

2019-2020

# Senior Project Handbook History of Science, Medicine & Public Health

HSHM 490, 491, & 492

SENIOR PROJECT DIRECTOR: CAROLYN ROBERTS

YALE UNIVERSITY

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# A Note from the Chair

To Senior Majors in the History of Science, Medicine, and Public Health:

Welcome to your senior year and to the senior project!

What you are about to begin can be the most rewarding and exciting task of your undergraduate career. The senior project is an intellectual adventure that can be both exhilarating and daunting. As you begin, you may well feel uncertain about how to proceed. You will probably find yourself making several false starts. Along the way, you will discover new evidence that will compel you to abandon some of your original ideas and to find new ways to deal with your subject. At times you will wonder whether you have lost your way.

Do not allow yourself to feel anxious or discouraged. As you gain knowledge and experience as a researcher, you will become increasingly absorbed in your subject and find satisfaction in having the opportunity to explore a topic in depth. You will unearth material from the past that is unknown to your contemporaries and to your mentors and that will surprise you as well.

Communicating your discoveries and the reasoning that led you to them is the ultimate and most exciting part of the senior project. Begin writing before you feel ready to write and expect that it will take several drafts to achieve effective and graceful prose. Remember that writing is in itself a creative process, an aspect of thinking and discovery, and even the most distinguished historians have to struggle to make sense of a dense tangle of historical evidence. We can't stress enough how important it is to allow yourself ample time for this process of revising and refining.

Remember, too, that you are not alone on this journey. Your adviser is there as a sounding board for your ideas and to guide and support you. The *Handbook* is intended to brief you about the adventure on which you are embarking. We urge you to read it with great care at the outset, and to return to it frequently. You should feel free to discuss any questions that you have with your advisor, and with Professor Carolyn Roberts, the Senior Project Director. Be sure to get started in the best possible way by seeking advice and information about the project.

I am certain that, by the time you have completed the senior project, you will agree with students of previous years who consider it the most engaging and fulfilling part of their undergraduate years.

Best of luck!

Prof. Deborah Coen  
Chair, HSHM Program

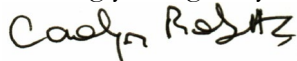
# Welcome to the Senior Project!

Dear Seniors in the History of Science, Medicine and Public Health:

I am thrilled to be your Senior Project Director and to assist you in completing a successful project! In order to make this process as productive as possible, here are a few tips to keep in mind as you embark on this journey:

- If you are struggling to find a topic, ask yourself: “What do I desire to learn more about? What excites, angers, confuses, or frustrates me that I would like to wrestle with? What critical issues of health, medicine, the body, science, or technology fascinate me?” Remember, you do not need to know anything about your topic prior to the thesis project.
- Don’t worry if your topic feels overly broad or unfocused at the beginning of this process. As you embark on your reading and research, the topic will become more focused as you proceed.
- Meet regularly with your advisor, even if your progress is slow or you feel bogged down. They can suggest ways to move ahead, help you refine your thinking, and provide support in various ways. Consider scheduling a series of several meetings with your advisor ahead of time rather than setting up meetings one by one.
- You will need to formulate a preliminary argument earlier than might feel comfortable. Remember, that at this stage your argument is only provisional. You should continually return to your sources so that you can adjust and modify your argument based on the evidence and your interpretation of the evidence. Only at the end of the process, should your argument be considered final. Do not build a case for a preconceived idea by cherry-picking the evidence. This will be obvious to your readers and will result in a weak project.
- From the very beginning of the process take good notes. This includes identifying material by its source and being scrupulous about attribution and quotations. Note these details from the very beginning! It is incredibly time-consuming to go back through your sources to figure out where a particular quotation or idea came from.
- Keep your computer backed up! Crashes, thefts, and data corruption happen every year, but they are not acceptable excuses for a poor or late project.
- Ask for help! If you have issues or concerns about your project, talk to your advisor and other faculty as well. Feel free to consult the Senior Project Director. I am here to help you succeed! Do not wait until the last minute to ask for help if you need it.

Wishing you a great year ahead,



Carolyn Roberts  
Senior Project Director, HSHM Program

# What Kind of Project?

You have the option of choosing between several paths for the senior project. It is important to make these major decisions early and in conversation with your faculty advisor.

## **Will you pursue a two-term or a one-term project?**

For students graduating in May, a two-term project begins in the fall and is due just after spring break. A one-term project is completed in the fall only, and students who complete a one-term project are required to take an additional HSHM course in the spring. (Students who will graduate in December 2018 or who have other major constraints on their schedule should contact the Senior Project Director about alternative arrangements.)

**Note! Only seniors who complete a two-term project will be eligible for senior-project prizes or for Distinction in the Major. Likewise, only seniors pursuing two-term projects are eligible for support from the Research Travel Fund administered by the history department (other funding may, however, be available from the Colleges and other sources).**

## **What form will your project take?**

Most students' projects will be a written essay. Writing is the only universally accepted form of communication in history, and an essay project will be excellent preparation for future research and a wide range of careers. For two-term projects, this essay will be no more than 12,500 words (roughly 40 pages). One-term projects are limited to 7,500 words (roughly 25 pages). Essay projects will also include notes, a bibliography, and a bibliographic essay – see page 13 for details.

It is also possible to pursue a non-written project. The decision to do a non-written project should be made only after consultation with faculty (see below for formal approval requirements), and you should think carefully about how your project will advance your intellectual and career goals. Here are some possibilities:

- **Website.** You will need to be able to write all necessary code and find space to host the site. Evaluation of the project will be based on both its design and its content.
- **Exhibition.** You'll have to find a suitable place to host the exhibition; you'll also need to locate and mount all materials. Yale libraries, museums, and archives have all expressed interest in hosting student exhibits.
- **Exhibition Catalog.** Preparing a catalog requires a different set of skills from mounting an exhibit, and you can do one without the other. Layout and graphics skills will be important, but again the evaluation will be based on both form and content.
- **Film.** This can be a traditional documentary film (complete with interviews, animations, etc.), or it can be more experimental. Format, length, and possible screening locations should be determined in conversation with your advisor.
- **Historical Map or Atlas.** You will need to undertake primary research and craft a historical argument. Attention to cartographic technique and visual language will also be crucial. Maps can be printed on large-format paper or prepared for the web.
- **Historical Data Reconstruction.** Many scientific fields rely on data from historical sources, including astronomy, epidemiology, meteorology, seismology, ecology, and many others.

