



Tomorrow's Doctors, Tomorrow's Cures

Pre-Health Collection: Resources to Enhance Your Instruction

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Family, Youth & Community Sciences
University of Florida

Learn

Serve

Lead



Association of
American Medical Colleges

Pre-health Collection within MedEdPORTAL's iCollaborative

- Starting year 4 of the journey!
- Building on the idea that has worked in medical schools.....

free

open access

high-quality

educational resources

can improve medical education

Topics to Discuss:

- Features offered by MedEdPORTAL
- Where the Pre-health Collection fits in
- Vision for the Pre-health Collection
- What's in the collection?
- Finding new resources
- Value of community participation
- What will help you?
- Opportunities to get involved

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Peer Reviewed Publications

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Video Library of Objective Verified Simulated Chest Compression Performances

This video library can be used as a calibrating "gold standard" to educate CPR learners and instructors in chest compression performance and proper technique.

Featured Publications

Latest

- Critical Synthesis Package: Revised Two-Factor Study Process Questionnaire (R-SPQ-2F)

News

News & Updates

March 16, 2013

Publications Introduce the DREAM Collection

Sponsored Collections

 Interprofessional Education

SPONSORED BY:

www.mededportal.org

MedEdPORTAL Suite of Services

Publications

- Serve as the premier clearinghouse of high quality, peer reviewed health education tools.

iCollaborative

- Promote interprofessional collaboration by facilitating the open exchange of educational resources across the health professions.

CE Directory

- Equip healthcare professionals across the continuum with effective and efficient educational resources to improve patient care.

An Integrated Solution

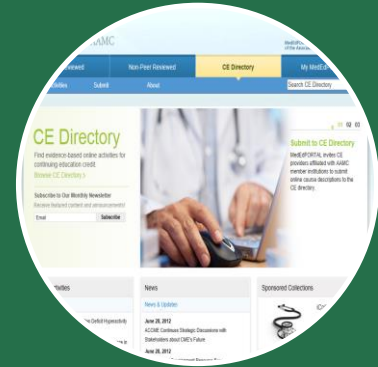
The MedEdPORTAL Suite



PUBLICATIONS
Peer Reviewed
Teaching/Assessment
Tools



iCOLLABORATIVE
Non-MedEdPORTAL
Peer Reviewed
Innovative
Approaches, Practices,
and Strategies



CE DIRECTORY
Online Continuing
Education Courses for
Credit

MedEdPORTAL *iCollaborative* Overview

1. **Free** online sharing and collaboration service
2. **Open** to the general public around the globe
3. **Community** building environment
4. **Innovative** approaches, practices, and strategies for transforming healthcare

The screenshot shows the MedEdPORTAL iCollaborative website. At the top, there is a navigation bar with 'Publications', 'iCollaborative' (highlighted), and 'CE Directory'. Below this is a secondary navigation bar with 'Browse Resources', 'Submit', and 'About'. A search bar is located on the right side of the navigation bar. The main content area features a large banner for 'Non-Peer Reviewed Resources' with a 'Browse iCollaborative >' link and a newsletter subscription form. To the right of the banner is a featured article titled 'Impact of Structured Communication Tools for Interprofessional Teamwork on Pre-Clerkship Medical Students'. Below the banner are three columns: 'Featured Resources' with a 'Latest' section listing three articles; 'News' with a 'News & Updates' section listing two news items; and 'Sponsored Collection' featuring 'Joining Forces' and 'Readiness for Reform (R4R)'.

www.mededportal.org/icollaborative

Sample *iCollaborative* Resource

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Publications

iCollaborative

CE Directory

Browse Resources

Submit

About

Search iCollaborative



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The Social Roots of Health Disparities

Format

Resource ID

Posted

Presentation, Website

641

April 2, 2013



Description

The modules in this series provide an overview of key concepts and research findings in the field of health disparities. The individual presentations focus on health outcomes, but also illustrate core sociological concepts of race, ethnicity, and socioeconomic status. The material would be relevant in courses focused on medical sociology or social stratification and inequality.

*This resource was recognized as a top submission by the AAMC's Pre-Health Initiative review committee.

Join the Conversation

Share your thoughts with other users. Please sign in to comment or rate this material.

Sign In



0 ratings

Material Access

Please sign in to access this material.

Sign In

Please register for an AAMC account if you do not have one.

