Attachment 1

Curriculum Renewal
Faculty Assembly

Handouts

December 16, 2010
Executive Summary - 1

Changes in the Overall Curriculum

- New organization structure drives integration, cohesive management of a 4-year curriculum and increased accountability to and ownership of the overall educational enterprise
- More robust transitions: Orientation/Early Immersion, Transition to Clerkship and Transition to Residency
- Integrated biomedical science and clinical medicine
- More robust 4th Year and more integrated biomedical science in the clinical years, enabled by April clerkship start date
- Increased use of “adult learning” methods to drive integration and lifelong learning
- Competency-based curriculum and assessments
- Pass/Fail/Conditional grading system in Foundations years; clerkship, course and elective grading system (H/HP/P/C/F) remains the same
Executive Summary - 2

Changes in Foundations of Clinical Medicine (Pre-clerkship)
- Normal and abnormal are combined in each unit
- Units responsible for ALL competencies, including those clinical competencies previously taught in ECM
- More joint biomedical science /clinical design and teaching through integrated cases
- Common “look and feel” across units
- Starts in August; ends in April second year

Changes in Core Clinical Medicine (Clerkships)
- 12-week structure enables efficient scheduling across clerkships and sites
- More joint teaching across clerkships where appropriate
- Increased focus on learning objectives and assessment
- Increased biomedical science in clerkships

Changes in Advanced Clinical Medicine (4th year)
- More required elements
- 20 weeks of elective time with some requirements
- Dedicated time for study for USMLE Step 2 and Interviews
Executive Summary - 3

Changes in Content

- Increase in Integrated Biomedical Science in clerkships and 4\textsuperscript{th} year required elements
- Three initial 4-year threads in \textit{Geriatrics, Nutrition and Patient Safety}
- Primary Care changed to a 4-week Clerkship plus Longitudinal component in 3\textsuperscript{rd} year
- Anesthesia and Surgery included in Peri-operative Care and Surgery Clerkship
- New 4\textsuperscript{th} year requirements in Diagnostic Imaging (4), Geriatrics/Palliative Care (2/2), Emergency Medicine (4) and Critical Care (2)
4 Year Curricular Map

Sports Overview: Human Structure and Function

Basis of Disease I: Molecules to Cells

Basis of Disease II: Infection and Host Defense

Aug 6, 2012

Vacation

Longitudinal Patient Experience

Body Systems I: GI, Endocrine, Reproductive and Sexuality

August

Body Systems II: Cardiovascular, Renal and Respiratory

Body Systems III: Brain, Mind and Behavior

July

Vacation

Longitudinal Patient Experience

Clerkship A: Women’s Health and Pediatrics

Transition to Clerkship

Clerkship B: Neurology & Psychiatry

Clerkship C: Medicine and Primary Care

Clerkship D: Peri-operative Care & Surgery

Advanced Clinical Medicine

IBS

Amb. Sub-Spec. 2 weeks

IBS

Longitudinal Primary Care Clerkship

Longitudinal Primary Care Clerkship

Study and Step 2

Medicine or Peds Sub-1*

Elective

Diagnostic Imaging*

Elective

IBS Selective*

Elective

IBS Selective

Elective

Geriatrics; 2 weeks*

Palliative Care; 2 weeks*

Vacation and Residency Interviews

Elective

IBS Selective*

Vacation

Transition to Residency

Emergency Medicine*

Elective

IBS = Integrated Biomedical Science / * Required elements in Advanced Clinical Medicine Years/ Threads are included in all four years (Geriatrics, Patient Safety, Nutrition)
“ICE cube” concept

- “ICE” = Integrated Curricular Exercises
- “Cube” represents one course segment viewed from 6 perspectives (the 6 domains of competence).
- During a time span of 1-2 weeks in a Foundations unit, course elements teach all 6 domains, but all are thematically related.
- A unit consists of a series of cubes that build on each other.
- Long-term continuia spanning cubes (and spanning units) include patient contact and faculty mentoring in small group.
  - Regular small group sessions with cases define the cube’s subject and integrate all domains, under clinical and basic scientist facilitation.
  - Other sessions provide foundation and extension.
Key teaching methods for Foundations units

- **Interactive Lectures** — To “explicate difficult material, emphasize key concepts and principles, introduce unique disciplinary perspectives that could not be readily obtained through reading or independent study, and provide an organizational structure on which to build new learning.” Interaction (e.g., clicker questions) increases involvement.
- **Laboratory-based exercises** — To emphasize problem solving using small group methodologies. May cross existing discipline boundaries.
- **Virtual microscopy exercises** — May be in-class or on-line interactives.
- **Team-Based Learning** — Teacher-centered technique for whole class working in teams, in place of older interactives and some lectures. Emphasizes out of class preparation.
- **Facilitated Small Group Case-Centered Learning** — Student-centered discovery learning with clinical or basic science facilitator, or both, as appropriate. Emphasizes clinical reasoning, relevance of science to medicine, lifelong learning skills, and long-term close mentoring.
- **Mentored Small Group Clinical Skills Training** — Teacher-centered extension of small groups (above) emphasizing patient-care competencies.
- **Asynchronous Research and Writing Assignments** — Periodic written products including reflective essays and patient write-ups (etc.) for formative assessment.
- **Real and simulated patient contact** — Doctor’s office continuum, in-class patient contact, standardized patients, computer simulations (DxR Clinician), physical simulation. For teaching and formative assessment.
## Prototype "Ice Cube" Unit in Foundations

