

Term Information

Effective Term Spring 2021
[Previous Value](#) [Autumn 2018](#)

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

Allowing the course to be offered as Distance Learning.

What is the rationale for the proposed change(s)?

This will provide greater flexibility in offering this course to students.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

none

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Pharmacy
Fiscal Unit/Academic Org	Pharmacy - D1800
College/Academic Group	Pharmacy
Level/Career	Undergraduate
Course Number/Catalog	3708
Course Title	Vaccines: A Global History
Transcript Abbreviation	Vaccines G1b Hst
Course Description	This course examines the history and biology of vaccines. We explore the discovery and development of vaccines, along with the political and cultural controversies that have surrounded them for centuries. Team-taught course with faculty member in History.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Yes
Is any section of the course offered	100% at a distance
Previous Value	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites

Exclusions

Not open to students with credit for History 3708.

Electronically Enforced

Yes

Cross-Listings

Cross-Listings

Cross-listed in History.

Subject/CIP Code

Subject/CIP Code

51.2001

Subsidy Level

Baccalaureate Course

Intended Rank

Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

General Education course:

Historical Study

Course Details

Course goals or learning objectives/outcomes

- Students acquire a perspective on history and an understanding of the factors that shape human activity.
- Students display knowledge about the origins and nature of contemporary issues and develop a foundation for future comparative understanding.
- Students think, speak, and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts.

Content Topic List

- Introduction history, disease, biology
- Smallpox Part 1: Inoculation
Smallpox Part 2: Vaccination-Discovery
- How vaccines work
- Pasteur: trial and error-animal diseases, human trials
- Bacteria v. viruses: do their biological differences matter for vaccine development?
- The Anti-vaccinationists, Part 1: 1880-1910 (SCL)
- The Biologics Act and the very early FDA (KS)
- Launching the vaccine age (SCL/ KS)
- Influenza and the search for a vaccine, 1930-1950 (SCL)
- Vaccines, mortality, morbidity and the 20th century global demographic transition (KS)
- Global conquest: The eradication of small pox (SCL) and other global ventures (KS)
- Emerging diseases, re-emerging diseases and vaccine development (SCL/KS)
- The Anti-vaccinationists, Part 2: 1980-present (SCL/KS) Current concerns/current responses

Sought Concurrence

Yes

Attachments

- Ohio_State_Course_Review_Concurrence_Form_HIST_PHR3708_microbiology.pdf
(Concurrence. Owner: Bowman, Michael Robert)
- History Assessment Plan.doc
(GEC Course Assessment Plan. Owner: Higginbotham, Mary Christina)
- 1. HISTORY_PHR3708 Syllabus AU19 (ORIGINAL-IN PERSON).docx
(Syllabus. Owner: Bowman, Michael Robert)
- 3.HISTORY_PHR3708 Syllabus AU20 (REVISED-DISTANCE).docx
(Syllabus. Owner: Bowman, Michael Robert)
- PHR 3708 Technical Review Checklist(1).pdf
(Other Supporting Documentation. Owner: Bowman, Michael Robert)

Comments

- Only DL is now being requested for this course so references to HY have been removed. History has been notified so their submission should only reference DL now as well. *(by Bowman, Michael Robert on 10/16/2020 11:07 AM)*
- - Please double-check submission. There are references to requesting both hybrid and DL, but only the 100% DL box is checked off & no hybrid syllabus has been uploaded.
-If you also do want permanent formal approval for hybrid, please submit a second QM technical review sheet for that. *(by Vankeerbergen, Bernadette Chantal on 10/15/2020 11:26 AM)*

COURSE CHANGE REQUEST
3708 - Status: PENDING

Last Updated: Kelley, Katherine Ann
10/16/2020

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Bowman, Michael Robert	08/11/2020 04:39 PM	Submitted for Approval
Approved	Mercerhill, Jessica Leigh	08/12/2020 08:39 AM	Unit Approval
Approved	Kelley, Katherine Ann	08/12/2020 10:57 AM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	08/25/2020 01:18 PM	ASCCAO Approval
Submitted	Bowman, Michael Robert	09/14/2020 09:18 AM	Submitted for Approval
Approved	Mercerhill, Jessica Leigh	09/14/2020 10:50 AM	Unit Approval
Approved	Kelley, Katherine Ann	09/14/2020 05:24 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	09/16/2020 04:07 PM	ASCCAO Approval
Submitted	Bowman, Michael Robert	09/16/2020 05:12 PM	Submitted for Approval
Revision Requested	Mercerhill, Jessica Leigh	10/01/2020 09:57 AM	Unit Approval
Submitted	Bowman, Michael Robert	10/01/2020 10:13 AM	Submitted for Approval
Approved	Mercerhill, Jessica Leigh	10/01/2020 11:10 AM	Unit Approval
Approved	Kelley, Katherine Ann	10/01/2020 12:53 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	10/15/2020 11:27 AM	ASCCAO Approval
Submitted	Bowman, Michael Robert	10/15/2020 02:16 PM	Submitted for Approval
Approved	Mercerhill, Jessica Leigh	10/15/2020 02:17 PM	Unit Approval
Approved	Kelley, Katherine Ann	10/15/2020 02:48 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	10/15/2020 02:54 PM	ASCCAO Approval
Submitted	Bowman, Michael Robert	10/16/2020 09:36 AM	Submitted for Approval
Revision Requested	Mercerhill, Jessica Leigh	10/16/2020 09:41 AM	Unit Approval
Submitted	Bowman, Michael Robert	10/16/2020 11:08 AM	Submitted for Approval
Approved	Mercerhill, Jessica Leigh	10/16/2020 11:18 AM	Unit Approval
Approved	Kelley, Katherine Ann	10/16/2020 01:04 PM	College Approval
Pending Approval	Jenkins, Mary Ellen Bigler Hanlin, Deborah Kay Oldroyd, Shelby Quinn Vankeerbergen, Bernadette Chantal	10/16/2020 01:04 PM	ASCCAO Approval

HISTORY/PHARMACY 3708

VACCINES: A GLOBAL HISTORY

AUTUMN 2020

MONDAY/WEDNESDAY 9:35-10:55 AM

Instructors

Instructors:	Jim Harris, Ph.D	Katie Summers, Ph.D.
Office address:	368 Dulles Hall	141N Parks Hall
Email address:	harris.1631@osu.edu	summers.266@osu.edu
Phone number:	N/A	614-292-5829
Office hours:	M/W 1-2 pm via Zoom	T/Th 10-11am via Zoom

Course Description

Infectious diseases have profoundly affected human history. The discovery and use of vaccines reshaped the experience and effects of these diseases, including contributing to a rapid decline in morbidity and mortality in the 20th and 21st centuries. Empirical development of the first vaccines spurred significant scientific changes in our knowledge of human and animal immune systems, leading to the creation of yet more vaccines. From their very first use, however, vaccines have spurred controversies and resistance. They have also been big business. In this course, we explore their complex history and science.

