STFM Conference on
Medical Student Education

“EBM is a team sport” and other Lessons Learned from Two Institutions’ Successful EBM Curricula

STFM MSE January 2019

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Disclosures

- We are Family Medicine Faculty, Faculty Librarians, and an MD Student involved in the teaching and learning of evidence-based medicine at our respective institutions. We have nothing to disclose!

Learning Objectives

By the end of the talk, the participant will be able to:

- Describe lessons learned from teaching EBM.
- Discuss the advantages and challenges of creating a librarian-physician team for teaching EBM.
- Identify challenges and barriers to integrating EBM into their school's curriculum and discuss solutions.
- Compare different types of assessments for EBM competencies.

Poll

Who are the participants?

- *Students*
- *Residents*
- *EBM Instructors of Residents*
- *Med School pre-clinical instructors*
- *Clerkship Directors/Residency Faculty*
- *Community Preceptors*
- *Clerkship Coordinators*
- *Other*

Introduction

- LCME
- EPAs
- Residency-level EPAs/ACGME competencies
- Mastery Rubric

EBM Curricula (Blanco 2014)

- Majority of EBM objectives in M1 year
- Variety of learning objectives in multiple areas of Bloom's Taxonomy
  - **Application** level most common
- Variety pedagogies
- Clinicians predominated but also librarians and basic scientists
- Blanco et al. J Med Lib Assoc 102(3):2014

LCME Standard 7: Curricular Content

7.1 Biomedical, Behavioral, Social Sciences

The faculty of a medical school ensure that the medical curriculum includes **content** from the biomedical, behavioral, and **socioeconomic sciences** to support medical students' mastery of contemporary scientific knowledge and concepts and the methods fundamental to **applying them to the health** of individuals and populations.

(emphasis added)

LCME Standard 7: Curricular Content

7.3 Scientific Method/Clinical/Translational Research

The faculty of a medical school ensure that the medical curriculum includes **instruction in the scientific method** and in the basic scientific and ethical principles of clinical and translational research, including the ways in which such research is **conducted, evaluated, explained to patients, and applied** to patient care.

(emphasis added)

LCME Standard 7: Curricular Content

7.4 Critical Judgment/Problem-Solving Skills

The faculty of a medical school ensure that the medical curriculum incorporates the fundamental principles of medicine, provides opportunities for medical students to acquire **skills of critical judgment based on evidence and experience**, and develops medical students' ability to use those principles and skills effectively in solving problems of health and disease.

(emphasis added)

LCME

Critical judgment: The consideration, evaluation, and organization of **evidence derived from appropriate sources** and related rationales during the process of decision-making. The **demonstration** of critical thinking requires the following steps: 1) the **collection** of relevant evidence; 2) the **evaluation** of that evidence; 3) the **organization** of that evidence; 4) the **presentation** of appropriate evidence to support any conclusions; and 5) the coherent, logical, and organized presentation of any **response**. (Elements 7.4)

(emphasis added)

Entrustable Professional Activities (EPAs)

- "Expectations for both learners and teachers ... that all medical students should be able to perform upon entering residency, regardless of their future career specialty" - AAMC
- Each EPA is "a unit of observable, measurable professional practice"

EBM EPAs

- EPA 3: Recommend and Interpret Common Diagnostic and Screening Tests
- EPA 4: Enter and Discuss Orders and Prescriptions
- EPA 7: Form Clinical Questions and Retrieve Evidence to Advance Patient Care

Mastery Rubric for EBM

Mastery Rubric - “outlines the desired knowledge, skills, and abilities (KSAs) for an entire curriculum—together with developmental performance levels representing how learners should progress from more naive to more expert in the domain of interest.” (Tractenberg 2016)

EBM MR Sample

KSAs	Beginner (Novice) Med 2	Intermediate (Apprentice) Med 4	Practitioner (Journeyman/Woman) Residency Graduate	Teacher (Master) EBM Course Faculty
EBM process	Understands the components of the EBM process, can complete them with assistance; developing the capacity to articulate the rationale behind each step in the context of any given problem/question.	Executes the steps of the EBM process with limited support (by supervisor/preceptor); can articulate the rationale behind each step in the context of any given problem/question.	Automatic and independent execution and self-monitoring of the EBM process for any given question/patient.	Recognized, documented experience with the EBM process; experience with assessing EBM learners at earlier stages and predicting what tasks should be done by them to improve and/or document their performance level in the EBM process.
Selecting, searching, and utilizing resources (Medline, online resources)	Completes a literature search of moderate complexity with some assistance; limited ability to modify searches based on question type. Limited understanding of various online sources, not able to complete information gathering at the point-of-care.	Can independently complete a literature search of moderate complexity and tailor searches to question type. Able to answer questions at the point-of-care. Can decide if more formal/more time-consuming effort is required. Able to select the best resource given the complexity of the question.		Recognized, documented experience with searching; experience with assessing EBM learners at earlier stages and predicting what tasks should be done by them to improve and/or document their performance level in selecting, searching, and utilizing resources.

Access via http://dx.doi.org/10.1080/10401334.2016.1146599 Table 1

ACGME Core Requirements

IV.B.1.d) Practice-based Learning and Improvement Residents must demonstrate the ability to investigate and evaluate their care of patients, to **appraise and assimilate scientific evidence**, and to continuously improve patient care based on constant self-evaluation and lifelong learning. (Core)

IV.D.1.a) The program must demonstrate evidence of **scholarly activities** consistent with its mission(s) and aims. (Core)

IV.D.1.c) The program must advance residents' **knowledge** and **practice** of the **scholarly approach to evidence-based patient care**. (Core)

ACGME Milestones

Milestone = “a significant point in development”

Describes trajectory from beginner to specialist (Milestones Guidebook)

Implementation of outcomes or competency-based GME

https://www.acgme.org/What-We-Do/Accreditation/Milestones/Overview/articleid/4536

FM Milestones

Version 10/2015
PRACTICE-BASED LEARNING AND IMPROVEMENT

The family physician must demonstrate the ability to investigate and evaluate the care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

PBLI -1 Locates, appraises, and assimilates evidence from scientific studies related to the patients' health problems					
Has not achieved Level 1	Level 1	Level 2	Level 3	Level 4	Level 5
	Describes basic concepts in clinical epidemiology, biostatistics, and clinical reasoning Categorizes the design of a research study	Identifies pros and cons of various study designs, associated types of bias, and patient-centered outcomes Formulates a searchable question from a clinical question Evaluates evidence-based point-of-care resources	Applies a set of critical appraisal criteria to different types of research, including synopses of original research findings, systematic reviews and meta-analyses, and clinical practice guidelines Critically evaluates information from others, including colleagues, experts, and pharmaceutical representatives, as well as patient-delivered information	Incorporates principles of evidence-based care and information mastery into clinical practice	Independently teaches and assesses evidence-based medicine and information mastery techniques
Comments:					

