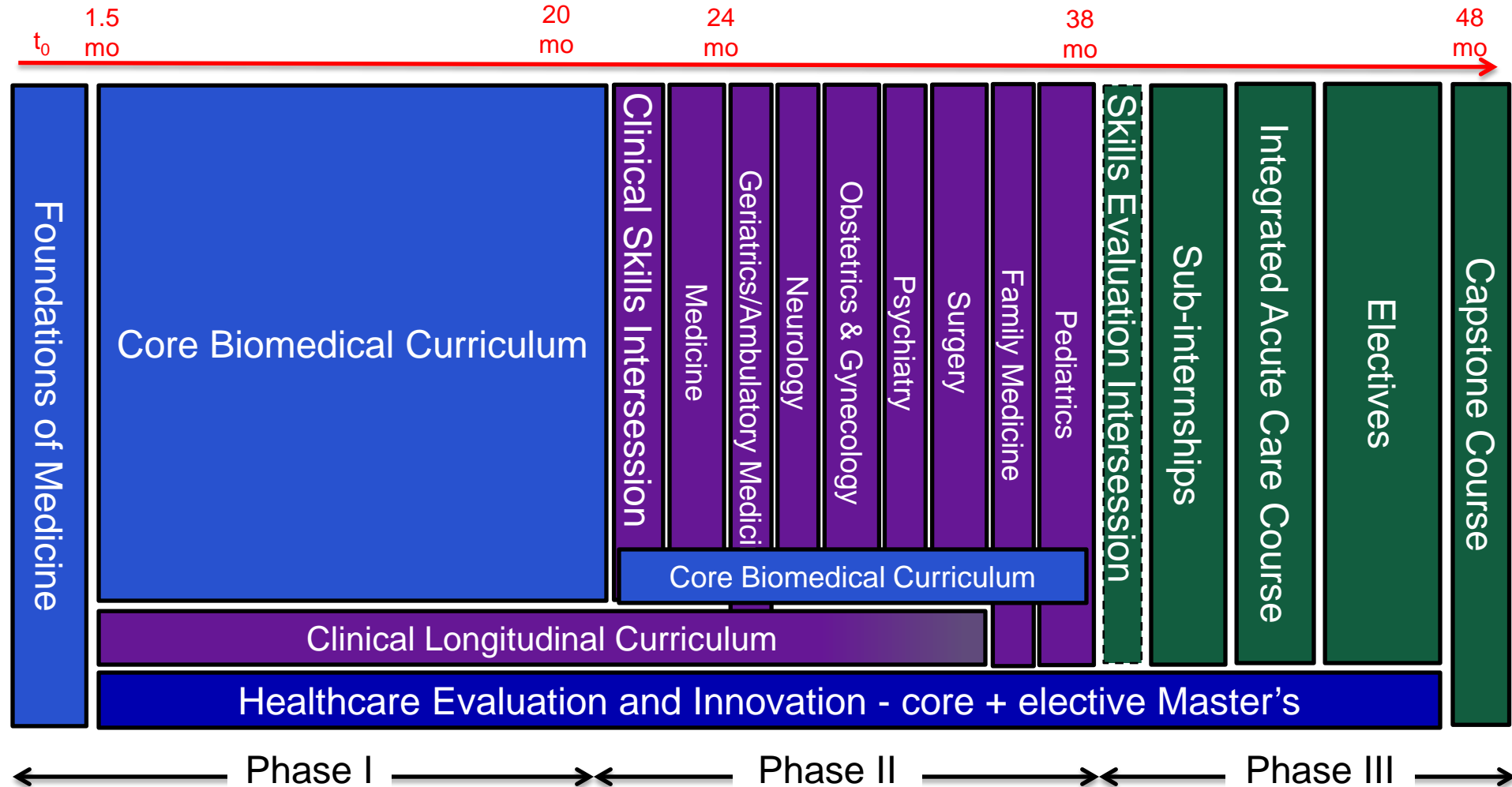


DARTMOUTH-HITCHCOCK

The New Curriculum: 3 Phases



Draft Curriculum Framework



Phase I

Introduction to Biomedicine

Innovative Learning Context



- Small group case-based learning taught by core group of faculty whom students know well
- Large group framing sessions using active learning techniques
- Use of student-centered learning technologies

Why Case Based?

Motivation for professionalism, humanism and ethics

Personal face for population health

Clinically-relevant pathophysiology

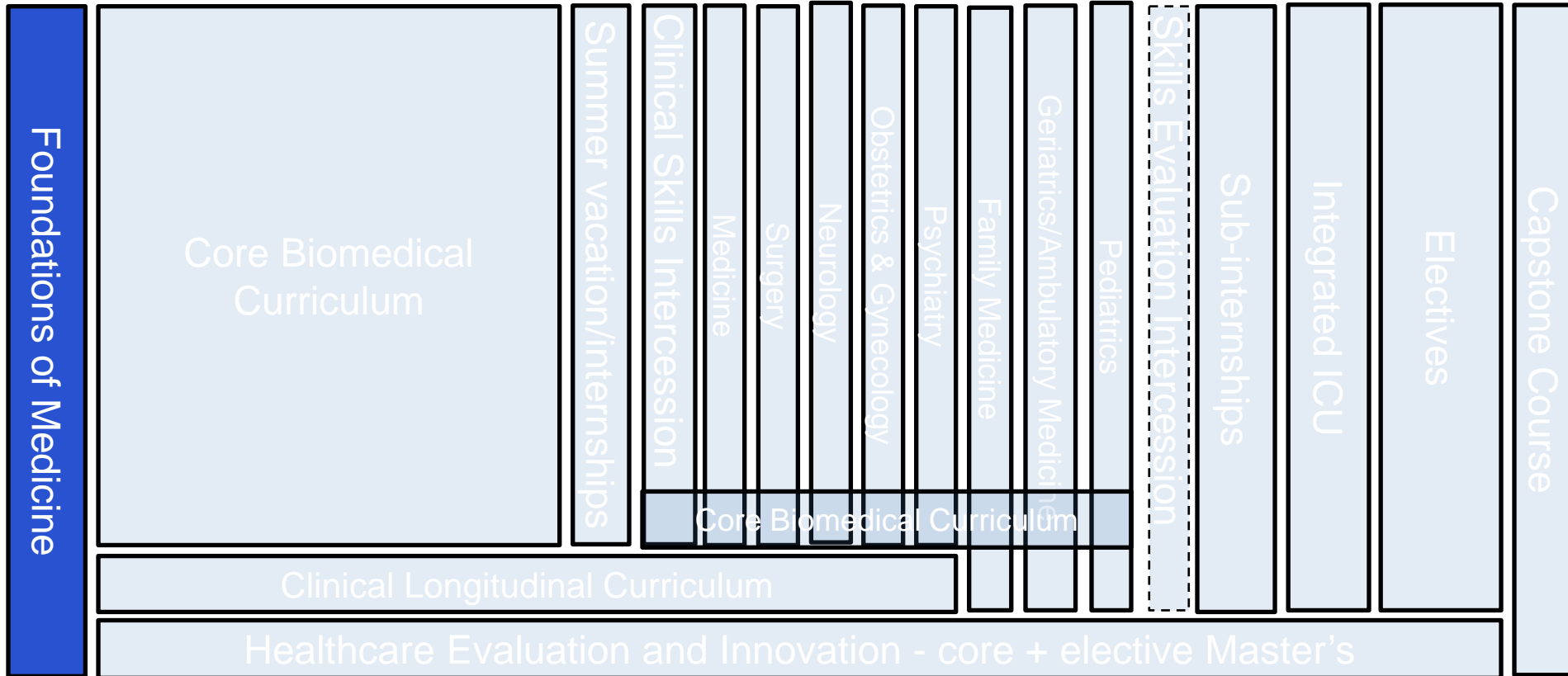
Clinical decision-making built in from Day 1