AU20 Covid-19 Statement

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>), which includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses.

Course General Education Objectives: Historical Study

History courses develop students' knowledge of how past events influence today's society and help them understand how human beings view themselves.

1. Students acquire a perspective on history and an understanding of the factors that shape human activity. *In this course, we focus on the ways that scientific, social, economic and cultural change affected understanding of infectious diseases and the immune system, the discovery and development of vaccines, the effect of vaccines on global health, and the controversies surrounding their use.*
2. Students display knowledge about the origins and nature of contemporary issues and develop a foundation for future comparative understanding. *One of the main goals of this course is for students to grasp the very complicated relationships between science,*

technology and medicine as a body of knowledge and a set of practices that are continuously defined by social and cultural ideas about health and healing.

3. Students think, speak, and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts. *We will take a particularly close look at historical primary sources about infectious diseases, vaccine discovery and vaccine controversies. Students will read both secondary sources in the academic history of vaccines and technical sources on vaccines, immunology, and the pharmacological development of new vaccines, including clinical trials and the FDA approval process.*

Specific Course Objectives

At the end of this semester, students who complete the course work will be able to:

- describe the overall historical chronology of changes in the history of vaccines
- describe the primary features of the immune system relevant to the development and efficacy of vaccines.
- describe the challenges faced by scientists in the development and production of vaccines over time.
- explain some of the current consensus views on why historical changes occurred, including institutional, political, economic, and cultural factors affecting vaccine development and use
- assess how physicians, other care providers and patients are products of their own time periods and why this insight is crucial for understanding why people believe and behave as they do.

At the end of the semester, students who complete the course assignments will have:

- demonstrated proficiency with locating articles in electronic journal repositories in the OSU libraries.
- located and articulated the main arguments and the main sources of historical evidence used to support claims made in academic chapters and journal articles about the history of vaccines.
- located and articulated the main arguments, data collection and data analysis in scientific academic chapters and journal articles about infectious diseases, immunology, vaccine development or demographics.
- demonstrated interpersonal communication skills through participation in small group work, classroom discussions and peer review of assignments.
- practiced writing in an appropriately formal style on exams and assignments.

How this course works

Mode of delivery: This course is 100% online. There will be live, synchronous zoom sessions held during our scheduled class time (M/W, 9:35am-10:55am) in which your attendance is

highly encouraged. Please see the course schedule at the end of the syllabus for more information.

Pace of online activities: This course is divided into **weekly modules** that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a **3-credit-hour course**. According to [Ohio State policy](#), students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Attendance and participation requirements: Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Logging in: FLEXIBLE**
Each week's content is self-paced; therefore, you may login as frequently as is needed to complete the necessary module activities and assignments by the due dates indicated on Carmen. Students are expected to fully participate in all weekly activities.
- **Office hours: OPTIONAL**
Dr. Summers and Dr. Harris are available to meet with you via CarmenZoom during their scheduled office hours. If this does not work for you, please email Dr. Summers or Dr. Harris to arrange an alternate meeting.
- **Participating in synchronous zoom sessions: 1 TIME PER WEEK**
As part of your participation, each week you can expect to participate in a live, synchronous zoom session to discuss the readings and content for that week.

Course materials

Required

All of the readings and videos for this course are in electronic format. These include:

- pdf copies of selections from books.
- journal articles accessed through the OSU collection of online journals
- websites for which URLs are provided in Carmen modules
- streaming videos via Secured Media Library or YouTube

Course technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24x7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

Technical skills necessary for this course

- Basic computer and web-browsing skills
- Navigating Carmen

Necessary equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Microphone: built-in laptop or tablet mic or external microphone

Necessary software

- Microsoft Office 365 ProPlus All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Each student can install Office on five PCs or Macs, five tablets (Windows, iPad® and Android™) and five phones.
 - Students are able to access Word, Excel, PowerPoint, Outlook and other programs, depending on platform. Users will also receive 1 TB of OneDrive for Business storage.
 - Office 365 is installed within your BuckeyeMail account. Full instructions for downloading and installation can be found <https://ocio.osu.edu/kb04733>.
- Adobe Reader and any plugins (e.g. Flash) needed to view videos; other presentation software, such as Prezi (not OSU approved) or Explain Everything (OSU approved), if desired.

OSU resources

If you do not own a computer, then you may use one in the library or any computer lab for completing written work and accessing Carmen. To create voice-over presentations and videos, take advantage of one of the Digital Unions on campus. A complete list of facilities and their hours is available at <https://odee.osu.edu/digital-union>.

The Writing Center

The **Writing Center** offers free help with writing at any stage of the writing process for any member of the university community. During our sessions, consultants can work with you on

anything from research papers to lab reports, from dissertations to résumés, from proposals to application materials. Appointments are available in-person at 4120 Smith Lab, as well as for online sessions. You may schedule an in-person or online appointment by visiting WCOOnline or by calling 614-688-4291. Please note that the Writing Center also offers daily walk-in hours—no appointment necessary—in Thompson Library. You do not have to bring in a piece of writing in order to schedule a writing center appointment. Many students report that some of their most productive sessions entail simply talking through ideas. Please check out our [Individual Writing Support](#) and [Group Writing Support](#) pages for the types of consultations we provide. We also maintain a [Writing Resources](#) page with writing handouts and links to online resources.

Course Assignments & Requirements

Current Events Analysis (15%): In order to appreciate our remarkable current events in history of vaccine development, **every two weeks** students will submit a link to an article from a major newspaper or scientific journal related to ongoing COVID-19 vaccine research and development along with a 250 word summary of the article. Students will compile a “scrapbook” of a total of **five** articles to use as sources in their final papers.

Discussion Participation (15%): Everyone is expected to actively participate in class discussions both online and in-person. When we do meet face-to-face for discussions, we encourage you to bring a copy of the readings with you. At the very least, bring notes on the readings. If you miss a class, please notify the instructors in advance or as soon as possible after the missed class. We will work with you to make up the missed discussion. Considering the current public health crisis, please **DO NOT come to class if you are feeling ill!**

Midterm Exam (20%): Students will take one online, open-book exam on Carmen that will include both an objective section as well as a short essay component.

Quizzes (15%): Student will complete **five** multiple-choice Carmen quizzes to test comprehension of key course concepts and to ensure students are keeping up with the course materials.

