HON 202: The Renaissance and the Scientific Revolution

Spring 2018
Meeting Times and Location:
MWF 10:30 – 11:30, PH 108

Instructors:

Dr. Russell Martin, Professor of History
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Office Hours:

Dr. Martin
MWF, 9:20AM-10:20AM, and by appointment

Dr. Knop:
MWF 12:50AM-1:50PM, and by appointment

Prerequisite: Successful completion of HON 201.

Course Description: The Renaissance and the Scientific Revolution were cultural and intellectual movements in Europe that spanned the 14th to 17th centuries. The period’s strong emphasis on learning about the world, nature, and human beings, and the birth of a new approach to science and culture, distinguish this period from the Middle Ages. Understanding perspective and human anatomy transformed art and gave rise to masterpieces such as Michelangelo’s David, Botticelli’s Venus and da Vinci’s Last Supper. The printing press allowed for the dissemination of information to a wide audience and encouraged discoveries in science and mathematics. New thinking about the self and authority led to the reformation of the Western Church by Protestant leaders, such as Luther and Calvin. Advances in navigation led to the investigation of “the new world.” This course studies contributions to the ongoing quest for knowledge, and includes the works of Shakespeare, Dante, Francis Bacon, Descartes, Galileo and Copernicus. (4 credits; HC)
Format of the course:

In a typical week, the two professors of the course will lead the course in a primarily-lecture format on Monday and Wednesday. Students are encouraged to participate actively, by asking questions and bringing up points of discussion during these lectures. Most Fridays, the class will be held in a discussion format. There will usually be a primary source you will have read to focus the discussion. All students are expected to actively participate in this discussion. Two students will be appointed each week to lead the discussion. When you lead the discussion, you should be ready to get the discussion started, to prompt responses from other students, and to steer the discussion when it wanders off topic, or when a current line of thought is played out. The two professors will lead the discussion the first week of class to model this for you.

When you set to lead the discussion, you are strongly encouraged to do additional outside reading and preparation. You may wish to seek out other secondary sources related to the primary source we are discussing. This could be to seek out scholars’ interpretation of the work, or to provide additional context regarding the work’s place in history, or how it relates to other things we have talked about in the class. If you think it is helpful, you may bring a small number of computer slides to show during the discussion. However, it is important to know that these discussions are not presentations. The entire class should be discussing, with you leading.

Assigned Textbooks:
3. Additional readings that will be made available online.

Outcomes:
In order to successfully complete this course, you will

1. demonstrate proficiency in the analysis of primary sources.
2. demonstrate proficiency in researching historical topics.
3. demonstrate critical analysis and examination of information/data.
4. use facts, data, and information to support opinions and viewpoints.
5. demonstrate debating skills; the careful crafting of argument, and persuasion.
6. show familiarity with the roots of, the changes in ideas during, and the prominent contributors to science during the Renaissance and the Scientific Revolution.
7. produce writing about history based on focused reading and research.
8. demonstrate understanding of the interplay between history, religion, philosophy, mathematics, and science.
9. express understanding of the roots of technological advances and inventions.
These outcomes will build upon the skills initially developed in HON 201 and will contribute to the outcomes stated in the Honors Sequence Assessment plan to develop superior capabilities of critical reading and effective research and expression. Writing and oral presentation skills, as required by that plan, are required in this specific course, as is an exposure to the methodologies of both History—specifically History of Religions—and Mathematics, and to the academic perspectives of each as a humanity and a science respectively. These will be demonstrated by the instructing faculty, exemplified by the readings, and applied by the students. The selection and analysis of primary sources will contribute to students’ abilities to ask meaningful questions and to carefully consider the functionally interactive nature of history, religion, philosophy, mathematics, and science, which will enhance students’ ability to reflect critically on, and to integrate knowledge of and issues within the broader societal, global, and human context.

### Grading:

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<tr>
<th>Grading</th>
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<tbody>
<tr>
<td>93-100</td>
<td>A</td>
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<tr>
<td>Attendance/Participation</td>
<td>20%</td>
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<tr>
<td>90-92</td>
<td>A-</td>
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<tr>
<td>Primary Source Paper 1</td>
<td>15%</td>
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<tr>
<td>88-89</td>
<td>B+</td>
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<td>Primary Source Paper 2</td>
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<td>83-87</td>
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<td>Final Paper</td>
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<td>80-82</td>
<td>B-</td>
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<td>Final Exam</td>
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<td>78-79</td>
<td>C+</td>
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<td>73-77</td>
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<td>60-62</td>
<td>D-</td>
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<td>Below 60</td>
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**Participation:** Participation is 20% of your grade. Several factors will be considered when determining your participation grade:

- Your ability to engage in class discussions in a meaningful and productive way (by answering questions and asking meaningful questions that encourage discussion).
- Your leadership of the discussion on your assigned days.
- Attending all classes
- Being prepared for each class – demonstrating that you have not only done the required reading prior to class, but that you have researched and thought about the topic further.
- Attending on-campus (or off-campus) talks and colloquiums related to the content of the course, including talks/poster presentations at URAC.

