***History 3550: Origins of Scientific Thought***

Fall 2015 / Tues-Thurs 9:30-10:45

**Dr. Wilson-Bowers**

**Contact information:**

Office: 112 Read Hall

Office hours: Tues, Thurs 11:30-12:30 and by appointment

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**Course description:**

Humans have long studied and explored the natural world around them. This course explores how ancient observations and theories about the natural world led to the development “natural philosophy”as a field of study. We will trace changes throughout the middle ages that led from natural philosophy to “modern” science. We will be examining attitudes and beliefs about the natural world and man’s place within it in a variety of historical settings, as well as how those attitudes have changed over time. While we will be covering a wide range of scientific ideas, the emphasis is on the socio-cultural context that allowed and encouraged the development of these ideas. This course is meant to be an introduction to the history of science and does not require scientific or mathematical knowledge.

**Accessibility Statement**

Any student requiring an academic accommodation due to a disability should let me know as soon as possible. For any such accommodation, please register with the Disability Center (<http://disabilitycenter.missouri.edu>), S5 Memorial Union, (573) 882-4696.

**Required books:**

David C. Lindberg, *The Beginnings of Western Science*, 2nd ed.

Peter E. Pormann and Emilie Savage-Smith [**noted as P&SS**], *Medieval Islamic Medicine*

Additional readings are on Blackboard (<http://bblearn.missouri.edu>)

**Behavior Expectations**

As a member of this class you are expected to attend regularly, to arrive on time, and to participate during class. While 1-3 absences during the semester are acceptable, **repeated unexcused absences will be reflected in your final grade**. **In addition, continual late arrival or inattention during class (texting, doing other homework, chatting with others) will lower your final grade**.

**You are expected to abide by the Code of Academic Integrity**. The university’s official statement on academic integrity is as follows: “Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. The academic community regards breaches of the academic integrity rules as extremely serious matters. Sanctions for such a breach may include academic sanctions from the instructor, including failing the course for any violation, to disciplinary sanctions ranging from probation to expulsion. When in doubt about plagiarism, paraphrasing, quoting, collaboration, or any other form of cheating, consult the course instructor.” We will discuss paraphrasing and plagiarism in further detail in class, but if you have any questions please do come talk to me.

**Grading:**

Exams: There will be a take-home midterm and a final exam, for which you primarily will write essays.

Readings Questions: Most weeks you will read primary source excerpts and some articles of secondary literature which are available on Blackboard [noted as Bb]. These readings have assigned questions which may be submitted online. Each question should be answered in 1-2 full paragraphs (roughly ½-1 page double-spaced) that show your interpretation of the reading. Quotes from the readings may be used but only as a means of supporting your analysis. These assignments may be turned in online via Blackboard, but will not be accepted via email. Questions are due before class and may not be turned in late.

Grading for readings questions is as follows:

4 = A, a thorough and well-supported response

3= B, a good response, but lacks either some explanation or support

2= C, an adequate response that shows some effort but needs to be more fully explained or lacks any support

1 = D, insufficient

0= F, no effort

Analytical papers: You are required to complete 2 brief analytical papers related to assigned class readings. Assignments will be See details below.

Research paper: You will spend the semester researching and writing a short research paper on a topic of interest to you. This is a required paper for the course. Full details are attached below.

Participation: Your participation grade depends on both attendance at class and participation in class discussions.

 0-4 absences: A-B, depending on contributions to class discussion

 5-8 absences: C-D, depending on contributions to class discussion

 9 or more absences: F

**Weighted grades:**

Readings Questions 10%

Analytical papers (2@15%) 30%

Research paper 20%

Midterm 15%

Final 15%

Participation 10%

**Grade Scale:**

A+ 97-100

A 93-96

A- 90-92

B+ 86-89

B 83-85

B- 80-82

C+ 76-79

C 73-75

C- 70-72

D+ 66-69

D 63-65

D- 60-62

F 59 and below

**Schedule of topics and readings:**  The schedule may be subject to adjustment over the course of the semester, including both reading assignments and paper due dates. Any changes will be discussed in class and posted on Blackboard.