Term Paper (35%): Students will write a final paper of 8-10 pages in which they consider the development of a COVID-19 vaccine relative to what they have learned about the history of vaccines over the course of the semester. Details for this paper assignment will be available on Carmen. The paper will be completed in stages, including a draft (5%), peer review (5%), and a final product (25%).

Grading scale

We use the OSU Standard Scheme for assigning letter grades to points:

93 - 100 (A)	90 - 92.9 (A-)	
87 - 89.9 (B+)	83 - 86.9 (B)	80 - 82.9 (B-)
77 - 79.9 (C+)	73 - 76.9 (C)	70 - 72.9 (C-)
67 - 69.9 (D+)	60 - 66.9 (D)	Below 60 (E)

Late assignments

Late work shall be penalized one letter grade per day (weekends included). For example, A to A- for one day, A- to B+ for two days, B+ to B for three days, etc. No assignment will be accepted more than one week late, except for *extraordinary* circumstances.

Attendance Policy

Live online class attendance is highly encouraged; however, if you are feeling ill, please do not come to class. Please contact Dr. Harris and Dr. Summers as soon as possible to notify them of your absence and alternative arrangements for your participation will be made.

If you have extenuating circumstances (self-quarantine, self-isolation, etc.) that will keep you out of class for an extended period of time, **it is your responsibility to communicate this with the instructor as early as possible.** Dr. Harris and Dr. Summers will work with you to ensure your continued success in this course.

Faculty feedback and response time

Grading and feedback

Evaluation of essays and exams will be completed within **10 days**.

E-mail

We will reply to e-mails within **24 hours on weekdays**.

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need compose email as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Failure to show respect to each other may result in dismissal from the class.

Academic services

Your OSU academic advisor has a wealth of information about how to navigate the university and to manage your time here. Do take advantage of their help. Start with the main website at <http://advising.osu.edu/welcome.shtml> and use the site's search box. If you are struggling with study skills, check out the Younkin Success Center at <http://younkinsuccess.osu.edu/academic-services/>. The College of Arts and Sciences has its own page of resources at <https://artsandsciences.osu.edu/academics/current-students/resources>. Everyone wants to see you succeed.

Academic integrity policy

Policies for this online course

- **Exams:** You must complete the midterm exam yourself, without any external help or communication.
- **Written assignments:** Your written assignments must be your own original work. In formal assignments, you should follow the citation style specified in the assignments to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in--but no one else should revise or rewrite your work.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you have explored in previous courses, please discuss the situation with us.
- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course includes opportunities for collaboration with your classmates. While study groups are encouraged, and peer-review of the video essay draft is required, remember that comparing and copying answers on assignments is not permitted. If you are unsure about a particular situation, please feel free just to ask ahead of time.

Ohio State's academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an excuse for academic misconduct, so we recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

In addition, OSU had made Turnitin, a learning tool and plagiarism prevention system, available to instructors. For this class, you will submit your papers to Turnitin from Carmen. When grading your work, I will interpret the originality report, following [Section A of OSU's Code of Student Conduct](#) as appropriate. For more information about Turnitin, please see [the vendor's guide for students](#). Note that submitted final papers become part of the OSU database.

If we suspect that a student has committed academic misconduct in this course, we are obligated by University Rules to report our suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact us.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity (Ten Suggestions)*
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Copyright disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes

associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on Title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

Accessibility accommodations for students with disabilities

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility and Covid-19

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's [request process](#), managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your

accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility of course technology

This course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor or with Student Life Disability Services.

- [CarmenCanvas accessibility](#)
- Streaming audio and video
- [CarmenZoom accessibility](#)
- Collaborative course tools

Your mental health!

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand resources are available at <https://go.osu.edu/ccsondemand>. You can reach an on-call counselor when CCS is closed at 614-292-5766, and 24-hour emergency help is also available through the 24/7 National Prevention Hotline at 1-800-273-TALK or at <https://suicidepreventionlifeline.org>. The Ohio State Wellness app is also a great resource available at <https://go.osu.edu/wellnessapp>.

COVID-19

To maintain social-distancing protocols this semester, this course is being taught in a new distance-learning format. Lectures will be online and asynchronous, but we will meet together on Zoom for key discussions. At the start of the term, students will be divided into Group A and Group B for in-class discussions. Group A will meet on Mondays and Group B will meet on Wednesdays during our scheduled class meetings during the designated weeks. **Real-time discussions are listed as "synchronous discussion" on the schedule below.**

Course schedule

Assignments are due each week on Sunday at 11:59 pm.

Week 1: 8/26

Online: Introduction to the Course (JH, KS)

Week 2: 8/31, 9/2

Background Reading:

- Ian and Jenifer Glynn, *The Life and Death of Smallpox* (New York: Cambridge University Press, 2004), chapter 6.
- Sarah Gronim, "Imagining Inoculation: Smallpox, the Body, and Social Relations of Healing in the Eighteenth Century," *Bulletin of the History of Medicine* 80 (2006): 247-268.

Online Lecture 1: Smallpox, Part I: Inoculation (JH)

Synchronous Discussion: Group A will meet on Monday 8/31, Group B will meet on Wednesday 9/2 to discuss the following readings: William Buchan, *Domestic Medicine: Or, A Treatise on the Prevention and Cure of Diseases* (London: Strahan, Cadell, 1790), 214-240 and New England Inoculation Debate in Letters. (JH)

Assignments: Current Events Analysis #1

Week 3: 9/7 (Labor Day-No class), 9/9

Background Reading:

- Edward Jenner, selections from *An Inquiry into the Causes and Effects of the Variolæ Vaccinæ* (1798).

Online Lecture 2: Smallpox, Part 2: Vaccination (JH)

Assignments: Quiz #1

Week 4: 9/14, 9/16

Background reading:

- Bloom, Barry R., and P. H. Lambert. 2016. *The vaccine book*. <http://www.sciencedirect.com/science/book/9780128021743>. Chapter 2, "How Vaccines Work"
- Downie, Allan W., and K. R. Dumbell. "Pox viruses." *Annual Reviews in Microbiology* 10.1 (1956): 237-252.
- Derrick Baxby, "The Origins of the Vaccinia Virus," *The Journal of Infectious Diseases* Vol. 136, No. 3 (Sept. 1977): 453-455
- RAZZELL, PETER. "The origins of vaccinia virus—a brief rejoinder." *Social History of Medicine* 11.1 (1998): 107-108.