Register

Related Materials

iCollaborative (5)

- User-Paced Learning of Cell Biology Concepts Using Livescribe Pencasts
- Computed Tomography
- Exploring Medicine Respiratory Module

Non-MedEdPORTAL PEER REVIEWED



General Information

Authors & Co-Authors

Outcomes

Comments (0)

Keywords

MCAT, Pre-health, Foundational Concept 9, Foundational Concept 10, Content Category 9A, Content Category 9B, Content Category 10A, Undergraduate Faculty, Health Disparities, Socioeconomic Status, Race and Ethnicity, Infant Mortality

Academic Focus

- Behavioral & Social Sciences
 - Psychological
 - Social

Intended Audience

- University College Undergraduate
 - Undergraduate Student

Instructional Methods

- Independent Study

Pre-health Collection within MedEdPORTAL's iCollaborative

- A new model to share innovations in the curriculum as they emerge.
- A way to discover what is available now.
- Quicker and more responsive to the immediate needs of faculty and a changing curriculum.
- A space to build a community of faculty with shared interests.

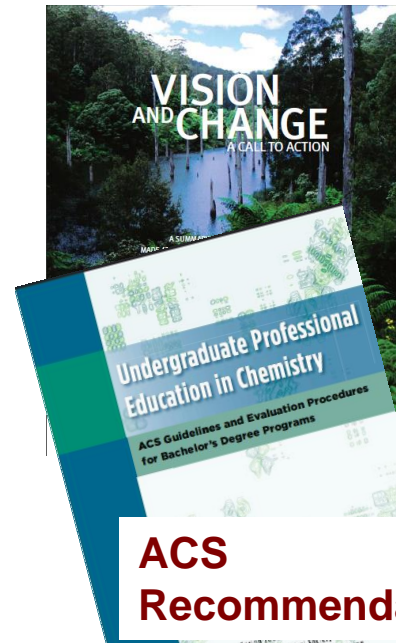


Goals for Pre-health Collection

- Free, open access resources will support faculty, students, and institutions in teaching and learning
- Offer support where it is needed most.... to help ensure the health workforce is as diverse as the population they will eventually treat
- Allows faculty to update curriculum with less effort by incorporating free, innovative teaching modules
- Provides an online community for faculty to discuss, rate resources, and contribute content

Background on Pre-health Competencies

- STEM-education reforms focusing more developing broader skills rather than knowledge & memorization
- Medical schools moving towards competency-based instruction
- Alignment of efforts



Vision and Change in Biology Education



The screenshot shows the ASBMB website interface. At the top, there is a navigation bar with links for 'JOIN NOW', 'CALENDAR', 'NEWS', and 'INTERACTIVE'. Below this is the ASBMB logo and the full name of the organization: 'The American Society For Biochemistry and Molecular Biology'. A search bar is also visible. The main content area is titled 'ASBMB PRE-MED CURRICULUM RECOMMENDATIONS' and includes a list of three recommendations for pre-medical students. The recommendations are: 1. The introductory year of biology should be refreshed (if it hasn't been already) to prepare students in cellular and molecular biology up to and including fundamentals of genetics and biological information transfer. 2. The traditional, two-year sequence of general and organic chemistry should be streamlined to a single year of life-oriented chemistry that focuses on bonding and reactivity of molecules containing carbon, oxygen, phosphorus, sulfur and nitrogen. 3. A one-semester biochemistry course should be required and a two-semester biochemistry course recommended for premedical students. The text also mentions that the recommendations were compiled and written by ASBMB members Charles Brenner (University of Iowa) and Dagmar Ringe (Brandeis University) and were first published in the March, 2012 issue of ASBMB Today.

ASBMB Pre-med Curriculum Recommendations

The screenshot shows a news article titled 'Introductory Physics for the Life Sciences'. The article is dated 'News' and includes a 'page' and 'discuss' button. The main heading is 'Introductory Physics for the Life Sciences'. Below the heading, there is a sub-heading: 'Past and Upcoming Conferences relating to Introductory Physics for the Life Sciences'. The article lists three conferences: 1. Teaching Medical Physics: Innovations in Learning, American Association of Medical Physicists Summer School, July 22-25, 2010, University of Pennsylvania, Philadelphia PA. 2. Summer AAPT Meeting (Portland, Oregon) July 17-21, 2010. Will have both a workshop on IPLS labs and talks and posters on IPLS related issues. 3. 2010 Gordon Research Conference on Physics Research and Education : Experimental Research and Laboratories in Physics Education, June 6 - 11, 2010 at Mt. Holyoke College.

