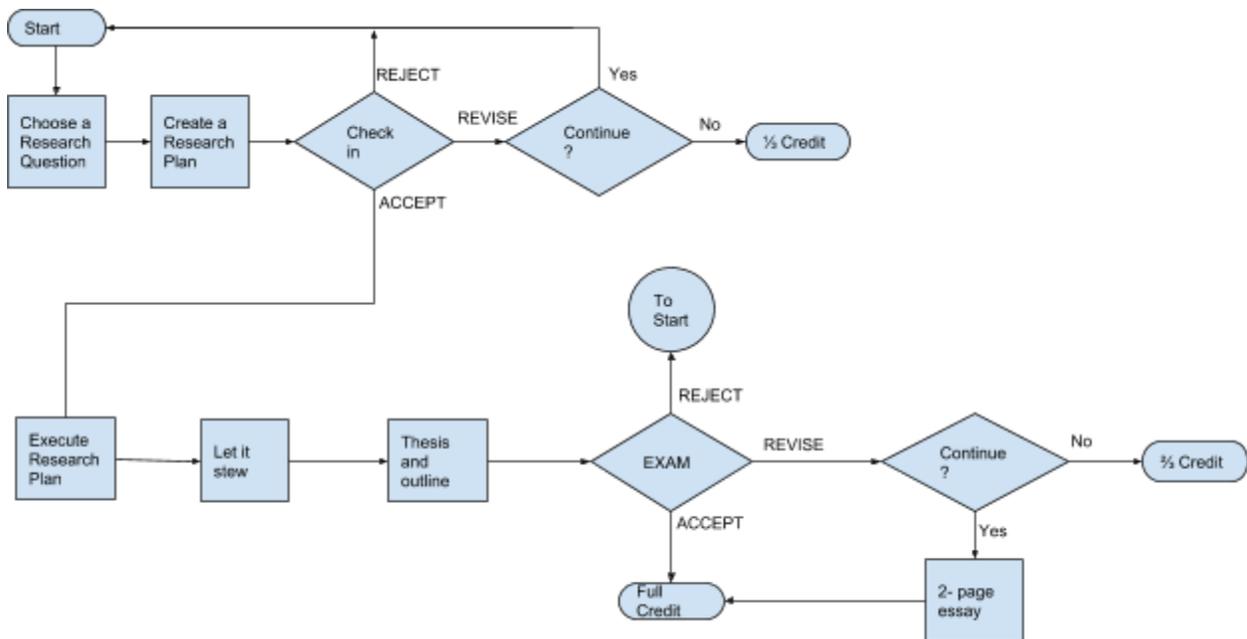


Oral Exam

10 points.

Conduct a 20-minute conversation with me on a topic we mutually agree on (must connect to the course). Convince me that you have achieved scholarly mastery of that topic (this is easier than it sounds). You must share with me your research question and research plan before scheduling the exam. Expect to do the same amount of work and incorporate the same number of sources as for a short essay (i.e., 2-3 excellent sources or 4-5 decent sources).

Research Flowchart



Detailed Guidelines

My aim is to structure most assignments in such a way as to guarantee a successful outcome. This means that you can hand in work you are confident in, and I can have confidence that you have met the learning objectives involved in research assignments.

The guidelines below ask you follow a series of stages that model appropriate research practices. I require that you check in with me at appropriate junctures *before* moving on to the next stage.

At check ins and for the final submission, I will give you one of three grades:

ACCEPT. You have completed this stage satisfactorily, and you have earned the points associated with this stage. You are free to pursue further stages.

REVISE. You have made progress, but significant changes are needed before you can move on to the next stage. In my comments, I will point out problems and identify possible solutions or strategies. I encourage you to talk to me if you have questions about how to proceed. *If you stop here without revising, no points will be awarded for this level, but you retain points from any previous levels.*

REJECT. There are fundamental problems with your approach, and you need to start over with a new research plan. You *must* talk with me if you wish to continue. This is a rare outcome, and most often occurs when students try to skip a step in the process I have outlined. No points are awarded.

1. Choose a research question.

Expect to spend no less than 20 minutes on this. You want to give your mind a chance to be creative. Doodle. Brainstorm. Write five different versions of the question. Freewrite for ten minutes. Take a long shower. Take a short walk. Sleep on it. There's no single way to do this, but you must do it. Turn in the question and some evidence from this stage: a journal reflecting on your thought process, a photo of your doodles, the actual free write, etc.

1.1 How do I choose a research question?

You might start with a topic you are interested in, say bicycles. Once you've selected a topic, you can begin to ask questions: is the technology designed and marketed for a particular kind of person? How has the design changed over the years? Did the bicycle derive from another, earlier technology (e.g., we are told automobiles derive from horse drawn carriages)? What new technologies are now being incorporated into bicycles? How much say do consumers have in bicycle design?

Some questions also look outward: perhaps no one has written on how much control bicycle consumers have on bicycle design. Then ask the more general question and apply it to your case: first, how much control do consumers generally have on a product? There is a rich literature on users and design, some empirical and some theoretical. Think about the balance of evidence you will need to make a case about the bicycle in particular.

