



**FACULTY OF ARTS  
DEPARTMENT OF FRENCH, ITALIAN AND SPANISH**

***Modern Man, Science, Discoveries* ROST 499.03 L01**

**Fall 2012**

**Location : CHD 419      Days : M, W, F 13:00 to 13:50**

**INSTRUCTOR'S NAME and E-MAIL:** Dr. Pierre-Yves Mocquais; [mocquais@ucalgary.ca](mailto:mocquais@ucalgary.ca)  
**OFFICE LOCATION and TELEPHONE :** CHD 325- 403-220-6384  
**OFFICE HOURS/PERMANENCE :** Mondays and Wednesdays from 14 :00 to 15 :00 or by appointment

**DESCRIPTION**

This course is meant to be an investigation and, as such, will include a significant research dimension and will be strongly interactive.

Because the extraordinary transformation in knowledge called the "Renaissance", started in Italy then expanded to France, Spain and the remaining European countries, the objective of this course will be to try to understand the role of these three countries in the profound shift in thinking and "method" (David Deming) that took place between the 14<sup>th</sup> and the 17<sup>th</sup> centuries and which gave rise to what has been called the "scientific revolution".

**Part I:** We will first consider that, science and technology, contrary to many established prejudices, are not absent from the Middle Ages too often branded as the "Dark Ages". But the Aristotelian view of the world, from cosmology to physics, that dominates the Middle Ages, is replaced at the time of the Renaissance with a new understanding and a new methodological approach. This is what is often referred to as a paradigm shift, one of the most important in human history, the one to which philosopher, psycho-analyst and semiotician Julia Kristeva refers when she posits that, in the 14<sup>th</sup> century, the Western World (that is Western Europe at the time) shifted from a system of meanings based on the symbol to one based on the sign.

**Part II:** We will then bear in mind that the scientific revolution has many causes, from the impact of 14<sup>th</sup> century plague or Black Death as well as an evolution in standards of governance, to the rediscovery of ancient philosophy and science, to the influence of Islamic philosophy itself largely influenced by Platonism, to the questioning of superstitions and the rise of the reformed movement, the "discovery" of new continents, technological and scientific breakthroughs, whether in architecture, medicine or publishing, that all lead to a new understanding of the place of "man" in the universe and his relationship to the natural world. During this second part of the course, students will be invited to present a chapter, or part of a chapter of Peter Dear *Revolutionizing the Sciences: European Knowledge and Its Ambitions, 1500-1700*.

**Part III:** Thirdly, we will examine the lives of some of the greatest French, Italian and Spanish thinkers, scientists and discoverers (Da Vinci, Vesalius, Galileo, Columbus, Descartes, etc.) who contributed singularly to the expansion of knowledge and of this scientific revolution and this new understanding of the world. Students will be asked to investigate and present in class one of those thinkers, scientists and discoverers and the impact they had on the evolution of scientific thinking.

Finally, as a way to conclude the course, we will reflect on the impact, in and on our times of this scientific revolution that led to the separation of science and religion, a division that is now put into question as religion and science are now increasingly perceived as two equally, if not complementary, methods of understanding humanity and the universe.

**COURSE OBJECTIVES**

The course has three objectives: (1) to develop an ability to think critically and conceptually using a number of theoretical tools; (2) to develop an ability to carry out research; (3) to develop an understanding of a major

paradigm shift that took place in Western Europe between the 14<sup>th</sup> and the 18<sup>th</sup> centuries, and which is generally referred to as the scientific revolution.

#### **PREREQUISITE:**

One French 317, Italian 303 or Spanish 303 or permission of the Department

#### **DISTRIBUTION OF GRADES**

1. **In class test (10%)**  
Toward the end of the first part of the course; see above under course description.
2. **Book report (20%)**
  - a. In-class presentation (10%)
  - b. Written report (4 pages) (10%)
2. **Research presentation (40%)**
  - a. Outline of presentation and objectives; individual discussion with the professor (10%)
  - b. In-class presentation (30%)
3. **Final paper** (based on in-class presentation; 8 to 10 pages) **(30%)**

#### **GRADING SCALE**

A+ = 96-100; A = 90-95; A- = 85-89; B+ = 80-84; B = 76-79; B- = 72-76; C+ = 70-72; C = 65-69; C- = 60-64; D+ = 55-59; D = 50-54; F = <50%. Le système de notation officiel (A = 4; B = 3; C = 2; D = 1) sera appliqué pour le calcul final des notes.

