



## **Mobilizing Science (FYS 068)**

Fall Semester, 2022

### **Instructor:**

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### **General Course Information**

Scientific research plays a critical role in the way societies overcome challenges and respond to crises. However, this research often requires significant investment in terms of money and other resources – often within a limited time frame. How, then, do societies mobilize scientific activity in the face of such challenges? Who determines the priorities? Who foots the bill? Is a successful outcome to be pursued no matter what the cost? Over the course of the semester, we will explore the mechanisms through which scientific activity can be channeled toward specific ends. We will also examine the moral and ethical quandaries that scientists and policymakers often face when deciding how and whether to participate in the resulting research effort. At the same time, you will have a chance to hone your writing skills in some of genres (e.g., the persuasive piece, the research proposal) in which practicing scientists and policymakers frequently engage.

### **Course Objectives and Learning Outcomes:**

What will you take away from this course? That depends on the effort that you put into it, of course, but if you do put in the effort, you'll find that by the end of the semester, you'll have a lot to show for it. In particular, as is the case with all First-Year Seminar (FYS) courses

at Lafayette, by the end of the course you will be able to...

- employ critical-thinking strategies in interpreting and evaluating texts (be they verbal, visual, or performative) of the sort we will examine in this course.
- identify and reflect on your own assumptions and develop more informed perspectives on what you see, hear, read and experience.
- identify and use information relevant to a specific purpose or goal and employ effective search strategies in order to locate such information in an ethical and legal manner.
- analyze a variety of rhetorical situations (and be comfortable with what the phrase “rhetorical situation” means in the first place).
- employ a variety of different strategies for developing, organizing, revising, and editing.
- identify the discourse conventions (e.g., format, structure, vocabulary, and conventions for referring to other sources) which characterize a number of different genres and apply them in your own work.

Moreover, there are a lot of things you’ll learn in this particular course that you wouldn’t learn in other such courses. For example, by the time you’ve completed this course, you will be able to...

- identify the different entities which play a role in mobilizing scientific activity in the United States and analyze the relationships that exist between them.
- identify and analyze the ethical considerations with which scientists contend when deciding whether or not to participate in a particular scientific enterprise.
- critically evaluate science-policy options from a variety of different perspectives.
- compose authentic writing within a variety of genres in which scientists and policymakers commonly write.

### **Components of the Course**

The course will consist of class meetings, reading assignments from a variety of different sources, writing assignments, meetings with a Writing Associate (WA), and a number of co-curricular activities. These are described more fully below.

#### **Class Meetings:**

Class meetings will be held **from 11:00 AM – 12:15 PM Eastern Time** in Hugel 017 every Tuesday and Thursday during the semester. Regular attendance at class meetings is expected. A detailed schedule which includes a list of the readings, other assignments, and discussion topics for each class meeting can be found on the course web page, a link to which is provided below in the “Course Communications” section of this syllabus. It is important that you come to class prepared to engage in discussion. Moreover, in order to foster a sense of community in this class, it is also important that you treat your classmates with respect at all times.

### The Fourth Hour (Co-Curricular Activities):

All First-Year Seminar courses at Lafayette have a designated “fourth hour” outside of normal class hours, during which you’ll engage in a variety co-curricular activities intended to provide fresh perspectives on the course material and prompt you to think about questions raised by that material in new ways. These activities might involve attending a public lecture, watching a film related to our course topic together, or having a group conversation over lunch with a guest speaker. Unlike our regular class meetings, these fourth-hour events will not take place at a fixed time each week, but you should regard them as being just as much a part of this course as your regular course meetings.

The dates and times for these events will be listed on the schedule on the course web page. If any of these events conflicts with the meeting time for one of your other courses, please let me know as soon as possible. Also, since guest speakers and the staff who schedule campus-wide events at Lafayette may well be impacted by issues related to the pandemic over the course of the semester, it is likely that some fourth-hour events for this course may be dropped, added, or rescheduled. If this occurs, I will inform you of the changes as far in advance as I can, given circumstances, and update the course calendar accordingly.

