

# Research & Innovation Syllabus

Approved: 5/1/2020

Credit Hours: 1.0 credit hour

### Contact Information

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# **Course Information**

### **Brief Description of Course**

The Rural & Underserved Utah Training Experience (RUUTE) program is excited about the rural research opportunities planned for medical students in the upcoming academic year. The Research & Innovation elective is an opportunity to explore the fundamentals of research and scientific communication and inspire future physicians and clinician-scientists to discover how patient care and diagnosis, prevention and treatment of disease can be largely influenced by biomedical research. This course is designed to inspire physicians to explore opportunities in biomedical research and to examine creativity and innovation in the scientific space. Lectures will include fundamentals of the scientific method, research ethics and responsible conduct of research (specifically regarding human and animal subjects) and communicating science to various audiences to gain a greater awareness about the research process and understand the challenges and joys of the research experience.

The medical students who participate in this elective will immerse themselves in a particular research topic where there is a significant health need and will receive collaborative mentoring from current MD PhD students on their topic. Participants will also gain specific insight into healthcare differences within rural and underserved areas. Students will gain insight into the realities that many people within these communities face on a daily basis and will also gain an appreciation for what they have and witness the substantial schism between rural and underserved areas compared to urban areas. Additionally, students will gain exposure to the nuance required for studying and comparing different populations, contributing to their overall competency in conducting scientific research and critical thinking. Students will gain this insight and learning opportunity via their research experience, guest lecturers, and additional assignments that require them to reflect on their experience and their future career as a healthcare provider and/or researcher. Students will also participate in a Research Symposium once they return to campus to share their findings to the School of Medicine community.

Upon completion of the elective, students will have developed a broad understanding of rural populations and their healthrelated issues, challenges, and determinants and the culture of rural and/or underserved communities. Rural and remote medical practice encompasses a broader and deeper skill set from many specialties because rural practitioners must respond to a wide range of serious medical conditions, often with less resources than their urban counterparts. Furthermore, rural physicians are more likely than their urban peers to take on local leadership roles related to health and health care and thus require a diverse professional skill set. By participating in this elective, medical students examine rural populations through the lens of academic research to build a foundation of knowledge, attitudes and attributes that are essential for medical students to contextualize subsequent and more advanced rural health education and research.

#### **Course Goals**

As a result of successfully completing the Research & Innovation elective, students will be able to:

1. Compare and contrast the research design and implementation strategies for proving a favored hypothesis vs. discovering truth.



- 2. Utilize your observational skills and curiosity to identify anomalies that are often overlooked, but may be important for patient care and conducting research.
- 3. Increase their ability to generate innovative research questions that are plausible, actionable and useful.
- 4. Be able to write a structured abstract and a short research description that effectively communicates research questions, and methods for addressing the question and results to a variety of audiences.
- 5. Display a deep understanding of a research topic by locating, organizing, analyzing, evaluating, synthesizing and communicating information about a particular topic and its impact on your future career as a health care provider and researcher.
- 6. Explain some of the challenges and realities many face when living in a rural/underserved community.
- 7. Describe the unique aspects of rural population health and compare/contrast to urban/metropolitan population health, including health disparities.
- 8. Show familiarity with common conditions that affect rural communities, including oral health, medical emergencies and trauma, mental health & substance abuse and nutrition.
- 9. Describe how social determinants interface with and impact health and health service delivery in rural areas.
- 10. Be familiar with the available resources and data relevant to describing and measuring rural population health.
- 11. Gain the skill set to be an empathetic, ethical, communicative, and professional researcher/healthcare leader. This includes meeting with MD/PhD mentors and effectively reflecting and communicating research projects, receiving constructive feedback, and planning on how to act on that feedback.

# **Course Format & Schedule**

### Timeline

May 19 - July 7, 2020

### **Educational and Instructional Modalities**

Modality	Percentage
Large Group Discussion	35%
Small Group Discussion	35%
Assignments & Feedback	30%

#### Role of the Student in this Course

- Students will attend and participate in all required information sessions and guest lecturers and be able to display an understanding of the information via discussions and writing assignments
- Students will display an understanding and the ability to integrate concepts, ideas, and information related to the elective by successful completion of a reflection piece and a poster presentation with satisfactory scores
- Students will actively participate in group discussion, mentoring sessions and display the ability to relay information via oral presentations while being respectful to other participants

#### Topics in this Course\*

- Rural Population Health
- Research skills
- Creativity
- Writing & Presenting for a Variety of Populations
- Work-Life Balance as a Rural Physician
- Responsible Conduct of Research & IRB