Interpreting old data, however, requires precise attention to historical scientific theories, instrumentation, and cultural, institutional, and political context.

The list above is only meant to be suggestive, and you should feel free to propose something else. In all cases, however, the project must be realized – it cannot simply remain a proposal, no matter how well conceived or researched.

All non-written projects must be accompanied by a written analysis of your argument, goals, and methods. This description cannot exceed 3,000 words. Part of this text may resemble a bibliographic essay, but the primary purpose is to explain what you have done – and why. You must also submit a bibliography of primary and secondary sources (see page 13). Expectations for the number, type, and variety of sources are the same for written and non-written projects.

Note! To pursue a non-written project, you must receive formal pre-approval from your advisor; keep in mind that some faculty may not be able to advise a non-written project. You must also receive pre-approval from a *second* faculty member who will agree to evaluate the project once it is completed. At least one of these two faculty members must be from the HSHM program. All non-written projects must also be specially approved by the Senior Project Director.

## Senior Project Timeline, 2019-2020

**Due** indicates something due to the Senior Project Director. Submit this material to Erica Lee at [erica.lee@yale.edu](mailto:erica.lee@yale.edu) on the due date.

**Assignment** indicates something due to your advisor.

### Two-term Projects

#### Fall 2019 Semester

- August 28     **Register** for HSHM 490 during shopping period
- August 29     **Mandatory** senior project meeting  
**Location: Sterling Medical Library, Room E28/E29, 333 Cedar Street, 4:00 p.m.**
- September 6    Research Travel Fund applications available online at [history.yale.edu](http://history.yale.edu)  
The link will be sent to your email when it's open.
- September 9    **Due:** Statement of Intention signed by your advisor.  
Send completed form to [erica.lee@yale.edu](mailto:erica.lee@yale.edu)
- Register** for Library Research one-on-one by emailing [melissa.grafe@yale.edu](mailto:melissa.grafe@yale.edu)  
You must meet by **September 27<sup>th</sup>**
- October 4        Research Travel Fund applications are due.
- October 14      **Assignment:** Research Plan due to your advisor.
- October 28      **Assignment:** 3-page prospectus due to your advisor.
- November 4     **Assignment:** Annotated bibliography due to your advisor.
- November 18    **Assignment:** 10-page draft of full outline due to your advisor.

#### Spring 2020 Semester

- January 13      **Register** for HSHM 491 during shopping period.
- February 17     **Assignment:** Complete draft of project due to your advisor.  
Consult with your advisor regarding possible readers.
- February 24     **Due:** Senior Project Title Form. Email form to [erica.lee@yale.edu](mailto:erica.lee@yale.edu)  
Remind your advisor to send Erica a list of suggested readers.
- April 6          **Due:** Senior Projects due to Erica Lee [erica.lee@yale.edu](mailto:erica.lee@yale.edu)

## One-term Projects

### Fall 2019 Semester

- August 28     **Register** for HSHM 492 during shopping period
- August 29     **Mandatory** senior project meeting  
**Location: Sterling Medical Library, Room E28/E29, 333 Cedar Street, 4:00 p.m.**
- September 3   **Due:** Statement of Intention signed by your advisor.  
Send completed form to [erica.lee@yale.edu](mailto:erica.lee@yale.edu)
- Register** for a Library Research one-on-one by emailing [melissa.grafe@yale.edu](mailto:melissa.grafe@yale.edu)  
You must meet by **September 20<sup>th</sup>**
- September 30   **Assignment:** Research Plan due to your advisor.
- October 21     **Assignment:** 3-page prospectus due to your advisor.  
**Assignment:** Annotated bibliography due to your advisor.  
Consult with your advisor regarding possible readers.
- November 4     **Due:** Senior Project Title Form. Send completed form to [erica.lee@yale.edu](mailto:erica.lee@yale.edu)  
Remind your advisor to send Erica suggested readers.
- November 19   **Assignment:** Complete draft of project due to your advisor.
- December 2     **Due:** Senior Project due to Erica Lee [erica.lee@yale.edu](mailto:erica.lee@yale.edu)



# Detailed Explanation of Assignments

## Statement of Intention

You must have an advisor in order to undertake a senior project. You are responsible for finding an appropriate faculty member for this purpose. We will not select an advisor for you. If your first-choice advisor can take no more advisees, ask that person for his or her advice for someone else who might be a good advisor. Beginning on page 25 you will find a listing of HSHM and History faculty by their fields of interest. The Senior Project Director can also help to suggest appropriate faculty advisors.

In consultation with your advisor, you must decide on a topic for your project as soon as possible. The Statement of Intention form is the place for you to formally propose your project and summarize your preliminary goals. This form must be signed by your advisor and submitted to Erica Lee [erica.lee@yale.edu](mailto:erica.lee@yale.edu). Submission of the Statement of Intention is a mandatory requirement for credit in HSHM 490 or 492. If your topic or advisor should change after you begin your research, you must immediately submit a new signed form to Erica Lee.

## Library Research One-On-One

You must email Melissa Grafe [melissa.grafe@yale.edu](mailto:melissa.grafe@yale.edu), the librarian for the HSMMPH major, to schedule a one-on-one meeting about your project. She will be sure you meet with a librarian who has expertise relevant to your topic; these meetings will help you brainstorm for sources and find what you need, either at Yale or elsewhere. These meetings are mandatory and must be completed before you turn in your Research Plan.

## Research Plan

This one- or two-page research plan is due to your advisor. This plan will restate your topic, reflecting the research you have done so far and giving a brief mention of the major secondary works in the field. It must also pose several important questions you will raise about the topic. These questions will shape the direction of your research. You will also need to tell your advisor about the primary sources you will use and where they are located. If you need to travel to archives, you should consider when you can visit them and whether you will be applying for travel grants from your college or the department to visit them.

If you need materials that aren't available at Yale, it is important to request these ASAP from Inter-Library Loan or Borrow Direct.

## Prospectus

Your three-page prospectus is a fuller and more developed version of what you included in your Statement of Intention. This prospectus should open with a short description of the topic and present your preliminary thesis statement. The thesis statement is the *argument* you hope to make based on your source materials; it is the *conclusion* that will indicate the significance of what you have written. The prospectus should also indicate what unique contribution you hope to make by describing the major secondary literature that exists on your topic and how your research will augment or modify it. Also include a discussion of the primary sources you will use.

