A new curriculum for a new age

CDU COM Faculty Medical Education Retreat
January 5, 2018

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Professor of Medicine
Maxine and Eugene Rosenfeld Chair in Medical Education
Vice Dean for Education
David Geffen School of Medicine at UCLA
Overview

• A bit of history
• The case for change
• Engaging in the process
A bit of history
“The David Geffen School of Medicine at the University of California, Los Angeles (UCLA), implemented a new, integrated systems-based approach to teaching the clinical and basic sciences curriculum in the first 2 years of the 4-year curriculum in 2003.”
Ten strategies to transform medical education

Clarence H. Braddock III, MD, MPH, FACP
Professor of Medicine
Associate Dean, Undergraduate & Graduate Medical Education
Director, Stanford Center for Medical Education Research and Innovation (SCeMERI)
Stanford School of Medicine
Curriculum 2018 should …

1. Be outcomes (competency) – based
2. Ensure a common core of competencies but support diverse pathways
3. Include early and authentic experiences in patient care and scholarship
4. Include longitudinal continuity patient care and scholarship
5. Replace the classroom with the studio
6. Explicitly recognize and foster “scholarly teaching”
7. Support earlier differentiation
8. Blur the continuum
9. Incorporate inter-professional team training
10. Produce “superb doctors” who “think like a scientist”
Leadership view - 2014

• Explicit leadership training program
• Formal program of academic advisors; mentorship training
• Scholarships for 5th year, embed students in scholarly communities
• Pursue transformative curricular change
2015-16: Which path should we pursue?

**Evolutionary change**
- Remodel and redecorate

**Transformative change**
- New construction
The case for change
2016-17: Reasons for transformative change

• Strategic imperative

• Emerging frameworks

• National trends

• Performance metrics

• Making room for new curricular areas

• Time of opportunity
  • New teaching spaces -> new pedagogy
  • Evolving aspirations of students
  • Energized medical education team
Reasons for transformative change

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The "Pillars" of Curriculum Reform

Aimee R. Pick, MD, assistant dean for curriculum, Louis N. Fergus, MD, professor and chair, Department of Medicine, and William R. Skillman, MD, associate dean, Medical Education, Uniformed Services University of the Health Sciences

Medical schools have been engaged in curricular reform for over 20 years, although the 2010 release of the Carnegie Foundation’s Educating Physicians: A Call for Reform of Medical School and Residency: galvanized the effort across the United States and Canada. The report’s authors suggested four key

I: Standardization of Learning Outcomes

II: Integration of Formal Knowledge and Professional Identity

III: Development of Habits of Inquiry and Innovation

- Establish the foundation of scientific inquiry, encourage developing and asking of critical questions
- Encourage student speculation regarding futuristic therapies, based on the most recent scientific advances
- Allow students to develop and present results of a customized research project (e.g., a capstone project), accomplished under the auspices of a dedicated mentor. Projects can reflect student interests:
  - Traditional bench research
  - Clinical research
  - Quality improvement/patient safety

IV: Focus on Professional Identity Formation

- Introduce situated learning and involve students in communities of practice
- Involve students in interdisciplinary education and team-based learning
- Encourage art in medicine and reflective writing
- Discuss humanism, medical ethics, and societal obligations

- Tailor remedial activities to student needs
- Initiate clerkships within 12 to 18 months of matriculation and tailor schedules and sequencing to student proficiency

References
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Curriculum Change in US Medical Schools: Implementation of Change

- Implementation of a Curriculum Change Has Been Completed Within the Past Five Years: 27.2%
- No Curriculum Change is Being Planned or Has Been Implemented Within the Past Five Years: 6.6%
- A Curriculum Change is in the Planning Process and Will be Implemented Within the Near Future: 36.8%
- A Curriculum Change is in the Process (Has Begun to be Implemented but Implementation is not Complete): 29.4%
Medical education innovations trends

• 1960’s – Problem-based learning
• 1970’s – Discipline courses -> Integrated organ block
• 1980’s – Ethics, social medicine, etc.
• 1990’s – Expand clinical skills prep in pre-clerkship
• 2000’s – New pedagogies: e.g. “flipped” classroom, TBL
• 2010’s – System science
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What are the right metrics for success?