\*Topics may vary by availability of guest lecturers

### Educational and Instructional Modalities for this Course

- Synchronous lectures delivered through Zoom
- Peer-to-peer education through small group activities
- Critical thinking and research skills
- Reflective Op-Ed Piece
- Scientific Communication for a Variety of Audiences & Delivery Platforms



- Public speaking and professionalism through final research presentation
- Expert panel Q&A with speakers from the research and physician community

#### Alignment of Program Objectives and Course Objectives

Refer to Appendix D to see the alignment between the University of Utah School of Medicine's Program Objectives and the Rural Research Elective Course Objectives.

#### Required Textbook(s)/Readings

Book Title + ISBN	Author/Publisher/Edition	Approximate Cost
There is no required textbook for the Research & Innovation elective. However, there may be supplemental articles that		
complement each week's lecture topic and will be made available on the elective Canvas page.		

#### **Additional Resources**

N/A

### Assessment & Grading

Assessment Name	Weight toward Final Grade	Course Goal Assessed	Due Date
Digital Poster Presentation	40%	Compare and contrast the research design and implementation strategies for proving a favored hypothesis vs. discovering truth. Utilize your observational skills and curiosity to identify anomalies that are often overlooked, but may be important for patient care and conducting research. Increase your ability to generate innovative research questions that are plausible, actionable and useful. Be able to write a structured abstract and a short research description that effectively communicate your research question, methods for addressing the question and results	Poster presentation is due and presented at the end of elective and during annual research symposium
Op-Ed Reflection Piece	20%	Display a deep understanding of a research topic by locating, organizing, analyzing, evaluating, synthesizing and communicating information about a particular topic and its impact on your future career as a health care provider and researcher.	End of elective



Scientific Communication for a Variety of Audiences & Platforms	20%	Display a deep understanding of a research topic by locating, organizing, analyzing, evaluating, synthesizing and communicating information about a particular topic and its impact on your future career as a health care provider and researcher. Gain the skill set to be an empathetic, communicative, and professional healthcare leader.	End of the elective
Participation and attendance	20%	Explain some of the challenges and realities that many encounter when living and/or working in a rural community. Describe the unique aspects of rural population health and compare/contrast to urban/metropolitan population health, including health disparities and diversity in age, race, culture, and more. Describe how social determinants interface with and impact health and health service delivery in rural areas. Identify common ethical issues that face practitioners and researchers and describe how ethical concepts and principles can be utilized to navigate ethical conundrums. Identify strengths, deficiencies, biases, and limits in one's knowledge and expertise through self- reflection and other learning activities.	Ongoing throughout the elective

### Grading Criteria

Students who participate and complete all the elective discussions, lectures, and assignments will receive a grade of PASS for the elective.

### **Grading System**

Students will receive a final letter grade of PASS (P), or FAIL (F) for this course.

**PASS:** A student who achieves the criteria, will be assigned a grade of PASS for the elective.

FAIL: A student who fails to achieve the criteria for PASS, will be assigned a grade of FAIL for the course.



Academic Year 2019-20



### **Student Feedback**

Student feedback is an important aspect of curriculum quality improvement. Thus, students are expected to complete all assigned feedback surveys specific to a course by the due date.

### **Standard Policies**

Please refer to the Student Handbook (on the Student Affairs' website) for these policies:

Accommodations Addressing Sexual Misconduct Dress Code Examination and Grading Policies Grade or Score Appeal Professionalism, Roles & Responsibilities Mistreatment Infectious, Environmental and Bloodborne Pathogen Exposures Policy

### Alternate Name and/or Personal Pronoun

Class rosters are provided to the instructor with the student's legal name as well as 'Preferred' first name (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, we will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise us of any name or pronoun changes (and please update CIS) so we can help create a learning environment in which you, your name, and your pronoun will be respected.

### **Center for Disability & Access Services**

The School of Medicine seeks to provide equal access to its programs, services and activities for all medical students. The Center for Disability and Access (CDA) provides accommodations and support for the educational development of medical students with disabilities. Medical students with a documented disability and students seeking to establish the existence of a disability and to request accommodation are required to meet with the CDA Director for recommended accommodations. The CDA will work closely with eligible students and the Academic Success Program to make arrangements for approved accommodations. The School of Medicine and CDA maintain a collegial, cooperative, and collaborative relationship to ensure compliance with federal and state regulations for students with disabilities.