**Week 1: Ancient science**

**Text reading:** Lindberg,ch. 1

**Bb:** Lindberg, “Medieval Science and Its Religious Context”

**8/25** Course introduction: What is History? What is Science?

**8/27** Ancient world I: Egypt

**Week 2: Ancient Greece**

**Text Reading:** Lindberg, ch. 2 (pp.21-34)

**Bb**: Lloyd, *Early Greek Science* (pp. 16-49)

**9/1** Ancient world II: Mesopotamia

**9/3** Pre-Socratic philosophy

**Week 3: Ancient Greece**

**Text Reading:** Lindberg, pp. 34-44; 111-119

**Bb:** Hippocrates (3 readings); Plato [2 excerpts]

**9/8** Hippocratic medicine [**RQ due]**

**9/10** Plato **[RQ due]**

**Week 4: Ancient Greece**

**Text Reading:** Lindberg, ch. 3; P&SS Intro, ch. 1

**Bb**: Ancient Views of Women; Aristotle

**9/15**  Ancient views of women [**RQ due]**

**9/17** Aristotle **Plato/Hippocrates paper due**

**Week 5: Hellenistic science**

**Text Reading:** Lindberg, ch. 4-5, and pp. 119-131; P&SS ch. 2

**Bb**: Ptolemy, “ Galen, “The Hand”

**9/22** Alexandria andHellenisticscience **[RQ due- Ptolemy] Research paper topic due**

**9/24**  Hellenistic medicine to Galen **[RQ due-Galen]**

**Week 6: Science of Late Antiquity**

**Text Reading:** Lindberg ch. 7; P&SS ch. 3, 4

**Bb**: Lindberg, “Medieval Science and Religion”; Principe Intro & ch. 1

**9/29**  Roman science / Christianity

**10/1** Early medieval science  **Pick up midterm**

**Week 7: Islamic science**

**Text Readings:** Lindberg 8; P&SS ch. 5, 6, conclusion

**Bb**: Principe, ch. 2

**10/6** Islamic science

**10/8** Islamic medicine / Discuss text **Midterm questions due**

**Week 8: Revival of Learning in Europe**

**Text Readings:** Lindberg, ch. 9-10

**Bb:** Adelard of Bath; Roger Bacon; Nicole Oresme

**10/13** 12th Century Renaissance

**10/15** Rise of universities / medieval cosmos

**Week 9: Alchemy and Secrets of Nature**

**Text Readings:** Lindberg, 11-12

**Bb:** Principe ch. 3

**10/20** Alchemy **Revised research topic and annotated bibliography due**

**10/22** Secrets of Nature

**Week 10: Medieval Health and Disease**

**Text Reading:** Lindberg, ch. 13

**Bb**: Jordan of Turre; Arnaud of Villanova; Guy de Chauliac

**10/27**  Health and disease

**10/29**  Medieval Leprosy **[RQ due]**

**Week 11: Black Death**

**Text Reading:**

**Bb:** Horrox excerpts

 **11/3** Black Death

**11/5**  Black Death

**Week 12: Printing**

**Text Reading:**  Lindberg, ch. 14

**Bb**: Columbus; da Gama

**11/10** Print technology **Research paper rough drafts due**

**11/12** Exploration

**Week 13: Exploration**

**Bb:** Barrera article

**11/17**  Exploration

**11/19** Columbian Exchange

**Week 14**

**11/24 Thanksgiving holiday**

**11/26** **Thanksgiving holiday**

**Week 15: Anatomy**

**Bb:** Piergilius;Park, “Criminal and Saintly Body”; Heseler

**12/1**  Medieval anatomy

**12/3**  Renaissance anatomy **Research papers due**

**Week 16: Copernican revolution**

**Bb:** Copernicus

**12/8** Calendar reform

**12/10** Copernicus

**Final Exam: Wednesday Dec. 16, 10:00 a.m. – noon**