HSCI 3833-001, PHSC 102, TuTh 9:00-10:15am
The Scientific Revolution -- Fall Semester 2013
First Day Handout

For complete course information go to:
http://faculty-staff.ou.edu/B/Peter.Barker-1/3833/

Instructor: Peter Barker, e-mail: BarkerP@ou.edu, tel.: 325-2242
Office: PHSC 617 Office hours: TuTh 10:30-noon, or by appointment.

Required texts
William H. Donahue, Selections from Kepler's Astronomia Nova, Green Lion Press, 2005
Maurice Finocchiaro, The Essential Galileo, Hackett, 2008

Recommended texts

Preliminary course outline (for complete information see course web site)
Week 1 begins Aug 20: Introduction – SR overview
Week 2 begins Aug 27: Aristotle's physics and cosmology:
   Aug 29: Graded test on class Operations and Procedures
   reading: parts of Aristotle On the Heavens (De caelo)
Week 3 begins Sept 03: Ptolemy's cosmos and its problems
   reading: part of Ptolemy's Almagest.
Week 4 begins Sept 10: Science in Islam – the foundation of Western science
   reading: Ragep 'Copernicus and his Islamic Sources'
Week 5 begins Sept 17: Copernicus – 1: education, astrology and Commentariolus
   reading: TBA
   Sept 19 Last date to submit Research Essay #1
Week 6 begins Sept 24: Copernicus – 2: Lutheran response
   reading: Barker 'Constructing Copernicus'
Week 7 begins Oct 1: Tycho Brahe, Patronage and laboratory Science
   reading: Shackelford 'Tycho Brahe: Laboratory Design and the Aim of Science'
Week 8 begins Oct 08: Kepler's New Astronomy
   reading: Donahue, Selections from Kepler's Astronomia Nova
Week 9 begins Oct 15 Galileo: Pisa to Padua
   reading: Crowe pp. 156-172; Osler 61-76; Galileo, Sidereus Nuncius = Finnochiaro pp. 1-84.
Week 10 begins Oct 22: Galileo Game Week or Galileo essay week
   During this week students will either participate in the Galileo game,
   or complete an alternative essay assignment carrying the same course credit.
   Week 11 begins Oct 29 Galileo: 1616 and all that
   reading: Galileo, Letter to the grand Duchess Christina = Finnochiaro pp. 109-45; Proceedings against Copernicanism, Finnochiaro pp. 168-78
   Oct 29 Last date to submit Research Essay #2 if you are not participating in the Galileo game
Week 12 begins Nov 5 Galileo: *Dialogo*, trial and sequel.
Nov 5 reading: Finnochiaro 190-271; Nov 7 reading: Finnochiaro 271-294
Week 14 begins Nov 19: Newton, science and religion.
Nov 21 Last date to submit Research Essay #3
Week 15 Nov 26 (one class only) VISIT to History of Science Collections, Bizzell Library 5th floor
Nov 27 – Dec 1 Thanksgiving Break
Week 16 begins Dec 03: Tuesday Dec 4: Conclusion and Review exercises
Tuesday Dec 11 Final Exam: 1:30-3:30pm in PHSC 102

**Grades:** Grades will be computed as follows: O&P Test = 10%; research essays #1, #3 = 20% each; EITHER participation in in Galileo game OR submission of research essay #2 = 20%; final exam = 20%; other class participation = 10%. There is no curve. Late delivery of essays will not be permitted except under circumstances of emergency or illness, verifiable to the satisfaction of the Instructor. However, it is the policy of the University to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays. If you wish to be excused for religious observances, please contact your Instructor at least one week before you will be absent, in order to reschedule the corresponding work or examinations.

There will be a graded test covering course organization and policies on Tuesday, December 10, 8:00-10:00am. It will be in essay format. Blue Books will be provided. Exam questions will be posted on this site, one week before the exam. Students may consult books and notes during the final exam, but transcription of complete answers is prohibited.

Students will also complete two mandatory research papers, the first to be submitted at any time up to September 19, and a second at any time up to November 21. See separate instructions for Research Paper #1 and Research Paper #3, and grading scheme for essays, posted on D2L.
In addition, students may elect to participate in the Galileo game during week 12 or submit an additional research paper (Research Paper #2). This portion of the grade will be given for participation. Students will receive the full participation grade on completion of all elements of the Galileo game (pre-test, game play and post-test) and will not be graded on their answers on the post-test. Alternatively, students will receive the full participation grade on completion of Research Essay #2, in the same format as Research Essays #1 and #3. Again, see grading scheme for essays, posted on D2L.
Class participation, and especially participation in discussion exercises, will make up the final 10% of the grade. Other than excused religious holidays, students absent from more than three classes will be penalized one letter grade within this grade item.

**Academic honesty** We assume you understand and adhere to the norms of academic honesty stated in *A Student’s Guide to Academic Integrity at the University of Oklahoma*. For links to this site see the course web page. We also assume you are honest unless proven otherwise, so if you are not sure about something ask us. We encourage you to work together (and with us) to prepare for class, exams and essays—on the understanding that the final version is all your own work. ‘Plagiarism’ used to mean copying out of a book. Electronic media like Wikipedia pose special problems. While we encourage you to use them as sources of ideas and information, no sentence that you submit as your own work should be identical to any sentence in a book or electronic medium. If we judge that work you submit fails to meet these standards, the following things will happen:
(1) On the first occasion, you will be asked to amend the work and resubmit it to receive a grade.
(2) On the second occasion you will receive a formal admonition, as explained in Rights and Responsibilities under the Academic Misconduct Code, and a grade of zero for the work.
(3) On the third occasion, a complaint of academic misconduct will be filed, as explained in Rights and Responsibilities under the Academic Misconduct Code.

**Students with disabilities** Students in this course who have any disability that may prevent them from fully demonstrating their abilities should contact the Instructor as soon as possible to discuss accommodations necessary to ensure full participation and facilitate their educational opportunities.