General Schedule of a Week, Year 1-2

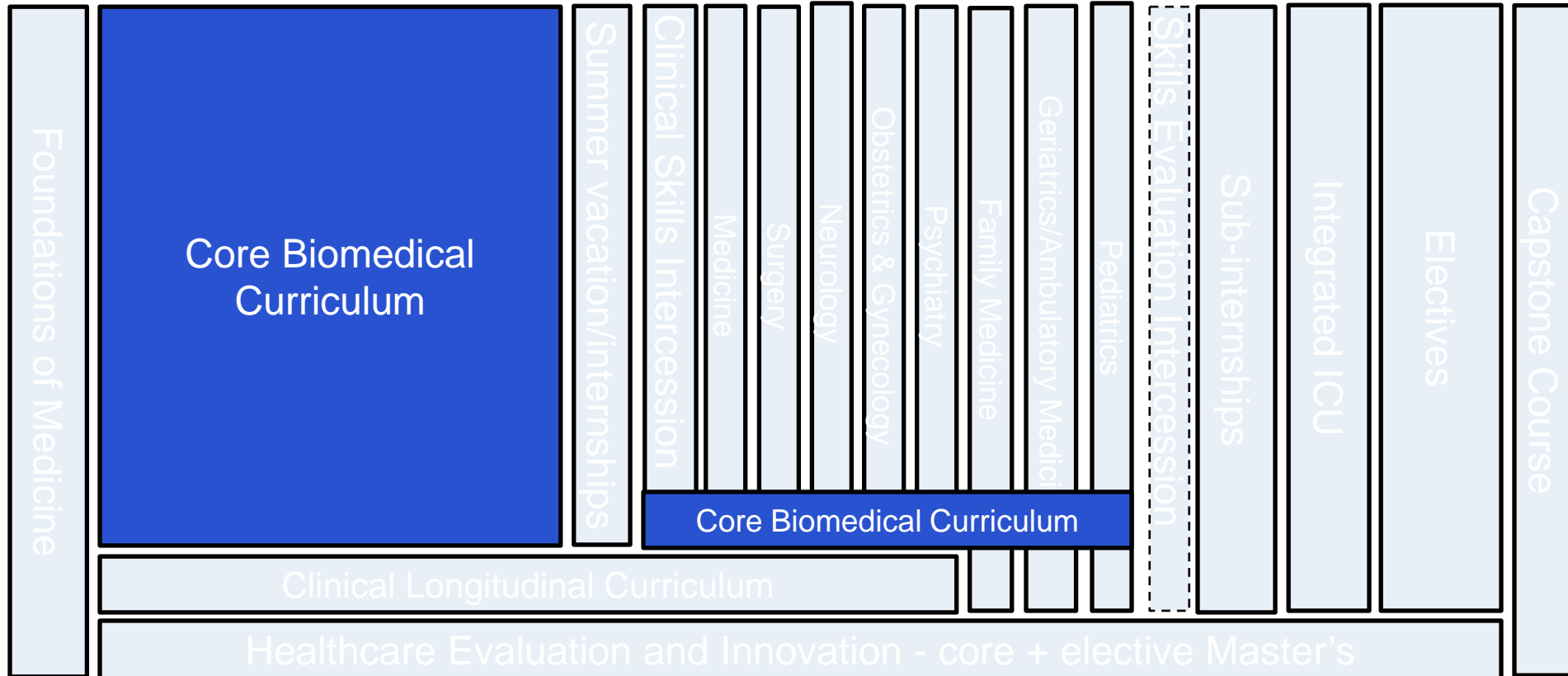
Mon	Tue	Wed	Thu	Fri
Small group case-based session for Y1 students	Lab or other similar integrative session	Small group case-based session for Y1 students	Lab or other interactive teaching time	Small group case-based session for Y1 students
Large group session aligned with small group		Large group session aligned with small group	Review and discussion of challenging cases	Healthcare evaluation and innovation
Review, mentorship/ advising, and study time	Clinical Longitudinal Curriculum (CLC) – longitudinal clinic and mentored small group discussion	Review, mentorship/ advising, and study time	Review, mentorship/ advising, and study time	Review, mentorship/ advising, and study time

Phase I - Foundations of Medicine



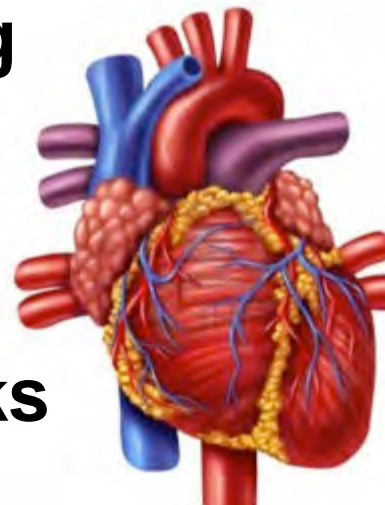
- 6 weeks, 16-20 hrs/wk+ review time
- Multidisciplinary intro to physician role & medicine (modified CanMEDS)
 - Core biomedical curriculum, physical exam/communications, ethics/professionalism, practice resilience, healthcare evaluation & innovation
- Introduction to case-based pedagogical approach & mentor assignments
- Baseline evaluations, start of personal learning portfolio