Online Lecture 3: Introduction to Immunology (KS)

Online Lecture 4: Cowpox and the Puzzle of Vaccinia Virus (KS)

Synchronous Discussion: Group A will meet on Monday 9/14, Group B will meet on Wednesday 9/16 to discuss the following readings: "Parents have been holding dangerous 'measles parties' in New York City to expose unvaccinated kids to the disease" by Julia Naftulin, *The Insider*, April 9, 2019 and Orenstein, Walter A., and Julie R. Garon. "Hardly harmless: The dangerous tradition of 'pox parties'." *Infectious Diseases in Children* 29.3 (2016): 8. (KS)

Assignments: Currents Events Analysis #2

Week 5: 9/21, 9/23

Background Reading

- Plotkin, Stanley A., Walter A. Orenstein, and Paul A. Offit. 2013. *Vaccines*. <http://www.clinicalkey.com/dura/browse/bookChapter/3-s2.0-C20090499732>. Chapter 2
- Pardi, N., Hogan, M., Porter, F. et al. mRNA vaccines — a new era in vaccinology. *Nat Rev Drug Discov* 17, 261–279 (2018).

Online Lecture 5: Vaccines: how they work and what's in them (KS)

Synchronous Discussion: Group A will meet on Monday 9/21, Group B will meet on Wednesday 9/23 to discuss the following readings: "Scientists worry 'Operation Warp Speed' is missing tried and true vaccines" By Cohen, Vigue and Bonifield, CNN June 2020 and "Why R0 Is Problematic for Predicting COVID-19 Spread" by Katarina Zimmer, *The Scientist*. (KS)

Assignments: Quiz #2

Week 6: 9/28, 9/30

Background Reading:

- Gerald Geison, *The Private Science of Louis Pasteur* (Princeton: Princeton University Press, 1995), chapter 6 (anthrax), 8 (rabies)
- Michael Willrich, *Pox: An American History* (New York: Penguin Books, 2011), Chapter 7.

Online Lecture 6: Pasteur's Vaccines: Animal Diseases, Human Trials (JH)

Synchronous Discussion: Group A will meet on Monday 9/28, Group B will meet on Wednesday 9/30 to discuss: The Early Anti-vaccinationists (JH)

Assignments: Current Events Analysis #3

Week 7: 10/5, 10/7

Online: Midterm Review

Assignments: **Midterm Exam**

Week 8: 10/12, 10/14

Background Reading:

- Julie B. Milstien, "Regulation of Vaccines: Strengthening the Science Base," *Journal of Public Health Policy*, Vol. 25, No. 2 (2004), pp. 173-189.
- Primary source: *The Virus-Toxin Law (Biologics Control Act) of 1902*, Ch. 1378, <https://www.loc.gov/law/help/statutes-at-large/57th-congress/session-1/c57s1ch1378.pdf>

Film: Outbreak: Anatomy of a Plague

Online Lecture 7: The Biologics Act and the Very Early FDA (KS)

Assignments: Current Events Analysis #4

Week 9: 10/19, 10/21

Background Reading:

- John M. Eyster, "DeKruif's Boast: Vaccine Trials and the Construction of a Virus," *Bulletin of the History of Medicine* 80 (2006), 409-438.

Online Lecture 8: Influenza: The Search for a Virus and a Vaccine (JH)

Online Lecture 9: Launching the Vaccine Age (JH)

Assignments: Quiz #3

Week 10: 10/26, 10/28

Background Reading:

- "Industrial Research Comes of Age: The American Pharmaceutical Industry, 1920-1940" by John Parascandola, *Pharmacy in History*, Vol. 27, No.1 (1985), pp. 12-21.
- "Valuing Vaccination" O'Brien, et al., *Proceedings of the National Academy of Sciences*, Vol. 111, No. 34 (2014).
- "The Economic and Social Benefits of Childhood Vaccinations in BRICS" Grewal et al., *Bulletin of the World Health Organization*, Vol. 92, No. 6 (June 2014).

Online Lecture 10: The Expansion of the Pharmaceutical Industry (KS)

Online Lecture 11: Mortality, Morbidity and the 20th Century Global Demographic Transition (KS)

Assignments: Current Events Analysis #5

Week 11: 11/2, 11/4

Background Reading:

- *The Life and Death of Smallpox*, chapters 14 and 15
- “Why is it Taking So Long to Rid the World of Polio?” by Susan Scutti, CNN.com, June 12, 2017.
- Marcel Tanner and Don de Savigny, “Malaria Eradication Back on the Table,” *Bulletin of the World Health Organization* Vol. 86, No. 2 (2008)

Synchronous Discussion: Group A will meet on Monday 11/2, Group B will meet on Wednesday 11/4 to discuss Smallpox, Part 3: Eradication (JH)

Online Lecture 12: Global Disease Eradication Efforts (KS)

Assignments: Quiz #4

Week 12: 11/9, 11/11 (Veterans Day-No Class)

Background Reading:

- David Quammen, *Spillover* (New York: W.W. Norton & Company, 2012), 315-351.

Online Lecture 13: Emerging and Re-emerging Diseases (JH)

Week 13: 11/16, 11/18

Background Reading:

- Bloom, Barry R., and P. H. Lambert. 2016. *The vaccine book*. <http://www.sciencedirect.com/science/book/9780128021743>. Chapter 28, “Vaccines for Emerging Viral Diseases”.
- Would like to add another article about SARS-CoV2 vaccine development, but will wait until closer to semester start to see what’s most recent

Online Lecture 14: Modern Vaccine Development (KS)

Synchronous Discussion: Group A will meet on Monday 11/16, Group B will meet on Wednesday 11/18 to discuss Vaccine development for SARS-CoV2 (KS)

Assignments: **Term paper drafts due 11/22 by midnight**

Week 14: 11/23, 11/25

Background Reading:

- Brian Deer, "How the Case Against the MMR Vaccine Was Fixed," *British Medical Journal*, 6 January 2011.
- Seth Mnookin, *The Panic Virus: The True Story Behind the Vaccine-Autism Controversy* (New York, NY: Simon & Schuster, 2011), ch. 17, 21

Synchronous Discussion: Group A will meet on Monday 11/23, Group B will meet on Wednesday 11/25 to discuss Modern Anti-Vaccination Movements (JH/KS)

Assignments: Quiz #5; **Term paper peer reviews due 11/29**

Week 15: 11/30, 12/2 Work remotely on Term Papers (Due Tuesday December 8)

HISTORY/PHARMACY 3708
VACCINES: A GLOBAL HISTORY
AUTUMN 2019
PARKS HALL 103
MONDAY/WEDNESDAY 9:35-10:55 AM

Instructors

Instructors:	Jim Harris, Ph.D	Katie Summers, Ph.D.
Office address:	368 Dulles Hall	141N Parks Hall
Email address:	harris.1631@osu.edu	summers.266@osu.edu
Phone number:	N/A	614-292-5829
Office hours:	T/R 1:00-2:00 pm	R 10:00-11:00am, by appt.

