HSCI 3313 Science and Technology in Asian History
Spring 2012
T-TH 4:30-5:45

Instructor: Dr. Suzanne Moon
Office Hours: T,TH 2-4, 5:45-6:15, or by appointment
Office: PHSC 624
suzannemoon@ou.edu
325-2076

Graduate Teaching Assistant: Daniella McCahey
Office Hours: Th 10:30-1
Office: PHSC 608
d-mccahey@ou.edu

Course Description:
This course examines the role of science and technology in Asian history from antiquity to the present. We examine the influence and interaction of knowledge traditions in East Asia, South Asia, and Southeast Asia, especially the strong regional influence of Chinese and South Asian practices and priorities in science and technology. We examine how science and technology circulates around and beyond Asia, and their eventual interactions with European approaches to science and technology.

Required Texts:

Biggs, Quagmire : Nation-Building and Nature in the Mekong Delta.

Elman, A Cultural History of Modern Science in China.

Other readings will be available on D2L.

Staying in touch:
For general course announcements or information about changes to the syllabus or readings, please check your email. It is the best way to get you the information you need as swiftly as possible. I will also post announcements on the course’s D2L site. For more individual matters – if you have a question or concern you’d like to discuss, or if I have a question about your work, I prefer to meet in person. Even simple issues can get too complicated to deal with electronically.
You can always meet me before or after class to set up an appointment. If you do send me email with a problem or question, I will usually ask you to set up a time to meet and talk it over.

**Course Requirements**

*Class preparation:* Students should complete the assigned readings before coming to class. Any day there is a reading, students may be given a quiz on the subject matter of the reading.

*Attendance:* Students should attend class regularly and actively (listening and participating) to do well. Attendance policies are as follows:

No more than 3 missed course meetings during the semester: 50 pts
4-5 missed course meetings: 0 pts
6 or more missed course meetings: Automatic failure for the course.

Please note that in some cases, continually showing up late for class without a reason may count as an absence.

Here's how absences work: The first three absences - the free ones - count for ANY and ALL kinds of absences. If you are sick, if you are out of town, if you have a family emergency, if you just miss class. So if you use up three absences for no special reason and THEN are sick for two days (for example) you still have five absences, not three. However, if you were really sick for five or six days, then you still only have three. “Sick and acceptable excuse” exceptions only kick in after you’ve used up your three absences. So you should save your absences for moments when you really can’t make it to class for legitimate reasons.

If you have circumstances of whatever kind that will require you to miss many classes (more than three) please come speak to me about them as soon as you can, so we can figure out the best course of action for you.

*Grades:* All exams and assignments are mandatory for all students. Please be aware that by turning in an exam or written assignment, you are pledging that the work you turn in is your own, created specifically and uniquely for this course. We will be using Turnitin (the plagiarism detection software) through D2L this semester for all written assignments. Also please note that there are no makeups for reading quizzes or the geography quiz. Please see me if you have special circumstances.

*Exams:*
- Prep quiz (before midterm) 50 pts
- Midterm 100 pts
- Final 125 pts
- In-class reading quizzes (5) 50 pts
Geography quiz  

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essay #1</td>
<td>125 pts</td>
</tr>
<tr>
<td>Essay #2</td>
<td>125 pts</td>
</tr>
<tr>
<td>Mini-research projects (2)</td>
<td>100 pts (50 pts each)</td>
</tr>
<tr>
<td>Research Essay and Presentation</td>
<td>200 pts</td>
</tr>
<tr>
<td>Attendance</td>
<td>50 pts</td>
</tr>
<tr>
<td>Participation</td>
<td>50 pts</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1000 pts.</strong></td>
</tr>
</tbody>
</table>

**Essays**

ALL WRITING FOR THIS CLASS MUST BE SPECIFICALLY WRITTEN FOR THIS CLASS. Turning in something written for another class is academic misconduct and may result in a failing grade on the assignment or in the course.

When you write for my class, you never have to do it without help. I am always happy to provide feedback on drafts or outlines of essays (but please provide these at least three days in advance of the due date to make sure I have enough time to respond.) I am also happy to just discuss your paper or your argument. You may also take advantage of OU’s writing center. There you can get help on all aspects of your writing, and learn to produce more polished results more quickly. Because writing always goes best when it is an iterative process, I offer the opportunity to rewrite any essay for which you received any grade less than an A-. With my approval, you have one rewrite opportunity for each essay. However, you may only rewrite COMPLETED assignments, not partial, or clearly unfinished work. You MUST come speak to me before you rewrite, so we can discuss your strategy. Please be aware that a rewrite does not guarantee a higher grade, but discussing your paper with me first will help you do the best job you can. All essays are expected to meet university-level standards of quality in matters of content and presentation (i.e. grammar, spelling, organization, etc.) Please double space essays and use a 12 pt. readable font like Times or Arial. Margins should be one-inch all the way around.

**In the classroom**

Please turn off or silence all cell phones, ipods or other mp3 players, blackberries etc and put them away before class starts. I prefer that you don’t use laptops in class, but please see me if this will create a hardship for you. We will spend a good bit of class time on discussion, both in small groups and as a whole. Our environment for discussion should be as civil and open as possible, so please exercise common-sense courtesy toward your fellow students.