#### **REQUIRED TEXTS**

1. Peter Dear, *Revolutionizing the Sciences: European Knowledge and Its Ambitions, 1500-1700*, 2009 (2001), Princeton University Press, Princeton and Oxford.
2. John Gribbin, *The Scientists: a History of Science Told Through the Lives of Its Greatest Inventors*, 2004 (2002), Random House, New York.

#### **RECOMMENDED TEXTS AND MATERIALS**

1. James E. McClellan III and Harold Dorn, *Science and Technology in World History*, 2006, the John Hopkins University Press, Baltimore.
2. Domenico Laurenza, Mario Taddei, Edoardo Zanon, *Leonardo's machines*, 2006, A David and Charles Book, Brunel House, Forde Close, Newton Abbott, UK.
3. Domenico Laurenza, *Art and Anatomy in Renaissance Italy : Images from a scientific revolution*, 2012, The Metropolitan Museum of Art, Yale University Press, New Haven and London.
4. David Deming, *Science and Technology in World History*, 2012, McFarland & Company, Jefferson NC and London.
5. Steven Shapin, *The Scientific Revolution*, 1998 (1996), the University of Chicago Press, Chicago and London.
6. Jim Al-Khalili, *The House of Wisdom: How Arabic Science Saved Ancient Knowledge and Gave Us the Renaissance*, 2010, Penguin Books, London.
7. George Saliba, *Islamic Science and the Making of the European Renaissance*, 2011 (2007), MIT Press, Cambridge, Massachusetts and London.
8. David Lindbergh, *The beginnings of Western Science: The European Scientific Tradition in Philosophical, Religious, and Institutional Context, Prehistory to A.D. 1450*, 2007 (1992), the University of Chicago Press, Chicago and London.
9. Charles C. Mann, *1493: Uncovering the New World Columbus Created*, 2011, Vintage Books, Random House, New York

#### **COURSE NOTES**

- The format of the course is a seminar format. In other words it is meant to be interactive, with

discussions which, I hope, will be animated. The course will comprise a number of lectures, however, with Power Point and visual support.

- Students are expected to prepare themselves for the session and show a great deal of intellectual initiatives by reflecting in advance on issues and questions. As a matter of fact, the success of the learning experience can be measured more by the number of questions posed than the number of answers provided. Both the students and the professor ought to adopt a posture of learning and display a spirit of inquiry.
- Students will note the synergy between the various activities and assignments. The purpose of such a format is to allow for a deepening of knowledge rather than a simple accumulation of knowledge, deepening which will be both in the subject treated and the manner, or method, with which it is treated.
- There will not be a final examination. The final paper will act as a final exam and is due two weeks after the in-class research presentation.

#### **COURSE CALENDAR (indicative only ; may vary)**

1. September 10 to October 5 : General Introduction to the course and Part I
2. October 8 to November 2: Part II
3. November 5 to 30: Part III
4. December 3 to 14: Conclusion and lessons learned

**LATE ASSIGNMENTS AND MISSED TESTS POLICY:** No late assignments will be accepted unless prior arrangements have been made with the professor and valid justification has been provided (medical certificate, proof of earthquake, etc.). Students will not be able to write missed tests (only the first assignment is an in-class test) at a later date unless valid justification is provided (see previous sentence).

**THE DEPARTMENT DROP BOX:** The drop-box located in the foyer area of the third floor in Craigie Hall between blocks D and C, is available for depositing assignments and course work. The material placed in the drop-box will be collected and date-stamped at the beginning and at the end of the working day.