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Curriculum Description: Georgetown University School of Medicine

Journeys Curriculum has three phases

1. Foundational
2. Core Clinical
3. Advanced Clinical

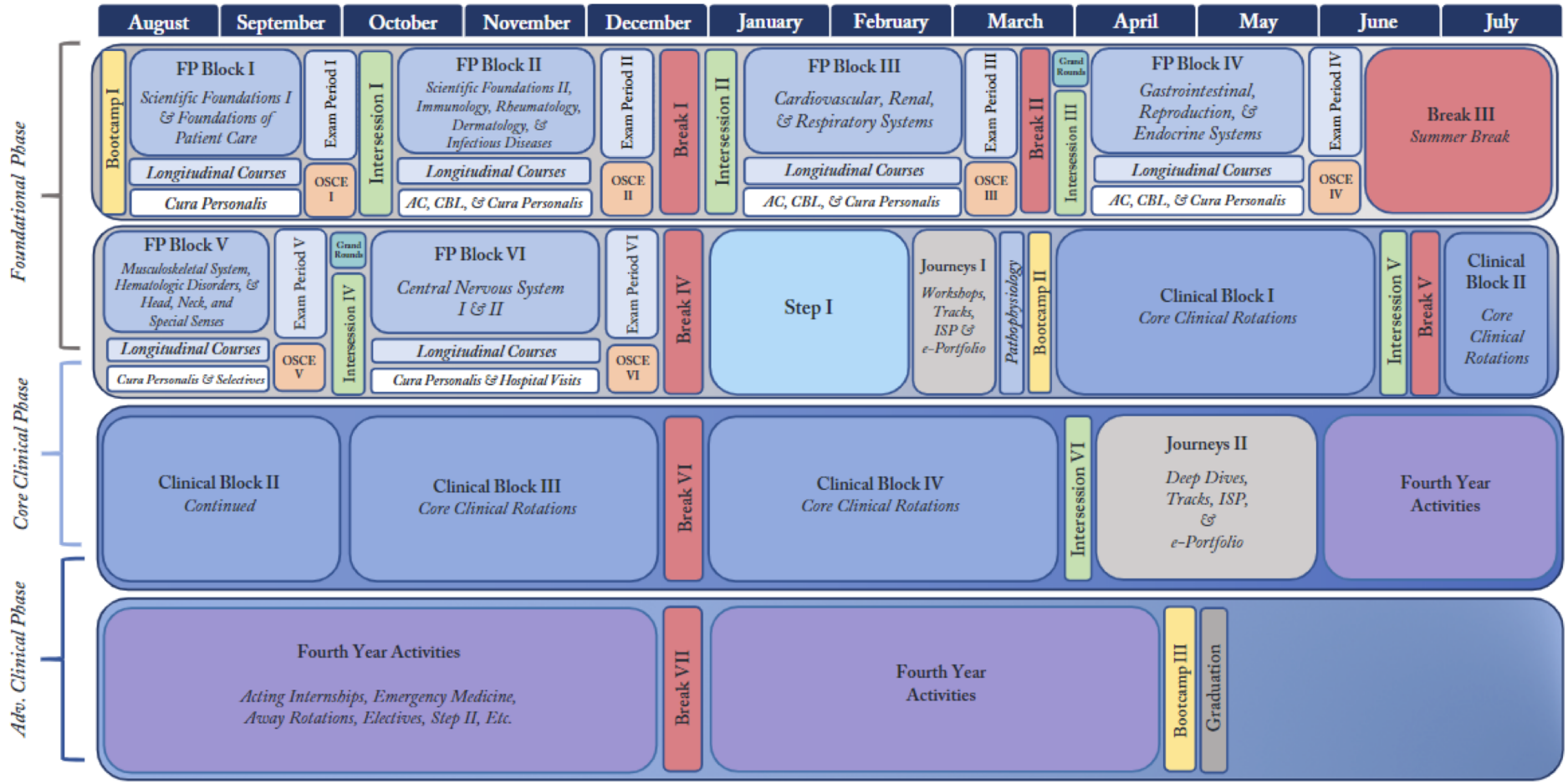
19 Competencies divided into: knowledge, skills, and values.

> **1** - **Acquire**, integrate, and apply **knowledge** of biomedical science to the care of patients.
> **2** - Demonstrate intellectual curiosity and a commitment to learning, critically evaluate new knowledge
> and determine its relevance to the clinical problems of individual patients.
> **8** - Form clinical questions, **identify and evaluate appropriate information resources**, and apply evidence-based principles for the benefit of individual patients.

Independent Scholarly Project: The ISP is required for every student and integrates the various skills they learn from EBM.

Georgetown University School of Medicine

Journeys Curriculum



Curriculum Description: Georgetown University School of Medicine

EBM curriculum Course Objectives
By the end of the course the student will be able to:

- Define, understand, and apply key concepts in biostats, epidemiology, and EBM to clinical situations and communicate evidence to patients
- Distinguish between common study designs and explain uses for each design
- Describe when to use common statistical tests and understand tests when used in published literature
- Apply concepts of statistics, epidemiology, and EBM to understand and critically evaluate a research study for the purpose of life-long learning and clinical excellence
- **Conduct a MEDLINE literature search of moderate complexity**
- **Weigh multiple pieces of evidence, put into context w/ medical knowledge, and describe the analysis to peers**
- **Distinguish between the validity and utility of information sources, and fully utilize computer applications in practicing evidence-based medicine**

Curriculum Description: Georgetown University School of Medicine

EBM Competencies

- Define basic statistics, epidemiologic concepts, and study designs (K)
- **Locate high quality medical information resources and know how to use them** (K)*
- **Use computers to effectively to find answers to clinical questions at the point-of care** (S)*
- **Complete an effective MEDLINE search of intermediate complexity** (S)
- Assess the quality of a study (S)
- Critically evaluate the medical literature and weigh competing evidence (S)
- Balance evidence, clinical expertise, and patient preferences in medical decision-making (S)
- Believe in the value of life-long learning (A)*
- Value evidence in making medical decisions over opinion (A)
- * K = knowledge, S = skills, and A = attitudes

Curriculum Description: Georgetown University School of Medicine

EBM curriculum

Covers eight of the 19 competencies, with Activity Specific Objectives

21 - Recognize the value of a comprehensive MEDLINE search strategy; define MESH, limits, subheadings, keywords.