**Collaboration**
Subjects like history are nearly always best learned collaboratively, which is why I provide as much time as possible for discussion in class, and I encourage you to discuss topics and study together outside of class as well. In essay writing, it is often helpful to talk over your ideas with me or your fellow students. This is fine, providing that you do not step over the line into collaboratively writing, or designing essays, which is prohibited. If you are unsure where the line is, talk to me.

**Plagiarism**

Plagiarism is passing off someone else’s work as your own. This can happen in many ways: straight copying or cutting and pasting from another source, too-close paraphrasing (i.e. copying and substituting a few synonyms here and there), quoting without providing a proper citation of the source, and when students collaboratively develop an assignment that was meant to be done individually. Plagiarism is cheating and hence a serious offense. It prevents an individual from learning, and creates an unfair and dispiriting atmosphere in the classroom. Because I am concerned about plagiarism, I do take the time to look for it. We will be using Turnitin, the plagiarism detection/prevention software this semester for that reason. If I find a case of suspected plagiarism, I will ask the student or students involved to talk to me and explain the situation. In the event that it is determined that a student has intentionally plagiarized any portion of an assignment, I reserve the right to give a failing grade for the assignment, or for the class. If you are not sure what is plagiarism and what is not, please come talk to me and look over the “9 Things You Should Know About Plagiarism” document available on D2L. I will be very happy to help you avoid unintentional plagiarism.

NOTE: For the purposes of this class it is considered Academic Misconduct to recycle material written for another class and use it in any graded assignment for this course. You may certainly bring your knowledge and use it. You may certainly use books you have read for another class as a source, if I have indicated that this permissible. However, to repeat what I’ve stated above: ALL WRITING FOR THIS CLASS MUST BE SPECIFICALLY WRITTEN FOR THIS CLASS.
Schedule of Class Meetings

Week 1
1/17 First class meeting - introduction

1/19 Technology and the ancient world: the rise of Asian cities and civilizations

Week 2
1/24 What is “science” and who are “scientists” in Ancient Asia?
Mini-research project #1 due by class time.

1/26 Theories of Chinese Science and Medicine
Sivin, "State, Cosmos, and Body in the Last Three Centuries B. C."

Week 3
1/31 India: Scientific and Technical Bases of Indic Societies
Pingree, "The Logic of Non-Western Science: Mathematical Discoveries in Medieval India."

2/2 Technology and Environment in Pre-modern Asia
Christian Lamoroux, “From the Yellow River to the Huai: New Representations of a River

Week 4
2/7 Knowledge and Technology Exchange: Gunpowder and Iron
Sun and National, *Chinese Military Technology and Dai Viet, C.1390-1497*.

2/9 Knowledge and Technology Exchange: Buddhism and the circulation of knowledge
Salguero, *Buddhist Medicine in Medieval China: Disease, Healing, and the Body in Crosscultural Translation (Second to Eighth Centuries C.E.)*: ch 1, 25-79.

2/10, 11:30pm, Essay #1 due.

Week 5
2/14 Early Modern Asia: knowledge and power
The Workshops of Asia: Ming China and Southeast Asia
no reading.
2/16 Translation and exchange: European sciences in China and Japan
Prep quiz for midterm.

**Week 6**
2/21 European science and Technology in Asia: Library Visit
Elman pp. 68-131.
Mini-research project #2 due by class time.

2/23 Industrial revolution - the Asian connection.
Wang, "Discovering Steam Power in China, 1840s-1860s."

**Week 7**
2/28 Mid-term Exam

3/2 Meiji restoration

**Week 8**
3/6 Technology, Science, and Nationalism: India and the paradoxes of the “civilizing mission”
Sarkar, "Technological Momentum."

3/8 Embedding the colonial world in the Industrial Revolution
no reading

3/9 Essay #2 due, 11:30pm.

**Week 9**
3/13 Technology, Nationalism and the end of Imperial China

3/15 Why do Geologists Make Such Good Patriots? Science and Nationalism in China
Shen, "Taking to the Field: Geological Fieldwork and National Identity in Republican China."

3/16 Research topic proposal due, 11:30pm.

**Week 10 (SPRING BREAK)**
3/20 No class

3/22 No class
Week 11 Environment, Colonialism, and Postcolonialism: Exploring 20th century Vietnam


Week 12
4/3 Biggs: 153-236

4/5 Science and Industry: The Asian Push
Neushul and Wang, "Between the Devil and the Deep Sea: C. K. Tseng, Mariculture, and the Politics of Science in Modern China."

Week 13
4/10 Traditionalism, Nationalism, Modernity
Ma, "The Medicine Cabinet: Korean Medicine Under Dispute."

4/12 Out of town
TBA

4/13 Draft 1 of research paper due.

Week 14 High Tech Asia
4/17 The Asian Space Race
reading TBA

4/19 TBA

Week 15
4/24 Presentations

4/26 Presentations

4/27 Final essay due, 11:30pm.

Week 16
5/1 Presentations

5/3 Presentations

FINAL: 5/10, 4:30-6:30pm.
Bibliography