Background on Pre-health Competencies

Academic Competencies

2009

The Scientific Foundations for Future Physicians Report (AAMC/HHMI)

2011

The Behavioral and Social Sciences Foundations for Future Physicians Report

2015

New MCAT exam adds content from biochemistry, sociology, and psychology, and Scientific Inquiry and Reasoning Skills

Roadmap to Diversity: Integrating Holistic Review Practices



Scientific Foundations of Future Physicians Report

Behavioral and Social Science Foundations for Future Physicians

MedEdPORTAL



Experiences

The path an applicant has taken to get where he or she is

Atttributes

The applicant's personal qualities and demographic factors

Academic Metrics

The numeric information about an applicant's academic performance (e.g., MCAT scores, GPA, academic record)

Shift to Competencies Not Courses

- Moving towards an admissions process that is less focused on course requirements
- Exploring ways to measure competencies
- Competencies in natural and behavioral sciences
- Interpersonal and Intrapersonal competencies



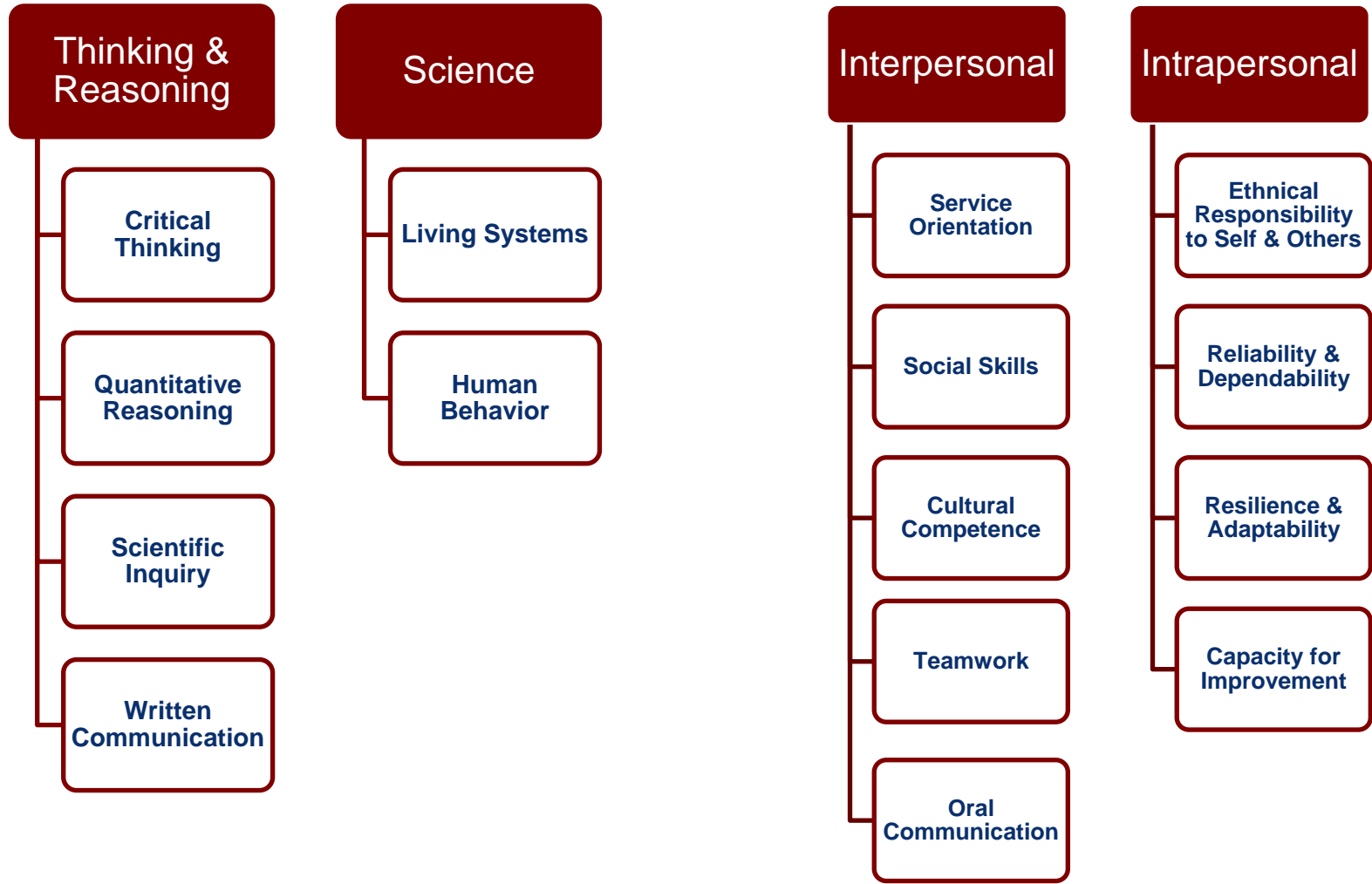
Interpersonal Competencies

- Service orientation
- Social and interpersonal skills
- Cultural competence
- Team work
- Oral communication