22 - In written work, use in-text and reference-list citations; demonstrate appropriate quoting, citing, and paraphrasing;
produce writing free from plagiarism and inappropriate copying and pasting by using the above strategies with an
accepted reference style such as APA, MLA, or AMA (recommended).

26 - Understand how to convert a PICO question into an OVID MEDLINE search. Choose appropriate MESH terms, limits,
subheadings, and when beneficial keywords. Follow best searching practices to construct a complete search tailored
to a foreground question.

30 - Translate a well-formatted foreground clinical question into an OVID MEDLINE search of moderate complexity using
MESH, appropriate limits and searching best practices to answer a clinical foreground question about therapy.

31 - Identify, locate and use secondary literature resources such as the Cochrane Collaboration.

Curriculum Description: Georgetown University School of Medicine

Year 1 Fall

- What is EBM?
  - Study design overview
- Lectures
- Statistics
  - Self eval and Intro
- Small Groups study evaluations:
  - Cohort Study
  - Case-Control Study
  - Randomized-Controlled Trial
- Module Exams:
  - Scientific Foundations I & II

Year 1 Spring

- Statistics
  - Choosing a Statistical Test
    - Lecture and Team-Based Learning
  - JMP Stats software workshop
- **Library Resources/Literature Search**
  - **Lit Search Tutorial and Quiz**
  - **Lit Search Workshop**
  - **Academic Writing Tutorial and Quiz**
- Small Groups study evaluations:
  - Rational Clinical Exam
  - Guideline

Year 2 Fall

- EBM Project
  - Clinical scenario, background (BG) question, BG lit search, foreground (FG) question
  - FG question, PICO, FG lit search
  - RCT Evaluation
  - Weighing the Evidence Project Presentation
- **Library Resources/Literature Search**
  - **Lit Search Tutorial 2: Clinical**
  - **Secondary Lit Search Tutorial and Quiz**

Curriculum Description: Schmidt College of Medicine at Florida Atlantic University

Integrated patient-focused curriculum:

- FAU 11 General Competencies all graduates are expected to achieve are:
  - Medical Knowledge & Research Skills
  - Lifelong Learning & Self-Improvement
- 5 Threads
  - Lifelong Learning & Discovery
- 4 Courses Year 1; 5 Courses Year 2:
  - Foundations of Medicine 1, 2, 3
  - Fundamentals of Biomedical Science
  - Pathophysiology and Therapeutics 4
  - Competency-based grading - PCRS #3: Practice-Based Learning & Improvement Competency

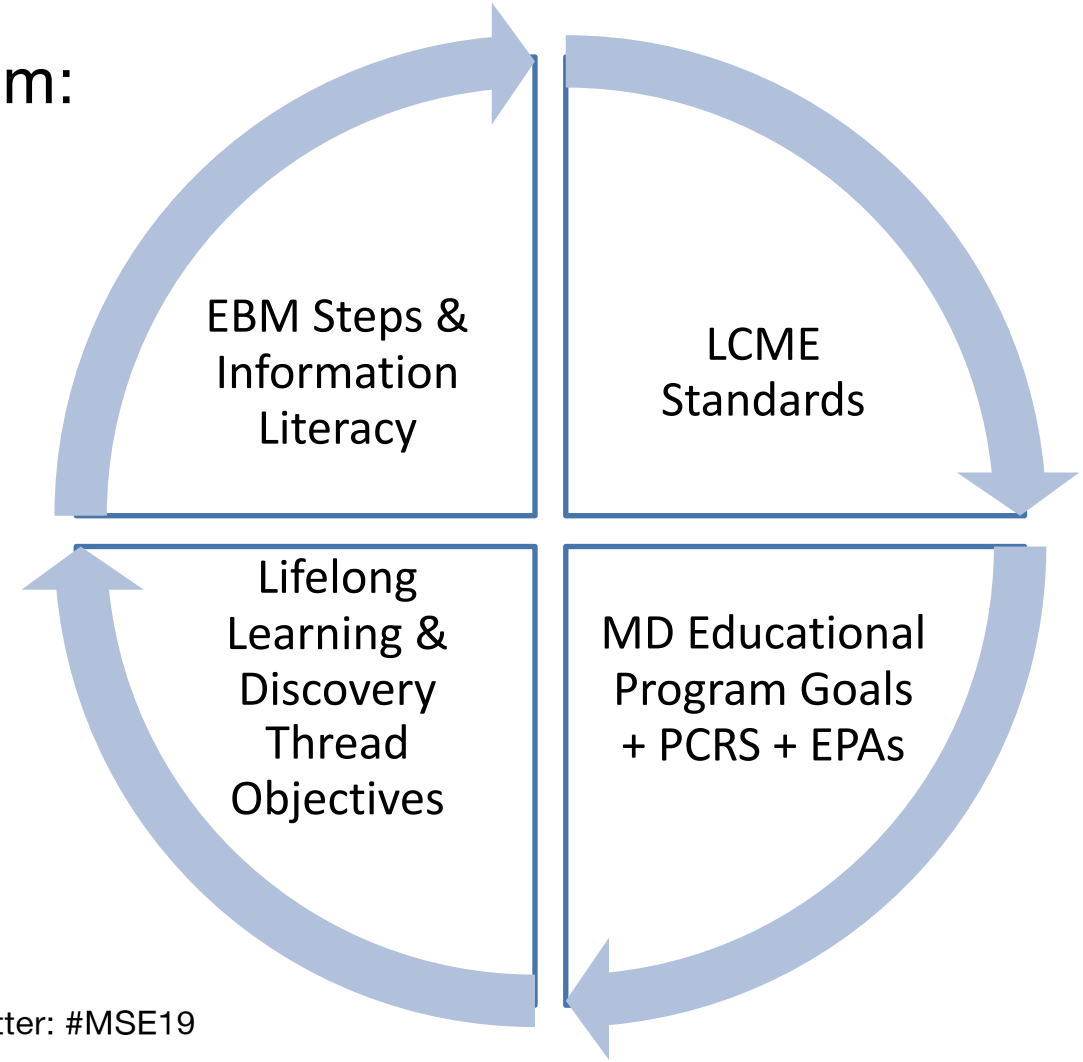
Academic Calendar Years 1, 2, 3 and 4 for 2018-2019
Charles E. Schmidt College of Medicine