### **Annotated Bibliography**

This preliminary bibliography should include all sources that you have consulted and that you expect to consult, as well as every source cited in your notes. It should be approximately five pages long and should be divided into Primary Sources and Secondary Sources, with Primary Sources first. Your list of secondary sources should include every secondary source that you think is important to your topic. (You should select three or four areas of historical literature on which your project touches and identify the major secondary sources in those areas.) Write a few lines about each book, stating how it relates to your project.

### **Excerpt or Outline (for Two-Term Projects only)**

You will need to choose between submitting a draft of ten pages of prose or a detailed outline of your entire project; make this decision in consultation with your advisor. If you choose to submit a detailed outline, you should provide a timetable describing a possible set of writing deadlines you would like to meet to complete the project on time. Planning a calendar of writing is an excellent way of breaking down a large task into easily manageable smaller ones.

### **Selection of a Grader**

You should discuss ideas for graders with your advisor. The Senior Project Director will assign graders in consultation with your advisor. Since the grading load needs to be distributed relatively evenly over all faculty, no commitments to any particular grader are possible.

### **Complete Draft of Senior Project**

This is very important! Do not plan to finish your project immediately before the deadline. Getting feedback on a *full* and *polished* draft will improve the final product immensely and can help to avoid major blunders. This includes the bibliographic essay. At the end of the process, projects usually divide into two major camps: successful projects that were revised based on the advisor's feedback, and less successful projects that seem undercooked, confused, or incomplete.

You will probably write several drafts before you have a draft you want to submit to your advisor. You may also want to ask your college writing tutor to edit your rough draft to help you repair awkward phrasing, disorganized paragraphs, and grammatical errors before you present the draft to your advisor.

### **Senior Project Title Form**

This form will enable the Senior Project Director to assign the most appropriate grader for your project. Clever, engaging, and provocative titles are fine (and encouraged!), so long as the title clearly indicates the place, time period, and subject matter addressed by the project.

### **Submission of the Senior Project**

Your completed project must be turned in to Erica Lee by 5:00 p.m. This deadline is non-negotiable. For projects with digital or other non-paper components, the burden is on *you* to show your advisor and your grader that you have stopped work by the deadline. For example, you can turn in a USB drive or CD/DVD of any digital content, including web pages, video, or photographs of a finished exhibition. Be sure to make appropriate arrangements well in advance.

# Registration and Grading

## Registration

For those pursuing a **two-term project**: Register for **HSHM 490** in the fall and **HSHM 491** in the spring. You will receive a temporary grade of SAT (satisfactory) or NS (not satisfactory) for the fall term; this grade will eventually be replaced by the final grade you receive on the project. (Students who receive an NS in HSHM 490 must still register for HSHM 491 and complete their projects on schedule.)

For those pursuing a **one-term project**: Register for **HSHM 492** in the fall term. Your grade in this course will be the same as the final grade you receive on your project.

For students who will graduate in December 2018 or who have other major constraints on their schedule: Contact the Senior Project Director.

## First-Semester Evaluation (for Two-Term Projects)

The Senior Project Director assigns first-semester grades in consultation with your advisor.

You must have completed all these assignments to receive a grade of SAT:

- Register for HSHM 490
- Attend mandatory senior-project meeting
- Submit a signed Statement of Intention to Erica Lee
- Register for and attend a Library Research One-On-One
- Submit a research plan to your advisor
- Submit a three-page prospectus to your advisor
- Submit an annotated bibliography to your advisor
- Submit either a ten-page draft or detailed outline of your entire project to your advisor

Students who receive an NS in HSHM 490 must still register for HSHM 491 and complete their projects on schedule. No incompletes will be given in HSHM 490.

## Final Evaluation

Your project will be graded by a member of the History or HSHM faculty who is not your advisor. (Graders from other departments are also possible, with prior approval.) Your grader will consult with your advisor before submitting their final report; see page 23 for a copy of the form that your grader will use. You will receive a completed copy of your grader's report roughly one month after the final deadline.

## Prizes

Both your advisor and your grader may nominate your project for prizes. Senior Project Prize Day will be held the Friday afternoon of commencement weekend; families and guests are encouraged to attend. Students nominated for prizes will be notified by e-mail.

# Final Deadline and Submission

## **The final deadline is a REAL deadline!**

As stated in the Blue Book: “If the essay is submitted late without an excuse from the student’s Residential College Dean, the penalty is one letter grade for the first day and one-half letter grade for each of the next two days past the deadline. However, no essay that would otherwise pass will be failed simply because it is late. Late essays will not be considered for departmental or Yale College prizes.”

## **Extensions to the Deadline**

Only major, incapacitating illnesses and dire family emergencies will be considered as legitimate cause for an extension of this deadline by your college dean, who must consult with the Senior Project Director prior to issuing the excuse. Students who do not turn in a project by the end of the semester are automatically given a grade of F. This grade of F may be replaced after the end of the semester if the student submits a project to finish his or her degree. Such exceptionally late projects receive no grade deduction penalty, since not graduating on time is considered penalty enough. These late projects will be read and graded within sixty days after the following term begins.

## **Submitting the Senior Project**

On the date that projects are due you will need to email it to Erica Lee, HSHM Registrar [erica.lee@yale.edu](mailto:erica.lee@yale.edu) and Essie Barros, Undergraduate Registrar for the Department of History, [essie.barros@yale.edu](mailto:essie.barros@yale.edu). Erica and Essie will be archiving all the senior projects for History of Science, Medicine, and Public Health and for History. For projects with significant digital content, please keep file sizes reasonable.

Please know that if your project is nominated for a prize you may need to provide a hard-bound copy to the committee reading the essay.

# Structure and Style of Written Work

All senior projects – even those that don't take the form of an essay – require clear, elegant, and convincing prose. All writing should follow these guidelines.

## Structure

Essay projects will consist of at least three parts: the text itself, a bibliography, and a bibliographic essay. Non-written projects will include an analytic essay and a bibliography. You may also choose to include a title page, table of contents, acknowledgements, appendices, or other supplementary material.

## Style

When writing, you should use *A Manual for Writers* by Kate Turabian, which is available at the Yale Bookstore. It provides the only styles acceptable for your writing and citations. You will need to consult this manual from the moment you begin to take notes.

