Proposal to Establish a Doctor of Medicine Professional Degree Program (MD) in the Carle Illinois College of Medicine.

Rashid Bashir, PhD
Abel Bliss Professor of Engineering, Head - Dept. of Bioengineering, University of Illinois

Robert Good, DO, FACOI
Medical Director, Clinical Integration Operations, Carle Health Systems

And Curriculum Committee
Medical Education: Present and Future

Quantitative Biology → Quantitative and Precision Medicine

Current medical curriculum:
- Biological Sciences
- Clinical Sciences
- Engineering Sciences & Technology
- Innovation, Design, Entrepreneurship

Future medical curriculum:
- Compassion and Patient Care
Co-Chairs: Rashid Bashir & Robert Good

- Brian Aldridge (Vet Med)
- Jennifer Amos (BIOE)
- Rashid Bashir (BIOE)
- Steve Boppart (ECE/BIOE)
- Neal Cohen (Psychology)
- T. ‘Kesh’ Kesavadas (IESE)
- Susan Martinis (MCB)
- Gay Miller (Vet Med)
- James Morrissey (MCB)
- Saurabh Sinha (CS)
- Brad Sutton (BIOE)
- Phyllis Wise (MCB)
- Naveed Adoni (Cardiology)
- Robert Cranston (Neurology)
- Robert Good (Internal Medicine)
- Malcom Hill (Pediatrics)
- Janet Jokela (Internal Medicine, McKinley)
- Michelle Olson (Surgery)
- Gerald Welch (Psychiatry)

Basic Health Sciences
- Neal Cohen (Psychology)
- Susan Martinis (Biochem/MCB)
- Gay Miller (Vet Med)
- Jim Morrissey (Biochem/MCB)

Clinical Sciences
- Naveed Adoni
- Robert Cranston
- Robert Good
- Malcom Hill
- Janet Jokela
- Michelle Olson
- Gerald Welch

Engineering Sciences & Technology
- Rashid Bashir (BIOE)
- Steve Boppart (ECE/BIOE)
- T. Kesh Kesavadas (IESE)
- Saurabh Sinha (CS)
- Brad Sutton (BIOE)

Accreditation/Curriculum Development Expertise
- Brian Aldridge (Vet Med)
- Jennifer Amos (BIOE)
- Phyllis Wise (MIP/MCB)
- Sam Frost, Bio-humanities
- Mark Henderson, John Towns, Campus IT
- ...
Process Overview (to date)

**Phase 1:** Understanding Competency Requirements and Learning Objectives
- Jan 20th

**Phase 2:** Integrative Delivery Methodology and Curricular Framework
- By March 31st

**Phase 3:** DCI Document Development for Criteria 6 and Interaction with Other Standards
- By May 15th

**Phase 4:** DCI Document Development for Criteria 6, 7, 8 and development of curricular cases/modules
- By July 31st

**Phase 5:** Refinement and Eventual Submission of LCME Standards and Self-Study
- By Nov 1st

**Phase 1: Committees**
1. Pre-Medical Criteria
2. Basic Sciences
3. Clinical Sciences
4. Engineering Sciences/Masters
5. Clinical Initiation
6. Professional Development

**Phase 2: Committees**
1. Professional Development
2. Foundational Knowledge
3. Cardiopulmonary Module
4. Overall Framework and Module Integration

**Phase 3: Committees**
1. Estimate faculty FTE needs
2. Evaluate facility needs
3. Weekly schedule
4. Preliminary DCI document

**Phase 4: Committees**
1. Weekly schedules
2. LCME Standard 6, 7
3. M3 Year
4. M4 Year – Res. Innovation & Electives
5. Overview/Module Order
6. Cardiopulmonary Module
7. Evaluation/Assess. Methods & Tools
8. LCME Standard 8
9. IT for Simulation and Education
10. FTE & Facilities Planning

**Phase 5: Committees**
1. Ed Pol Proposal for MD Program
2. EPO
3. Service Learning
4. Inter-professional
5. Assessment Plan/Tools
6. Learning objectives for each course and clerkship
7. Name potential course directors

Liaison Committee for Medical Education (LCME) is National Accreditation for Schools of Medicine

LCME accredits MD degree program curriculum and the College of Medicine

No students will be recruited, let alone admitted, until LCME accreditation has been obtained
Curriculum Framework

Flexner Report, 1910

1st Year 2nd Year 3rd Year 4th Year

Basic Sciences Basic Sciences Clinical Sciences

Required Clinical Rotations Elective Clinical Rotations

Our Model, 2016

1st Year 2nd Year 3rd Year 4th Year

Basic Sciences Clinical Sciences Engineering & Innovation

Basic Sciences & Engineering Required Clinical Rotations Elective Clinical Rotations Engineering Design
### M3 Year 2020-2021

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<th>7/6/20</th>
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<th>7/20/20</th>
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<td>OB-Gyn 6 weeks</td>
<td>M3 Electives 4 weeks</td>
<td>Pediatrics 4 weeks</td>
<td>M3 Electives 6 weeks</td>
<td>Neuro 4 weeks</td>
<td>Winter Break</td>
<td>Anesthesia 2 weeks</td>
<td>Psych 4 weeks</td>
<td>Break</td>
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**Engineering Innovation**

**Professional Development**

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<tbody>
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<td>Internal Medicine II or Surgery II 4 weeks</td>
<td>M4 Clinical Electives 13 weeks</td>
<td>Engineering Innovation</td>
<td>Professional Development</td>
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### M4 Year 2021-2022

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<td>M4 Engineering Electives 8 weeks</td>
<td>M4 Clinical Electives 8 weeks</td>
<td>Unscheduled Time and Interviews 10 weeks</td>
<td>Winter Break</td>
<td>Research Electives 12 weeks</td>
<td>M4 Clinical Electives 5 weeks</td>
<td>Engineering Innovation</td>
<td>Professional Development</td>
<td>Graduation</td>
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**Engineering Innovation**

**Professional Development**

**Engineering Rounds**

**IDEA Projects**

**Capstone Project, Data Science Project**
Next steps following Senate approval

- University Senates Conference (USC)
- Board of Trustees
- Illinois Board of Higher Education (IBHE)
- Liaison Committee for Medical Education (LCME) Preliminary Accreditation
- Higher Learning Commission
Questions