

Ancient Science, S'20: syllabus

Basic information

Instructor: Neel Smith. Contact information: <http://neelsmith.info/holycross/contact/>

Regular class schedule: TTh 2:00-3:15, Fenwick 420.

Course web site: <http://shot.holycross.edu/courses/science/S20/>

Course description

What are the goals, methods and subject matter of science? How does science relate to the broader social, religious and intellectual context of the ancient world? More specifically, we shall consider: the relation of science to mathematics, the relation of science to technology, the role of experiment in ancient science. Course assignments will include hands-on reconstructions of ancient experiments, and experience reading diagrams and texts from manuscripts of ancient scientific texts.

Course goals and objectives

This course will explore different approaches to studying the past, using different kinds of sources. We will stress traditional close reading of primary source material, with attention to how we can contextualize our reading of sources in translation without imposing anachronistic assumptions. Our approach, for example, will *not* from a modern definition of “science,” and then look for evidence of it in the Greco-Roman world. Instead, we will explore what the concept of *epistêmê* (one term often translated as “science”) includes.

We will replicate ancient scientists’ observations and working procedures to understand better the practical aspects of ancient scientific practice.

Through study and editing of sections of medieval manuscripts, we will gain insight into how ancient scientific work has been transmitted to today.

Course requirements and grading

Course grades will be determined by specification grading, an assessment system in which assignments are graded on a satisfactory/unsatisfactory scale according to a previously circulated rubric. One aim of specification grading is to give you control over your grades. Grades are not arbitrarily assigned – they are earned by the work that you do. Further, you get to decide how much time and energy you want to commit to the course in order to achieve the grade you desire.

Grade specifications

Course grades will be determined by your completion of course requirements in the following categories:

- group lab projects (total of 3)
- individual quizzes in class (total of 7)
- individual or group development of a course data set (total of 3 options)
- individual or group self-defined project, including possible oral presentation to the class

Group lab projects	Quizzes + datasets (10 total)	Self-defined project	Oral presentation	Base course grade
2	6	-	-	C
3	6	-	-	B-
3	7	-	-	B
3	8-10	-	-	B+
3	8-10	1	-	A-
3	8-10	1	1	A

For details on lab modules: <http://shot.holycross.edu/courses/science/S20/labs/>

For details on quizzes: <http://shot.holycross.edu/courses/science/S20/quizzes/>

For details on developing data sets: <http://shot.holycross.edu/courses/science/S20/datasets/>

For details on self-designed projects: <http://shot.holycross.edu/courses/science/S20/projects/>

Class attendance

Class attendance is required. You will not be penalized for a single unexcused absence, but beginning with the second unexcused absence, your course grade will be lowered by 1/3 of a letter grade for each unexcused absence. (There is no penalty for excused absences.)

Reading

Our reading will focus primarily on *primary sources*. Daily assignments are linked from the online course schedule. Note that linked reading should be completed *before* the class meeting the assignment is linked from.

Some online readings will be directly linked from the assignment page; others will be explicitly identified as available on Moodle. In addition, the following text book is on order in the College Book Store:

- *The Almagest: Introduction to the Mathematics of the Heavens* by Claudius Ptolemy; selections translated by Bruce M. Perry; edited with notes by William H. Donahue. Green Lion Press (Santa Fe, New Mexico, 2014). ISBN 978-1-888009-43-9

Academic integrity

You should be familiar with the college's policy on academic integrity: <https://catalog.holycross.edu/requirements-policies/academic-policies/#academicintegritytext> Much of our classwork will be collaborative. You are expected to take part fully on all parts of collaborative assignments.

If you have any questions or are uncertain how it applies to our course, please speak to me.

Diversity and inclusion

Studying the ancient Mediterranean world at Holy Cross is one way to challenge a centuries-long tradition that reserved that study for a privileged elite. The challenge goes beyond simply welcoming students however they identify their race, ethnicity, gender identity and expression, religious or spiritual tradition, or socioeconomic background. As we work to understand the multicultural world of the ancient Mediterranean, we reflect on and actively explore how this can help us recognize and respond to structures of power and privilege in our own lives.

This work is especially important today, when historically false images of the ancient world are being invoked to support particular political viewpoints. Studying Classics helps us see through erroneous assertions about the “whiteness” of the ancient Mediterranean, and reject claims that the Greco-Roman world is the special province of any ethnic or political group.

Academic accommodations

All academic accommodations need to be approved through the Office of Accessibility Services, in accordance with the college's policy on requests for reasonable

accommodation: <https://catalog.holycross.edu/requirements-policies/academic-policies/#coursepolicies>

If you are already registered with Accessibility Services, please let me know.

If you feel the need for accommodation based on the impact of a disability, you should contact the Office of Accessibility Services to discuss support services available.

Once the office receives documentation supporting the request for accommodation, you would meet privately with Accessibility Services to discuss reasonable and appropriate accommodations. You can reach the office by calling 508-793-3693 or by visiting Hogan Campus Center, room 505.

Resources for students

Contact information for many of the resources available to Holy Cross students (including Academic Services and Learning Resources) are posted at <http://shot.holycross.edu/S20-Resources-for-Students.pdf>

Confidentiality and mandatory reporting.

All instructors are mandatory reporters. This means that while I will keep any information you share about your life experiences in classroom discussions, written work, one-on-one meetings private whenever legally possible, I am required to share any information you disclose about sexual misconduct, a prior suicide attempt or an intention to attempt suicide.

I am expected to share information about sexual misconduct with the College's Office of Title IX Initiatives. You can also get in touch with Title IX directly at 508-793-3336 or titleix@holycross.edu. For more information, please visit <https://www.holycross.edu/sexual-respect-and-title-ix>. If you would like to discuss the matter confidentially, the following confidential resources are available to you: the Chaplains' Office, 508-793-2448; Counseling Center, 508-793-3363; Health Services, 508-793-2276.

Following the College's Suicide Protocol, if you disclose a prior suicide attempt or an intention or plan to attempt suicide, I will share that information with the Chair of our student CARE Team, who will engage in appropriate outreach.

Recording of classes

Please note that Massachusetts law prohibits recordings without the permission of all involved parties.