## Length

For two-term projects, the text portion of your essay is limited to 12,500 words. For one-term projects, the limit is 7,500 words. Non-written projects must be accompanied by an analytic description of no more than 3,000 words. The word count for your text must be included on the last page of text – *before* your bibliography. While there is no minimum word limit, most successful senior projects approach these limits. Appendices, bibliography, notes, and the bibliographical essay do not count towards the word limit.

## Footnotes or Endnotes?

You may use either footnotes or endnotes. Complete instructions for both can be found in *A Manual for Writers*. It is critical that your notes be complete and correct, including page numbers for citations from published sources and box and file numbers from manuscript sources.

## The Bibliography

The bibliography should include all your sources: everything cited in your notes *and* everything you consulted but did not cite. Divide the sources into Primary Sources and Secondary Sources, with Primary Sources first. Alphabetize all sources within these headings; do not subdivide your sources by format, subject, or date. Your project will be judged incomplete (or late) if it does not include a bibliography.

## The Bibliographical Essay

A separate bibliographical essay is required for all essay projects; it should be no more than 2,000 words in length (most are shorter). The bibliographical essay is a set of critical reflections on the most important sources you have used, and it allows you to explain how you developed your ideas as your research progressed. You should identify the strengths, weaknesses and limitations of the research material you have used to write your essay. An example of an excellent bibliographical essay can be found on page 14. Your project will be judged incomplete (or late) if it does not include the bibliographical essay.

# Sample Bibliographic Essay

## from an HSHM Senior Project, April 2006

The mononucleosis studies carried out at Yale in the 1950s and 1960s lent themselves well to primary source material. Because the setting of my study was so local, and the time so recent, I had access to ample primary documents about the Yale experiments and to the still-living people who could comment on the mononucleosis story. Thus, while general information about the time period and about the developing status of virology depended on secondary sources, the bulk of my paper is based on primary documents, archives, newspaper articles, and personal interviews.

The framework of the mononucleosis story was built on published documents, including scientific papers and newspaper articles. The published works of Alfred Evans on mononucleosis and seroepidemiology, of John Paul on clinical epidemiology and serology, and of James Niederman on mononucleosis at Yale anchored the essay in time and place, and provided a jumping off point for further investigation. Alfred Evans was a prolific writer, with over 230 publications during his career, mostly concentrating on mononucleosis and public health. Paul, also prolific, wrote one book dedicated to his philosophy of clinical epidemiology, edited another containing several articles about serological epidemiology, and also published numerous scientific papers. James Niederman and Bob McCollum were co-authors on various papers about mononucleosis, including the first paper to reveal the connection between Epstein-Barr Virus and mononucleosis. Finally, Gertrude and Werner Henle published their discoveries relating to the Epstein Barr Virus, including its prevalence, significance with respect to Burkitt's Lymphoma, and, of course, its connection to mononucleosis. All of these scientific papers contributed to a factual data set that comprised the "official" scientific record of what happened.

While these formal statements of events provided a skeleton, I turned to the personal archives of the scientists involved to flesh out the details. My first attempt to find a significant primary source, the archives of Alfred S. Evans, proved unsuccessful. Despite his long and fruitful career at Yale, none of Evans' papers seemed to have been kept by the Yale Manuscripts and Archives. Two of his three children also didn't think they had much of use; the third posited that he might have some of his father's material stored away in boxes, but that they would not be available until after this year because he was remodeling his home and all of his possessions were in storage. None of Evans'

former colleagues whom I was able to contact knew where his papers had been stored, and after several weeks of investigation I abandoned the search.

Fortunately, however, I had better luck with the archives of Dr. Paul and Dr. Horstmann, both of which were meticulously preserved in Manuscripts and Archives. Neither archive was able to paint a very clear picture of the relationships among scientists on the Yale faculty, most likely because the communication among them would have been primarily conducted either in person or on the phone and not through letters. However, Paul's Archive was helpful in illustrating how the Department of Epidemiology and Public Health came into existence, as well as how he viewed serology and clinical epidemiology.

The next archives I searched were those of Drs. Werner and Gertrude Henle, which are located in Bethesda, MD. Through the papers of these scientists, I was able to piece together a lot of information about Alfred Evans and his place in the mononucleosis story, as well as exactly how the connection between EBV and mononucleosis had been made in the Henle lab.

Many of the gaps that were left in the mononucleosis story after sifting through these archives were filled by personal interviews. I conducted interviews with the central characters including Dr. James Niederman and Dr. Bob McCollum, as well as with more peripheral but still useful scientists and historians: Dr. Howard Spiro, who conducted the pepsinogen study with Dr. Niederman; Dr. William Summers, who was a former student and friend of Al Evans; Dr. George Miller, who was a former colleague of Evans' and who currently studies Epstein-Barr Virus; Dr. Nancy Ruddle, who was very familiar with the work and life of Dorothy Horstmann and who had also interacted with Niederman and Evans; Dr. Curtis Patton, a professor at the School of Public Health who was a colleague of both Niederman and Evans; Dr. Gerard Burrow, author of *A History of Yale's School of Medicine*; David Hershey, a member of the undergraduate Yale class of 1962 who had been subjected to the mononucleosis experiment in its inaugural year; Dr. Phillip Brachman, who was a colleague and close friend of Evans'; Dr. Nancy Mueller, also a colleague and friend of Evans'; Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases and advisor to the White House on global AIDS issues; Dr. Mark Kaplan, a virologist and infectious disease specialist who has dedicated his career to AIDS treatment and research and who was part of the Gallo team that co-authored the landmark paper published in *Science* identifying HIV as the cause of AIDS; and finally Dr. Daniel S. Rowe, Medical Director of the Department of University Health Services starting in 1971. Each of these people contributed significantly to my research by providing context, personal insight, and memorable details about the story I was trying to tell.

As I continued my research, it became clear that the scientific story in and of itself did not provide a complete picture, and that the historical and social context in which this research took place would offer a lot of insight as to how and why progress was made. To this end, my greatest primary resources were newspapers of the time, which reported on trends in virology and informed consent, as well as the perceived scientific strength of Yale University. The *New York Times* in particular covered developments at Yale well, given Yale's proximity to New York City, while popular magazines like *Life* helped paint a picture of the public perception of mononucleosis at the time. These newspapers confirmed some of the trends and ideas that had been recalled in the personal interviews, which helped solidify some of my conclusions.