*AAMC Mission Management Tool*
Medical School Missions Dashboard 2016
University of California, Los Angeles David Geffen School of Medicine

1. Graduate a Workforce that Will Address the Priority Health Needs of the Nation

2016 Percentiles
(Click on bars below to show trends on the right)

- % Practicing In-state: 98%
- % Practicing in Primary Care: 65%
- % Estimated to Practice Family Medicine: 61%
- % Estimated to Practice Primary Care: 59%
- % Practicing in Underserved Area
- % Practicing in Rural Areas

Trends
Percent of Graduates Practicing in Medically Underserved Areas

Percentile Ranking Compared to All Schools

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Medical School Missions Dashboard 2016
University of California, Los Angeles David Geffen School of Medicine

4. Provide High Quality Medical Education as Judged by Your Recent Graduates

2016 Percentiles
(Click on bars below to show trends on the right)

- Quality of Internal Medicine Clerkships: 95
- Quality of Psychiatry Clerkships: 88
- Quality of General Surgery Clerkships: 84
- Quality of Pediatrics Clerkships: 80
- Basic Sciences Illustration of Clinical Relevance: 79
- Satisfied with Quality of Medical Education: 57
- Quality of Obstetrics-Gynecology Clerkships: 47
- Quality of Family Medicine Clerkships: 36

Trends
Overall I am Satisfied with the Quality of my Medical Education

Percentiles Ranking Compared to All Schools

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### An Overview of the Curriculum

**August**
- **Practical**: Intro to the Profession Week
  - Block 1 Foundations of Medicine
- **Clinical Foundations Week**: Doctoring & Clinical Skills
  - Block 2: Cardiovascular, Renal & Respiratory Medicine I
- **Clinical Integration Intensive Week**: Doctoring & Clinical Skills
  - Block 3: Gastrointestinal, Endocrine, & Reproductive Medicine I
- **Winter Break**: Doctoring & Clinical Skills
  - Block 4: Musculoskeletal Medicine I
  - Spring Break: Doctoring & Clinical Skills
  - Block 5: Medical Neuroscience I
- **Summer Break**: Doctoring & Clinical Skills

**August**
- **Block 6: Foundations of Medicine II**
- **Block 7: Medical Neurosciences II**
- **Block 8: Gastrointestinal, Endocrine & Reproductive Medicine II**
- **Winter Break**: Doctoring & Clinical Skills
- **Block 8 (cont.)**: Doctoring & Clinical Skills
- **Block 9: Cardiovascular, Renal & Respiratory Medicine II**
- **Clinical Assessment**: Independent Study

**May**
- **Track A Rotations (24 wks)**
  - Surgery (12 wks)
  - Pediatrics (6 wks)
  - Obstetrics & Gynecology (6 wks)
- **Track B Rotations (24 wks)**
  - IM (6 wks)
  - PSNE (8 wks)
  - AMFM (9 wks)
- **Winter Break**: Track B Rotations, cont. (18 wks)
- **Track A Rotations, cont. (18 wks)**

**Systems Based Healthcare**
- Longitudinal Radiology Course
- Longitudinal Preceptorship
- Correlated Experiences

**May**
- **Elective Coursework (10-12 wks minimum)**
  - 12 weeks of sub-internship
  - 300 or 400 level/2 clerkship (3 consecutive wks)
  - 300 or 400 level/2 clerkship (2 consecutive wks)
  - 300 or 400 level/2 clerkship (1 consecutive wks)
  - 1st or 2nd year clerkship (3 consecutive wks)
  - Evening College Seminars

