New College. New Medicine.

The first College of Medicine specifically designed at the intersection of engineering and medicine.



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 **Compassion and Patient Care**

Biological Sciences

Clinical Sciences

Engineering Sciences& Technology

Innovation, Design, Entrepreneurship

Future medical curriculum





Core Curriculum Workgroup Membership

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)

Engineering Sciences & Technology

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

Clinical Sciences

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

Accreditation/Curriculum Development Expertise

- Brian Aldridge (Vet Med)
- Jennifer Amos (BIOE)
- Phyllis Wise (MIP/MCB)

Additional Interactions:

- Dan Morrow, Educational Psych
- Andy Singer, TEC/Innovation
- Sam Frost, Bio-humanities
- Mark Henderson, John Towns, Campus IT

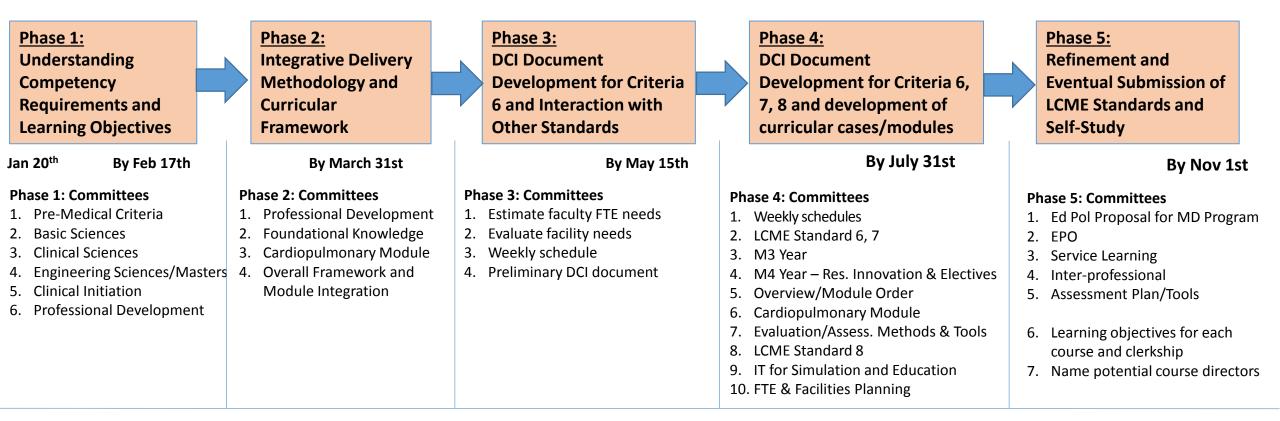
<u>Ex-Officio</u>: Kayla Banks, Normand Paquin, Meredith Minehart

PWC Consultants: Terri Workman, Sarah Fogel, Amy Yu





Process Overview (to date)



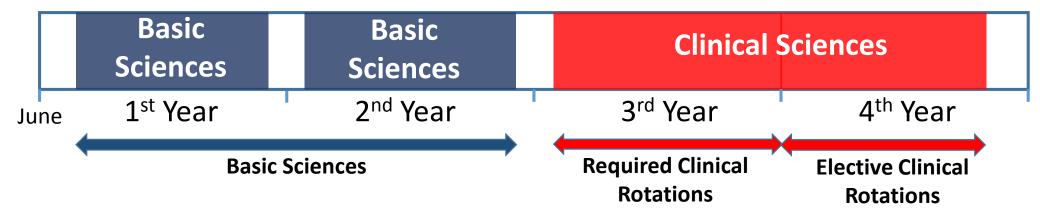
Liaison Committee for Medical Education (LCME) is National Accreditation for Schools of Medicine

LCME accredits MD degree program curriculum and the College of Medicine

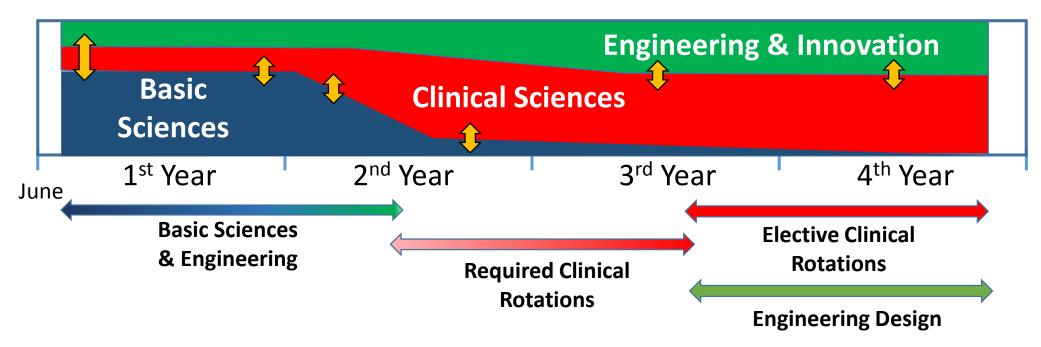
No students will be recruited, let alone admitted, until LCME accreditation has been obtained