In addition to the primary sources discussed above, I also consulted secondary sources to find out if the themes I saw emerging in the mononucleosis situation had more general significance. For example, Heather Munro Prescott's "Using the Student Body: College and University Students as Research Subjects in the United States during the Twentieth Century" confirmed the relevance of student participation in experimentation, and its rise and fall along with the emerging informed consent laws. Similarly, Joshua Lederberg's "Infectious History" and Peter Radetsky's *The Invisible Invaders* both captured the rising prominence of virology in the mid-twentieth century as feared diseases like polio and mumps were conquered one after another. Secondary sources were also essential for context, particularly Gerard Burrow's *A History of Yale's School of Medicine*. This volume gave me a sense of how the mononucleosis story fit into the general trajectory of the Yale Medical School, and highlighted, in particular, the relative importance of Paul's contributions.

Some of the most interesting moments of my research occurred when sources conflicted, leaving me to make my own judgment as to what really happened. How the mono study was conceived and by whom, in particular, became more and more ambiguous with each source; Dr. Niederman himself presented one picture, while Dr. Howard Spiro presented another and Dr. Bob McCollum a third. The archived papers of John Paul provided some official records from the Department of Epidemiology and Public Health that partially clarified the details, but the exact nature and sequence of events, where the memories of the players involved diverge from the written record, remains a mystery. If I had had more time, one of the most valuable additions to this source list would have been the papers of Alfred Evans, which may become at least partially available later this spring. Perhaps an interesting continuation of this paper would use these papers to shed additional light on the study of mononucleosis and serology in the twentieth century.



# Prizes

Nomination due dates are in red

## PRIZES AWARDED BY THE HSHM PROGRAM

### **Martin Klein and George Rosen Prize**

Established by the program in the History of Science and Medicine in 2006, the prize honors two distinguished former members of the faculty: Klein, a historian of physics, and Rosen, a historian of medicine and public health. Awarded to the senior who has written the most outstanding senior essay in history of science and/or medicine. Essays submitted by seniors majoring in History and History of Science, Medicine, and Public Health in fulfillment of the respective major requirements are considered as entered in competition. **DUE APRIL 13, 2020**

### **Elias E. Manuelidis Prize**

The Manuelidis Prize, established in 2017, is presented for an outstanding senior essay in the field of the history of medicine, with preference for topics related to social justice. **DUE APRIL 13, 2020**

## PRIZES AWARDED BY THE HISTORY DEPARTMENT

### **Max Bildner Prize**

The Bildner Prize is presented for the best senior essay in Latin American history. **DUE APRIL 13, 2020**

### **Percival W. Clement Prize**

Established in 1994 for the best essay by a junior or senior in American studies (embracing history) that supports the U.S. Constitution. **DUE APRIL 13, 2020**

### **Robert D. Gries Prize**

This prize is for the best essay in a field in history other than American or European. Robert Gries established it in 1981. **DUE APRIL 13, 2020**

### **The John Addison Porter American History Prize** <https://secretary.yale.edu/services-resources/lectureships-fellowships-prizes/porter-and-field>

Mrs. Porter established the prize in 1901 in memory of her husband, John A. Porter, B.A. 1878. It does to a junior or senior for the best original essay completed during the current academic year on a subject bearing on U.S. political, constitutional, or economic history, or on the condition or future of the United States. **DUE APRIL 13, 2020**

### **Edwin W. Small Prize**

Carmel R. Small established the prize in 1990 in memory of Edwin W. Small, B.A. 1934, for recognition of outstanding work in the field of American History. **DUE APRIL 13, 2020**

### **Winifred Sturley Prize**

Richard A. Sturley '49, M. Eng. '50, and Michael F. Sturley '77, J.D. '81 established the prize in honor of Winifred Sturley, Hon. 55. It is awarded to the student in the History Department who submits the best senior essay on a topic in English history. **DUE APRIL 13, 2020**

### **Andrew D. White Senior Essay Prize**

Established in 1902 and first awarded in 1907, the White prize was the gift of Professor Guy Stanton Ford of the University of Illinois in honor of Andrew D. White, B.A. 1853, and endowed by a bequest from Mr. White for the best essay in English, European, or non-western history. **DUE APRIL 13, 2020**

### **Howard Roberts Lamar Prize**

Named for distinguished History Professor Howard Lamar, the prize is awarded to the best undergraduate essay on a topic in the history or culture of the American West. **DUE APRIL 13, 2020**

### **David Morris Potter Prize**

The Potter Prize is awarded to the best undergraduate essay on a topic in American history or culture. **DUE APRIL 13, 2020**

### **Walter McClintock Prize**

The McClintock Prize is awarded to the best undergraduate essay on a topic in Native American history. **DUE APRIL 13, 2020**

## **YALE UNIVERSITY PRIZES**

### **Wrexham Prize** <https://secretary.yale.edu/department/wrexham-prize-1992>

WREXHAM PRIZE (1992). Manuscript Society (Wrexham Foundation, Inc.), in memory of Senator Henry John Heinz III, B.A. 1960. For a senior essay or any major essay or piece of writing by an undergraduate in Yale College, in the field of the social sciences, politics, political economy and economics, and emphasizing the link between political and economic ideas, and analysis and public policy. For further information consult the Yale Dean's Office. **DUE TBA**

### **The John Addison Porter American History Prize** <https://secretary.yale.edu/services-resources/lectureships-fellowships-prizes/porter-and-field>

Mrs. Porter established the prize in 1901 in memory of her husband, John A. Porter, B.A. 1878. It does to a junior or senior for the best original essay completed during the current academic year on a subject bearing on U.S. political, constitutional, or economic history, or on the condition or future of the United States. **DUE APRIL 13, 2020**

### **The Theron Rockwell Field Prize** <https://secretary.yale.edu/services-resources/lectureships-fellowships-prizes/porter-and-field>

Given for "a poetic, literary, or religious work" of scholarship. The award was established in 1957 by Emilia R. Field in memory of her husband, Theron Rockwell Field, 1889S. **DUE TBA**

## **PRIZES AWARDED BY OTHER YALE PROGRAMS**

### **Henry K. Hayase Prize** <https://ritm.yale.edu/programs-and-initiatives/student-postgraduate-programs-and-initiatives/undergraduate/essay-prizes>