Course Description

Infectious diseases have profoundly affected human history. The discovery and use of vaccines reshaped the experience and effects of these diseases, including contributing to a rapid decline in morbidity and mortality in the 20th and 21st centuries. Empirical development of the first vaccines spurred significant scientific changes in our knowledge of human and animal immune systems, leading to the creation of yet more vaccines. From their very first use, however, vaccines have spurred controversies and resistance. They have also been big business. In this course, we explore their complex history and science.

Course General Education Objectives: Historical Study

History courses develop students' knowledge of how past events influence today's society and help them understand how human beings view themselves.

1. Students acquire a perspective on history and an understanding of the factors that shape human activity. *In this course, we focus on the ways that scientific, social, economic and cultural change affected understanding of infectious diseases and the immune system, the discovery and development of vaccines, the effect of vaccines on global health, and the controversies surrounding their use.*
2. Students display knowledge about the origins and nature of contemporary issues and develop a foundation for future comparative understanding. *One of the main goals of this course is for students to grasp the very complicated relationships between science, technology and medicine as a body of knowledge and a set of practices that are continuously defined by social and cultural ideas about health and healing.*
3. Students think, speak, and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts. *We will take a particularly close look at historical primary sources about infectious diseases, vaccine discovery and vaccine controversies. Students will read both*

secondary sources in the academic history of vaccines and technical sources on vaccines, immunology, and the pharmacological development of new vaccines, including clinical trials and the FDA approval process.

Specific Course Objectives

At the end of this semester, students who complete the course work will be able to:

- describe the overall historical chronology of changes in the history of vaccines
- describe the primary features of the immune system relevant to the development and efficacy of vaccines.
- describe the challenges faced by scientists in the development and production of vaccines over time.
- explain some of the current consensus views on why historical changes occurred, including institutional, political, economic and cultural factors affecting vaccine development and use
- assess how physicians, other care providers and patients are products of their own time periods and why this insight is crucial for understanding why people believe and behave as they do.

At the end of the semester, students who complete the course assignments will have:

- demonstrated proficiency with locating articles in electronic journal repositories in the OSU libraries.
- located and articulated the main arguments and the main sources of historical evidence used to support claims made in academic chapters and journal articles about the history of vaccines.
- located and articulated the main arguments, data collection and data analysis in scientific academic chapters and journal articles about infectious diseases, immunology, vaccine development or demographics.
- demonstrated interpersonal communication skills through participation in small group work, classroom discussions and peer review of assignments.
- practiced writing in an appropriately formal style on exams and assignments.

Course materials

Required

All of the readings and videos for this course are in electronic format. These include:

- pdf copies of selections from books.
- journal articles accessed through the OSU collection of online journals
- websites for which URLs are provided in Carmen modules
- streaming videos via Secured Media Library or YouTube

Course technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24x7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

Technical skills necessary for this course

- Basic computer and web-browsing skills
- Navigating Carmen
- Recording a slide presentation with audio narration and/or
- Recording, editing, and uploading video

Necessary equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Microphone: built-in laptop or tablet mic or external microphone

Necessary software

- Microsoft Office 365 ProPlus All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Each student can install Office on five PCs or Macs, five tablets (Windows, iPad® and Android™) and five phones.
 - Students are able to access Word, Excel, PowerPoint, Outlook and other programs, depending on platform. Users will also receive 1 TB of OneDrive for Business storage.
 - Office 365 is installed within your BuckeyeMail account. Full instructions for downloading and installation can be found <https://ocio.osu.edu/kb04733>.
- Adobe Reader and any plugins (e.g. Flash) needed to view videos; other presentation software, such as Prezi (not OSU approved) or Explain Everything (OSU approved), if desired.

OSU resources

If you do not own a computer, then you may use one in the library or any computer lab for completing written work and accessing Carmen. To create voice-over presentations and videos, take advantage of one of the Digital Unions on campus. A complete list of facilities and their hours is available at <https://odee.osu.edu/digital-union>.

Course Assignments & Requirements

Attendance and Participation (20%): Everyone is expected to attend each class and to actively participate in class discussions, having completed the assigned reading for the day. It is very helpful to bring the readings to class, especially the primary sources. At the very least, bring notes on the readings. If you must miss a class, you must notify the instructor(s) in advance and provide written documentation of the reason for the absence (doctor's note, school-sponsored event, family emergency, etc). If you have extenuating circumstances that will keep you out of class for an extended period of time, **it is your responsibility to communicate this with the instructor as early as possible.**

Quizzes (20%): There will be **eight** random quizzes given throughout the semester to ensure students are actively keeping up with the course material (especially the readings). Missed quizzes will not be able to be made-up, however your lowest two quiz scores will be dropped.

Midterm Exam (25%): You will write one in-class midterm exam that will include both a short answer section (identifications) and a choice of essay questions.

Final Project (35%): Students will have their choice of either writing an individual research paper or developing a creative video research presentation as a group. Details for these assignments will be available on Carmen. Either project will involve a draft (5%), peer review (5%), and a final product (25%).

Grading scale

We use the OSU Standard Scheme for assigning letter grades to points:

93 - 100 (A)	90 - 92.9 (A-)	
87 - 89.9 (B+)	83 - 86.9 (B)	80 - 82.9 (B-)
77 - 79.9 (C+)	73 - 76.9 (C)	70 - 72.9 (C-)
67 - 69.9 (D+)	60 - 66.9 (D)	Below 60 (E).

Late assignments

Late work shall be penalized one letter grade per day (weekends included). For example, A to A- for one day, A- to B+ for two days, B+ to B for three days, etc. No assignment will be accepted more than one week late, except for *extraordinary* circumstances.

Faculty feedback and response time

Grading and feedback

Evaluation of essays and exams will be completed within **10 days**.

E-mail

We will reply to e-mails within **24 hours on week days**.

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need compose email as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Failure to show respect to each other may result in dismissal from the class.

The Writing Center:

The Writing Center website states that it “offers free help with writing at any stage of the writing process for any member of the university community. During our sessions, consultants can work with you on anything from research papers to lab reports, from dissertations to résumés, from proposals to application materials. Appointments are available in-person at 4120 Smith Lab, as well as for online sessions. You may schedule an in-person or online appointment by visiting WOnline or by calling 614-688-4291. Please note that the Writing Center also offers daily walk-in hours—no appointment necessary—in Thompson Library. You do not have to bring in a piece of writing in order to schedule a writing center appointment. Many students report that some of their most productive sessions entail simply talking through ideas. Please check out our "Services" page for the types of consultations we provide. We also maintain a [resources page \(https://cstw.osu.edu/writing-resources\)](https://cstw.osu.edu/writing-resources) with writing handouts and links to [online resources \(https://cstw.osu.edu/writing-resources/research-resources\)](https://cstw.osu.edu/writing-resources/research-resources).”