### Readings:

I have chosen five books as our principal texts in this course – books which, taken together, provide a broad set of perspectives on the themes we’ll be exploring in this course. Those five books are

- Rachel Carson, *Silent Spring*. Boston, MA: Houghton Mifflin, 2002.
- Allen I. Marcus and Amy Sue Bix, *The Future Is Now: Science And Technology Policy in America Since 1950*. Amherst, NY, USA: Humanity Books, 2007.
- David M. Oshinsky, *Polio: An American Story*. New York, NY: Oxford University Press, 2005.
- Richard Paul and Steven Moss, *We Could Not Fail: The First African-Americans in the Space Program*. Austin, TX: University of Texas Press, 2015.
- Richard Rhodes, *The Making of the Atomic Bomb*. New York, NY: Simon & Schuster, 1986.

It is your responsibility to acquire these five books, four of which are available from the Lafayette College Store website at <https://collegestore.lafayette.edu/home>. The fifth (*The Future Is Now* by Marcus and Bix) is out of print, but can be purchased as an e-book from a number of online vendors. In addition to these books, we will be engaging with a number of other, shorter texts including press releases, news articles, scholarly papers, book reviews, etc., which will be made available on Moodle site for this course.

A list of the readings that you’ll need to complete before each class meeting is provided on the course web page. You will need to engage deeply with these readings. That means annotating these texts, taking notes in the margins, underlining or highlighting passages that stand out to you, that you take issue with, or that prompt you to think about something in a new way. You’ll want to be able to refer to these passages during class discussions.

### Writing Assignments:

This course, like all FYS courses at Lafayette, is a writing-intensive course. What this means is that by the end of the course you will have produced at least 20 double-spaced pages of “finished” writing. By “finished” writing, I mean is writing that you have produced in drafts and revised in response to feedback from readers (including your WA, your classmates, and your professor). As you might expect, in order to end up with 20 “finished” pages, you will be doing a lot of writing and revising over the course of the semester. Moreover, you’ll be writing in many different genres over the course of the semester – all of which are genres in which scientists, activists, and policymakers frequently engage. In particular, you will be writing...

- A set of 3-4 **brief reflections** (1-2 pages each) on particular texts that you will be reading in this course. Some of these reflections will be accompanied by a historical timeline or a network diagram describing the relationships between different entities which play a role in mobilizing scientific activity.
- A piece of **expository writing** (4-5 pages or equivalent) within a particular genre. This genre could be, for example, an editorial article, a blog post, a podcast, or a book review.
- A document written in the style of a scientific **research proposal** (8 pages), which the class will discuss as part of a mock peer-review session.
- A piece of **persuasive writing** (5 pages) advocating a particular course of action to a specified audience.

### Office Hours:

Office hours are times outside of class which I have specifically set aside for students in my courses to ask me questions, seek help from me, or discuss any aspect of the course. My office hours this semester will be held on **Tuesdays from 1:00 – 2:30 PM Eastern**, on **Thursdays from 2:00 – 3:00 PM Eastern**, and on **Fridays from 1:00 – 2:30 PM Eastern** unless otherwise noted on the course web page. In order to minimize the risk of COVID-19 transmission, my office hours this semester will be held not in my office, but rather in Hugel 042, which is a larger, better ventilated room equipped with a HEPA filter. Masking will be required during all in-person office hours. Alternatively, if you feel more comfortable attending office hours virtually, I will also have a Zoom meeting open during each of the time windows specified above. The link for this office-hours Zoom meeting is

- <https://lafayette.zoom.us/j/99772595796>

The password is provided on the course Moodle. Since most office-hours conversations in this course will focus on your writing, it will often be more productive to meet virtually than to meet in person. That said, you shouldn’t feel any hesitation about attending my office hours in person if you believe doing so will be helpful. If I am meeting with another student – either in person or virtually – at the time you join a virtual office-hours Zoom meeting, you may be placed in the waiting room for a bit before I am able to meet with you. However, if you and other students in the course have the same question, you can certainly meet with me as a group – and this applies to in-person office-hours meetings as well.

If you are unable to make it to my official office hours, you may also email me to make an appointment to meet at some other time. However, I recommend that you do this as far in advance as possible in order to ensure that we can find a time to meet.