Steven Baumann EdD, School of Medicine Senior Director of Academic Success Program, serves as the liaison between the School of Medicine and the CDA.

Contact Information: Dr. Steven Baumann, Senior Director of Academic Success Program 1C047 SOM Office: 801-587-9797 Email: <u>Steven.Baumann@hsc.utah.edu</u>

University of Utah Center for Disability and Access Olpin Student Union Building, Room 162 Phone (Voice/TDD): (801) 581-5020 http://disability.utah.edu

# Appendix A

### Research & Innovation Elective Poster Review Academic Year 2019-2020

**Background -** A poster presentation is required of all University of Utah medical students who are seeking to receive a grade of completion for the Research & Innovation elective. Participants must develop a poster related to their summer research project that describes their research project, and preliminary findings. The following information and guidelines are for students to follow while completing a research poster.

**Introduction\*** - Traditional clinical review *articles*, also known as updates, differ from systematic reviews and metaanalyses. Updates selectively review the medical literature while discussing a topic broadly. Systematic reviews (nonquantitative) comprehensively examine the medical literature, seeking to identify and synthesize all relevant information to formulate the best approach to diagnosis or treatment. Meta- analyses (quantitative) seek to answer a focused clinical question, using rigorous statistical analysis of pooled research studies.

Clinical review posters, designed to convey information related to a clinical topic to a small but varied audience, represent a hybrid of a clinical review article and an oral presentation - more detailed than a speech but less than a paper, more interactive than either. Preparing a poster involves not only creating pages to be mounted in a conference hall, but also developing an associated narrative and, possibly, educational handouts, and anticipating the questions you are likely to encounter during the session. Although the poster is oriented towards the clinical care of patients, the poster presenter should be prepared to adapt the narrative to the audience, which may include people with different levels of familiarity with the topic. In a speech, the presenter determines the focus of the presentation, but in a poster session, the viewers drive the focus. Different people will ask about different facets of your topic. Some might do policy work or research. Others may be interested in only a clinical or public health perspective. It is expected that the poster presenter has a broad grasp of the pertinent issues and is able to discuss multiple aspects of the topic beyond the clinical diagnosis and management.

By the end of an active poster session, you may have learned as much from your viewers as they have from you, especially if the topic or audience are new to you. In addition, presenting a poster provides excellent practice in explaining quickly and clearly why your topic is important and what your findings mean—a useful skill to anyone.

\*Adapted from: 1. J Siwek, ML Gourlay, DC Slawson, AF. Shaughnessy. How to Write an Evidence-Based Clinical Review Article. Am Fam Physician. 2002 Jan 15;65(2):251-258. 2. JE Miller. Preparing and Presenting Effective Research Posters. Health Serv Res. 2007 Feb; 42(1 Pt 1):

311-328. doi: 10.1111/j.1475-6773.2006.00588.x

#### Checklist for an Evidence-Based Clinical Review Poster

#### Preparation

- Prior to conducting an evidence review and developing the poster, determine the clinical topic of interest to you
  that also has relevance to a clinical practitioner in a low resource setting. Consider the topic from the perspective
  of a clinical educator that is designing a poster to convey continuing medical education to students or peers. A
  variety of factors may influence the choice of topic, including an experience in caring for an individual patient, a
  desire to fill personal gaps in one's knowledge and understanding of a particular topic or desire to improve
  outcomes for a particularly severe or burdensome disease or condition.
- Conduct a review of the evidence base regarding clinical topic, including etiology, pathophysiology, clinical presentation (e.g., signs and symptoms), diagnostic evaluation (e.g., history, physical examination, laboratory evaluation, and diagnostic imaging), differential diagnosis (if any), treatment (e.g., goals, medical/surgical therapies, laboratory testing, patient education, and follow- up), prognosis, prevention and future directions, controversies or gaps in the evidence base.
- Scrutinize several sources of evidence-based reviews on the topic. Emphasize practical, evidence-based guidelines and primary research studies, rather than other review articles, unless they are systematic reviews.