Established in 1988, the Henry K. Hayase Prize is awarded annually to the best student paper or senior essay dealing with a topic relating to Asian American experiences in the United States. Awarded by Yale Center for the Study of Race, Indigeneity, and Transnational Migration. **DUE TBA**

### **Canadian Studies Prize**

The Canadian Studies Prize is for the best essay on a Canadian topic, awarded by the Canadian Studies

Council. **DUE TBA**

**GALA Prize** <https://lgbts.yale.edu/fellowships-prizes/gala-senior-essay-prize/gala-senior-essay-prize-application>

The Yale Gay and Lesbian Alumni/ae Association established the GALA Prize to be administered through the fund for Lesbian and Gay Studies for the best senior essay in any area of gay and lesbian studies. Submit essays to the office of the Fund for Lesbian and Gay Studies, WLH 315. **DUE TBA**

**Harvey M. Applebaum Award** [https://elischolar.library.yale.edu/applebaum\\_award/](https://elischolar.library.yale.edu/applebaum_award/)

Awarded to outstanding senior essay based on research done in the collections of the University Library's Government Documents & Information Center. (For more information contact Kenya Flash [kenya.flash@yale.edu](mailto:kenya.flash@yale.edu) Librarian, Pol. Sci., Global Affairs & Gov. Info.). **DUE TBA**

**Library Map Prize** [https://elischolar.library.yale.edu/library\\_map\\_prize/](https://elischolar.library.yale.edu/library_map_prize/)

The Map Collection of Sterling Memorial Library awards a prize for the best senior essay making good use of maps. Submit essays to Curator, Map Collection. **DUE TBA**

**Lily Rosen Prize in Women's Health** <https://wgss.yale.edu/lily-rosen-prize-application-deadline-friday-april-19-2019>

Awarded annually to an undergraduate in Yale College for the best essay that contributes to knowledge about women's health. Essays may be in any field of the humanities or social, physical or natural sciences and may deal with any aspect of women's physical or mental health. **DUE TBA**

**Manuscripts and Archives** <https://guides.library.yale.edu/MSSAPrize>

Manuscripts and Archives offers up to two undergraduate student prizes each year, in memory of our colleague Diane E. Kaplan, who was instrumental in making these prizes available to Yale College seniors. The prizes are for an outstanding senior essay, on any topic (including Yale), based substantially on research done in Manuscripts and Archives. Students must submit these prize nominations themselves. **DUE TBA**

**Steere Prize in Women's Studies** <https://wgss.yale.edu/steere-prize-application-deadline-friday-april-19-2019>

The Women's, Gender, and Sexuality Studies Program awards a prize for the best essay accentuating women or gender roles or using feminist theory. Submit essays to the Women's, Gender, and Sexuality Studies Program online. **DUE TBA**

**Williams Prize in East Asian Studies** <https://ceas.yale.edu/honors-prizes>

Submit essays with a faculty letter of endorsement to the Williams Prize Committee, Council of East Asian Studies, YCIAS, Luce Hall. **DUE TBA**

**Russian and East European Studies** <https://secretary.yale.edu/department/wolfgang-leonhard-prize-russian-and-east-european-studies>

WOLFGANG LEONHARD PRIZE IN RUSSIAN AND EAST EUROPEAN STUDIES.

Established by the gift of James Leitner, B.A. 1975, the prize honors a distinguished former member of the faculty in Russian and East European Studies. Awarded to the senior who has written the most outstanding senior essay related to Russia or East Europe. **DUE TBA**

**The Richard Hegel Prize** <https://secretary.yale.edu/department/richard-hegel-prize-senior-essay-new-haven-2001>

The award was established by the Yale Club of New Haven during Yale's Tercentennial in 2001 to honor Richard Hegel, the New Haven City Historian and former President of the Yale Club of New Haven. It is awarded for an outstanding senior essay pertaining to the greater New Haven area. Senior essays from any department of Yale College are eligible for submission. The faculty of the College will judge the essays in accordance with University procedure. The award will be presented at the Yale Club's scholarship and award reception at the Peabody Museum and announced at Class Day or Commencement. **DUE TBA**

# Senior Project Statement of Intention

## History of Science, Medicine, and Public Health

Complete and return this form to Erica Lee [erica.lee@yale.edu](mailto:erica.lee@yale.edu)

Two-Term Statement due September 9, 2019 by 5:00 p.m.

One-Term Statement due September 3, 2019 by 5:00 pm.

Your Name: \_\_\_\_\_ College: \_\_\_\_\_

E-mail: \_\_\_\_\_

Two-Term Project: \_\_\_\_\_ **OR** One-Term Project: \_\_\_\_\_

Academic Advisor's Name: \_\_\_\_\_

Project Advisor's Name: \_\_\_\_\_

Type of Project (essay, website, exhibition, etc.): \_\_\_\_\_

**Attach a printed, one-page description of your proposed project.** State the topic and your focus concisely. Indicate what types of primary sources you might use.

In addition, please summarize your project in one sentence:

List all courses you have taken that are relevant to your topic (including courses in progress):

Do you have the language skills necessary for the project? Explain:

Will this project also be submitted to a program other than HSHM?

If so, what is the other program? Who is your advisor in that program?

Have you registered for a Library Research One-On-One?

Advisor's Signature: \_\_\_\_\_

# Senior Project Title Form

## History of Science, Medicine, and Public Health

Complete and return this form to Erica Lee [erica.lee@yale.edu](mailto:erica.lee@yale.edu)

For one-term projects: due November 4, 2019 at 5:00 p.m.

For two-term projects: due February 24, 2020 at 5:00 p.m.

This form will enable the Senior Project Director to assign the most appropriate grader for your project. Clever, engaging, and provocative titles are fine (and encouraged!), so long as the title clearly indicates the place, time period, and subject matter addressed by the project.