Other times, you might start with a more conceptual question: what's the deal with firearm regulation? There are multiple ways to narrow this down: how does the law in the US compare to other places? What about 3D printed gun parts? What is an "assault weapon" and how is it different from a hunting rifle or handgun? How can we decrease mass shootings? What is a mass shooting, and why is that the definition? How can we decrease hunting accidents? A special challenge with a topic like firearms is that the

issue is emotionally charged in a way that bicycles may not be. You will need to challenge yourself to think about the difference between the strength of your beliefs and the strength of your evidence.

You might also start out inspired by something we encounter in class. The key is to ask a question that helps you move beyond what we learned in class. I liked hearing about how robots will take all our jobs... but how will that affect veterinarians? Or, the claim that new technologies created more work for housewives didn't make sense to me. Is there another explanation? Or, Winner talked about tomato harvesters changing the economics of small farms. Is that true of potato harvesters too?

2. Create a research plan

Spend no less than 30 minutes on this. Turn in a written plan. A research plan has a schedule and includes concrete steps to help you answer your research question. List the types of evidence you want to find and where you will look. Specify when you will do the work. Note any special equipment, apps, trips, or systems you will make use of (e.g., note cards, research diary, Broad Museum, list of google search terms, etc.).

2.1 How do I create a research plan?

The way that you formulated the question in Step 1 may suggest approaches to answering it. A question about the historical development of the bicycle suggests looking for historical evidence—books or articles about bicycle history, images, a documentary movie, museum, or perhaps interview if the timeline is right for it. A question about new technology suggests a different kind of research: online searches, visits to bike shops, trade shows or trade magazines, interviews, product searches, science fiction, and analysis of trends (in the case of bicycles, shrinking batteries have dramatically altered the e-bike marketing strategy).

If you already have one source on the topic, use it—and trace back its sources. If you're lucky, it has a bibliography. Use it, but also think about what might have been left out.

Google and Wikipedia are your friends, but they are friends who talk too much. You must learn to be selective.

Choose the best evidence, not the shortest. Does the piece give insight into the question you asked? If you are finding mostly books in your searches, but you find this intimidating, have a look at the “grad school reading” methods detailed in the book project write up.

If you have no ideas, or you are coming up empty, then you probably need to return to STEP 1 and reformulate your question.

3. Check in with me (#1, 1/3 credit)

4. Execute the research plan.

Spend no less than 30 minutes **looking for** sources. For each source, read the abstract or introduction first to evaluate if it will help answer your question. If not, dump it. If so, hang onto it until after your 30 minutes is done, and also consider using its bibliography to find more sources.

For sources you decide to use, spend an appropriate amount of time reading. **It will take you a minimum of 30 minutes to understand a scholarly article** and find a good quote or two. You can do the same for a book in about 90 minutes (see “book project” for guidelines. Basically, you’ll spend an hour understanding the overall structure and message of the book and another 30 minutes finding relevant quotes).

Turn in a bibliography and some evidence of your notes.

4.1 How do I take good notes?

I won’t prescribe a note taking method, but whatever you do, your notes should include relevant bibliographic details so that it is easy to cite later, and they should clearly distinguish between your thoughts and reactions and the ideas expressed in the source itself.

I use “quotes”, summaries of ideas, and [I bracket my own thoughts]. I always note page numbers.

You will be tempted to just write down whatever you find out from each of your sources. But unless you are very lucky, most of your sources won’t be addressing the same question you are. So you will need to be selective: which evidence speaks to my question? How can I interpret this evidence in such a way that it speaks to my question?

5. Let it stew

You might want to take another walk or do some more freewriting. Just be prepared to throw it all away, because this is a stage where you are working out what you think, not a stage where you are working to clearly express what you think. You might want to take a day or two off from this project to really think it through. On large writing projects, I take at least a week off.

6. Thesis and outline including key evidence.

This is the hardest step, and it has the biggest payoff. Every minute you spend on this step saves you five minutes later. I can’t imagine spending less than 30 minutes on this. What’s the

one sentence answer to your original question? What's the evidence for it? What do you need to tell the reader to help convince them that you have found appropriate evidence?

Turn in the thesis and outline.

7. Take the exam (Check in #2).

7.1 What can I expect in the exam?

- I will ask you what you set out to find, what you learned, and how you know.
- You may wish to prepare a 1-2 minute "opening statement." Such a statement can frame the conversation we have, letting me know what you want to talk more about -- and what you don't. Do not just blurt out everything you found. Organize and summarize.
- Be prepared to cite your sources (you may bring a printed bibliography with you to the exam) and defend your judgments about them against gentle probing.
- It is okay to say you don't know, or that you didn't find an answer in your sources. Part of expertise is knowing your limits.
- It is also okay to offer your opinion, but it is a good idea to let me know that it is an opinion and not a considered judgment.
- Think about how you might make use of the knowledge you gained from your investigation.

8. Wrapping up

In the event I give you a REVISE after the exam, you have the option of sticking with the $\frac{1}{3}$ of the points you earned in the planning stage OR writing a 2 page plan explaining how you would prepare differently if you had the exam to do over (full credit is then available).