Core Biomedical Curriculum

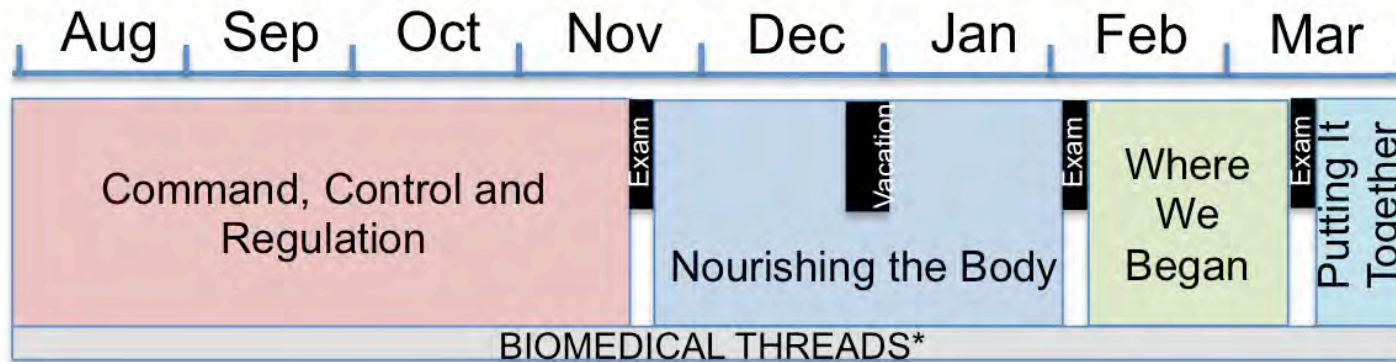
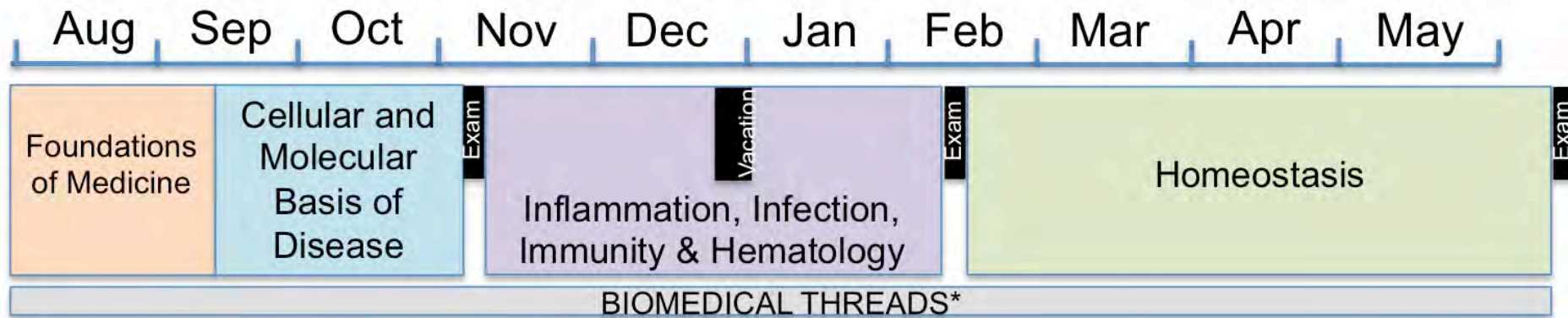


Phase I: Core Biomedical Curriculum

- 18 months, 12-14 hrs/week
- 6 integrated cross-departmental blocks, each 4-8 weeks
- *Led by teams* of clinicians and basic scientists
- Systematic approach to clinical thinking
- Integrated lab sessions
- Multimodality evaluation at end of blocks



Integrated Cross-Departmental Courses



* Longitudinal biomedical threads of: Pharmacology, Anatomy, Pathology, Imaging, Embryology, Dermatology, Geriatrics and 4-6 disease-based threads

Block	Topics
Cellular and Molecular Basis of Disease	Cell biology, genetics, oncogenesis
Inflammation, Infection, Immunity & Hematology	Immunology, inflammation, microbiology, virology, infectious diseases, hematology
Homeostasis	Cardiovascular, respiratory, fluids, electrolytes, and nephrology
Command, Control & Regulation	Endocrinology, brain & behavior, musculoskeletal & connective tissue
Nourishing the Body	Integrated metabolism, gastroenterology
Where We Began	Reproduction and development

Core Biomedical Curriculum: Cross-Cuttingting Longitudinal Themes

Human Structure: histology,
anatomy, biomedical Imaging

Ethics, humanities and
professionalism

Pharmacology

The spectrum of life: pediatrics to
geriatrics

Obesity/metabolic syndrome and
other disease-based themes

Content woven into entire curriculum using
same active learning approaches as
mentioned before