#### Designing the Poster

- Review information regarding the production of a high-impact academic poster. Although most tips and
  recommendations available relate to scientific posters, many of the principles cited are directly relevant to a
  clinical review poster. The National Institutes of Health Creating and Presenting Dynamic Posters and the University
  of Michigan Library offer good guidance on this topic and offer several examples of good (and not so good)
  academic posters.
- **Title** A good title summarizes the purpose of the poster succinctly but also captures the viewer's attention. Avoid jargon, lengthy title and abbreviations.
- Names & Affiliations Include first and last name, your academic credentials (e.g., B.S., Ph.D.), your affiliated institution (e.g., University of Utah School of Medicine) and the location of the institution (e.g., Salt Lake City, Utah)
- **Background** The background should briefly describe or define the topic, state the purpose of the review and describe its relevance to clinical care in a low resource setting. In other words, why is this important or why should anyone care about this topic?
- Learning Objectives State at least two learning objectives. What can the viewer expect to learn from reviewing the poster and interacting with the presenter? What are the essential take home points?
- **Methods** State how you did your literature search and indicate what sources you utilized to ensure a comprehensive assessment of the topic (e.g., MEDLINE, the Cochrane Collaboration Database, the Center for Research Support, TRIP Database).
- **Results/Recommendations** Clearly describe the key clinical recommendations related to the topic, focusing on diagnosis and management. What are the most important considerations for a clinician who is caring for an individual patient? If possible, state the level of evidence for key recommendations using the following rating scale: level A (RCT/meta-analysis), level B (other evidence), and level C (consensus/expert opinion). Use tables, figures, boxes and illustrations to highlight key points.
- **Discussion** Summarize the state of the evidence regarding the diagnosis and management of the clinical condition and highlight key points. Acknowledge controversies or lack of evidence, recent developments, other viewpoints, and any apparent conflicts of interest or instances of bias that might affect the strength of the evidence behind the key recommendations presented.
- **Conclusion** Distill the most important aspects of the poster into two or three sentences.
- **Citations** Refer to the AMA Manual of Style (10th).
  - Reference to a Print Journal Article
    - Author A, Author B, Author C, et al. Title of Article. Title of Periodical. date; volume(issue): pages.
    - Example: Rainer S, Thomas D, Tokarz D, et al. Myofibrillogenesis regulator 1 gene mutations cause paroxysmal dystonic choreoathetosis. Arch Neurol. 2004; 61(7):1025-1029.
    - Reference to an Online Journal Article
      - Author. Article title. Journal Title. date; volume(issue): pages. URL. Accessed date.
      - Example: Duchin JS. Can preparedness for biological terrorism save us from pertussis? Arch Pediatr Adolesc Med. 2004;158(2):106-107. http://archpedi.jamanetwork.com.ezproxy1.library.arizona.edu/article.aspx?articleid=48561 1.
    - Accessed July 9, 2014. • Reference to a Journal Article With DOI
      - Author A, Author B, Author C. Article Title. Journal Title. date;volume(issue):pages.doi
      - Example: Smeeth L. Iliffe S. Community screening for visual impairment in the elderly. Cochrane Database Syst Rev. 2002;(2):CD001054. doi:10.1002/14651858.CD1001054. Kitajima TS, Kawashima SA, Watanabe Y. The conserved kinetochore protein shugoshin protects centromeric cohesion during meiosis. Nature. 2004;427(6974):510-517. doi:10.1038/nature02312.
- Acknowledgements Briefly note any person, resource or entity (if any) who assisted or contributed to the poster.

\*Directions for how to create the research poster in PowerPoint will be provided so you can virtually present your project at the end of the course

# Appendix **B**

### **Op-Ed Piece Guidelines**

An "Opposite the Editorial Page", or "Op-Ed" piece, can have a wide range of creativity and flexibility. It can be personal or exploratory essays, commentary on local events, reflections on cultural trends, environmental issues, determinants of health, and more are welcome. Write about something that you find interesting with a fact-based viewpoint that you believe readers will find worthwhile and is appropriate for your assigned target population. The guidelines below are recommended to be utilized when writing your op-ed piece; however more information and suggestions can be found at <a href="https://commskit.duke.edu/writing-media/writing-effective-op-eds/">https://commskit.duke.edu/writing-media/writing-effective-op-eds/</a>.

