

## Course Syllabus – TRBIO 500

### Course Information

Course Number: TRBIO 500 WI21  
Course Name: Social Science Impact of Biomedical Research  
Term: WI 2021  
Start Date: 01/05/2021  
End Date: 03/26/2021  
Credits: 3.0

### Meeting Days / Times

Tuesdays and Thursdays, 12:30pm-2:00pm PT / 3:30-5:00pm ET  
(See Calendar in Canvas for the most up-to-date schedule.)

### Location

Online via Zoom

### Course Managers

Role	Last Name	First Name	Email Address
Instructor	AuYoung	Mona	<a href="mailto:auyoung.mona@scrippshealth.org">auyoung.mona@scrippshealth.org</a>

### Course Description

Science is becoming more interdisciplinary, requiring researchers to work with others from different disciplines. This course on health-related behavioral and social sciences complements the biomedical courses offered at Scripps Research, offering students the chance to develop skills to enhance their work with key stakeholders (e.g., clinicians, community members, funders, etc.) and ability to design more competitive grant proposals, especially for interdisciplinary work. This introductory course will provide a basic understanding of the larger context around research topics, including a general knowledge of major public health issues, health disparities, social determinants of health, diverse stakeholder populations, team science, and community engaged research. We will discuss these concepts in the context of current events and have discussions with diverse guest speakers from different fields. The course will also provide opportunities to interact with community stakeholders who are directly impacted by research or who impact its funding. Overall, the skills offered in this class will help prepare students to become more well-rounded and competitive researchers.

## **Program Learning Outcomes**

By the end of the program, students will have accomplished these objectives:

PLO1: Original Research – graduate students are expected to develop the skills critical for generating high-quality research output. This would include absorbing, recalling, and contextualizing scientific knowledge, evaluating scientific information and data, creating testable hypotheses and investigating hypotheses, mastering scientific tools and techniques, displaying ethical behavior, and receiving and giving feedback.

PLO2: Communication – graduate students are expected to demonstrate the oral, written, and media skills to effectively communicate the impact of a study or a body of work to the greater scientific community and to the public at large using a number of methods.

PLO3: Critical Thinking – graduate students are expected to develop a self-directed process to analyze information, form opinions or judgments, and use this process to improve the quality of their scientific thoughts, navigate problems, and make informed decisions.

PLO4: Intellectual Curiosity – graduate students are expected to acquire the capacity to build their intellectual curiosity and demonstrate problem solving approaches that serve their professional growth and ability to impact a field.

PLO5: Career and Professional Development – graduate students are expected to develop a variety of transferable skillsets throughout their graduate experience, including management and leadership, inclusiveness, resilience, scientific rigor, collaboration, accountability, time management, teamwork, networking, and career planning.

## **Course Learning Outcomes**

Upon completion of this course students will be able to:

CLO1: Describe at least three social determinants of health.

CLO2: Describe at least two examples of health disparities and their underlying factors.

CLO3: Describe how to use at least three different social science research methods.

CLO4: Identify opportunities to apply social science research methods in their research.

CLO5: Identify opportunities to communicate with community stakeholders in their research.

## **Background Preparation (Prerequisites)**

None. This is intended to be an introductory course on the behavioral and social sciences for biomedical researchers and clinicians.

## **Course Materials**

Required: McKenzie, J.F., Pinger, R.R. & Seabert, D. (2016). An introduction to community and public health. ISBN: 978-1284108415.

Required: Maruyama, G. & Ryan, C.S. (2014). Research methods in social relations. ISBN: 978-1118764978.

Useful to Consult: Benjamin, R. (2019). Race after technology. ISBN: 978-1509526406.

Useful to Consult: Skloot, R. (2011). The immortal life of Henrietta Lacks. ISBN: 9781400052189.

Useful to Consult: Enhancing the effectiveness of team science (2015). ISBN: 978-0309316828.

Useful to Consult: Ford, C.L. et. al (2019). Racism: Science and tools for the public health professional. ISBN: 978-0875533032.

Useful to Consult: Olson, R. (2015). Houston, we have a narrative: Why science needs story. ISBN: 978-0226270845.

## **Instructor Policies**

Students will be expected to actively participate and engage in class discussions, including listening respectfully to others with an open mind and without judgment. There will be no tolerance of hate speech or bullying.

## **Class format**

*Format*: Each class will involve lectures on the assigned topic(s) but will also involve group discussions. Students are expected to participate in these discussions. We will also have guest speakers to help illustrate the research areas we discuss in class.

*Survey*: Students will design a survey related to their research topic. After revision, the survey will then be administered to those being interviewed.

*Interview*: Students will design a brief semi-structured interview guide related to their research topic. They will interview community stakeholders (and administer the survey described above). The instructor will assist students with identifying appropriate community stakeholders to survey and interview.

*Presentation*: Students will present findings from their surveys and interviews and discuss how it related to their current research. Community stakeholders and fellow students will have the opportunity to provide feedback. Depending on the availability of community stakeholders, this class may be scheduled at a different time.

***Reading materials***: Assigned readings will come from a combination of textbook chapters, research articles, and current events.

## **Attendance Statement**

Students are expected to attend all classes. Students who are unable to attend class must seek permission for an excused absence from the course director or teaching assistant. If a student has to miss a class, he or she should arrange to get notes from a fellow student and is strongly encouraged to meet with the teaching assistant to obtain the missed material. Missed exams will not be available for re-taking.