Academic services

Your OSU academic advisor has a wealth of information about how to navigate the university and to manage your time here. Do take advantage of their help. Start with the main website at <http://advising.osu.edu/welcome.shtml> and use the site's search box. If you are struggling with study skills, check out the Younkin Success Center at <http://younkinsuccess.osu.edu/academic-services/> . The College of Arts and Sciences has its own page of resources at <https://artsandsciences.osu.edu/academics/current-students/resources>. Everyone wants to see you succeed.

Academic integrity policy

Policies for this online course

- **Exams:** You must complete the midterm exam yourself, without any external help or communication.
- **Written assignments:** Your written assignments must be your own original work. In formal assignments, you should follow the citation style specified in the assignments to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in--but no one else should revise or rewrite your work.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you have explored in previous courses, please discuss the situation with us.
- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course includes opportunities for collaboration with your classmates. While study groups are encouraged, and peer-review of the video essay draft is required, remember that comparing and copying answers on assignments is not permitted. If you are unsure about a particular situation, please feel free just to ask ahead of time.

Ohio State's academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the University's *Code of Student Conduct* is never considered an excuse for academic misconduct, so we recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

In addition, OSU had made Turnitin, a learning tool and plagiarism prevention system, available to instructors. For this class, you will submit your papers to Turnitin from

Carmen. When grading your work, I will interpret the originality report, following [Section A of OSU's Code of Student Conduct](#) as appropriate. For more information about Turnitin, please see [the vendor's guide for students](#). Note that submitted final papers become part of the OSU database.

If we suspect that a student has committed academic misconduct in this course, we are obligated by University Rules to report our suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact us.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Copyright disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on Title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

Accessibility accommodations for students with disabilities

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility of course technology

This course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor or with Student Life Disability Services.

Your mental health!

A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the quarter are encouraged to contact the College of Pharmacy Office of Student Services in room 150 Parks Hall (614-292-5001) OR OSU Counseling and Consultation Services (614-292-5766) for assistance, support and advocacy. This service is free and confidential.

Course schedule

Week 1 **Introduction (JH, KS)**

Week 2 **Smallpox, Part 1: Inoculation (JH)**

8/26 Reading:

- Ian and Jenifer Glynn, *The Life and Death of Smallpox* (New York: Cambridge University Press, 2004), chapter 6.
- Primary Source: William Buchan, *Domestic Medicine: Or, A Treatise on the Prevention and Cure of Diseases* (London: Strahan, Cadell, 1790), 214-240.

8/28 Reading:

- Sarah Gronim, "Imagining Inoculation: Smallpox, the Body, and Social Relations of Healing in the Eighteenth Century," *Bulletin of the History of Medicine* 80 (2006): 247-268.
- Primary Source: New England Inoculation Debate in Letters

Week 3 **Smallpox, Part 2: Vaccination (JH)**

9/2- No Class-Labor Day

9/4 Reading:

- Primary source: Edward Jenner, selections from *An Inquiry into the Causes and Effects of the Variolæ Vaccinæ* (1798).

Week 4 Cowpox and the Puzzle of Vaccinia Virus; How Vaccines Work: Immunology (KS)

9/9 Reading:

- Downie, Allan W., and K. R. Dumbell. "Pox viruses." *Annual Reviews in Microbiology* 10.1 (1956): 237-252.
- Derrick Baxby, "The Origins of the Vaccinia Virus," *The Journal of Infectious Diseases* Vol. 136, No. 3 (Sept. 1977): 453-455.
- RAZZELL, PETER. "The origins of vaccinia virus—a brief rejoinder." *Social History of Medicine* 11.1 (1998): 107-108.

9/11 Reading:

- Bloom, Barry R., and P. H. Lambert. 2016. *The vaccine book*. <http://www.sciencedirect.com/science/book/9780128021743>. Chapter 2, "How Vaccines Work"

Week 5 How Vaccines Work: Immunology (KS); Pasteur: Trial and Error – Animal Diseases, Human Trials (JH)

Assignment: Final Project Format and Topic due by the end of the week.

9/16 Reading:

- Plotkin, Stanley A., Walter A. Orenstein, and Paul A. Offit. 2013. *Vaccines*. <http://www.clinicalkey.com/dura/browse/bookChapter/3-s2.0-C20090499732>. Chapter 2

9/18 Reading:

- Gerald Geison, *The Private Science of Louis Pasteur* (Princeton: Princeton University Press, 1995), chapter 6 (anthrax), 8 (rabies)

Week 6 The Anti-vaccinationists, Part 1: 1880-1910 (JH); Bacteria vs. Viruses: Do their Biological Differences Matter for Vaccine Development? (KS)

9/23 Reading:

- Michael Willrich, *Pox: An American History* (New York: Penguin Books, 2011), Chapter 7.
- Primary sources: Anti-vaccination pamphlets, articles from medical journals circa 1900, political cartoons

9/25 Reading:

- Barry R. Bloom and P. H. Lambert. 2016. *The vaccine book*. <http://www.sciencedirect.com/science/book/9780128021743>. Chapter 16, "New Approaches for Needed Vaccines: Bacteria"

Week 7 Midterm Exam

9/30 No Reading—Midterm Review in class

10/2 **Assignment: Midterm Exam in class**

- Week 8** **Film: Outbreak: Anatomy of a Plague (JH); The Biologics Act and the Very Early FDA (KS)**
 10/7 No Reading
 10/9 Reading:
- Julie B. Milstien, "Regulation of Vaccines: Strengthening the Science Base," *Journal of Public Health Policy*, Vol. 25, No. 2 (2004), pp. 173-189.
 - Primary source: *The Virus-Toxin Law (Biologics Control Act) of 1902*, Ch. 1378, <https://www.loc.gov/law/help/statutes-at-large/57th-congress/session-1/c57s1ch1378.pdf>
- Week 9** **Influenza and the Search for a Vaccine, 1918-1950 (JH); Launching the Vaccine Age (JH)**
 10/14 Reading:
- John M. Eyler, "DeKruif's Boast: Vaccine Trials and the Construction of a Virus," *Bulletin of the History of Medicine* 80 (2006), 409-438.
- 10/16 Reading:
- TBD
- Week 10** **Vaccines, Mortality, Morbidity and the 20th Century Global Demographic Transition (KS); Smallpox, Part 3: Eradication (JH)**
 10/21 Reading:
- "Industrial Research Comes of Age: The American Pharmaceutical Industry, 1920-1940" by John Parascandola, *Pharmacy in History*, Vol. 27, No.1 (1985), pp. 12-21.
- 10/23 Reading:
- *The Life and Death of Smallpox*, chapters 14 and 15
- Week 11** **Global Vaccination Ventures (KS)**
Assignment: Presentation draft and complete bibliography due for peer review on Carmen 10/30 by midnight.
 10/28 Reading:
- "Valuing Vaccination" O'Brien, et al., *Proceedings of the National Academy of Sciences*, Vol. 111, No. 34 (2014).
 - "The Economic and Social Benefits of Childhood Vaccinations in BRICS" Grewal et al., *Bulletin of the World Health Organization*, Vol. 92, No. 6 (June 2014).
- 10/30 Reading:
- "Why is it Taking So Long to Rid the World of Polio?" by Susan Scutti, CNN.com, June 12, 2017.
 - Marcel Tanner and Don de Savigny, "Malaria Eradication Back on the Table," *Bulletin of the World Health Organization* Vol. 86, No. 2 (2008)