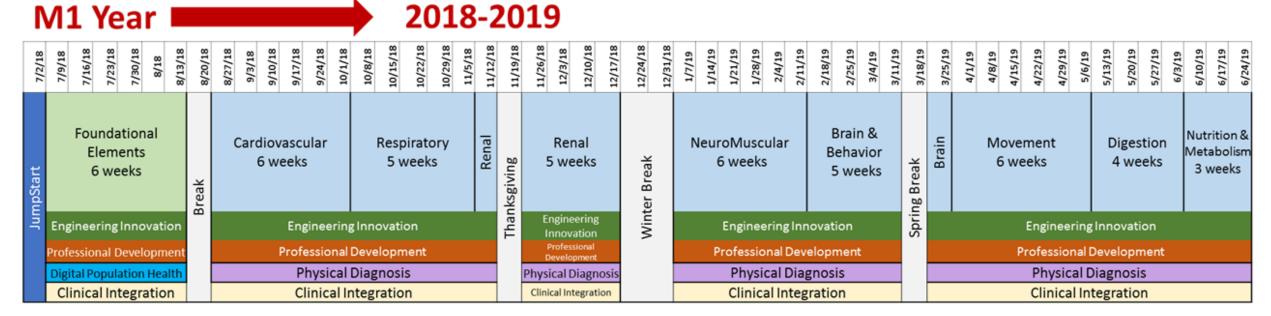
Curriculum Framework

Flexner Report, 1910



Our Model, 2016





M2 Year 2019-2020

Family Medicine Clerkship

Family Medicine Clerkship

10/21/19 10/28/19 11/18/19 11/25/19 12/16/19 12/23/19 12/30/19 10/14/19 11/11/19 7/15/19 7/22/19 8/12/19 8/26/19 9/16/19 9/23/19 9/30/19 10/7/19 11/4/19 12/2/19 12/9/19 1/13/20 1/20/20 1/27/20 2/10/20 2/24/20 3/30/20 4/13/20 4/20/20 4/27/20 5/11/20 5/18/20 5/25/20 6/22/20 6/29/20 2/3/20 6/8/20 8/5/19 4/6/20 6/1/20 Immunology Infection/ Hematology & Women's Time of Reproducti Internal Medicine Endocrinology Obstetrics Immun-Surgery Winter Break Thanksgiving Health Oncology Discovery 4 weeks 4 weeks 8 weeks ology 10 weeks Step 1 3 weeks Break 4 weeks 4 weeks 3 weeks 4 weeks Review 4 weeks Eng. Inv **Engineering Innovation** Engineering Innovation Engineering Innovation **Professional Development Professional Development** Prof. Devel **Professional Development**

Clerkship

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|-----------|-------------|----------|
| M3 Year |) 20 | 020-2021 |
| ivis icai | | , |

| Ī | 7/6/201 | | 7/27/20 | 8/3/20 | 8/10/20 | 8/17/20 | 8/24/20 | 8/31/20 | 0/11/0 | 9/1/20 | 9/14/20 | 9/21/20 | 9/28/20 | 10/5/20 | 10/12/20 | 10/19/20 | 10/26/20 | 11/2/20 | 11/9/20 | 11/16/20 | 11/23/20 | 11/30/20 | 12/7/20 | 12/14/20 | 12/21/20 | 12/28/20 | 1/4/21 | 1/11/21 | | 1/25/21 | 2/1/21 | 2/8/21 | 2/15/21 | 2/22/21 | 3/1/21 | 3/8/21 | 3/15/21 | 3/22/21 | 3/29/21 | 4/5/21 | 4/12/21 | 4/19/21 | 4/26/21 | 5/3/21 | 5/10/21 | 5/17/21 | 1/14/11 | 2/67/51 | 5/31/21 | 5/31/21 | 5/31/21 6/7/21 |
|---|--------------------------|--|---------|--------|---------|---------|---------|---------|--------|--------|---------|---------|----------------|---------|---------------|----------|----------|---------|---------|----------|----------|----------|---------|----------|-------------|----------|---------|------------|---------|---------|--------|-------------|---------|---------|-----------|---------|-------------|------------------------------|---------|--------|---------|---------|---------|--------|-------------|---------|---------|---------|---------|---------|----------------|
| | M3 Elective 2 weeks | | | | Gyn | | | | | | ectiv | ves | | | atrio eek: | | | M3 | | ctiv | | | | | uro eek: | | . Break | Anesthesia | 2 weeks | 4 | - | ych eeks | s | Break | ep 2 Exam | N or | ledi Sur | rnal cine gery eeks | Ш | | | | N | | linio 13 | | | | | ctives | |
| | Engineering Innovation | | | | | | | | Winter | | | | eerii vatio | | | Bre | LE Step | | | | | | Er | ngine | eerii | ng In | nov | atio | n | | | | | | | | | | | | | | | | | | | | | | |
| | Professional Development | | | | | | | | > | | | | sior pm | | | | USMI | | | | | | Pro | fessi | iona | al De | velo | pm | ent | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | ı | Engi | nee | ring | Rou | nds | | | | | |

M4 Year 2021-2022

| 7/5/21 7/12/21 7/19/21 7/26/21 8/2/21 8/9/21 8/16/21 | 8/30/21 9/6/21 9/13/21 9/20/21 10/4/21 10/11/21 | 10/25/21 11/1/21 11/8/21 11/15/21 11/22/21 12/6/21 12/13/21 12/20/21 | 1/10/22 1/10/22 1/24/22 1/31/22 2/11/22 2/21/22 2/28/22 3/14/22 3/21/22 3/21/22 4/11/22 4/11/22 4/11/22 5/2/16 | | | |
|--|--|---|---|--|--|--|
| M4 Engineering Electives 8 weeks | M4 Clinical Electives 8 weeks | Unscheduled Time and Interviews 10 weeks | Research Electives 12 weeks 5 weeks Engineering Innovation | | | |
| | Engineering Innovation Engineering Innovation | | | | | |
| | Professional Developm | | Professional Development | | | |
| Engineerin | ng 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