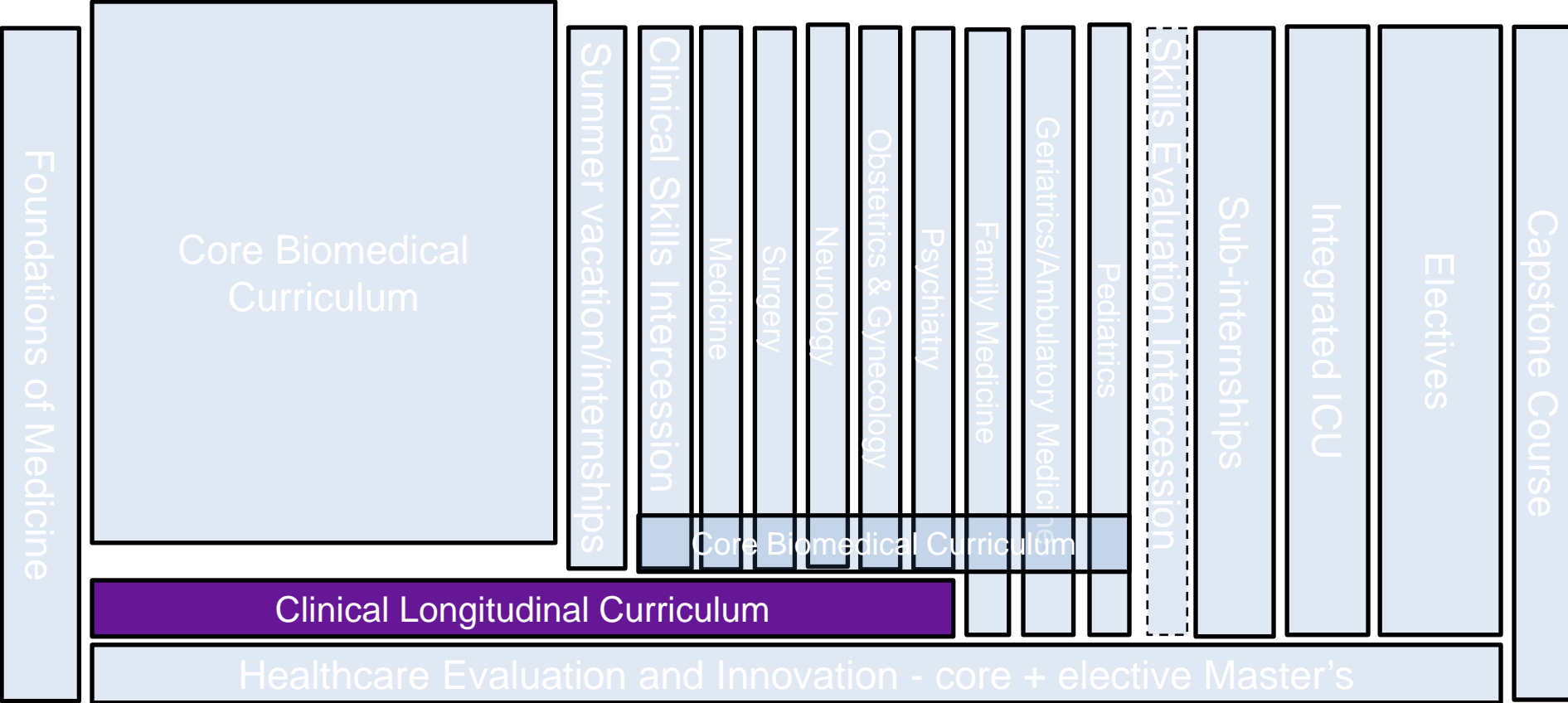
Cross-cutting topics led by knowledgeable
faculty who collaborate closely with block
leaders

The Core Biomedical Curriculum Does Not End at the Third Year



Clinical immersion rotations like medicine & surgery
will include clinically-relevant advanced
pathophysiology sessions integrated into clinical
experiences by teams of clinicians and basic
scientists

Clinical Longitudinal Curriculum

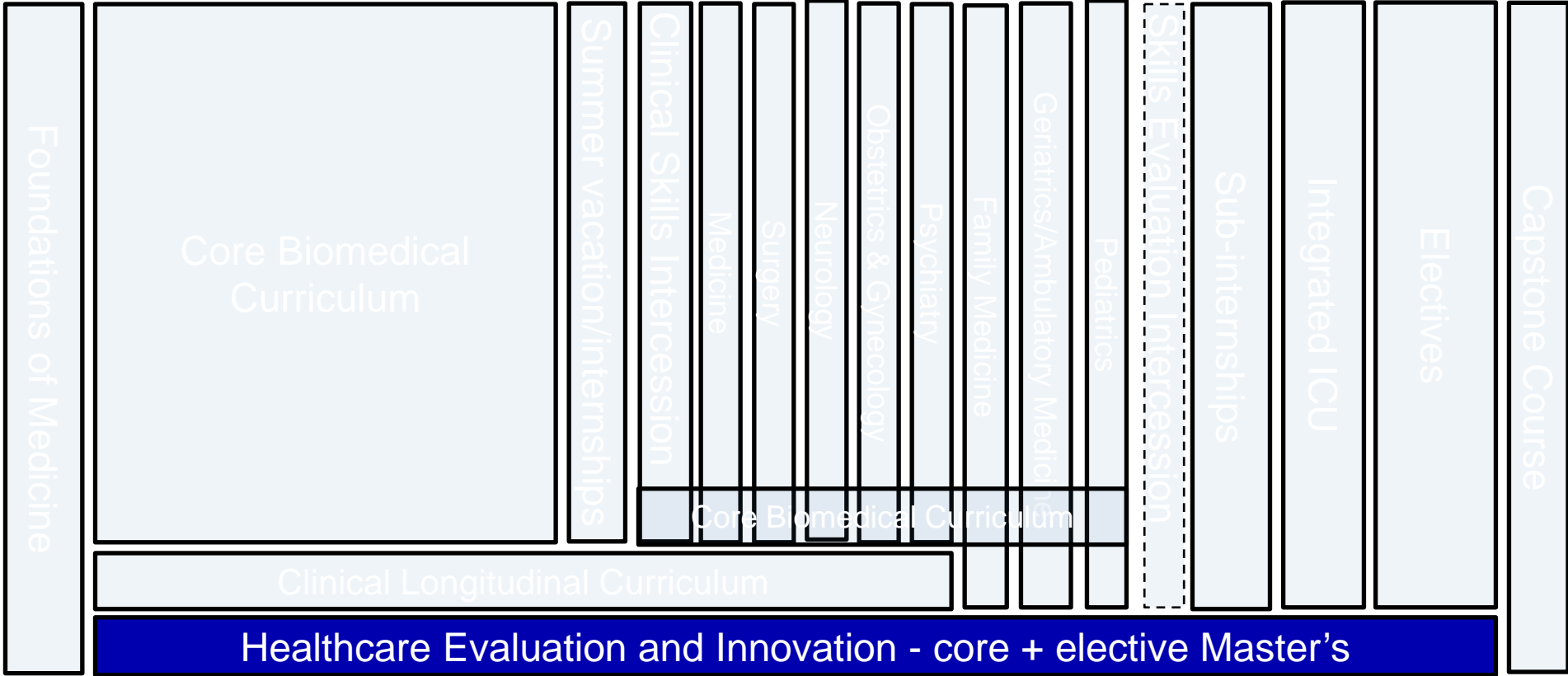


Phase I & II: Clinical Longitudinal Curriculum

- 18+ months longitudinal
- Clinic + small group of 8/faculty member
 - Communication, exam, clinical reasoning
- Aligned with Core Biomedical Curriculum
- Context
 - 3x/month primary care practice
 - Elective 1x/month other clinic
- Service learning/QI component
- Mentorship / advising
- Integration with immersion time



Y1-Y4: Healthcare Evaluation & Innovation



Healthcare Evaluation and Innovation

- 4 years, core and elective content
- All students receive core content embedded in the week. Master's students take extra courses during summer and elective time.
- Institutional strength in health outcomes and systems change
- Scholarly projects & publications
- Flexible student specialization e.g. healthcare delivery science, leadership, global health, healthcare innovation...

