History of Science 206r: Archimedes and the Archimedean Tradition (new course)
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Half course (spring term), Th. 2-4.

A reading and discussion of selected works of Archimedes' with attention to mathematical, historical and philosophical issues. Open to undergraduates and graduates. We will expect students to attend and participate in the meetings of the seminar.

Presentations: Each student will be asked to give at least one *presentation* and to lead a seminar discussion about it. These student presentations can take one of two forms:

1. The student might begin with a précis of some material that the entire class has been assigned to read. He or she would then go on to highlight important points in the reading, to bring out difficulties in the reading or points needing amplification if there are some, and to frame questions suitable for discussion. The student would then lead the discussion that develops.

 Or

2. The presentation might be of a topic---germane to our general reading--- that the student has researched, but is not necessarily something that will have been read by everyone in the seminar. Again, the student would lead a general discussion regarding this.

 Especially in the second case, it may be useful to have a handout produced by the student and distributed a week before the presentation, to help people prepare for it.

Assignment for Feb. 5:

Read: the handouts (including the translation of two pages of *Measurement of the Circle*) and the related portions of Euclid's *Elements*. Specifically: XII.1, XII.2, XII.10.

Questions to think about:

1. Does Archimedes prove anything?
2. Is Archimedes doing something radically different from Euclid's *Elements?* If so, explain.
3. If you had to give an axiomatic account of Archimedes' Proposition 1, following the lines of his argument, and somewhat in the spirit of the *Elements,* how might you do it?
4. How difficult is it to draw the diagram from the translation alone?
5. What can we learn by studying the translation as opposed to the accounts in Heath or Dijksterhuis?

Reading for Feb 12:

Read the handouts related to the *Method* that we are distributing : that is, the introduction and prop. 1 of *The Method* in all three versions (the ``literal translation", . Dijksterhuis's version, and Heath's version).