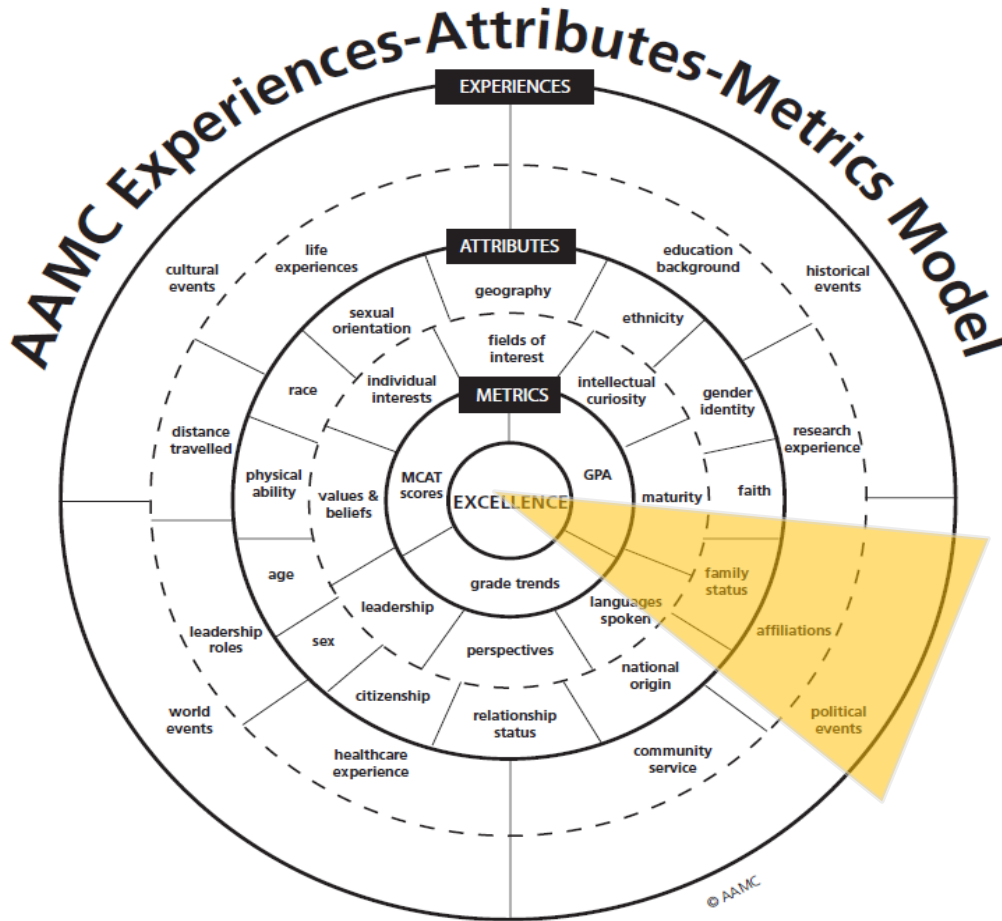
Intrapersonal Competencies

- Integrity and Ethics
- Reliability and dependability
- Resilience and adaptability
- Capacity for improvement

What are the core competencies for entering medical students?