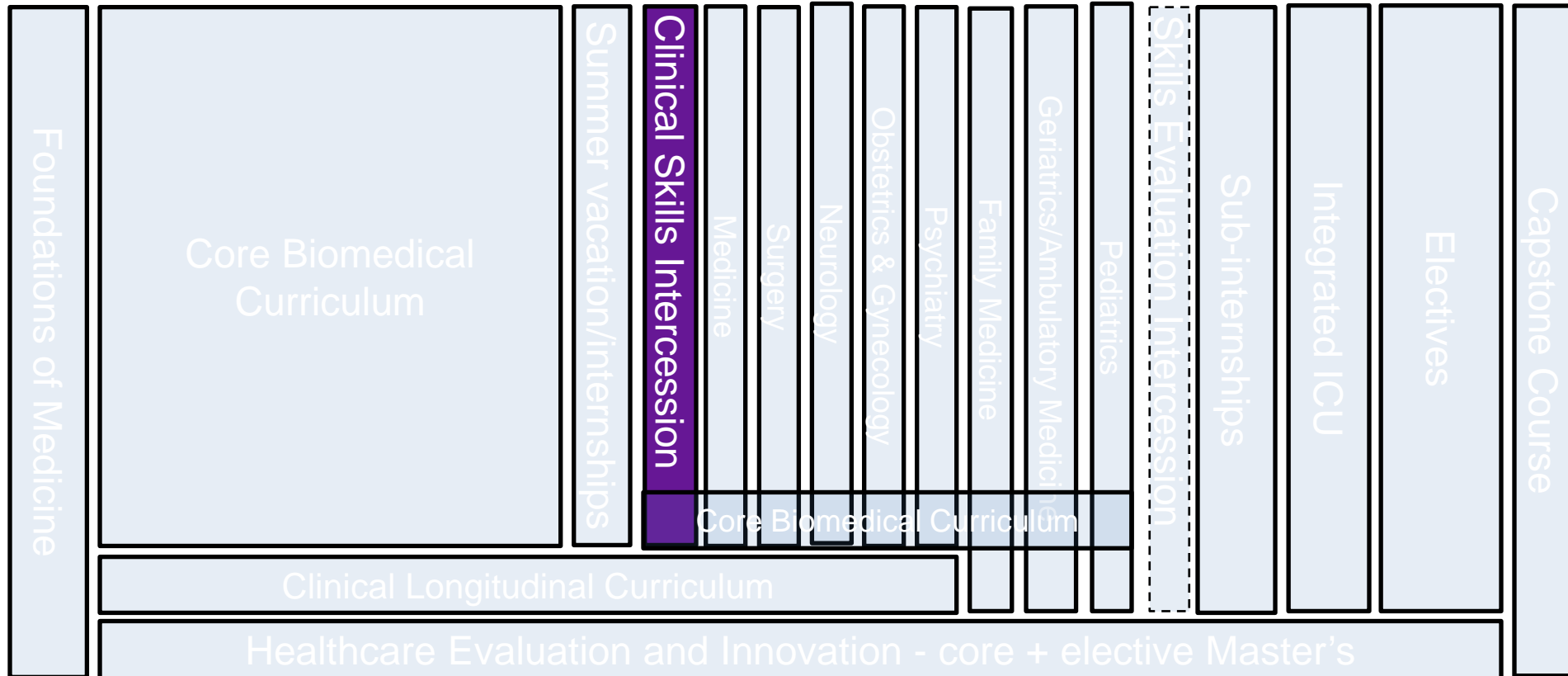
Healthcare Evaluation & Innovation	All Students	Comprehensive Longitudinal Leadership Curriculum	4 credits, ~ 80 hrs per credit over 4 years
		Healthcare Systems: Design & Improvement	
		Measurement, Analysis & Critical Appraisal	
		Healthcare Financing & Policy	
	Master's	Electives x 4	6 credits, ~ 40 hrs per credit over 4 years
		Scholarly Project leading to publication / quality improvement	

	Required hours	Hours in existing 4-year Geisel curriculum	Hours in proposed 4-year curriculum	Elective hours in proposed 4-year curriculum
Core track for all students	320	135	185 (~0.75/week)	0
Elective master's program	360	0	0	360