	YEAR 1 Class of 2022		YEAR 2 Class of 2021		YEAR 3 Class of 2020	YEAR 4 Class of 2019
07/09/18-07/13/18			Summer Break (cont'd)		First LIC (Cont'd)	Year 4 Block 3
07/16/18-07/20/18			FMA Poster Symposium 8/4/18 Orlando		Summer Break (2 weeks)	
07/23/18-07/27/18						
07/30/18-08/03/18	White Coat Ceremony 8/10/18		Year 2 Orientation 8/03/18			Year 4 Block 4
08/06/18-08/10/18	Year 1 Orientation					
08/13/18-08/17/18	FBS Fundamentals of Biomedical Science (19 weeks)	FOM 1 Foundations of Medicine 1 (19 Weeks)	PT 2 Cardiovascular, Respiratory (11 weeks)	FOM 3 Foundations of Medicine 3 (20 weeks)		Year 4 Block 5
08/20/18-08/24/18					Med Ed Retreat 10/5/18	
08/27/18-08/31/18						
09/03/18-09/07/18						Year 4 Block 6
09/10/18-09/14/18	PBL Block 1 Orientation+First 9 weeks					
09/17/18-09/21/18		Patient Centered Research Day 11/8/18			Mid-year Shelf Exams (2 weeks)	
09/24/18-09/28/18						
10/01/18-10/05/18					LIC Transition week/OSCE	Year 4 Block 7
10/08/18-10/12/18						
10/15/18-10/19/18						
10/22/18-10/26/18			PT 3 Renal, Endocrine, Reproduction (9 weeks)			Year 4 Block 8
10/29/18-11/02/18	OSCE 10/29 & 10/31				Second Longitudinal Integrated Clerkship (LIC 2) (23 weeks plus vacation)	
11/05/18-11/09/18						
11/12/18-11/16/18	PBL Block 2 Second 9 weeks					
11/19/18-11/23/18	PBL Block 2 Second 9 weeks					Winter Break (2 weeks)
11/26/18-11/30/18						Year 4 Block 9
12/03/18-12/07/18						
12/10/18-12/14/18						
12/17/18-12/21/18	Exam Week with H&P OSCE					
12/24/18-12/28/18	Winter Break (3 weeks)		Winter Break (3 weeks)		Winter Break (2 weeks)	Year 4 Block 10
12/31/18-01/04/19						
01/07/19-01/11/19						
01/14/19-01/18/19						
01/21/19-01/25/19	NSB Neuroscience & Behavior (9 weeks)	FOM 2 Foundations of Medicine 2 (17 weeks)	PT 4 Immunology, Infection, Hematology (6 weeks)	FOM 3 Intro to Hospital Medicine (6 weeks)	M4 Visioning Night 1/8/19	Year 4 Block 11 (2 weeks)
01/28/19-02/01/19					Faculty Recognition 2/5/19	
02/04/19-02/08/19					M4 Lottery/Matrix 2/22/19	Transition to Residency Match Day Fri, March 15th
02/11/19-02/15/19						
02/18/19-02/22/19					Research Day 3/1/19	Year 4 Remediation Block 12
02/25/19-03/01/19		Service Learning Project Presentations 1/25/19	Year 2 ICA			
03/04/19-03/08/19			USMLE Step 1 Review and Exam (6 weeks)		Gold Humanism Induction 3/19/19	
03/11/19-03/15/19						
03/18/19-03/22/19	Spring Break				Year 3 ICA	
03/25/19-03/29/19						
04/01/19-04/05/19	PT 1 GI, Hematology, Nutrition (8 weeks)				Final Shelf Exams (3 weeks)	Commencement Friday, April 26, 2019
04/08/19-04/12/19			Break			
04/15/19-04/19/19			Year 3 Synthesis & Transition (3 weeks)		Transition Week	
04/22/19-04/26/19					Year 4 Block 1	
04/29/19-05/03/19						
05/06/19-05/10/19						
05/13/19-05/17/19			First Longitudinal Integrated Clerkship (LIC 1) (23 weeks plus vacation)		Year 4 Block 2	
05/20/19-05/24/19	Year 1 ICA					
05/27/19-05/31/19	Summer Break (10 weeks)					
06/03/19-06/07/19						
06/10/19-06/14/19						
06/17/19-06/21/19						
06/24/19-06/28/19					Year 4 Block 3	
07/01/19-07/05/19						
07/08/19-07/12/19						

Updated June 8, 2018

Curriculum Description: Schmidt College of Medicine at Florida Atlantic University

EBM curriculum:

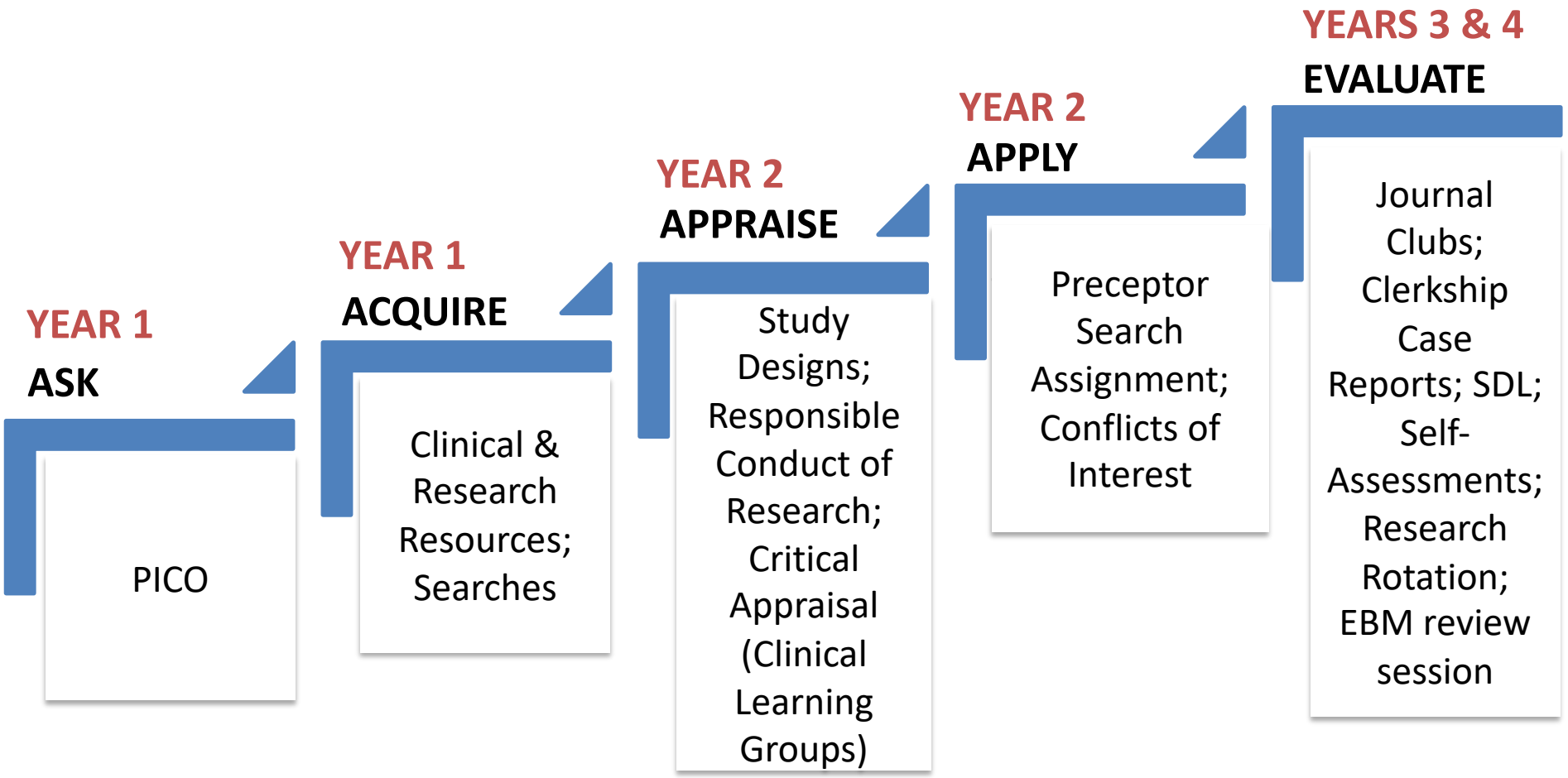


EBM curriculum:

FAU
CHARLES E. SCHMIDT COLLEGE OF MEDICINE
Florida Atlantic University

MD Educational Program Goals	FAU Comp	Assessment Methods	Threads	PCRS: PATIENT CARE	PCRS: KNOWLEDGE FOR PRACTICE	PCRS: PRACTICE-BASED LEARNING & IMPROVEMENT	PCRS: INTERPERSONAL & COMM SKILLS	PCRS: PROFESSIONALISM	PCRS: SYSTEMS-BASED PRACTICE	PCRS: INTERPROFESSIONAL COLLABORATION	PCRS: PERSONAL & PROFESSIONAL DEVELOPMENT	EPAs

Curriculum Description: Schmidt College of Medicine at Florida Atlantic University



1-Minute Write Activity

What are the challenges and barriers to implementing an EBM curriculum and/or innovations to the existing curriculum, and what are the potential opportunities?

Complete the red section of the worksheet.

Lessons Learned in Teaching EBM

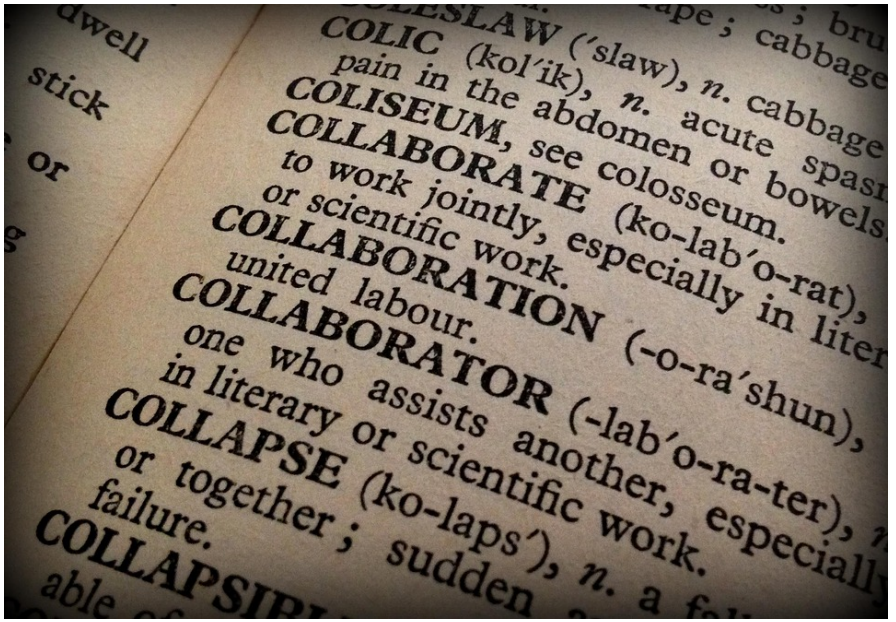
Partner With Other Departments

Create collaborations

Supplement your expertise

Examples

- Other Departments
  - for small group teachers
- Biostatistics Department - expertise
- Library



Library Collaboration

- Academic medical librarians have expertise in
  - Information literacy
  - Resources
  - Educational technologies
  - Adult learning theory & Instructional Design
  - Assessment
  - Research
- Evolving roles - Role as Educator (pedagogy, curriculum design, mapping)
- Different viewpoints/perspectives
- Faculty- and student-focused

Keep a Clinical Perspective

Great for all years to build motivation, relevance

EBM Video - https://georgetown.box.com/s/sxuh6mq47ae814tyoorpz8cdxdizu2ax

Use a clinical case

Use higher-order Bloom's questions eg Application

Applied instead of Abstract

- Focus on EBM rather than constituent parts
- Teach future clinicians
- Statistical literacy, not statistics
- Use instead of calculation

Small Groups

NSIA (name says it all)? General benefits and "guidelines":

- Small groups encourage direct interaction
  - Between students and faculty AND students and students
- Showing knowledge, students sharing and discussing what they've learned
  - Comfort in familiarity...more "relaxed" setting
- Affords time for discussion and presentation
  - Sharing/exchanging of ideas

Small Groups

@ Georgetown SoM

- 10 - 12 students
  - Less intimidation and more active involvement
    - Safe learning space, encouraging the sharing of
      - Critical evaluation, study analysis, etc.
- Facilitators
  - Guide or maintain focus, NOT a lecture session or setting
    - Flipped classroom (more to come)
      - Students can lead...teach each other.
- Reading and evaluate studies
  - Cohort, Case-Control, RCT, Rational Clinical Exam, Guideline, and Project Presentation

EBM Lends Itself to Flipped Classroom Techniques

- Self-directed learning
- Critical thinking/Reflection
- Integration of educational technologies and multimedia
- Reduction in curriculum time barriers
- Increased engagement & enjoyment
- Transfer of learning (knowledge) & self-efficacy (skills)
- Faculty development

Image credit: FAUmedschool. Retrieved from https://www.flickr.com/photos/134373002@N06/41077850951/in/album-72157695006083975/

EBM Lends Itself to Flipped Classroom Techniques

Challenges:

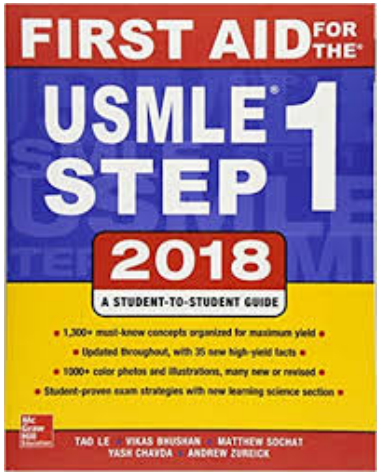
- Assumes students are motivated to learn/participate
- Student prep work
- Students' and faculty members' frustrations
- Technology - advances, cost
- Faculty development
- Lack of space

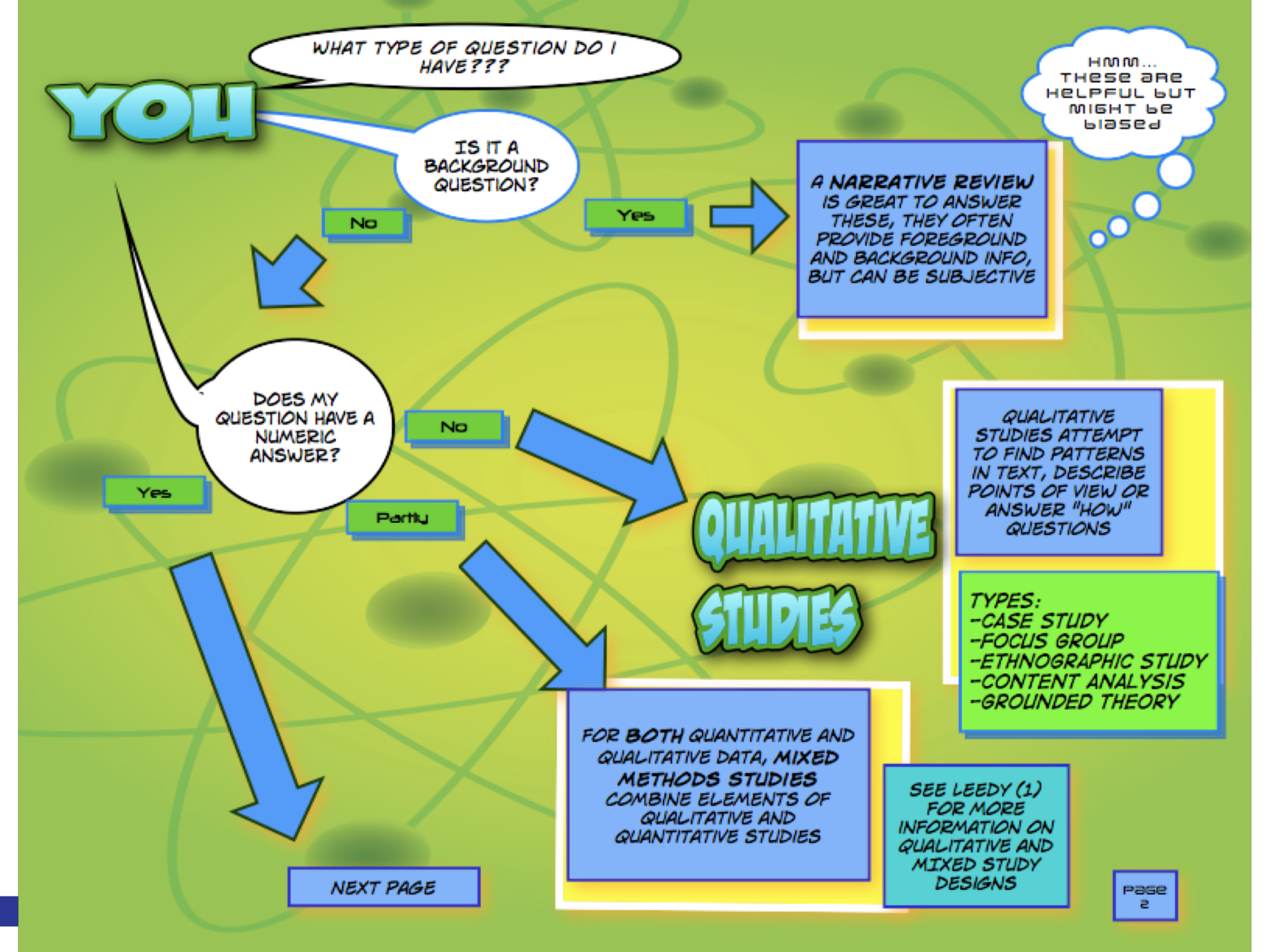
Image credit: FAUmedschool. Retrieved from https://www.flickr.com/photos/134373002@N06/41077852351/in/album-72157695006083975/

Georgetown TBL Space

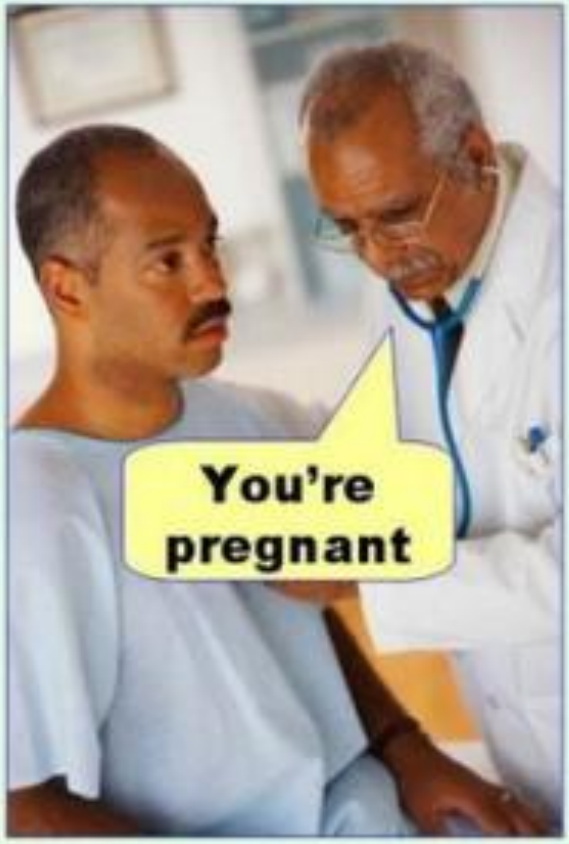
Use Millennial Learning Resources

- Google (within reason)
- Handouts
- Cartoons/Memes
- First Aid for USMLE Step 1
- Videos:
  - Online MedEd
  - Healthcare Triage
  - Youtube searches
  - Boards review (Boards and Beyond, Doctors in Training)