- Week 12 Emerging and Re-emerging Diseases (JH/KS)**
Assignment: Peer review of presentation draft materials due on Carmen 11/6 midnight.
 11/4 Reading:
- David Quammen, *Spillover* (New York: W.W. Norton & Company, 2012), 315-351.
 - 11/6 No Reading
- Week 13 Vaccine Development (KS)**
- 11/11-No Class-Veteran's Day**
- 11/13 Reading:
- Bloom, Barry R., and P. H. Lambert. 2016. *The vaccine book*. <http://www.sciencedirect.com/science/book/9780128021743>. Chapter 28, "Vaccines for Emerging Viral Diseases".
- Week 14 The Anti-Vaccinationists, Part 2: 1980-present (JH/KS)**
 11/18 Reading:
- Brian Deer, "How the Case Against the MMR Vaccine Was Fixed," *British Medical Journal*, 6 January 2011.
 - Seth Mnookin, *The Panic Virus: The True Story Behind the Vaccine-Autism Controversy* (New York, NY: Simon & Schuster, 2011), ch. 17, 21
- 11/20 -- In class "debate": Students will be assigned a position (doctors, public health officials, scientists, parents) for a final discussion of the current controversy surrounding vaccination and will present as a group how each position has responded. More information about what is expected will be provided in class on a separate handout.
- Week 15/16 Final Presentations and Discussions**
Final Projects Due 11/24 by midnight
 Students will present their research to the class and respond to Q&A during our last 3 class sessions (11/25, 12/2 and 12/4) and during our final exam period if needed.

MEMORANDUM

TO: Arts and Sciences Curriculum Committee (ASCC)

FROM: Paula Baker, Chair, Undergraduate Teaching Committee, Department of History

RE: Assessment Plan for proposed GE courses: Historical Study Category, Social Diversity in the U.S., and Diversity: Global Studies

Assessment Goals and Objectives

1. Both the GE and course-specific learning objectives for all History courses might be summarized as follows:

Historical Study GE Requirements:

Goals:

Students recognize how past events are studied and how they influence today's society and the human condition.

Expected Learning Outcomes:

1. Students construct an integrated perspective on history and the factors that shape human activity.
2. Students describe and analyze the origins and nature of contemporary issues.
3. Students speak and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts.

Goals of the courses that fulfill the GE Learning Outcomes:

History courses develop students' recognition of how past events are studied and how they influence today's society and the human condition through the following ways:

1. Critically examine theories of history, and historical methodologies
2. Engage with contemporary and historical debates on specific regions, time periods and themes of the human past.
3. Through reading in primary and secondary sources and in-depth class discussion, students will access and critically examine social, political, economic, military, gender, religious, ecological, and ethnic/racial/national movements in a wider socio- cultural context.
4. Students will carry out in-depth analysis in a final paper, exam, or project comparing distinct historical moments, social movements and their effects

2. Both the GE and course-specific learning objectives for History courses requesting Social Diversity in the U.S. might be summarized as follows:

Social Diversity GE Requirements:

Goals:

Courses in **social diversity** will foster students' understanding of the pluralistic nature of institutions, society, and culture in the United States in order to become educated, productive, and principled citizens.

Expected Learning Outcomes:

1. Students describe and evaluate the roles of such categories as race, gender and sexuality, disability, class, ethnicity, and religion in the pluralistic institutions and cultures of the United States.
2. Students recognize the role of social diversity in shaping their own attitudes and values regarding appreciation, tolerance, and equality of others.

Goals of the course that fulfill the GE Learning Outcomes: Students will achieve the social diversity goals and learning outcomes by

1. Completing readings, attending lectures, and participating in class discussions and in-class assignments that will help students understand how the categories of race, gender, class, ethnicity, religion, and nation have shaped peoples' identities and the distribution of power and resources in the U.S. and elsewhere
 2. Describe theories of racial, ethnic, class, national, gender, and religious formation on exams and written assignments.
 3. Critically examine theories of race, gender, class, ethnicity, religion, and nation
 4. Engage with contemporary and historical debates on race, gender, class, ethnicity, religion, and nation.
 5. Access and critically examine movements framed by race, gender, class, ethnicity, religion, and/or nation in a wider socio-cultural context.
 6. Carry out in-depth analysis in a final paper, exam, or project comparing distinct moments of ethnic, racial, nationalist, gender, class, and/or religious mobilization or social movements and their effects.
3. Both the GE and course-specific learning objectives for History courses requesting Diversity: Global Studies might be summarized as follows:

Global Studies GE Requirements:

Goals:

Courses in Diversity – Global Studies will foster students' understanding of the pluralistic nature of institutions, society, and culture across the world in order to become educated, productive, and principled citizens.

Expected Learning Outcomes:

1. Students understand some of the political, economic, cultural, physical, social, and philosophical aspects of one or more of the world's nations, peoples and cultures outside the U.S.
2. Students recognize the role of national and international diversity in shaping their own attitudes and values as global citizens.

Goals of the course that fulfill the GE Learning Outcomes: Students will achieve the social diversity goals and learning outcomes by

1. Through reading in primary and secondary sources and in-depth class discussion, students critically examine the political, economic, social, cultural and philosophical development in the World.
2. Engage with contemporary and historical debates on the differences and similarities between cultures and peoples.
3. Access and critically examine ethnically, nationally or religiously framed movements in a wider socio-cultural and global context.
4. Carry out in-depth analysis in a final paper, exam, or project comparing distinct moments in human history and how they shaped the world in the past and today.
5. Completing readings, attending lectures, and participating in class discussions and in-class assignments that will help students understand the complexity of debates over international issues. They will describe theories of international issues on exams and written assignments.
6. Students will understand the roots and structures of today's globalized world.