Phase II

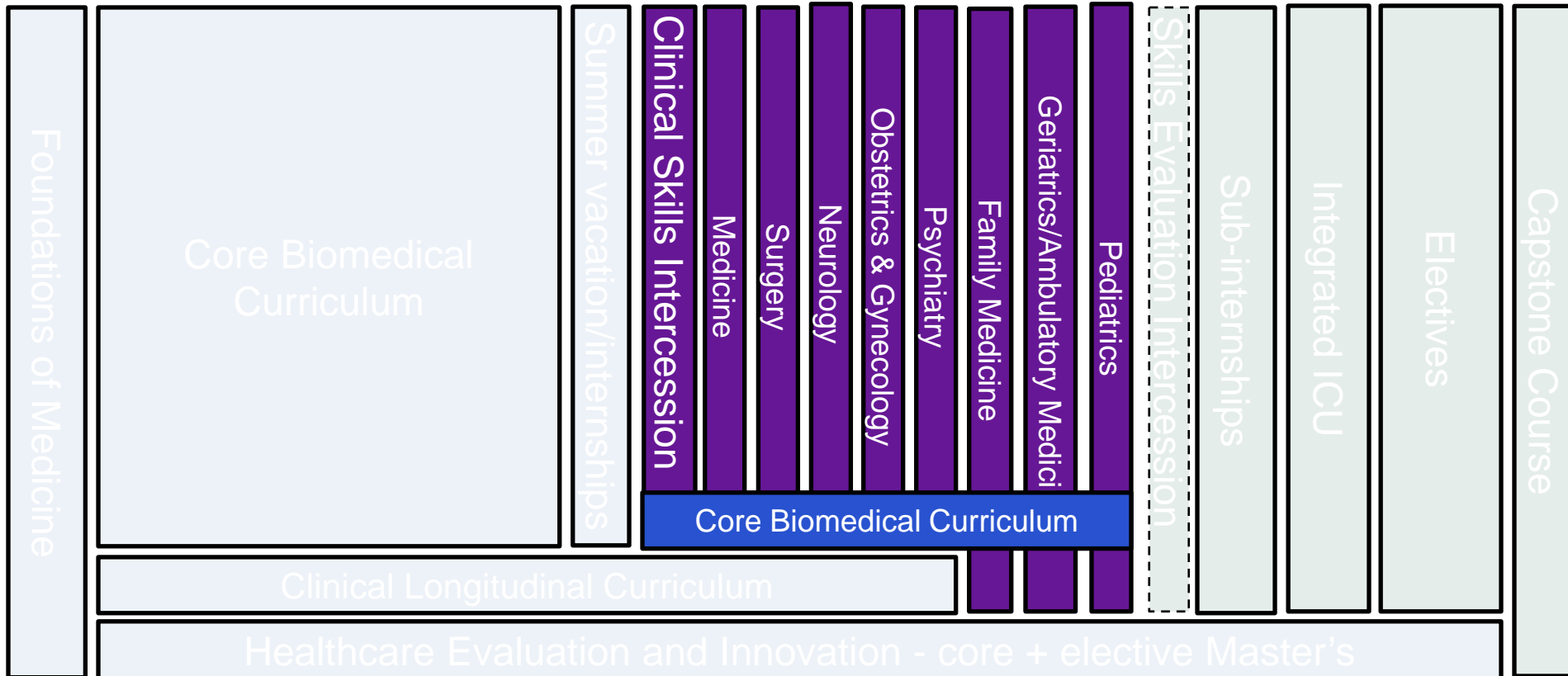
Clinical Immersion

Phase II: Clinical Skills Intercession



- Transition onto clinical immersion year
- ~ 2 weeks
- Advanced physical examination and communications skills
- Procedural skills workshops (venipuncture, BLS, surgical knots, etc.)
- Advice from senior medical students
- Time for remediation if needed

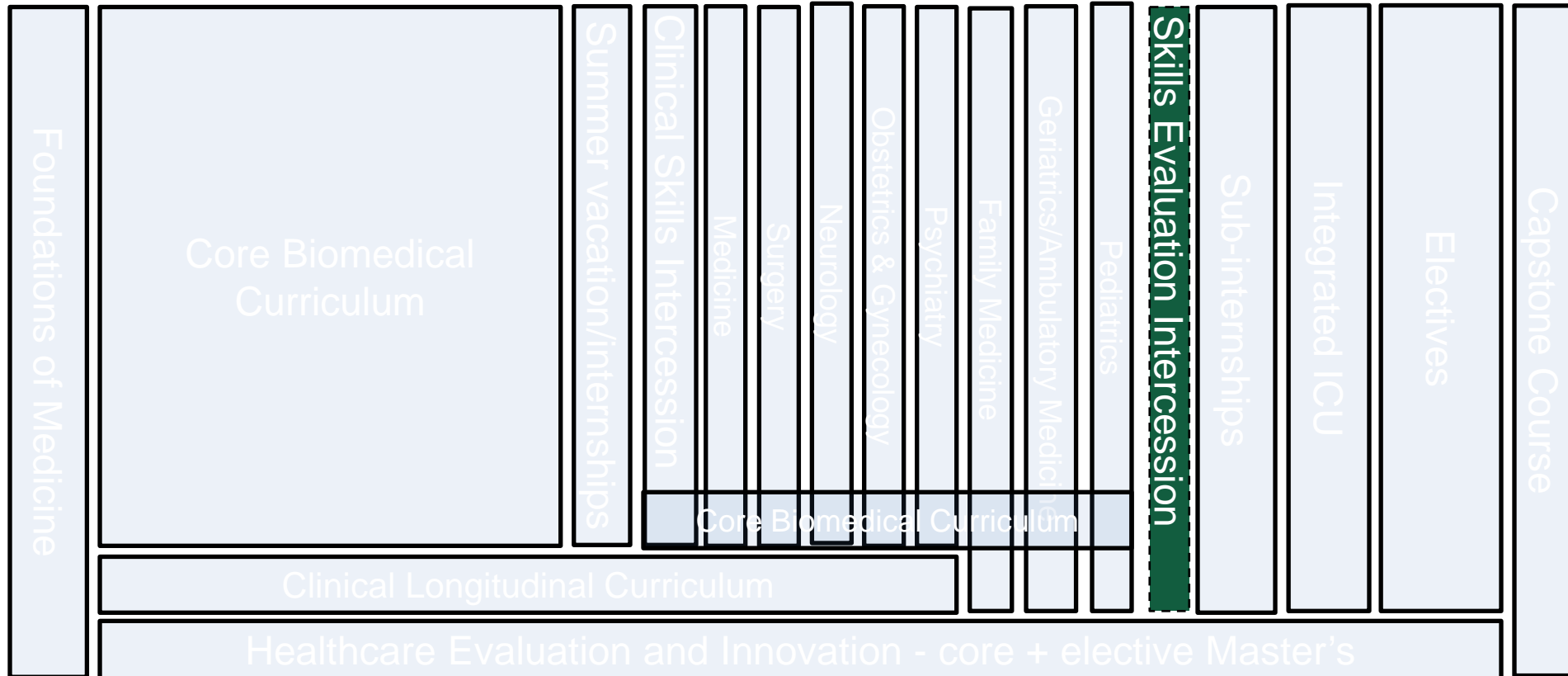
Phase II: Clinical Immersion Training



Phase II: Clinical Immersion Training

- Starting ~2017; development is at an earlier stage
- Standard clerkships in 14 month span
 - Medicine & GAM, surgery, pediatrics, ob/gyn, psychiatry, family medicine, & neurology + elective time
- Longitudinal clinical didactics in each clerkship
- Advanced case-based sessions in foundational biomedical sciences taught by clinician/scientist teams