Your Name: \_\_\_\_\_

College: \_\_\_\_\_

E-mail: \_\_\_\_\_

Project Advisor's Name: \_\_\_\_\_

Project Title: \_\_\_\_\_

\_\_\_\_\_

Type of Project (essay, website, exhibition, etc.): \_\_\_\_\_

# Sample Titles of Past Senior Projects

A 'Burning' Issue: Battling Blood Loss in Neurosurgery:  
Harvey Cushing's Embrace of Electrosurgery

Building a New Public Health Tradition:  
The End of Routine Smallpox Vaccination in the United States

Caffeine's Conquest of America:  
Caffeine's Rise to Celebrity in Twentieth-Century America

Let the Dead Teach the Living:  
The Rise of Body Bequeathal in Twentieth-Century America

When Heroin Was New:  
The Introduction of Heroin into American Medicine

Federal Science and Western Rangelands:  
American Entanglements in the Plant Industry, 1890–1910

Science Writing in Modern American Newspapers

Unmasking Autism in Twentieth-Century America

Sweet Stain:  
Social Stigma and Type 1 Diabetes in Twentieth-Century America

Maginot Line in the Sky:  
Scientists and Statesmen in the Safeguard ABM Debate

"Hail to the Patents!"  
The Ethics, Politics, and Economics of the Early Modern Patent

System Rifles in War and Peace:  
The American Arms Industry in the Mid-Nineteenth Century

Profiles in Innovation:  
ENIAC, Microprocessor, IMP

For more sample titles and sample essays please visit the senior essay section of the HSHM website: <http://hshm.yale.edu/undergraduate-major/senior-project>

**Senior Project Evaluation Report**  
History of Science, Medicine, and Public Health  
Class of 2020  
**Due: April 27, 2020**  
Senior Project Director: Carolyn Roberts

Student's name: \_\_\_\_\_ College: \_\_\_\_\_

Project Advisor: \_\_\_\_\_

Grader's Name: \_\_\_\_\_ Final grade: \_\_\_\_\_

Grader's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Evaluate the materials used, including primary sources, secondary sources and the student's bibliographical essay:**

**Evaluate the structure and style of the essay. Please comment on the project's organization, style of writing (or other mode of presentation), as well as the typographic and scholarly style (spelling, grammar, notes, etc.):**



**General appraisal and criticism of the essay:**

Have you consulted with the advisor regarding your grade? Yes / No

Have you sent this report to the advisor by email? Yes / No Date sent: \_\_\_\_\_

Would you recommend this project for publication? Yes / No

Are you recommending this project for the HSHM prize? Yes / No Are

you recommending this project for a non-HSHM prize? Yes / No

Which prize(s)? \_\_\_\_\_

If you feel this project should be recommended for a prize, please contact Carolyn Roberts or Erica Lee at your earliest convenience.

# Faculty Fields of Interest

**AY:** indicates all history faculty members on leave for the entire academic year 2019-2020

**FA and SP:** indicates faculty members are on leave for the fall or spring term only.

## UNITED STATES HISTORY

### **BLACKHAWK, NED**

Native American History and Native American Law

### **BLIGHT, DAVID**

Civil War and Reconstruction era, African American history, and American cultural and Intellectual history

### **ENGERMAN, DAVID**

Twentieth-century international history

### **FEIMSTER, CRYSTAL**

African American Studies; racial and sexual violence

**(Limited Advising)**

### **FREEMAN, JOANNE**      **ON LEAVE**      **SP-2020**

Revolutionary and Early National American history with special interest in politics and culture, Early American journalism and print culture, regionalism

### **GADDIS, JOHN LEWIS**

Cold War history, Historical Methodology, Biography, Grand Strategy

### **GAGE, BEVERLY**      **ON LEAVE**      **SP-2020**

U.S.: Gilded Age and 20th century; political history; government and political development; ideology and social movements (esp. conservatism and radicalism)

### **GITLIN, JAY**

U.S. cultural history (esp. music-related or popular culture); Native American and American west; American colonial (French and Spanish borderlands): Canadian history; social history (esp. urban/suburban history)

### **JACOBSON, MATTHEW**      **ON LEAVE**      **SP-2020**

U.S. cultural history, 19th and 20th century immigration, ethnicity and race, U.S. expansionism

### **KLEIN, JENNIFER**

20<sup>th</sup> Century U.S. history: urban history, labor history, New Deal and post-World War II politics and policy, gender and social movements

### **LEVESQUE, GEORGE**

History of religious thought in America, History of Education, and History of American Colleges, and Universities, 18<sup>th</sup> & 19<sup>th</sup> Intellectual history

**(Limiting Advising)**

### **LAMOREAUX, NAOMI**

U.S. Economic, Business, and Technological History

### **LUI, MARY**

Asian American history, U.S. urban history, race and ethnicity, and immigration, gender and sexuality

### **MEYEROWITZ, JOANNE**

20<sup>th</sup> Century, social, cultural, and intellectual history, Gender, and Sexuality

**MILES, GEORGE** **Beinecke Library** **(Limited Advising)**  
Native American history, frontier, American West

**PARRILLO, NICHOLAS** **Law School**  
U.S. legal history; history of the administrative state; political development

**PETERSON, MARK**  
Early North America and the Atlantic world

**PITTI, STEPHEN**  
History of Mexican Americans, U.S. West, Latinos, 19th and 20th Century Immigration, the U.S.-Mexico border, labor history

**ROBERTS, CAROLYN**  
Medicine and slavery in the Atlantic world; race, medicine, and science; history of medicine in Africa and the African diaspora; health and protest in African American history; non-Western medicine and global health

**ROSS, TRAVIS**  
North American West and Pacific World; nineteenth-century America; US intellectual history; historiography; book history; the history of knowledge and education; capitalism

**RUGEMER, EDWARD** **DUS of History**  
Comparative Slavery and Abolition; Antebellum United States; Atlantic history

**SABIN, PAUL** **DGS of History**  
Environmental Studies

**SCHIFF, JUDITH ANN** **Manuscripts & Archives** **(Limited Advising)**  
History of New Haven and Yale, Women in Connecticut; Aviation, Jewish history

**STOUT, HARRY** **(Limited Advising)**  
Early America, American Religious history, American civil war

**TANNENBAUM, REBECCA**  
Early American 1600-1800; U.S. History; -1600-Present; Social History of American Medicine; Women's history

**WESTAD, ARNE**  
New faculty: Diplomatic history

**WITT, JOHN** **Law School**  
American Legal History

### **LATIN AMERICAN HISTORY**

**ECHEVERRI, MARCELA** **ON LEAVE** **AY 2019-2020**  
Latin America: Andes; social and political history; law; race and ethnicity; comparative revolutions, slavery, and abolition; political theory; history of anthropology.

**ELLER, ANNE**  
Slavery and emancipation in the Caribbean and Latin America, the Haitian Revolution, Pan-Caribbean migration and political movements, Latin American independence, and the African Diaspora.