### Writing Associate:

The College Writing Program, which helps to integrate the practice of writing in courses throughout the college, trains selected students as **Writing Associates (WAs)** and makes them available for courses in a wide variety of disciplines. The WA for this course is Sarah Afromsky. Sarah will be meeting with each of you four times over the course of the semester in order to discuss drafts of your written work and to engage you in conversation about your writing so that you can revise it effectively. The weeks during which these WA conferences will take place are listed on the schedule that appears on the course web page, and Sarah's contact information will be made available to you on the course Moodle. Please be aware that Sarah is obligated to inform me of any late or missed appointments.

### Library Liaison

Lijuan Xu, the Associate Director of Research and Instructional Services at Lafayette's Skillman Library, will be the library liaison for this course. Twice this semester, she will stop by our class meeting to discuss some of the resources and strategies you can use in searching for information, ways of evaluating that information with an eye toward a particular audience or purpose. Her contact information will be made available to you on the course Moodle as well.

## **Evaluation of Learning**

### Writing assignments:

Writing assignments account for **65%** of your overall grade in this course. I'd like you to be able to feel that you have the space to develop your writing by trying out new ideas, which means having the freedom to make mistakes and the opportunity to revise and reflect. Thus, while I will certainly be providing detailed feedback on your preliminary drafts, I will not be assigning them letter grades. Moreover, your overall writing grade for this course will not simply be a weighted sum of individual grades. If your writing manifests consistent improvement over the course of the semester, this will be given due weight. Likewise, I don't want grades to deter you from taking risks with your writing. If you consciously attempt something ambitious on one of your writing assignments and it doesn't end up working out, I'm not going to penalize you unduly if you demonstrate on future such assignments that you've learned from the experience.

### Participation:

Participation will count for **35%** of your overall grade for this course. Participation includes being prepared for class and co-curricular activities, participation in discussions and other class activities, and timely completion of assignments. Please note that if you are absent from more than two class meetings or fourth-hour events without a valid excuse (an illness, a religious holiday, etc.), this will have a significant negative impact on your participation grade.

### Intellectual Honesty:

In this course, as in all aspects of life at Lafayette, you are expected to abide by the principles of intellectual honesty and academic integrity outlined in the Lafayette Student

Handbook, which can be found at

- <https://conduct.lafayette.edu/student-handbook/>

The guidelines for what constitutes plagiarism can be found in this handbook. Guidelines as to how to cite, quote, and appropriate material from other sources can be found on the Purdue Owl website, which is

- [https://owl.purdue.edu/owl/purdue\\_owl.html](https://owl.purdue.edu/owl/purdue_owl.html)

### **Other Useful Information**

#### Accessibility Services:

In compliance with Lafayette College policy and equal access laws, I am available to discuss appropriate academic accommodations that you may require as a student with a disability. If you are requesting accommodations, you must register with the Accessibility Services Office (administered by the Academic Resource Hub) for disability verification and for the determination of reasonable academic accommodations. Accessibility Services will then provide me with a document which outlines what those accommodations are. I cannot provide accommodations until I receive such a letter. Requests for academic accommodations must be made within the first two weeks of the semester, except in unusual circumstances, so that suitable arrangements can be made in a timely manner.

#### Informal Surveys:

As the semester progresses, I want to hear from you how you feel the course is going, what you like, what you don't like, what your concerns are, and how you think the course could be improved. Therefore, throughout the semester, you'll have the opportunity to fill out short surveys and informal evaluations on the course Moodle so I can get your feedback.

#### Course Communication:

This syllabus, a list of assigned readings, due dates for writing assignments, and other course materials will be posted on the course web page, which can be found at

- <https://workbench.lafayette.edu/~thomasbd/FYS068-MobilizingScience-Fall-2022/FYS068-MobilizingScience-Fall-2022.html>

In addition to the course web page, there is also a Moodle page for this course which I will frequently use in distributing course materials, communicating with the class, etc. The Moodle page can be found at