Skills Evaluation Intercession

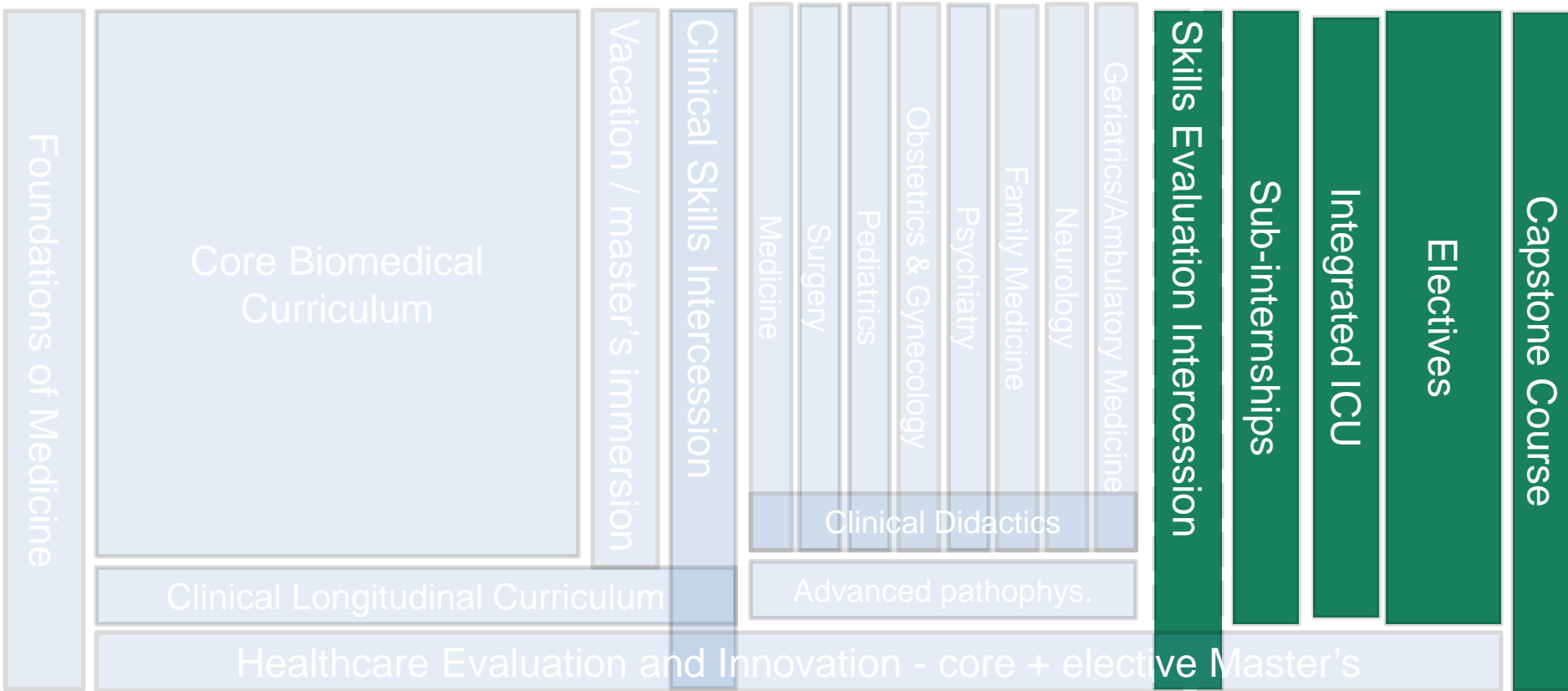


- Will occur in 2017-2018, perhaps spring before Y4
- Later phase of development; we anticipate evolution of this short session so it builds on and complements clerkships, CLC, etc. in necessary way
- Guiding principles are: (1) overarching theme; (2) must align with institutionally required student travel (ERAS, etc); (3) must align with redesign principles
- Example under consideration: Observed Structured Clinical Exam (OSCE) + advanced communication/professionalism training, peer-to-peer training

Phase III

Differentiation & Exploration

Phase III - Differentiation



Differentiation

- Starting ~2018; development is at an earlier stage
- Required sub-internships
- Integrated Acute Care Course
 - Collaborative integration into these didactics of clinically-relevant pathophysiology
- Several months of elective time
- Capstone Course



Phase III: Capstone Course

Capstone Course

Electives

Sub-internships

Clinical Scholarship Intercession

Geriatrics/Ambulatory Medicine

Neurology

Family Medicine

Psychiatry

Obstetrics & Gynecology

Pediatrics

Surgery

Medicine

Clinical Didactics

Advanced pathophys.

Clinical Skills Intercession

Vacation / master's immersion

Core Biomedical Curriculum

Clinical Longitudinal Curriculum

Healthcare Evaluation and Innovation - core + elective Master's

Foundations of Medicine

Phase III: Capstone Course

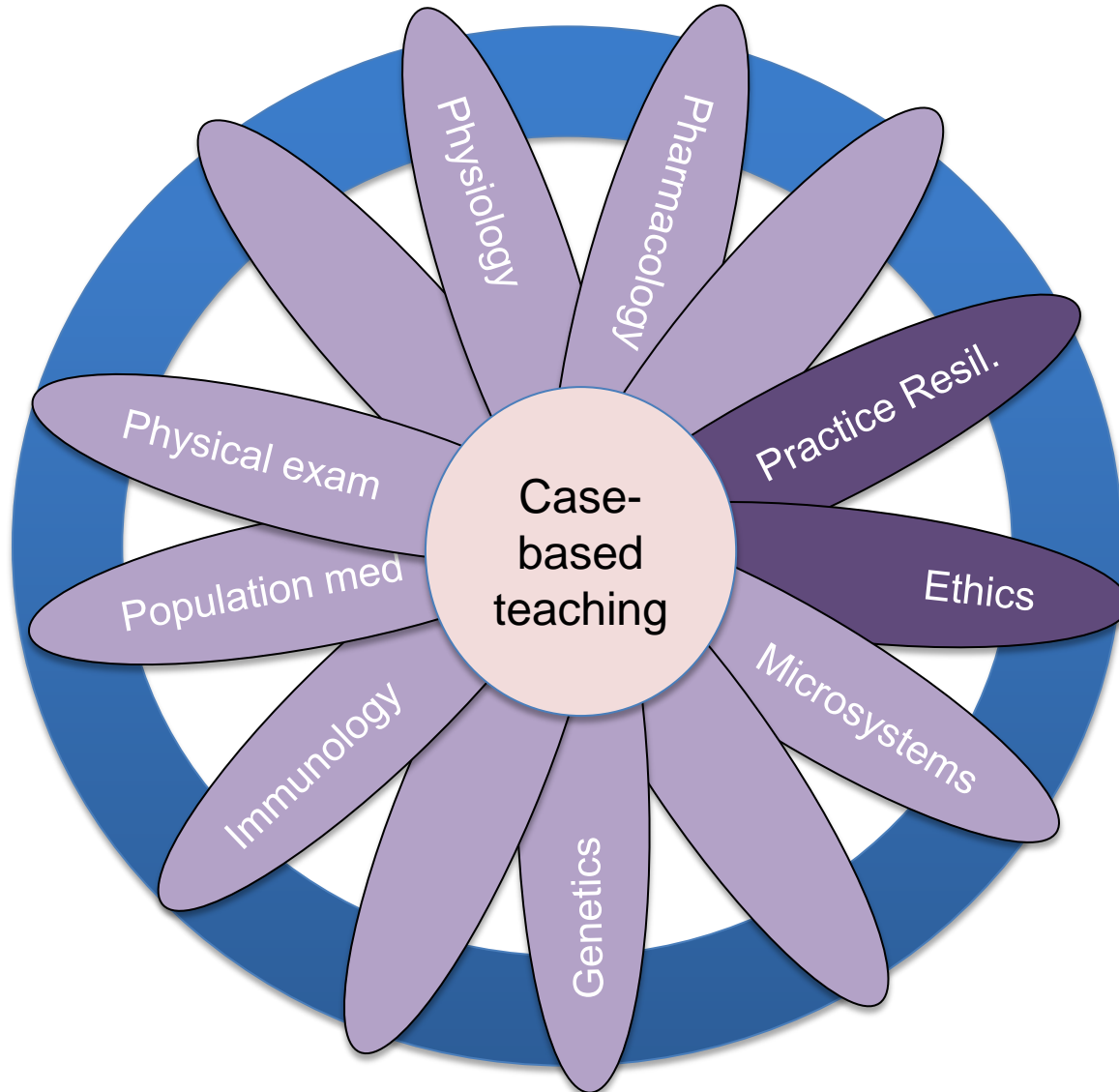
- ~2 months starting in 2020
- Content of current capstone courses (CPT, HSP, AMS) impacted by changes in curriculum of prior years
- Major facets
 - Completion and presentation of scholarly project (HSP)
 - Clinical skills for internship (CPT, ACLS, AMS)
 - Review of key pathophysiology (CPT, AMS)
 - Professionalism, ethics and humanism (AMS)
 - Class cohesiveness
 - Elective experiences (AMS, HSP)