YOU
WHAT TYPE OF QUESTION DO I HAVE???
IS IT A BACKGROUND QUESTION?
No
Yes
A NARRATIVE REVIEW IS GREAT TO ANSWER THESE, THEY OFTEN PROVIDE FOREGROUND AND BACKGROUND INFO, BUT CAN BE SUBJECTIVE
HMM... THESE ARE HELPFUL BUT MIGHT BE BIASED
DOES MY QUESTION HAVE A NUMERIC ANSWER?
No
Yes
Partly
QUALITATIVE STUDIES
QUALITATIVE STUDIES ATTEMPT TO FIND PATTERNS IN TEXT, DESCRIBE POINTS OF VIEW OR ANSWER "HOW" QUESTIONS
TYPES:
-CASE STUDY
-FOCUS GROUP
-ETHNOGRAPHIC STUDY
-CONTENT ANALYSIS
-GROUNDED THEORY
FOR BOTH QUANTITATIVE AND QUALITATIVE DATA, MIXED METHODS STUDIES COMBINE ELEMENTS OF QUALITATIVE AND QUANTITATIVE STUDIES
SEE LEEDY (1) FOR MORE INFORMATION ON QUALITATIVE AND MIXED STUDY DESIGNS
NEXT PAGE
page 2

Type I error
(false positive)



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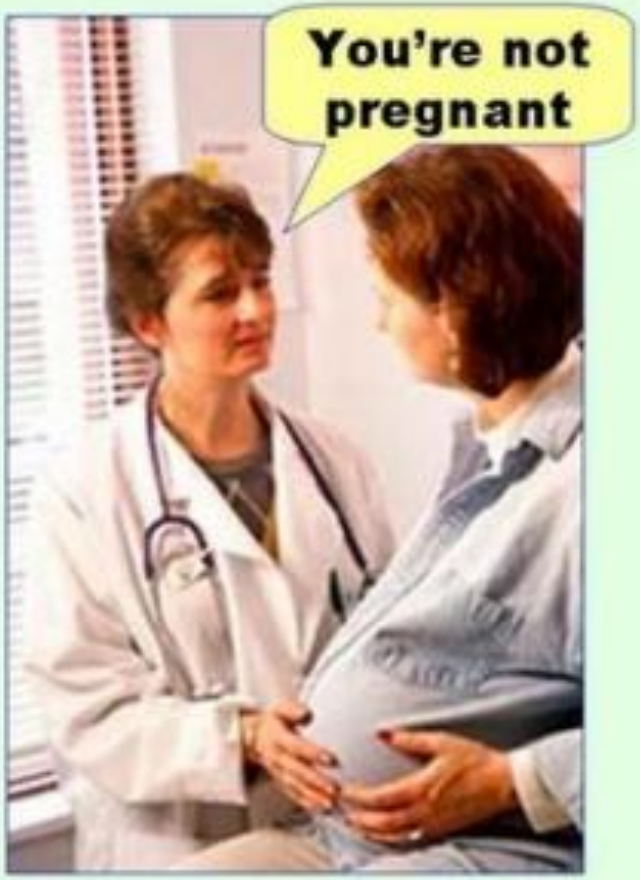

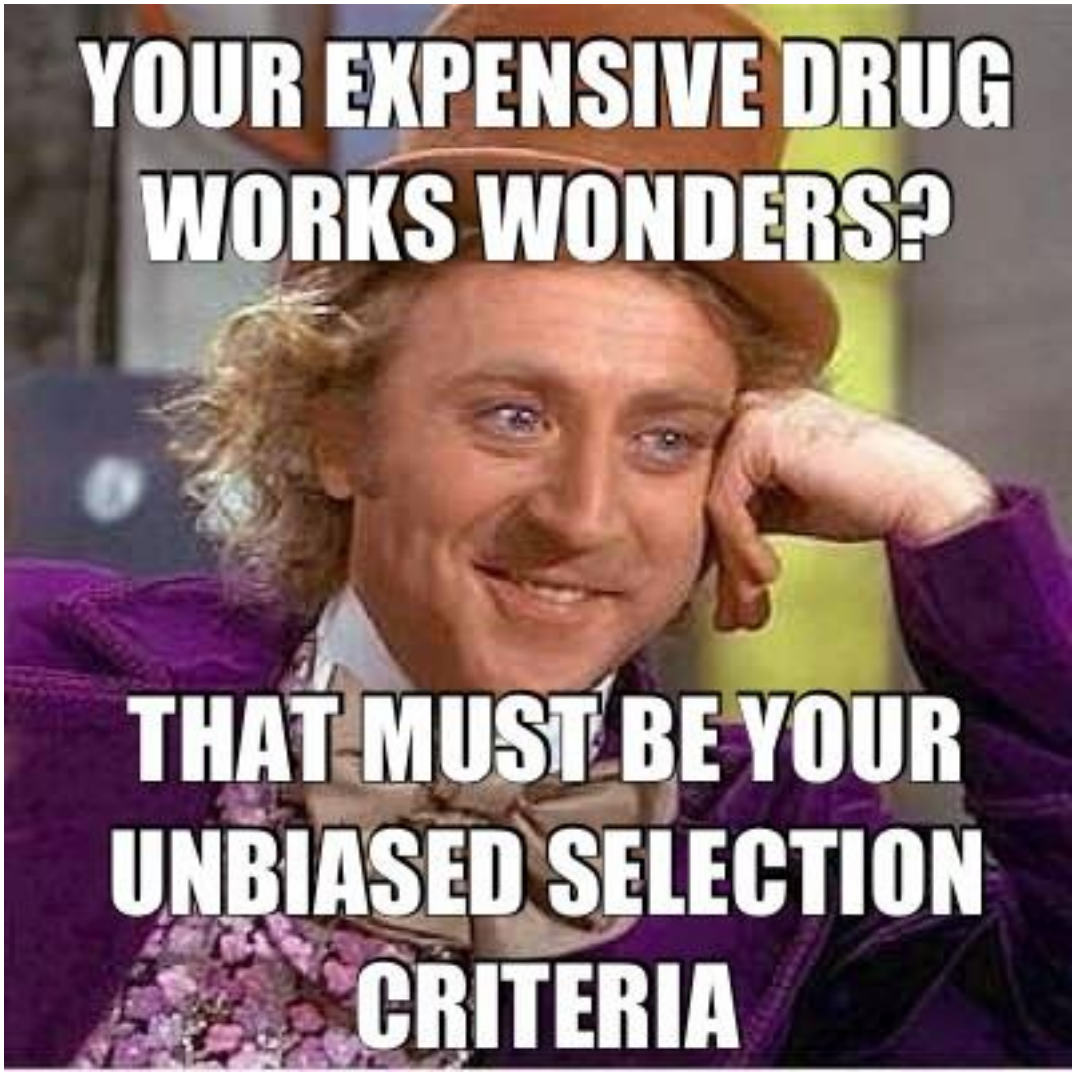
YOUR EXPENSIVE DRUG WORKS WONDERS?
THAT MUST BE YOUR UNBIASED SELECTION CRITERIA