Here are the guidelines for writing an op-ed piece:

- Limit the article between 750 and 800 words
- Make a single point well
  - Be satisfied with making a single point clearly and persuasively. If you can't explain your message in a sentence or two, then you're trying to cover too much.
- Put your main point on top
  - You have no more than 10 seconds to hook a busy reader, which means you shouldn't "clear your throat" with a witticism or historical aside. Just get to the point and convince the reader that it's worth his or her valuable time to continue.
- Tell readers why they should care
  - Put yourself in the place of the busy person looking at your article. At the end of every few paragraphs, ask out loud: "So what? Who cares?" You need to answer these questions. Will your suggestions help reduce readers' taxes? Protect them from disease? Make their children happier? Explain why. Appeals to selfinterest usually are more effective than abstract punditry.
- Showing is better than discussing
  - That's because we humans remember colorful details better than dry facts. When writing an op-ed article, therefore, look for great examples that will bring your argument to life.
- Embrace your personal voice
  - The best of these examples will come from your own experience. Academics tend to avoid first-person exposition in professional journals, which rarely begin with phrases like "You won't believe what I found when I was working in my lab last month." When it comes to op-eds, however, you should embrace your own voice whenever possible. If you are a physician, describe the plight of one of your patients, and then tell us how this made you feel personally. If you've worked with poor families, tell a story about one of them to help argue your point. In other words, come down from Mt. Olympus and share details that will reveal your humanity. In doing so, your words will ring truer and the reader will care more about what you are saying. If you are a student or someone else without a fancy degree or title, your personal voice becomes even more important.
- Use short sentences and paragraphs
  - Look at some op-ed articles and count the number of words per sentence. You'll probably find the sentences to be quite short. You should use the same style, relying mainly on simple declarative sentences. Cut long paragraphs into two or more shorter ones.
- Avoid jargon
  - If a technical detail is not essential to your argument, don't use it. When in doubt, leave it out. Simple language doesn't mean simple thinking; it means you are being considerate of readers who lack your expertise and are sitting half-awake at their breakfast table or computer screen.
- Acknowledge the other side
  - People writing op-ed articles sometimes make the mistake of piling on one reason after another why they're right and their opponents are wrong, if not idiots. They'd probably appear more credible, and almost certainly humbler and more appealing, if they took a moment to acknowledge the ways in which their opponents are right. When you see experienced op-ed authors saying "to be sure," that's what they're doing.
- Make your ending a winner



- As noted, you need a strong opening paragraph, or "lead," to hook readers. When writing for the op-ed page, it's also important to summarize your argument in a strong final paragraph. That's because many casual readers scan the headline, skim the opening and then read the final paragraph and byline. In fact, one trick many columnists use is to conclude with a phrase or thought that appeared in the opening, thereby closing the circle.
- Relax and have fun
- Offer graphics or other visuals
  - o If you have a terrific illustration, photo, video or other asset that might accompany your article, use it.



# Appendix C

### Scientific Communication for a Variety of Audiences & Platforms

Scientific literacy is an area where the general public lacks the knowledge and background that is required to digest information. As a result, this discrepancy creates a schism between researchers and the general public where research can be viewed as exclusive and not reachable to the general public. Now more than ever it is important to understand and be able to write and present scientific communication for a variety of audiences and platforms.

For this assignment, you will be tasked to convey the information surrounding an existing scholarly article of your choosing for three (3) different audience types through four (4) different delivery platforms. Examples of audience types include K-12, business, academia, English as a second language, the general public, etc. Examples of delivery platforms include a blog post, an infographic, an Instagram post or video, a tweet, etc.

You have creative freedom for this project. We ask that you provide a short summary explaining the rationale for your decisions and justify the final outcome for each deliverable (e.g. how each platform is appropriate for your target audience). Please refer to the examples in the recorded lecture to serve as inspiration of best practices. Remember to keep your deliverables short, concise, and digestible while being visually pleasing and easy to follow with the eye.



# Appendix D

### Course Schedule

Time/Date	Торіс	Lecturer	Notes
May 19, 2020	Introduction to the Course	Sarah Franklin	In-person
May 26, 2020	Research at the University of Utah	Sarah Franklin	In-person
June 2, 2020	Responsible Conduct of Research & IRB	Sarah Franklin & Anne Johnson	In-person Complete online RCR training before this session and attend the live IRB lecture facilitated through the MSRP elective
June 9, 2020	What is Good Academic Research?	TBD	In-person
June 16, 2020	How to Find Creative Moments & Brainstorm Effectively	TBD	In-person
June 23, 2020	Scientific Communication & How to Write/Present for Different Populations	TBD	In-person
June 30, 2020	Rural Research & Provider Panel	1-3 community members	In-person
July 7, 2020	Final Poster Presentations	Sarah Franklin	In-person All assignments for elective due in Canvas



