

Course Syllabus - From Idea to Publication: Building your own research project

Welcome to the course syllabus for CEPC 0904! All changes to the syllabus will be reflected here as well as the [“syllabus” portion of the course website](#). This copy is linked also linked on the [course canvas page](#).

Course Objectives

The motto of The Brown University School of Public Health is *"Learn public health by doing public health."* This idea extends to this course; you will *learn research by doing research*. This will be accomplished by working on (creating) a unique, personal project and learning the basics of research methods and tools along the way. While we don't have enough time to dive deeply into each topic, the goal is for you to have exposure to a range of concepts common in academic research so you won't be seeing them for the first time when you take a college course.

You can expect to understand/attain the following (among others):

- Forming a research question and fitting it to available data
- Conducting a (quasi-)systematic review of evidence
- Understanding, evaluating, and synthesizing published articles/data
- Evaluating the trustworthiness and usefulness of a source
- Tailoring research to different audiences/publication goals
- Basics of statistics, citation methods, hypothesis testing, bias, inference, and data visualization
- Creating a research question that builds on existing evidence
- Collaborating with peers
- Generally preparing for the college/academic world

If you feel I am not helping you to meet these goals, or you have questions or concerns, I encourage you to talk to me!

Course Prerequisites

Technology requirements (firm requirements): Access to a computer running Windows (7 or later) or macOS (El Capitan or later), ability to install software on your computer,

and internet access. Any software we need in this class will be free or made free to you for the duration of the class.

Recommended (not required, but potentially helpful): Experience writing paper 8+ pages long, exposure to basic statistics and/or statistical software, and basic experience using word and excel.

Please note that the goal of this course is to make academic-level research methods more accessible, but it will be fast paced--after all you're completing a research project in just six weeks! But you will learn a lot and have a completed research project that you can share at the end.

Course Expectations

I don't have a lot of strict expectations for this course. Research is a unique and often unpredictable process. Therefore I simply ask that you work hard, help others, and maintain an open mindset. Your final grade will be a reflection of your overall learning and discovery process, not based on a precise, accurate, or perfect result.

A note on the last year and burnout: The last couple of years have been hard on everyone, and extra hard on some. COVID-19, political upheaval, and racial injustice have taken a toll on all of us. My hope is that you will learn a lot from this course that will prepare you well for the future, but not at the expense of your mental or physical health. If you're overwhelmed or afraid you're falling behind, please reach out to me. I'm happy to make individual accommodations or to adjust the overall course content or pace if necessary. I also recognize that some of you are working or taking other courses at the same time as taking this course. While we at Brown advise that you don't try to take a second online course during the weeks this one runs (and for good reason), I understand that doesn't always happen. If you're struggling to balance this with other work, please reach out so I can advise you on how best to keep up with the work and keep you from falling too far behind.

Course Topics

Numerous research-related topics will be covered in this class. This includes searching for and citing sources, conducting a systematic review, how to evaluate evidence, basics of data exploration, basic hypothesis testing and statistics, basics of statistical programming (using R), fundamentals of data visualization, academic writing and style

choices, and dissemination and presentation of results. You can find more specific details about each of these on the [schedule page](#).

In addition to these fundamentals, time will be dedicated to learning methods and tools you need for your specific projects. We might also have guest speakers that will record videos discussing the "real world" of research. I encourage you to let me know if there's an additional topic you want covered!

Not every skill you might need for your individual project can be covered in just a few weeks of class, so you will also learn how to find information and learn tools on your own—a skill that's immensely useful in your future research careers.

Required Course Materials

Technology: As noted in the "prerequisites" section, you are expected to have a personal laptop running Windows 7+ or MacOS, and you need to be able to download and install software on it.

Software: All software will be provided to you, though owning Word and Excel might be helpful. All of the software will be linked on the schedule on the relevant day, and a complete list of the software we will use can be found [here](#).

Readings: Freely accessible readings will be accessible via a link on the schedule page. If a reading can only be accessed through the library or is paid, it will be uploaded to Canvas, either under "Files" or "E-Reserves." There are no required textbooks, though I will provide excerpts and recommendations.

Videos: Any lectures to watch will be linked on the [lectures](#) page. If a video contains paid material, it will be uploaded under "Files" on Canvas.

Grading

All assignments will be listed and linked to on the [schedule page](#). Quizzes will be administered through Canvas.

Participation and peer collaboration: 10%

Your participation grade will be based on your engagement with the material and interaction with other students. I believe you will learn the most from sharing your knowledge with others, and you will each bring a unique perspective and skill set to the

content that neither I nor anyone else cannot bring. Normally, participation would make up a larger portion of your grade because collaboration is an absolutely essential skill in any career and teamwork is crucial to successful research; however, online learning obviously makes participation more difficult to grade fairly. Because this course has moved to an online and semi-asynchronous format, it is worth only 10% and you will be primarily assessed based on your engagement with the materials, collaboration in class, and your peer-review feedback. I know that not every student engages with material and peers in the same way, so I will look holistically at your participation when I grade this category. If you are not participating enough, I will be sure to let you know. Students typically get full points in this category unless they skip assignments, classes, or peer review sessions.