## **Scientific and Professional Ethics**

The work you do in this course must be your own. Feel free to build on, react to, criticize, and analyze the ideas of others but, when you do, make it known whose ideas you are working with. You must explicitly acknowledge when your work builds on someone else's ideas, including ideas of classmates, professors, and authors you read. If you ever have questions about drawing the line between others' work and your own, ask the course professor who will give you clear guidance. Exams must be completed independently. Any collaboration on answers to exams, unless expressly permitted, may result in an automatic failing grade and possible expulsion from the Graduate Program.

## **Technology Requirements and Support**

For issues related to Canvas, please contact the Graduate Office by email at: [gradprgm@scripps.edu](mailto:gradprgm@scripps.edu) or by phone at: 858-784-8469.

## **Course Grading**

Grading is in accordance with the academic policies of the Skaggs Graduate School. The breakdown of grading is as follows:

- Survey: 20%
- Interviews: 35%
- Final Presentation: 35%
- Class Participation: 10%

<b>Letter Grade</b>	<b>Percent</b>	<b>GPA</b>	<b>Description</b>
A	93-100	4.00	Outstanding achievement. Student performance demonstrates full command of the course subject matter and evinces a high level of originality and/or creativity that far surpasses course expectations.
A-	90-92	3.67	Excellent achievement. Student performance demonstrates thorough knowledge of the course subject matter and exceeds course expectations by completing all requirements in a superior manner.
B+	87-89	3.33	Very good work. Student performance demonstrates above-average comprehension of the course subject matter and exceeds course expectations on all tasks as defined in the course syllabus. There is notable insight and originality.
B	83-86	3.00	Satisfactory work. Student performance meets designated course expectations and demonstrates understanding of the course subject matter at an acceptable level.
B-	80-82	2.67	Marginal work. Student performance demonstrates incomplete understanding of course subject matter. There is limited perception and originality.
C+	77-79	2.33	Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course subject matter. There is severely limited or no perception or originality. Course will not count toward degree.
C	73-76	2.00	Unsatisfactory work. Student performance demonstrates incomplete and inadequate understanding of course subject matter. There is severely limited or no perception or originality. Course will not count toward degree.
P	73-100	0.00	Satisfactory work. Student performance demonstrated complete and adequate understanding of course subject matter. Course will count toward degree.
F	0-72	0.00	Unacceptable work/Failure. Student performance is unacceptably low level of knowledge and understanding of course subject matter. Course will not count toward degree. Student may continue in program only with permission of the Dean.
I		0.00	Incomplete is assigned when work is of passing quality but is incomplete for a pre-approved reason. Once an incomplete grade is assigned, it remains on student's permanent record until a grade is awarded.
W		0.00	Withdrew from the course with Dean's permission beyond the second week of the term.

- All courses will be recorded and maintained in the student's permanent academic record; only courses that apply towards the degree will appear on the academic transcript. Non-credit or audited courses will not appear on the transcript.
- 4 core courses taken for a letter grade (pass = B- or higher for a core course)
- 2 elective courses taken pass/fail (pass = A, B, C for an elective)

**Course Schedule:**

<b>Date</b>	<b>Details</b>
<b>Tue Jan 5, 2021</b>	<b>Community and Population Health</b>
<b>Thu Jan 7, 2021</b>	<b>Guest speaker: Community capacity and research</b>
<b>Tue Jan 12, 2021</b>	<b>Needs Assessment</b>
<b>Thu Jan 14, 2021</b>	<b>Guest speaker: Research ethics and technology</b>
<b>Tue Jan 19, 2021</b>	<b>Health Disparities</b>
<b>Thu Jan 21, 2021</b>	<b>Guest speaker: Medical racism and implicit bias</b>
	<b>Design of survey</b>
<b>Tue Jan 26, 2021</b>	<b>Research Methods I: Qualitative Methods</b>
<b>Thu Jan 28, 2021</b>	<b>Guest speaker: Health care access and disparities</b>
<b>Tue Feb 2, 2021</b>	<b>Health Disparities I</b>
	<b>Administration of survey</b>
	<b>Design of interview guide</b>
<b>Thu Feb 4, 2021</b>	<b>Guest speaker: Indigenous populations and genomics research</b>
<b>Tue Feb 9, 2021</b>	<b>Health Disparities II</b>
<b>Thu Feb 11, 2021</b>	<b>Guest speaker: Intersection of race and technology</b>
<b>Tue Feb 16, 2021</b>	<b>Research Methods II: Data analysis</b>
<b>Thu Feb 18, 2021</b>	<b>Guest speaker: Qualitative research and its value</b>
<b>Tue Feb 23, 2021</b>	<b>Team Science</b>
<b>Thu Feb 25, 2021</b>	<b>Guest speaker: Team science</b>
<b>Tue Mar 2, 2021</b>	<b>Dissemination and implementation</b>
	<b>Conduct of interviews</b>
<b>Thu Mar 4, 2021</b>	<b>Guest speaker: Research translation and implementation</b>
<b>Tue Mar 9, 2021</b>	<b>Science communications</b>
<b>Thu Mar 11, 2021</b>	<b>Guest speaker: Dissemination of research into the real world</b>
<b>Tue Mar 16, 2021</b>	<b>Current and future directions in community-engaged research</b>
<b>Thu Mar 18, 2021</b>	<b>Guest speaker: TBD</b>
<b>Tue Mar 23, 2021</b>	<b>Community symposium</b>
	<b>Final Presentation</b>