- <https://moodle.lafayette.edu/course/view.php?id=23690>

Occasionally, it may be necessary for me to communicate additional information (scheduling changes, clarifications about reading assignments, etc.) to the class as a whole. When I do so, I will use your official Lafayette email addresses for all course-related correspondence, so make



sure to **check your Lafayette email regularly.**

### COVID-19 Protocols:

In order to minimize the risk of COVID-19 transmission during class meetings, strict protocols will be followed. These requirements apply throughout the semester, regardless of what campus protocols happen to be in force at any given time. Any person present in the classroom during class meetings is **required to wear a mask at all times**, beginning from the moment that person enters the classroom. That mask must fit the wearer's face tightly and **cover the wearer's nose and mouth**. If your mask does not fit these criteria, you will be instructed to the classroom until you have acquired a mask that does. I urge all members of the class to wear a tightly fitting N95 (or KN95) respirator rather than a cloth mask or surgical mask in class meetings whenever possible. A cloth mask provides only limited protection, and a surgical mask provides only marginally better protection than a cloth mask. By contrast, an N95 respirator, when worn properly, provides a significant degree of protection both to you and others around you. I will be wearing an N95 mask in the classroom at all times. In accord with these precautions, eating and drinking will not be allowed during class meetings.

If you are experiencing [COVID-19 symptoms](#) and there is not a compelling alternative explanation for those symptoms (e.g., you feel fatigued because you stayed up all night working on a problem set), do not come to class meeting. Instead, inform me of the situation by email and get a COVID-19 test as soon as possible. If the test result is negative, you may attend subsequent class meetings. If the test results is positive, you are required by Lafayette protocols to isolate and may not attend class meetings until the isolation period is over. If this should occur, inform me immediately so that we can discuss how you will keep up with your work in this class during the isolation period. If you are experiencing COVID-19 symptoms and have not yet received your test result, or if you are isolation, you may attend office hours virtually, but not in person.

In the event that any member of the class refuses to abide by these safety protocols during any class meeting, class will be canceled effective immediately. The Dean of Students will be notified and all members of the class will receive instructions by email as to how and when we will make up for the rest of that class meeting.

### Contingency Procedures for Virtual Class Meetings:

The default expectation is that all class meetings this semester will be held in person in Hugel 017. However, under certain circumstances (e.g., the campus closes due to a winter-weather emergency or your instructor tests positive for COVID-19 and is forced to isolate) we may temporarily be compelled to move those meetings online. If this should occur, the Zoom link that we will use for these class meetings is

- <https://lafayette.zoom.us/j/93225773156>

The password is provided on the course Moodle. I will notify all members of the class by email as far in advance as possible if we need to switch to a virtual classroom environment at any point during the semester. The assumption is that if this should even happen, we will return to an in-person learning environment as soon as circumstances permit.

If we are ever temporarily forced to move to a virtual format, I would like us to be able to simulate the atmosphere of a physical classroom to whatever extent we can. For this reason, I

would like to ask that you have your camera on during any virtual class meetings we end up having and to use the “gallery view” option on Zoom so that we can all see each other and respond to each other’s visual cues. I will do the same. That said, if there are extenuating circumstances which would make having your camera on an issue for you, please reach out to me and we will work out an equitable solution. Please mute yourself when you are not speaking in order to reduce background noise. Please raise your actual hand in order to take part in the discussion. If I do not see your actual hand, please raise your “digital hand.”

#### Privacy Statement Concerning Course Materials and Classroom Recordings:

At Lafayette College, all course materials are proprietary and for class purposes only. This includes posted recordings of lectures, worksheets, discussion prompts, and other course items. Reposting such materials or distributing them through any means is prohibited. Such materials should not be reposted or distributed through any means. You must request my permission prior to creating your own recordings of class materials, and any recordings are not to be shared or posted online even when permission is granted to record. Permission will be granted only when sanctioned as an academic accommodation in an official letter from the Accessibility Services Office. If you have any questions about proper usage of course materials please ask me. Please also be in contact with me if you have any concerns with being recorded during the course.

Online discussions in Moodle occurring during synchronous class sessions should also remain private and not be shared outside of the course. Courses using Moodle will make student information visible to other students in this class. Student information in courses is protected by the Family Educational Right to Privacy Act (FERPA). Disclosure of student information to unauthorized parties violates federal privacy laws and it must not be shared with anyone outside the class. Questions can be referred to the Registrar’s Office.