#### **ACADEMIC MISCONDUCT**

1. **Plagiarism** is a serious offence, the penalty for which is an F on the assignment and possibly also an F in the course, academic probation, or requirement to withdraw. Plagiarism exists when:

- a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test);
- b) parts of the work are taken from another source without reference to the original author;
- c) the whole work (e.g., an essay) is copied from another source, and/or
- d) a student submits or presents work in one course which has also been submitted in another course (although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved.

While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted."

Plagiarism occurs not only when direct quotations are taken from a source without specific acknowledgement but also when original ideas or data from the source are not acknowledged. A bibliography is insufficient to establish which portions of the student's work are taken from external sources; footnotes or other recognized forms of citation must be used for this purpose.

2. **Cheating** at tests or examinations includes but is not limited to dishonest or attempted dishonest conduct such as speaking to other candidates or communicating with them under any circumstances whatsoever; bringing into the examination room any textbook, notebook, memorandum, other written material or mechanical or electronic device not authorized by the examiner; writing an examination or part of it, or consulting any person or materials outside the confines of the examination room without permission to do so, or leaving answer papers exposed to view, or persistent attempts to read other students' examination papers.

3. **Other academic misconduct** includes, but is not limited to, tampering or attempts to tamper with examination scripts, class work, grades and/or class records; failure to abide by directions by an instructor regarding the individuality of work handed in; the acquisition, attempted acquisition, possession, and/or distribution of examination materials or information not authorized by the instructor; the impersonation of another student in an examination or other class assignment; the falsification or fabrication of clinical or

laboratory reports; the non-authorized tape recording of lectures.

4. Any student who voluntarily and consciously aids another student in the commission of one of these offences is also guilty of academic misconduct.

### **DISABILITIES AND ACADEMIC ACCOMMODATION**

It is the student's responsibility to request academic accommodations. Students with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre should contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. Students also required to discuss their needs with the instructor no later than fourteen (14) days after the start of this course.

### **EMERGENCY EVACUATION ASSEMBLY POINTS**

Craigie Hall: Professional Faculties food court (alternate: Education Block food court)

Education Block and Tower: Scurfield Hall atrium (alternate: Professional Faculties food court)

Kinesiology: north courtyard, MacEwan Student Centre (alternate: University Theatres lobby)

For the complete list of assembly points please consult <http://www.ucalgary.ca/emergencyplan/assemblypoints>

### **FREEDOM OF INFORMATION AND PRIVACY (FOIP) ACT**

Graded assignments will be retained by the Department for three months and subsequently sent for confidential shredding. Final examinations will be kept for one calendar year and subsequently sent for confidential shredding. Said material is exclusively available to the student and to the department staff requiring to examine it.

Please see <http://www.ucalgary.ca/secretariat/privacy> for complete information on the disclosure of personal records.

### **INTERNET AND ELECTRONIC COMMUNICATION DEVICES**

Devices such as laptops, palmtops and smartbooks are allowed provided that they are used exclusively for instructional purposes and do not cause disruption to the instructor and to fellow students. Cellular telephones, blackberries and other mobile communication tools are not permitted and must be switched off.

### **SAFEWALK**

To request a Safewalk escort anywhere on campus, 24 hours a day and seven days a week, please call 403-220-5333 or use one of the Help Phones.

Web: <http://www.ucalgary.ca/security/safewalk>

### **STUDENT UNION INFORMATION**

Representatives and contact details: <http://www.su.ucalgary.ca/home/contact.html>

Student Ombudsman: <http://www.su.ucalgary.ca/services/student-services/student-rights.html>

### **WRITING ACROSS THE CURRICULUM**

Writing skills should cross all disciplines. Students are expected to do a substantial amount of writing in their courses and, where appropriate, instructors can and should use writing and the grading thereof as a factor in the evaluation of student work. The services provided by the Writing Centre in the Effective Writing Office (<http://www.efwr.ucalgary.ca/>) can be utilized by all undergraduate and graduate students who feel they require further assistance.