### Appendix E

# Alignment of Program Objectives and Course Objectives

Program Objective	Course Objective
<ul> <li>Patient Care</li> <li>Recognize the importance of providing preventative health care services to patients, families, and/or communities</li> </ul>	<ul> <li>Explain some of the challenges and realities many face when living in a rural community and will be able to provide solutions to problems.</li> <li>Describe the unique aspects of rural population health and compare/contrast to urban/metropolitan population health, including health disparities and diversity in age, race, culture, and more.</li> <li>Show familiarity with common conditions that affect rural communities, including oral health, medical emergencies and trauma, mental health &amp; substance abuse and nutrition.</li> <li>Describe how social determinants interface with and impact health and health service delivery in rural areas.</li> <li>Be familiar with the available resources and data relevant to describing and measuring rural population health.</li> <li>Utilize your observational skills and curiosity to identify anomalies that are often overlooked, but may be important for patient care and conducting research.</li> </ul>
<ul> <li>Knowledge for Practice</li> <li>Develop and implement approaches for generating and applying new knowledge that emphasizes inquiry, discovery, and dissemination</li> <li>Apply established and emerging evidence about lifestyle changes to improve patient health outcomes</li> <li>Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial</li> <li>Demonstrate knowledge of ethical principles pertaining to provision or withholding of care, confidentiality, and/or informed consent</li> </ul>	<ul> <li>Show familiarity with common conditions that affect rural communities, including oral health, medical emergencies and trauma, mental health &amp; substance abuse and nutrition.</li> <li>Describe how social determinants interface with and impact health and health service delivery in rural areas.</li> <li>List several local, State and Federal organizations and resources that exist to support rural health and health systems and describe their function or role.</li> <li>Be familiar with the available resources and data relevant to describing and measuring rural population health.</li> <li>Compare and contrast the research design and implementation strategies for proving a favored hypothesis vs. discovering truth.</li> </ul>
<ul> <li>Practice Based Learning and Improvement</li> <li>Identify strengths, deficiencies, and limits in one's knowledge and expertise</li> <li>Identify and perform learning activities that address one's gaps in knowledge, skills, and / or attitudes</li> <li>Locate, appraise, and apply evidence from</li> </ul>	<ul> <li>Identify strengths, deficiencies, biases, and limits in one's knowledge and expertise through self-reflection and other learning activities</li> <li>Increase their ability to generate innovative research questions that are plausible, actionable and useful.</li> </ul>



scientific studies related to patients' health problems	
<ul> <li>Interpersonal and Communication Skills</li> <li>Demonstrate interpersonal and communication skills that result in the effective exchange of information with patients, families, peers, and/or team members</li> <li>Communicate effectively with patients, families, peers, and/or other team members across a broad range of socioeconomic and cultural backgrounds using strategies that build rapport and promote inclusion and equity</li> </ul>	<ul> <li>Explain some of the challenges and realities many face when living in a rural community and will be able to provide solutions to problems.</li> <li>Describe the unique aspects of rural population health and compare/contrast to urban/metropolitan population health, including health disparities and diversity in age, race, culture, and more.</li> <li>Show familiarity with common conditions that affect rural communities, including oral health, medical emergencies and trauma, mental health &amp; substance abuse and nutrition.</li> <li>Describe how social determinants interface with and impact health and health service delivery in rural areas.</li> <li>Gain the skill set to be an empathetic, communicative, and professional healthcare leader.</li> <li>Identify strengths, deficiencies, biases, and limits in one's knowledge and expertise through self-reflection and experiential learning activities</li> <li>Be able to write a structured abstract and a short research description that effectively communicates research questions, and methods for addressing the question and results to a variety of audiences.</li> <li>Display a deep understanding of a research topic by locating, organizing, analyzing, evaluating, synthesizing and communicating information about a particular topic and its impact on your future career as a health care provider and researcher.</li> </ul>
<ul> <li>Professionalism</li> <li>Demonstrate compassion, integrity, and respect for others</li> <li>Demonstrate sensitivity and responsiveness to diverse patient populations and/or topics including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation</li> </ul>	<ul> <li>Gain the skill set to be an empathetic, communicative, and professional healthcare leader.</li> <li>Describe the unique aspects of rural population health and compare/contrast to urban/metropolitan population health, including health disparities and diversity in age, race, culture, and more.</li> <li>Students will display an understanding and the ability to integrate concepts, ideas, and information related to the elective by successful completion of an op-ed piece and a capstone poster project with satisfactory scores</li> <li>Students will actively participate in group discussion and display the ability to relay information via oral presentations while being respectful to other participants</li> </ul>



discussion and display the ability to relay information via oral presentations while being respectful to other participants	Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust	
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