#### Mandatory Credit-Hour Statement:

The student work in this course is in full compliance with the federal definition of a four-credit-hour course. The full policy and practice statement can be found on the Registrar's Office website at

- <http://registrar.lafayette.edu/additional-resources/cep-course-proposal/>

### **In Closing**

Unfortunately, we are still living in very uncertain times. I know that everyone has a different tolerance for risk and that the pandemic affects some people’s situations far more than others. I’m aware of how challenging learning can be in such difficult and unpredictable times. I will do my best to be flexible in light of the difficult situations that you may encounter over the course of the semester, and I ask that you be open with me about these situations and alert me to any issues that arise. I will likewise let you know if my own circumstances change and will do my best to communicate any changes to the course schedule, the mode of instruction, etc., to all of you in a timely manner.

Nevertheless, despite these uncertainties, we have a fascinating and rewarding semester ahead of us. Indeed, set of protocols established in order to facilitate an in-person learning



environment this semester – and indeed the very decision to opt for such a learning environment despite the ongoing COVID-19 pandemic – are themselves consequences of the complex interplay between science and public policy that constitutes the central theme of this course. Over the course of the semester, you can look forward to deepening your understanding of how this interplay works in practice, to contending with the sometimes difficult decisions scientists and policymakers must make, and to honing the writing and communications skills you'll need in order to participate in the broader dialog that constantly shapes the direction that scientific endeavor takes. You'll be learning a lot in this course, and I look forward to learning a lot from you as well.

## Course Schedule

The full, up-to-date schedule for the course, including due date for all assignments is available on the [course web page](#).

<b>Week</b>	<b>Topics and Principal Text</b>	<b>Writing Due</b>	<b>Fourth Hour</b>
<b>Week 1</b> 8/29 – 9/2	<b>Policy, Pandemics, and Public Perception</b> Supplementary Readings		
<b>Week 2</b> 9/5 – 9/9	<b>Policy, Pandemics, and Public Perception</b> Oshinsky: “Polio: An American Story”		Film: “And the Band Played On”
<b>Week 3</b> 9/12 – 9/16	<b>Policy, Pandemics, and Public Perception</b> Oshinsky: “Polio: An American Story”	Genre Writing (Draft)	WA Conferences
<b>Week 4</b> 9/19 – 9/23	<b>Chain Reactions</b> Rhodes “The Making of the Atomic Bomb”	Timeline & Reflections	Conferences w/ Prof. Thomas
<b>Week 5</b> 9/26 – 9/30	<b>Chain Reactions</b> Rhodes “The Making of the Atomic Bomb”	Genre Writing	Discussion: Keith Dienes
<b>Week 6</b> 10/3 – 10/7	<b>Chain Reactions</b> Rhodes “The Making of the Atomic Bomb”	Res. Proposal (Draft)	Film: “Day After Trinity”
<b>Week 7</b> 10/10 – 10/14	<b>An Endless Frontier?</b> Marcus & Bix: “The Future is Now”		WA Conferences
<b>Week 8</b> 10/17 – 10/21	<b>An Endless Frontier?</b> Marcus & Bix: “The Future is Now”	Network Diag. & Reflections	WA Conferences
<b>Week 9</b> 10/24 – 10/28	<b>Inconvenient Truths</b> Carson: “Silent Spring”	Res. Proposal (Submission)	Discussion: Jeff Kost
<b>Week 10</b> 10/31 – 11/4	<b>Inconvenient Truths</b> Carson: “Silent Spring”	Policy Memo	Film: “Rachel Carson”
<b>Week 11</b> 11/7 – 11/11	<b>Inconvenient Truths</b> Carson: “Silent Spring”	Res. Proposal (Revision)	WA Conferences
<b>Week 12</b> 11/14 – 11/18	<b>What Is Sacred</b> Supplementary Readings		Film: “Hidden Figures”
<b>Week 13</b> 11/21 – 11/25	<b>White Towers</b> Paul & Moss: “We Could Not Fail”	Persuasive Writing (Draft)	
<b>Week 14</b> 11/28 - 12/2	<b>White Towers</b> Paul & Moss: “We Could Not Fail”		Conferences w/ Prof. Thomas
<b>Week 14</b> 12/5 – 12/9	<b>White Towers</b> Paul & Moss: “We Could Not Fail”	Persuasive Writing	WA Conferences (Individual)