**GRANDIN, GREG**  
New faculty: Latin America

**JOSEPH, GILBERT** **ON LEAVE** **SP-2020**  
Modern Latin American history; Mexican and Central American History; U.S-Latin American relations;



International law, human rights, the law of war, and legal thought, 20th-century European moral and political theory

**NAKHIMOVSKY, ISAAC**

Political thought and intellectual history, primarily in 17th-19th century Europe

**RENAUD, TERENCE**

Modern European social and political thought; German socialism and social democracy; critical theory; aesthetics; exile; resistance movements; comparative revolutions

**SEMMEL, STUART**

British politics, culture, and thought since 1760, Popular Culture, Popular Politics, and Political and social thought, European Cultural and Intellectual history

**SHORE, MARCI**

European Cultural and Intellectual History

**SNYDER, TIMOTHY**

Modern Eastern Europe

**SORKIN, DAVID**

Intersection of Jewish history and European history since the 16th century

**STERN, ELIYAHU**

Jewish History

**WINROTH, ANDERS**

Medieval history, Scandinavia, church history, intellectual history; legal history

**WRIGHTSON, KEITH**      **ON LEAVE**      **SP-2020**

British History, 1500-1750, especially social, cultural issues; history of the family; local community studies; class and social structure

**AFRICA. ASIA. AND MIDDLE EAST**

**AMANAT, ABBAS**

Modern Middle East; and Classical Islam; Iran; Ottoman Empire, the Arab World, Modern Indian subcontinent to the 19th century; History of US-Middle East relations, modern Iran, Sh'ism and the Persianate world

**BANKO, LAUREN**

Modern Middle East history, Ottoman Empire, 19th-20th century Arab world, 19th-20th century Palestine, citizenship, nationality, migration in the Middle East

**BOTSMAN, DANIEL**

Asia: Japanese history

**DE, ROHIT**      **ON LEAVE**      **AY 2019-2020**

Modern South Asia (India, Pakistan, Bangladesh), Global Legal History, Law and Society, Law and Colonialism, British Empire, Nationalism and Decolonization in Asia and Africa, Comparative Constitutionalism

**DRIXLER, FABIAN**

Asia: Japanese history; Demographic history around the world

**HANSEN, VALERIE**

China to 1600; Chinese religious and legal history; history of the Silk Road

**HARMS, ROBERT**

Sub-Saharan Africa

**HO, DENISE**

Modern China, Cultural Revolution, museum studies, material culture

**KIERNAN, BENEDICT**      **ON LEAVE**      **SP-2020**

Southeast Asia, early and modern, esp. Cambodia and Vietnam, Indonesia and East Timor: comparative colonialism, nationalism, communism, genocide, and environmental history

**MAGAZINER, DANIEL**

20<sup>TH</sup> century South and Southern Africa popular culture, intellectual history, religious history, political history and environmental history; South Africa the African Diaspora, East Africa; Africa in the colonial and post-colonial age. Black Nationalism in South Africa, Black visual artists in 20<sup>th</sup> Century South Africa

**MIKHAIL, ALAN****CHAIR**

Early Modern Muslim World, Ottoman Empire, History of Islamic Science and Medicine, Environmental History, Cultural and Social History of the Middle East (1500-1800)

**PERDUE, PETER****ON LEAVE**      **SP-2020**

Modern Chinese History

**WYRTZEN, JONATHAN**

North Africa and Middle East: Comparative Empire and colonialism, ethnicity and nationalism, Morocco, Urban and Rural Contentious Politics

**HISTORY OF SCIENCE AND MEDICINE****ABEDIN, SAKENA**

20<sup>th</sup> Century U.S. medicine, medicine and the social sciences, race and medicine, history of the U.S. healthcare system and health care in New Haven

**ALMELING, RENE****ON LEAVE AY 2019-2020**

Sociology, gender, genetics, health, reproduction, assisted reproductive technologies, men's reproductive health

**APPEL, TOBY**

American medicine in the nineteenth and early twentieth centuries, especially women in medicine and science, Connecticut and Yale medical history, medical and scientific societies and institutions, and health professions including alternative physicians

**BERTUCCI, PAOLA**

Enlightenment; cultural history of technology in the early modern world; cultures of collecting and display; artisanal knowledge; the early modern body; scientific travel; material culture

**COEN, DEBORAH****CHAIR, HSHM**

History of the modern physical and environmental sciences, central European intellectual and cultural history

**DAL PRETE, IVANO****HSHM DUS**

European scientific culture, 1400-1800; Earth history and religious orthodoxy; Generation theories, religion and society; Information and Exchange networks; Cultural history of Astronomy, scientific instruments trade

**GRAFE, MELISSA**

History of medicine in early America, history of medical collections and libraries, medical education

**RADIN, JOANNA****ON LEAVE**      **FA-2019**

History of biology, medicine, and anthropology since 1945; scientific expeditions, biomedical ethics, human subjects research, collections, and laboratories; history of global health; biomedical technology

**RAMALINGAM, CHITRA – (limited advising)**

Cultural history of the physical sciences (18th century to the present), science and visual culture, visual studies, material culture studies, history and theory of photography, modern British history

**RANKIN, WILLIAM**

Physical and earth sciences since the mid-nineteenth century; military, industrial, and governmental science; history of cartography; science and architecture; visual studies; environmental history

**RICH, MIRIAM**

History of medicine; Modern U.S. history; History of race & science; Gender & sexuality studies; Medical humanities; History of global & public health; Medical ethics; Disability studies; Science & technology studies; History of biology; History of the body

**ROBERTS, CAROLYN**

Medicine and slavery and the Atlantic world, Race medicine and science, History of medicine in Africa and the African diaspora, health and protest in African American history, and nonwestern medicine and global health

**ROGERS, NAOMI****HSHM DGS**

History of 20<sup>th</sup> medicine and public health in North America including health policy, health activism, alternative medicine, and gender and medicine; women's studies including science and feminism, and feminist health movements

**SCHWARTZ, JASON**

Vaccines and vaccination programs, decision-making in public health policy, the structure and function of scientific expert advice to government. The ways in which evidence is interpreted, evaluated, and translated into regulation and policy in medicine and public health

**WARNER, JOHN**

19<sup>th</sup> and 20<sup>th</sup> century U.S. medicine and Health Cultures; comparative history of medicine (U.S., Britain, France); cultural history of Science and medicine