Why Ethics, Humanities & Practice Resilience?

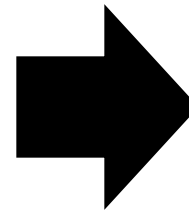
- Support for
 - Patient empathy & professional behaviors
 - Personal well-being
- Adaptive work behaviors
- Avoidance of burnout
- Ethics and mentorship are required

Integration of Ethics, Humanities, Practice Resilience



Preferential Integration at Key Transitions in Student Development

- Foundations of Medicine
- Clinical and Longitudinal Curriculum
- Clinical Skills Intercession
- Capstone Course



Ethics & humanities ~ 1 hr/wk
Practice resilience 34 hrs total

Frequently Asked Questions



Is This Innovative Enough?

Innovation



- The learning context will be revolutionized
 - Small group > large group sessions
 - Active, experiential learning
 - Longitudinal outpatient training
- Innovative core and master's in healthcare evaluation and innovation
- Full integration of core biomedical curriculum in Y3-Y4



**Do We Have Enough Space for
All Those Small Group
Sessions?**

Rooms for Small Group Sessions

- Remsen renovation underway
- 8 rooms suitable for small group sessions
e.g. 10-15 students each concurrently
- North Campus Academic Center includes
several new rooms
- Space availability actively being evaluated
and will be important piece of 2014-5
planning



The faculty is really busy. Will there be support for teaching?



Support for Teaching

- Teaching is a joy, and an expectation.
- Contributions beyond baseline expectation* are funded additionally.
- The Office of Faculty Development is here to support you.

* Clerkship/course directors, longitudinal clinic and small group preceptors, other major contributors



**How Will We Evaluate If The
Redesign Is a Success?**

Evaluation for Success

- Existing metrics
 - % time in active learning
 - Student performance on boards
 - Student satisfaction and burnout indices
 - Faculty resource utilization
 - Internship placement

- Novel metrics



The next step is a grassroots effort





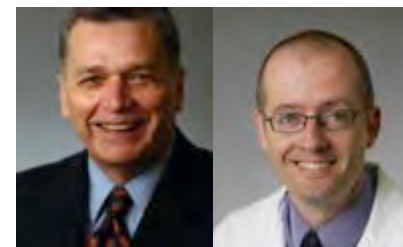
Rand Swenson



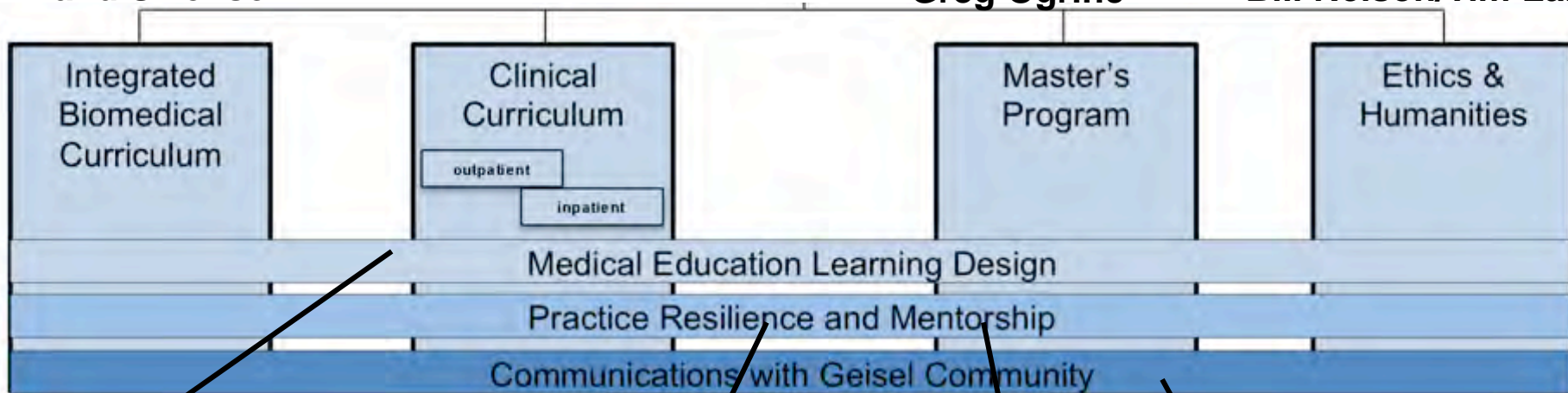
Nan Cochran / John Dick



Greg Ogrinc



Bill Nelson/Tim Lahey



Leslie Fall



Craig Donnelly



Ann Davis



Cathy Pipas

We Want to Hear from You!

Meeting	Date	Time	Location
DHMC Town Hall	4/3	12:15-1:30	Borwell 658W
Hanover Town Hall	4/3	5:30-7	Kellogg Aud
Focus group for clinical longitudinal curriculum	4/5	12:15-1:30	DHMC's Fuller Board Rm
Focus group for Core Biomedical Curriculum	4/9	12:15-1:30	Faculty Conference Room
Healthcare Evaluation and Innovation (including elective master's)	4/10	12:15-1:30	Faculty Conference Room