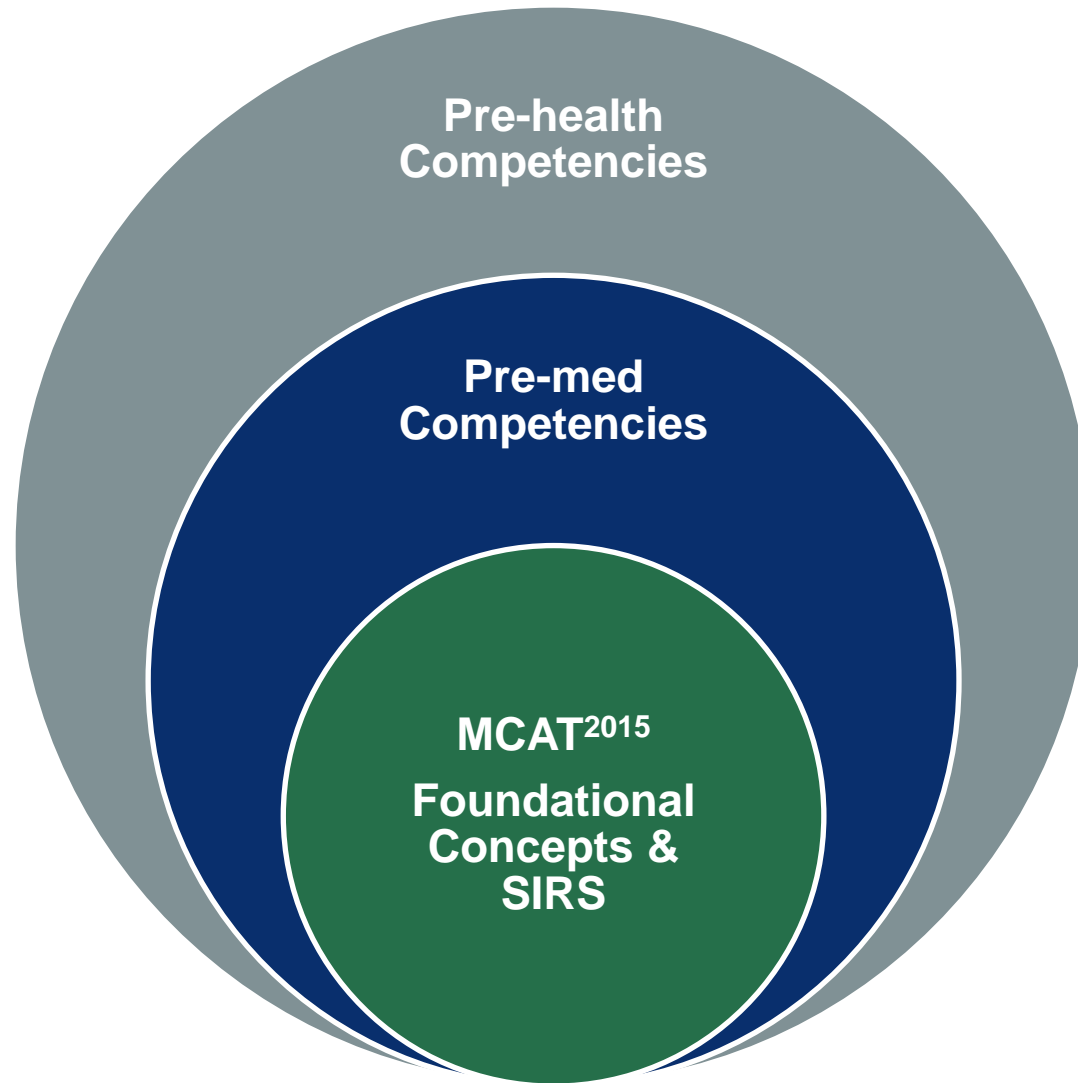
What is a competency?



- Observable behavior that combines knowledge, skills, values, and attitudes related to a specific activity

Adapted from *Workforce America: Managing Employee Diversity as a Vital Resource*, McGraw Hill Publishing, 1990.

What's included in Pre-health Competencies?



Begin with Focus MCAT²⁰¹⁵ Content

- Provide resources that teach the pre-health competencies found in the new MCAT²⁰¹⁵ exam.
- Searchable by Foundational Concept
- New content: introductory psychology and sociology content that relates to pre-health is now a significant component of the exam, including...

Psychological, Social, & Biological Foundations of Behavior

Concept 6

- Biological, psychological, and socio-cultural factors influence the ways that individuals perceive, think about, and react to the world.

Concept 7

- Biological, psychological, and socio-cultural factors influence behavior and behavior change.

Concept 8

- Psychological, socio-cultural, and biological factors influence the way we think about ourselves and others.

Concept 9

- Cultural and social differences influence well-being.

Concept 10

- Social stratification and access to resources influence well-being.

Where Does the Project Stand Now?

- 2009 pilot of a peer-reviewed collection resulted in 9 published resources
- Grow collection faster by sharing resources before peer-review
- Nearing 100 resources in the collection
- 6 awards for outstanding resources
- Focus on growing collection
- Seeking broader participation and building a community

What's in the Pre-health Collection?