Use Millennial Learning Resources

- Google (within reason)
- Handouts
- Cartoons/Memes
- First Aid for USMLE Step 1
- Videos:
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  - Healthcare Triage
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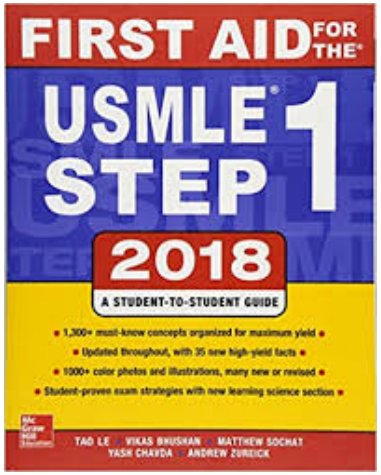
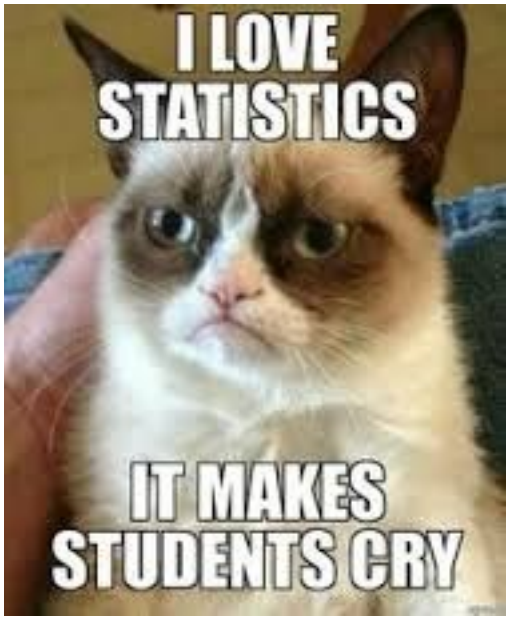


Challenge Millennial Assumptions

- "I will never need to know this stuff when I am a practicing doctor."
- "This is too much detail about biostatistics! I will never be able to learn it all!"
- "Statistics are not my thing. That is why I am in medical school and not in public health school."
- "I'll just use Google or Uptodate if I need to look things up."



Assessment Techniques: Learning

- Formative
  - Feedback
  - Self-assessment (FlipQuiz)
  - Longitudinal learning portfolios (reflective writing)
  - Think-Alouds
  - Self or Peer evaluations
- Summative
  - Critical appraisal of medical literature
  - Preceptor Search Assignment (whole-task)
  - Clinical write-ups
  - Open-book, essay exam
  - Multiple-choice exam

Image credit: Max Pixel. Retrieved from https://www.maxpixel.net/Quiz-Think-Question-Thinking-Brain-Answer-2004314

Assessment Techniques: Program Evaluation/Student Experience

- Session evaluations
- Course evaluations
- Faculty evaluations
- Informal focus groups
- Observations (formal & informal)
- Surveys

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Image credit: FAUmedschool. Retrieved from https://www.flickr.com/photos/134373002@N06/albums/72157682667 3229160

Assessment Techniques: Education Research Methods & Methodologies

Quantitative, Qualitative, Mixed

- Pre-/Post-test
- Focus groups
- Interviews
- Observation
- Questionnaires
- Review of Student work/document analysis
- Discourse analysis
- Video analysis

Study Designs:

- **Action Research**
- Case study
- Ethnography
- Grounded Theory
- Survey
- Experiments
- Comparison

Assessment Examples from FAU Year 1, Fall

Curriculum Activities:

- Self-Directed Learning modules in LMS; Supplement to 4 Lectures
- Team-based, case-based exercises in large and small groups

Assessments:

- **Formative assessments**: FlipQuiz; Observation & feedback during TBLs & PBLs; Portfolio entries with feedback
- **Summative assessments**: Open-book, Essay Exam
- **Program evaluation**: Session & Course Evaluations; Informal observations & anecdotal feedback

Assessment Examples from FAU Year 1, Spring

Curriculum Activities:

- Self-Directed Learning modules in LMS; Supplement to 1 Mini Lecture in Clinical Learning Groups
- Study Designs - Research Dept.
- Session & Course Evaluations

Assessments:
Formative assessments: Comprehensive write-ups
Summative assessments: Critical appraisal of a RCT
Program evaluation: Session & Course Evaluations; Informal observations & anecdotal feedback
Research Methodology: Action Research

CLG: Comprehensive Write-Up Evaluation Form

Clinical Thinking:

Problem list

Rank order	Most important first
Complete	All major active medical problems, risk factors

Assessment

Rank order	Most important first
Discussion	Incorporates history and PE data
Differential	Appropriately justified

Plan

Diagnostic	Justifies reason based on differential
Therapeutic	Dose, route, duration
Pt education	Health Maintenance, Counseling etc…

Use of EBM:

At least 3 reputable sources are cited as justification for the assessment and plan.

Needs Significant Help		On Target		Well Above Expectations
1	**2**	**3**	**4**	**5**
Clinical Thinking:				
O	O	O	O	O
Comments:				
Use of Evidence-based Resources/Guidelines:				
O	O	O	O	O
Comments:				

Lessons Learned: Assessment Techniques

- Longitudinal learning portfolios - reflective writing
  - Relevancy - Tied to specific competency assessment
- Clinical write-ups
  - Relevancy - Added critical appraisal assignment
- Integrated question on Open-book exam & Multiple-choice exam
  - Short, simple, relevant
  - Provide resources & dates

5-Minute Reflection

- What is working well in EBM instruction at your institution?

- What needs improvement in EBM instruction at your institution?

Complete the top portion of the **yellow** section of the worksheet.

Pair/Share Activity

1. Refer to worksheet.
2. Reflection on the challenges/barriers and opportunities for implementing EBM at you home institutions.
3. Develop an Action Plan including,
   (a) identifying stakeholders and strategies
   (b) list of partners or facilitators
   (c) goals for implementation/changes
   (d) 3-month, 6-month, 9-month, and 1-year action items
   (d) list of contacts for support (i.e., network)
4. Share with neighbor
5. Report out

P (problem; chief complaint)

I (intervention; action items)

C (comparison; what works?)

O (outcome; goals)

10 minutes

Wrap Up

- Summary of key ideas
- Q&A

Thank you - Contact Information

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