

Integrated curriculum

- Background
- Process
- Experiences
- Outcomes
- Plans for next year

Medical School Curricula

■ Flexner Report

- 1910

- Emphasis on basic science

- Emphasis on clinical clerkships

- “Traditional Curriculum”

Traditional Courses

■ Preclinical or basic sciences

- Biochemistry

- Anatomy

- Physiology

- Pathology

- Microbiology

- Pharmacology

“Newer” Courses

Genetics

Neurobiology

Cellular and molecular microbiology

Developmental Biology

Model organisms and systems

Developmental and Evolutionary Biology

Course Formats

- Lecture-based
- Discipline-based versus “organ systems”
- Case-based
- Problem-based learning
- Team-teaching
- On-line (distance)

LCME 2005

- Partial or substantial noncompliance
- ED-33. There must be integrated institutional responsibility for the overall design, management, and evaluation of a coherent and organized curriculum.

ED-33

- “limited central resources and strong departmental authority over the educational program combine to preclude effective integrated institutional responsibility for the overall design, management, and evaluation of the curriculum. ...largely unchanged from the last survey, when curriculum management was cited as a concern.”

LCME 2005

- Other concerns were expressed about
 - too much lecture time
 - limited “self-directed study”
 - too many hours (over 1000 versus national average of about 700)
 - too many exams

Integrated Basic Science Curricula

- About 40-50% of American medical schools have partially or completely integrated curricula
- In 2008, only 69 of 143 US and Canadian MD programs had a course titled “biochemistry” (48%)
- Wide variety of course titles and integration
- Same (about 90% congruence) topics/information taught in first two years

Challenge

- Increase central control and coordination
- Decrease lecture and total contact time
- Same faculty
- Same amount of information on Step 1

Premise—Do more by Doing less

- “The mind can absorb only what the butt can endure”

- Limit lecture by small time (120 min to 90 min)

- Decrease redundancy by improving order

- Front-loading

- Combination approach

Process

- 12-18 months of planning meetings by course directors
- Same faculty, same topics, different order
- Improved cross-disciplinary understanding
- Some within session integration

Courses Combined

- Medical Biochemistry
- Human Morphology (already combining Histology, Embryology and Gross Anatomy)
- Medical Physiology
- Neurobiology (already an integrated course)

Other First Year Courses

1. [Introduction to the History of the United States](#)

2. [Introduction to the History of the United States: Preceptor session](#)



General Organization

- Basic Principles

- Organ Systems

- Musculoskeletal

(Lymphatic)

- Cardiovascular

Hematologic

- Respiratory

Endocrine

- GI

Reproductive

- Renal

Neuro

Organizational

- **cross-functional (systems)** P

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Changes in 2007-2008



Net Changes

- 55% reduction in scheduled lecture time
- 52% reduction in exam time
- No reduction in lab time
- No reduction in small group, clinical time

Issues in 2007

- “front-end” loading of biochemistry

About 50% of biochemistry “points” in first two exams

Addressed with “in course enrichment” (ICE) tutorial sessions (led by Ms. Young)

Addressed in coming Year

- Eliminated “biochemistry”
- Extended topic “footprint” (over longer time)
- Integrated “ICE” into schedule
- Complex process to “catch up” students in fall to allow “adapt to medical school” time

Other Issues

- Irregularly irregular topic schedule

- This is an artifact of “integrated topics” without integrated courses

Now courses are time-based,

Curriculum 2007-8

- Biochemistry 10 hr
- Human Morphology 14 hr
- Physiology 10 hr
- Neurobiology 7 hr
- Fundamentals of Medicine 17 hr
- Community Health 44 hr