Academic Focus

[Basic Science](#) (65)

[Behavioral & Social Sciences](#) (22)

Intended Audience

[University College](#)

[Undergraduate](#) (85)

Instructional Methodology

[Assessment](#) (11)

[Independent Study](#) (77)

[Lecture](#) (6)

[Problem-based Learning](#) (6)

[Simulation](#) (12)

Format

[Animation](#) (24)

[Audio](#) (1)

[Case](#) (5)

[Curriculum](#) (6)

[Evaluation Tool](#) (2)

[Image](#) (1)

[Lab Guide](#) (8)

[Multimedia](#) (4)

[Presentation](#) (6)

[Reference](#) (44)

[Tutorial](#) (24)

▶ **Cell Biology of Virus Entry**

Format: Video

▶ **Skeletal System**

Format: Tutorial

▶ **Animation of Replication**

Format: Animation

▶ **The Brain from Top to Bottom**

Format: Reference

▶ **The Biology Project: Cell Biology**

Format: Tutorial, Reference

▶ **Excitable Cells**

Format: Reference

▶ **mRNA Processing--Tutorial and Animation**

Format: Animation, Tutorial

▶ **Functions of the Nervous System**

Winners of First Call for Submissions

Biology: *Respiratory module for the course, "Exploring Medicine,"* Stephen Jameson, MD, University of St. Thomas

Biochemistry: *User-Paced Learning of Cell Biology Concepts Using Livescribe Pencasts,* Angela Shaffer, George Mason University

Chemistry: *The Illustrated Novel Project in Science and Medicine,* Jennifer Grant, The University of Wisconsin-Stout

Physics: *Computed Tomography,* Elliot Mylott et al, Ryan Klepetka, Ralf Widenhorn, Grace Van Ness, Portland State University

Psychology: *The Eyes Have It: Promoting Classroom Discussion of Equal Marriage Rights,* Gary W. Lewandowski Jr, Monmouth University, Timothy J. Loving Ph.D , University of Texas – Austin, Miranda Bobrowski, Texas Tech University

Sociology: *The Social Roots of Health Disparities,* Donald Barr, MD, Stanford University School of Medicine

New Call for Submissions

- Submit an original resource that teaches a pre-health competency
- Six prizes of \$750 for best submission
 - biology
 - biochemistry
 - chemistry
 - physics
 - psychology
 - sociology
- Deadline is August 26

www.mededportal.org/icollaborative/pre-health

Collaboration with Khan Academy

- Suggestion from AAMC members
- Collaboration with the Robert Wood Johnson Foundation
- Medical students teaching pre-meds
- Competition through June 14, 2013
- Resources by Fall 2013



www.khanacademy.org/about/med-competition

Collaboration with Khan Academy

AAMC

RWJF

ME

You?

Khan Academy

- concise
- clear
- engaging
- passionate
- fun

Win: 1) Free 1-week trip

2) Become a Khan Academy teaching fellow

2015 MCAT Exam

- Pick 1 topic
- Make 3 videos
- Write 10 questions

Submit by: June 14, 2013

www.khanacademy.org/about/med-competition

Other Strategies to Build the Pre-health Collection

- Submit a resource you authored
- Refer a resource you use
- Comment on a resource
- Ask others to submit resources
- Suggest resources to faculty
- Share resources with your students
- Become a reviewer


Refer Resources

Have you used open access pre-health learning activities? Email us and let us know more about the materials.

[CONTACT US ▶](#)

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Share your thoughts with other users. Please sign in to comment or rate this material.





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Comments Add Value

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The Illustrated Novel Mastery Project in Science and Medicine

Format	Resource ID	Posted
Lab Guide	642	April 2, 2013



Description

A course assignment asking students to create a graphical novel to explore biology, biochemistry and chemistry topics in the context of disease. The process of writing this novel occurs throughout the semester-long course, where there are specific and scaffolded activities that require each student to relate course content directly to their novel-in-progress. As they create their novels, students practice several core principles that guide the pre-health and pre-med competencies.

*This resource was recognized as a top submission by the AAMC's Pre-Health Initiative review committee.



General Information

Authors & Co-Authors

Outcomes

Comments (0)

Keywords

MCAT, Pre-health, Foundational Concept 2, Foundational Concept 3, Foundational Concept 5, Content Category 2A, Content Category 3A, Content Category 5B, Undergraduate Faculty, Disease Pathways, Graphical Novel, Creative Writing

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Related Materials

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- Share resources with your students
- Become a reviewer

Ideas?

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