Quizzes: 20%

Quizzes will be open note (you will create "one-pagers," a concept I will cover, that you can bring with you). Quizzes are there primarily to ensure you are keeping up to date with the material and for creating helpful reference notes that you can take with you and use in your future research. There should be no "surprise" questions, but there will be a variety of question/answer formats. You will also be provided with answer keys after the quizzes are complete. One-pagers will be submitted along with the quizzes (at least the first couple) so that I can ensure you're identifying the key concepts.

Homework modules/assignments: 20%

Homework assignments will range from reading journal article readings to completing online modules. As it seems reasonable, (given the asynchronous nature of this course), some of this work will be done as group work. Please note that "small" assignments like installing programs prior to the indicated class module are expected to be complete *on time* unless you've previously indicated that you had an issue; this is to ensure you aren't having problems before assignments using that software are due.

Final project (written work): 40%

Your final project is your own unique, open-ended research project result. This is the backbone of the course, and the applied nature of this project, including any successes and setbacks, is valuable as you learn how to do real-world research. Regardless of the exact form your final project takes, you will be required to submit, at a minimum, a basic literature review (either as part of a manuscript or as a separate item). More details will be provided early in the course, and significant class time will be dedicated to working on your project.

Project presentation and publication: 10%

In addition to creating your final project and writing up the results, you will publish it online (more details will be provided) and give a brief presentation at the end of the class. Disseminating and communicating your research are very important in the research world.

“Real-World” Grading Cutoffs

A: 85%

B: 75%

C: 60%

NC: <60%

All Summer@Brown pre-college classes are graded as complete or incomplete (S/NC). However, your grade will give you a general idea of how you'd fare in a college course, and how well you're mastering the material. Keep in mind that you will each be getting performance reviews at the end of the course.

Course completion, post-class details

Course grade and completion:

Your grade in Canvas once all assignments have been graded will be your final percentage. If you have earned a 60% or above, you will have passed the course. You will receive an "S" in the course for successful completion, or an "NC" if you have not completed the course successfully. Assuming you've successfully completed the course, you should receive a course completion certificate from Brown within about a month of the course end date.

You will also receive a performance evaluation that includes comments from me. These will be completed as soon as possible after your final assignment is turned in. A copy will be sent to you and your parents by Brown University, and can be used for future college or job applications as you desire. Since you are not receiving a true grade in the course, these will also provide an opportunity for me to comment on your strengths and areas you can improve on as you continue your academic and research careers.

Accessing course materials after completion:

Shortly after you complete the course, you will lose access to your Brown email, google drive, and canvas access. I strongly encourage you to make a backup of any important

google docs or emails before the course end date. This course website will remain available for the foreseeable future. If this course happens to be taught again with the same number, I will make a copy of this page and put a link to this version somewhere on the new page. If you would like to have a copy for yourself just in case, you can download all of the code/documents used on this website [here](#).

With your permission, I will be storing a copy of your presentations and/or papers on this website under a date-specific permalink. If you do so, you can feel free to link to the url on resumes, portfolios, etc. I will also be providing a link to last years' student papers.

Contacting me:

If you would like to reach out to me (Jack Hester) after the course ends, you are certainly welcome to email me. My brown email address will still be active for at least some time, but probably not forever. You can also contact me at one of my other email addresses found on my [contact page](#). If you would like to reach out to fellow students in the future, you can of course make arrangements with them.

Formatting and Citation Guidelines

Please use MLA or APA style headers/cover pages and text formatting on all assignments. I will start taking points off of your submissions if you don't! Note that more specific formatting details may be provided for specific assignments. Any specific assignment details take precedence. If you have questions, feel free to ask.

Font:

Times New Roman, 12pt font.

Spacing and Margins:

Double spacing, 1 inch margins.

Header - MLA:

Last Name, First Name

Professor Name

Course Number/Section

Date Assignment is Due

Header (title page) - APA:

A title page in the following format:

Title, bolded and centered

Blank space (2+ lines)

Your name, centered

“Summer at Brown,” centered, no quotation marks

“CEPC 0904: From Idea to Publication: Building your own research project,”
centered, no quotation marks

Professor name, centered, no quotation marks

The date, centered

Note: While not required, I also suggest you include page numbers at the top right of each page for both MLA and APA styles. The next section provides links to pages with information about citation and formatting guides, including APA and MLA.