**May**
- **Elective Coursework**
  - Elective Coursework
  - Elective Coursework
  - Elective Coursework

**June**
- **Elective Coursework**
  - Elective Coursework
  - Elective Coursework
  - Elective Coursework

**Clinical**
- **Academic Medicine**
  - Applied Anatomy
  - Acute Care
  - Primary Care
  - Urban Underserved
  - College Foundations Week
  - Elective Coursework (12 wks minimum)
  - 12 weeks of sub-internship
  - 300-level clerkship (3 consecutive wks)
  - 400-level clerkship (2 consecutive wks)
  - 300 or 400-level clerkship (2 consecutive wks)
  - 1st or 2nd year clerkship (3 consecutive wks)
  - Evening College Seminars
- **Scholarship Week**
- **Hypothetical Clinical Experience**
- **Scholarship Week**
Typical week

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Where to fit:
- Electives?
- Research/scholarship?
- Community service?
- Wellness/wellbeing?
- New curricular initiatives?
Recent curricular initiatives

- Cultural competence/health disparities
- Early/authentic clinical experiences
- Entrustable professional activities
- Social medicine/humanities
- Health policy
- Nutrition
- Bioethics
- Population Health
- Practice of Medicine (integrated clinical skills course)
- Ultrasound
- Leadership and advocacy
Existing threads

• Anatomy, Histopathology
• Biochemistry
• Clinical Reasoning
• Clinical Skills
• Doctoring
• Genetics and Genomics
• Ophthalmology
• Pharmacology
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<tr>
<th>Month</th>
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<tbody>
<tr>
<td>August</td>
<td>Intro to the Profession Week</td>
<td>Clinic Immersion Initiative Week</td>
<td>Doctoring &amp; Clinical Skills</td>
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### Clinical Foundations Week

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<th>Month</th>
<th>Track A Rotations (24 wks)</th>
<th>Track B (6 wks)</th>
<th>Winter Break</th>
<th>Track A Rotations, cont. (18 wks)</th>
</tr>
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<tbody>
<tr>
<td>August</td>
<td>Surgery (12 wks)</td>
<td>PSNE (6 wks)</td>
<td>SU (12 wks)</td>
<td>On-Patt Exam</td>
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<td>Pediatrics (6 wks)</td>
<td>AMFM (6 wks)</td>
<td>PE (6 wks)</td>
<td>On-Patt Exam</td>
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<td>Obstetrics &amp; Gynecology (6 wks)</td>
<td>Psychiatry/Neurology (6 wks)</td>
<td>OG (6 wks)</td>
<td>On-Patt Exam</td>
</tr>
<tr>
<td></td>
<td>Psychiatry/Neurology (6 wks)</td>
<td>Ambulatory Medicine (6 wks)</td>
<td></td>
<td>On-Patt Exam</td>
</tr>
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### Elective Coursework

- 12 weeks of sub-internship
- 300-level clerkship (3 consecutive wks)
- 400-level clerkship (3 consecutive wks)
- 300 or 400-level clerkship (3 consecutive wks)
- ICU Elective (3 consecutive wks)
- Evening College Seminars
Reasons for transformative change

• Strategic imperative

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• Time of opportunity
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Recommendation

- FEC and Dean’s Office have launched curriculum redesign process
  - Design with shared governance
  - Include faculty, student, staff, patients, community
  - Redesign entire curriculum
- Phased approach
  - Scope & defining purpose – Steering committee Fall/Winter 2017
  - Exploration of themes – Working groups Winter/Spring 2018
  - Detailed design - Faculty & staff, Summer 2018 – Spring 2019
  - Launch – Entering class in 2019
Engaging in the process
Phase I: Scope and Defining Purpose

Focus on “why?”

Act, Think & Communicate from the INSIDE OUT!

WHY - Your Purpose
Your motivation? What do you believe?

HOW - Your Process
Specific actions taken to realize your Why

WHAT - Your Result
What do you do? The result of Why. Proof
Simon Sinek - Start with Why
**Why = The Purpose**  
*What is your cause? What do you believe?*

Apple: We believe in challenging the status quo and doing this differently

**How = The Process**  
*Specific actions taken to realize the Why.*

Apple: Our products are beautifully designed and easy to use

**What = The Result**  
*What do you do? The result of Why. Proof.*

Apple: We make computers
What is our core purpose; our “why?”

• Think of a graduate who made you with proud

• How did/could the MD program contribute to that?
Visit our website:
http://medschool.ucla.edu/current/curriculum-redesign-123