**Primary Source Papers:** There will be two primary source papers due; one that focuses on humanities and one that focuses on science or mathematics. The body of each paper should be 1000 words in length. Please be sure to use proper citations. Primary sources can be found in several locations including the library and online at The Hathi Trust Digital Library [https://www.hathitrust.org/](https://www.hathitrust.org/) and at Gallica [http://gallica.bnf.fr/](http://gallica.bnf.fr/). (The
instruction librarians, whom students have already encountered in HONS 201, are available for one-on-one research consultations and assistance with information literacy.

For this assignment, you will be asked to select a primary source, read and analyze it, and write a paper that focuses on a particular aspect. The paper should include a short summary of the contents of the source, a thesis, and evidence to support its thesis (e.g. passages from the source, relevant commentaries). As you read, you should consider questions such as: How do the culture and time period affect the author’s point of view? How does this primary source exemplify the ideals of the Renaissance? How do the various aspects of culture interact to produce this specific text?

**Due Dates:**
1. Primary Source Paper #1: Friday, February 15th
2. Primary Source Paper #2: Friday, March 29th

**Final Paper:** The final paper for this course is due Friday, April 26th. The body of your paper should be at least 3000 words in length. Although you may choose your own topic, a list of examples could include (but is not limited to):
   - Perspective in Art
   - Architecture of the Renaissance
   - Navigation, Exploration, and Colonization; motivations, impact, technology used (e.g. compass, Napier’s logarithm tables).
   - Advances in astronomy; controversy with Galileo, the role of the church, Tycho Brahe, Kepler, etc.
   - The Influence or Effects of Religion(s)
   - Science and the Church
   - Art and the Church

**Paper Requirements:**

- at least 3000 words
- must integrate humanities and science
- at least five sources (at least one must be a primary source)
- must contain a bibliography
- proper citations should be used
- the paper should be self-contained (in other words, your paper should be readable to someone who has not taken this class)

**Paper Deadlines:**

- paper topic deadline: Wednesday, February 27th (2/25 of paper grade)
- bibliography deadline: Wednesday, March 20th (3/25 of paper grade)
- final copy deadline: Friday, April 26th

**Final Exam:** The final exam will be cumulative of material from the entire course.
**Academic Integrity:**

*Central to the purpose and pursuit of any academic community is academic integrity. All members of the Westminster community, including students, faculty, staff, and administrators, are expected to maintain the highest standards of honesty and integrity, in keeping with the philosophy and mission of the College.*

*See the Westminster College 2017-18 Undergraduate Catalog.*

Some forms of academic dishonesty include (but are not limited to): copying a classmate’s work (homework, quizzes, or exams), divulging answers or information to another student during a quiz or exam, using unauthorized aids (e.g., calculator/cell phone programmed with formulas or notes) during an exam or quiz. Academic dishonesty will not be tolerated in this class. The penalty for academic dishonesty is minimally the grade of 0 on the assignment and, except for unusual circumstances, a grade of F for the course. Any event of academic dishonesty is reported to the Dean of the College. Other details of violations and consequences are given in the Catalog.

**Accessibility Statement:** Westminster College actively strives for the full inclusion of all our students. Students with disabilities who require access solutions for environmental or curricular barriers should contact Faith Craig, Director of Disability Resources. Phone: 724-946-7192.

**Outline of Course Topics**

Below is a rough outline of the topics we plan to discuss approximately in the order they will appear. Some, but not all, of the primary sources you’ll be assigned are listed below. A schedule online will be updated throughout the semester with due dates for specific readings and topics for specific days.

- Introduction to the Renaissance as a concept; the roots of the Renaissance; *de Rerum Natura* by Lucretius
- Ptolemy’s Universe
- The abacists and the algorists
- Dante Alighieri; *de Vulgari Eloquentia*
- Petrarch and the foundation of Humanism
- The rediscovery of geometry; the Hindu-Arabic numeral system; the introduction of algebra
- Brunelleschi: perspective and architecture
- Mathematics in Renaissance art; Alberti, *Della Pittura*
- Pico della Mirandola, *Oration on the Dignity of Man*
- Poggio and Marsilio
- Leonardo da Vinci, Mad Scientist
- Michelangelo: human anatomy and art
- From Galen to Vesalius: the origins of modern surgery
• The Protestant Reformation
• Copernicus and heliocentrism
• Galileo, controversy, and the cusp of modern “natural philosophy”
• Kepler and practical heliocentrism
• The treatise of Lorenzo Valla on the *Donation of Constantine*
• Voyages of exploration (exploitation?)
• Francis Bacon and the proto-“scientific method”
• René Descartes
• Isaac Newton, mechanics, and calculus
• The beginnings of modern science; Dolnick, *The Clockwork Universe*