Citations: You are expected to cite anything that is not your own work. In addition, if you state a fact that is not "common knowledge," then you should cite it even if you didn't directly quote or paraphrase the original source(s). When in doubt, it's better to cite than not. In addition, paraphrasing does not exclude you from needing to cite the source. It is imperative that you properly credit the source of the information you are summarizing with the correct in-text and bibliography citations.

Citation Styles: There are many citation styles that are used for different reasons. Typically you will want to use MLA, APA, or Chicago, but consider the type of research you're conducting and if there is a typical citation style for that kind of research, (such as MLA, APA, Chicago, AMA, etc.), then you are encouraged to use that citation style. In general, you are expected to include in-text citations and a corresponding full bibliographic entry.

The Purdue Online Writing Lab (OWL) has good resources about properly formatting based on [MLA](#), [APA](#), and other style guidelines. For even more information, you can find official style guides/handbooks via a Brown library search.

Warning: Failing to properly cite sources is a serious offense at Brown and, more importantly, will severely damage your reputation in the research community. Plagiarism and/or a lack of citations can result in a failing grade or even expulsion. Please reference the [student conduct handbook](#) for more information.

Course Meeting Time and Location

Time: 10:30am-12pom on Mondays, 3:00pm-4:30pm on Thursdays

Dates: June 28 (6/27) - August 12 (8/5), 2022

Location: Online ([Zoom Information](#))

Note: It is highly recommended that you attend these class sessions, as it will provide an opportunity to review important concepts, work with others, and make tangible progress on your final project. As the course goes on, more and more of this time will be dedicated to your work and become less lecture-centered. I will send announcements as these changes occur.

Office Hours

Time: TBA

Location: Click for the [Zoom link](#)

I will set aside the time(s) mentioned above or mentioned directly on Slack. You are more than welcome, however, to schedule individual meeting times with me as I know your schedules and time zones vary. If you would like to schedule a time to meet, you can send me an email or Canvas message. I will send a unique link if we set up an individual time to meet. If you are at all uncomfortable showing your background on Zoom or you feel it might include personal/identifying information and you want to turn on video, you are encouraged to use a virtual background. I will also be checking Slack and email several times per day so you are welcome to reach out there as well.

Contact Information

Professor:

Jack Hester, MPH

Email: jack_hester[at]brown.edu OR hester.jo[at]northeastern.edu

Student and Employee Accessibility Services (SEAS):

Email: SEAS[at]brown[dot]edu

Phone: (401) 863-9588

English Language Learning (ELL) Specialists:

Email: ellwriting[at]brown.edu

Online Communications and Discussion

To facilitate ongoing discussion, especially since we will not have a set class time, I have created a Slack channel. You can post questions about class content or your project, share sources, or discuss anything else class related. I will also monitor Slack as much as possible and answer questions.

[Click here](#) to join the Slack channel.

Writing Center and Writing Help

If you would like someone to review your writing or help you with forming or writing a paper, I encourage you to take advantage of the Brown writing center. This may be especially helpful as you work on your final paper. You can find more information and set up appointments at <https://www.brown.edu/sheridan/programs-services/writing/writing-center>. You can of course also ask me for advice on assignments and papers and I'm happy to read assignments and provide feedback as I have time.

Diversity and Inclusion Statement

This course will be inclusive, supportive, and welcoming. Perspectives and questions should be recognized, appreciated, and evaluated with respect and evidence, rather than judgement and opinion. This course is designed to be accessible to individuals with all kinds of mathematical, language, educational, socioeconomic, gender, disability, sexuality, age, and racial, ethnic, and cultural backgrounds.

If you feel you are not being supported or welcomed, or if material in the course makes you uncomfortable, please let me know.

Students with Special Needs

Official Statement: "Brown University is committed to full inclusion of all students. Students who, by nature of a documented disability, require academic accommodations should contact the professor during office hours. Students may also speak with Student and Employee Accessibility Services at 401-863-9588 to discuss the process for requesting accommodations."

I have first-hand experience with navigating academia while managing a "disability." My goal is to improve your learning as best as is possible, so please feel free to let me know if I can help you to feel more welcome or improve accessibility, even if you don't have an official letter from SEAS.

English Language Learners

Official Statement: "Brown welcomes students from around the country and the world, and their diverse perspectives enrich our community. A suite of services is available to support students whose primary language is not English. International and multilingual students are encouraged to take advantage of these supports to enhance any aspect of their English use or cross-cultural communication."

For more information about English Language Learning at Brown, you should feel free to contact the ELL Specialists at ellwriting@brown.edu.

Academic Integrity and Conduct

Integrity, honesty, and attribution are extremely important in research. I expect that your work will be your own, that you will cite your sources properly, and that you will be respectful of others and their work. Academic dishonesty can result in disciplinary action, including but not limited to failing the course. While you have to comply with Brown University policies, I sincerely hope that you will take academic honesty and integrity seriously because it is critical to becoming a good researcher. More information can be found at <https://www.brown.edu/offices/student-conduct/code>.