II. Methods

An assessment of whether these objectives are met is effectively carried out by an examination of the work students are actually required to do for the course. Contributions in class discussions will be considered, but weighted more lightly, given the tendency for more confident students to contribute more to such discussions. Paper and exams will provide an understanding of students' abilities to think historically and to engage in analysis. This can be gauged by their responses to specific exam questions—asking

students to provide a perspective on history and relate that perspective to an understanding of the factors that shape human activity. Thus, exams for Historical Study courses will have at least one question that requires students to provide a perspective on the factors that shaped an event or theory. Similarly, for courses that include Diversity in the U.S. GE requirements, we will have at least one question that requires students to provide a description of the roles of categories such as race, gender, class, ethnicity and religion and how those roles have helped shape either their perspective or the country's perspective on diversity. For courses that include Diversity: Global Studies, we will ask one question that requires students to provide an understanding of some combination of political, economic, cultural, physical, social, and philosophical differences in or among the world's nations, peoples and cultures outside the U.S. In this way, we hope to measure the courses (and the students') progress toward the multiple objectives of the GE. In this way we should be able to ascertain whether they are acquiring the desired skills and not simply learning (and regurgitating) specific information.

Summary of Data:

A committee, appointed by the UTC Chair, will be asked to evaluate a sample of questions and papers, and to gauge how well the goals of the course seem reflected in them. Assessment of Historical Study, Social Diversity, and Diversity: Global Issues from the GE goals will be carried out primarily through the evaluation of formal graded assignments and ungraded in-class assignments. The committee will rank the assignments across a four-category scale that captures students' mastery of the GE goals. Students will complete an informal feedback survey halfway through the semester to assess their own performance, the pace of the class, and the instructor's effectiveness. A brief summary report will be written by the UTC Chair, and that, as well as the sampled questions themselves, will be made available to the instructor and to the Chair of the department. We intend to insure that the proposed courses adequately articulate these goals, teach toward them, test for them, and help students realize their individual potential to meet them. Assessments will be summarized and used to alter the course for the next teaching.

Ohio State Department Course Review Concurrence Form

The purpose of this form is to provide a simple system of obtaining departmental reactions to proposed new courses, group studies, study tours, workshop requests, and course changes. A letter may be substituted for this form.

Academic units initiating a request which requires such a reaction should complete Section A of this form and send a copy of the form, course request, and syllabus to each of the academic units that might have related interests in the course. Initiating units should allow at least two weeks for responses.

Academic units receiving this form should respond to Section B and return the form to the initiating unit. Overlap of course content and other problems should be resolved by the academic units before forwarding this form and all other accompanying documentation to the Office of Academic Affairs.

A. Information from academic unit *initiating* the request:

Initiating Academic Unit: History/Pharmacy Date: 10/11/17

Registrar's Listing: HIST/PHR

Course Number: 3708 Level: U P G Credit Hours: 3.0

Course Title: Vaccines: A Global History

Type of Request: New Course Group Studies Workshop Study Tour Course Change

Academic Unit with related interests asked to review the request (use a separate form for each unit while requesting concurrences from multiple units):

Date responses are needed: 10/25/17

B. Information from academic units *reviewing* the request:

- The academic unit **supports** the proposal
 The academic unit **does not support** the proposal.

Please explain:

We enthusiastically support this course, and when accepted, we will add this course as a level II elective in the Microbiology B.S. program.

The academic unit suggests:

Michael Ibbas

Signature of Department Chair

Signature of Graduate Studies Chair (if applicable)

Arts and Sciences Distance Learning Course Component Technical Review Checklist

Course: PHR 3708

Instructor: Jim Harris and Katie Summers

Summary: Vaccines: A Global History

Standard - Course Technology	Yes	Yes with Revisions	No	Feedback/ Recomm.
6.1 The tools used in the course support the learning objectives and competencies.	X			
6.2 Course tools promote learner engagement and active learning.	X			Use of CarmenZoom for synchronous discussion Carmen Discussion Boards
6.3 A variety of technology is used in the course.	X			CarmenZoom, Quizzes, SML, Mediasite interactive videos
6.4 The course provides learners with information on protecting their data and privacy.		X		Add privacy policy info for Prezi if still recommending for use.
Standard - Learner Support				
7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.	X			Email, phone, and chat service info with 8-HELP are provided.
7.2 Course instructions articulate or link to the institution's accessibility policies and services.	X			a
7.3 Course instructions articulate or link to the institution's academic support services and resources that can help learners succeed in the course.	X			b Resources to writing center have been included.
7.4 Course instructions articulate or link to the institution's student services and resources that can help learners succeed.	X			c
Standard – Accessibility and Usability				
8.1 Course navigation facilitates ease of use.	X			Recommend using the Carmen Distance Learning “Master Course” template developed by ODEE and available in the Canvas Commons to provide student-users with a consistent user experience in terms of navigation and access to course content.
8.2 The course design facilitates readability.	X			Consistent module structures are employed: comment D
8.3 The course provides accessible text and images in files, documents, LMS pages, and web pages to meet the needs of diverse learners.	X			Recommend that resources be developed to address any requests for alternative means of access to course materials.
8.4 The course provides alternative means of access to multimedia content in formats that meet the needs of diverse learners.	X			Recommend using the Carmen Distance Learning “Master Course” template developed by ODEE and available in the Canvas Commons to provide student-users with a consistent user experience in terms of navigation and access to course content.
8.5 Course multimedia facilitate ease of use.	X			All assignments and activities that use the Carmen LMS with embedded multimedia facilitates ease of use. All other multimedia resources facilitate ease of use by being available through a standard web browser.

8.6 Vendor accessibility statements are provided for all technologies required in the course.		X	Include accessibility statement for Secured Media Library
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Reviewer Information

- Date reviewed: 9/8/20
- Reviewed by: Steven Nagel

Notes:

^aThe following statement about disability services (recommended 16 point font):
 The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slids@osu.edu; 614-292-3307; slids.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

^bAdd to the syllabus this link with an overview and contact information for the student academic services offered on the OSU main campus.
<http://advising.osu.edu/welcome.shtml>

^cAdd to the syllabus this link with an overview and contact information for student services offered on the OSU main campus. <http://ssc.osu.edu>. Also, consider including this link in the “Other Course Policies” section of the syllabus.

Comment D: Module structures are consistent. Headers facilitate student actions (e.g., "Background Reading, "Week X Online Lecture" and "assignments". Online lectures are embedded within pages, which is great. This would be helpful to do with readings as well.