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<td>Interactive Lecture: The adolescent &amp; adolescent interview (2,3,4)</td>
<td>Interactive Lecture: Natural history of infection, constitutive and induced defenses (1)</td>
<td>Interactive Lecture: Antibodies and humoral effector functions (1)</td>
<td>Interactive Lecture: Lymphocyte development and generation of receptor diversity (1)</td>
<td>Formative Assessment: MCQ and virtual lab practical</td>
<td>Interactive Lecture</td>
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<td>10:00</td>
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<td>Facilitated Small Group: Septic arthritis in a 15-year-old Session 1 (Group SP in 1st hour, learning issues &amp; research assignments in 2nd hour) (1,2,3,4,5)</td>
<td>Interactive Laboratory Intro to infectious agents (1,3,5)</td>
<td>Facilitated Small Group: Septic arthritis in a 15-year-old Session 2 (Discussion of research topics, progression of case) (1,2,3,4,5)</td>
<td>Interactive Laboratory: Antibody assays (1,3,5)</td>
<td>Team-Based Learning: EBM of joint fluid analysis (1,2,3,5)</td>
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<td>Interactive Laboratory</td>
<td>Team-Based Learning: Inflammation and bacterial infections (1,2,3,5)</td>
<td>Simulation lab: Arthrocentesis live for subset, synchronous distance learning for rest (2)</td>
<td>Protected time for preparation and asynchronous assignments</td>
<td>Team-Based Learning: EBM of joint fluid analysis (1,2,3,5)</td>
<td>Video: musculoskeletal exam review (begin) (2)</td>
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<td>Visit simulation lab: Arthrocentesis (begin) (2)</td>
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<td>Visit simulation lab: Arthrocentesis (begin) (2)</td>
<td>Virtual microscopy of synovial fluid slides (begin) (1)</td>
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### Domains of Competence
1. Medical Knowledge
2. Clinical Skills
3. Communication Skills
4. Professionalism
5. Lifelong Learning and Problem Solving
6. Social and Community Context of Health Care

### KEY
- Interactive Lecture
- TBL
- Laboratory
- Radiology
- Exhibits
- Small group
- Doctor's Office
- Asynchronous Activity
- Formative Assessment
## Prototype “Ice Cube” Unit in Foundations

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**Domains of Competence**

1 = Medical Knowledge, 2 = Clinical Skills, 3 = Communication Skills, 4 = Professionalism, 5 = Lifelong Learning and Problem Solving, 6 = Social and Community Context of Health Care
Examples of formative assessments for Foundations units

- Medical knowledge
  - MCQ quizzes, TBL, anatomy/imaging practicals, clicker questions in lectures
- Patient Care
  - Practice H&P on peers & pts in Dr.’s office, group SP, video clips w/questions, MCQ on techniques, mentor evaluation
- Lifelong learning
  - EBM exercises, essays on journal club articles
- Communication skills
  - Role plays, group SP, video w/questions, MCQs on techniques, mentor evaluation
- Professionalism
  - Reflective essays, MCQs on ethical & legal issues, mentor evaluations
- Society/community
  - MCQs on healthcare system & epidemiology; essays
Examples of summative assessments for Foundations units

- Medical knowledge
  - Final MCQ/essay exam, pt note from OSCE
- Patient Care
  - OSCE including SP and pt note
- Lifelong learning
  - OSCE including SP and pt note
- Communication skills
  - OSCE including SP and pt note, essay on final exam, final mentor evaluation
- Professionalism
  - OSCE including SP and pt note, essay on final exam, final mentor evaluation
- Society/community
  - Final MCQ/essay exam
Plaza on Clarkson between Downstate and KCH at New York Avenue

I would like to propose that the SUNY Downstate Administration and Kings County Hospital Administration explore the possibility of constructing a plaza on Clarkson between Downstate and KCH at New York Avenue.

This plaza would cut off vehicular traffic on Clarkson Avenue at New York Avenue. Pedestrians can still walk through the plaza from Downstate or KCH to New York Avenue. Vehicular traffic will be preserved on Clarkson Avenue from the East for all the entrances to the medical complex, including the entrances to the R Building at KCH and the proposed new building addition to Downstate.

Since we are planning to build a new building addition to Downstate, now might be a good time to consider adding this plaza.

The plaza will:
1) Provide an outdoor space for students, faculty and staff from SUNY Downstate Medical Center and Kings County Hospital to relax during lunch time or other breaks.
2) Some outdoor recreational or celebratory activities may be organized in this plaza.
3) It will boost the morale of students, faculty and staff, and promote camaraderie.
4) It will make our medical complex more attractive and pleasing to the eyes.
5) It will further strengthen the sense of affiliation between Downstate and KCH, and bolster the image of our place as a grand medical complex.

Like any thing else, there will be some trade offs. I realize that one has to get permission from the city, state, and neighborhood, has to come up with ways of raising funds (donors?), and has to come up with a design, not an easy task.

But I think it is worth exploring.

Thank you for your kind consideration.

Vis
(Ramaswamy Viswanathan, M.D., D.Sc.)