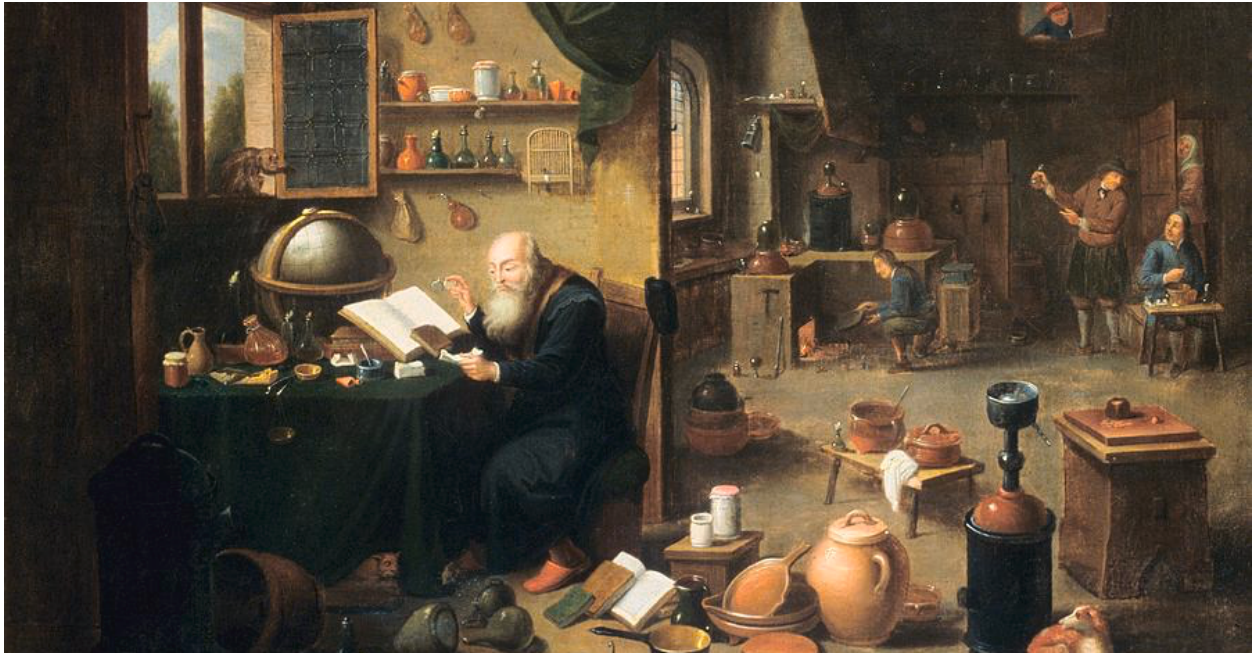


SYLLABUS FOR HIS3465/EUH3091: THE SCIENTIFIC REVOLUTION (FALL 2025)



CLASS SCHEDULE: Tuesdays: 10:40AM–11:30AM/ Thursdays: 10:40AM–12:35PM in 111 Keene-Flint Hall

Professor Anton Matytsin | matytsina@ufl.edu

Office: 230 Keene-Flint Hall

Office Hours: Tuesdays: 1–2PM, Thursdays: 1–3PM, or by appointment

COURSE DESCRIPTION: This course will explore a period of unprecedented changes in European intellectual culture. Shaken by the encounter with the New World, by a new cosmological perspective, and by the rediscovery of previously unknown ancient sources, European learned society attempted to rethink the very foundations on which its knowledge of the surrounding world rested. The course will begin by looking at the medieval universities and the nascent challenges to Aristotelian philosophy that emerged from the rediscovery of ancient schools of thought. We will explore debates about the proper sources of knowledge in cosmology and natural philosophy that led to a decoupling of religion and science, giving rise to new types of explanations about the structure and origin of the universe. We will reading primary sources almost exclusively, and students will make several visits to UF Special Collections.

LEARNING GOALS:

(1) The main goal of this course is to provide students with a complex understanding of the intellectual culture of the seventeenth and early eighteenth centuries. Our aim is to understand the internal logic of a wide spectrum of worldviews and to think in the manner of the authors we are reading. Students will also make sense of the causes and nature of intellectual change.

(2) Students will learn to read primary sources in a critical fashion, seeking to understand how and why the texts they encounter were produced and how they were received both by contemporaneous audiences and by modern historians.

(3) The written assignments will enable students to analyze these primary sources while improving their ability to express ideas and arguments in a clear and convincing fashion.

(4) The discussions will allow students to actively engage with the readings, their professor, and their peers. Students will be asked to argue a variety of perspectives and defend different points of view.

REQUIRED TEXTS:

1. Francis Bacon, *Selected Philosophical Writings* (Hackett, 1999) ISBN: 9780872204706
2. Galileo Galilei, *The Essential Galileo* (Hackett, 2008) ISBN: 9780872209374
3. René Descartes, *Philosophical Essays and Correspondence* (Hackett, 2000) ISBN: 9780872205024
4. Thomas Hobbes, *The Leviathan* (Hackett Classics, 1994) ISBN: 9780872201774
5. Margaret Cavendish, *Observations upon Experimental Philosophy* (Hackett Classics, 2016) ISBN: 9781624665141
6. Baruch Spinoza, *The Essential Spinoza: Ethics and Related Writings* (Hackett, 2006) ISBN: 9780872208032
7. John Locke, *An Essay Concerning Human Understanding* (Hackett Classics, 1996) ISBN: 9780872202160
8. Isaac Newton, *Newton's Philosophy of Nature: Selections from his Writings* (Dover Publications, 2010) ISBN: 9780486445939
9. Pierre Bayle, *The Historical and Critical Dictionary* (Hackett Classics, 1991) ISBN: 9780872201033
10. G. W. Leibniz, *Discourse on Metaphysics and Other Essays* (Hackett, 1991) ISBN: 9780872201323

RECOMMENDED TEXT:

1. Peter Dear, *Revolutionizing the Sciences: European Knowledge in Transition, 1500–1700*, 3rd edition (Princeton, NJ: Princeton University Press, 2019) ISBN: 9780691194349

Note: Readings Marked as (C) are available for download on Canvas

ASSIGNMENTS AND EVALUATION:

Participation and Professionalism: 10%

Reading Journal: 10%

Primary Source Analysis: 10%

Two Mid-Term Papers: 30% (15% each)

Mid-Term Exam: 20%

Final Assignment: 20%

Note: You must complete all assignments in order to pass the course.

Grading Scale:

A = 100–93 (4.0) B = 86–83 (3.0) C = 74–71 (2.0) D = 62–60 (1.0)

A- = 92–90 (3.67) B- = 82–79 (2.67) C- = 70–67 (1.63) D- = 59–56 (0.67)

B+ = 89–87 (3.33) C+ = 78–75 (2.33) D+ = 66–63 (1.33) F = below 55 (0)

For more information see: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Please note that **grades** and percentages **displayed** on **Canvas** are merely **approximations** and do not accurately reflect your final grade. The grade book is there to provide you with grades for your individual assignments. Your **final grade for the course** is **calculated** by taking the **percentage value** of each assignment (in decimals) and **multiplying** it by the **grade point value** you received on that assignment. They are then added together. A sample grade might look as follows: $3.67 \times 0.1 + 4 \times 0.1 + 3.67 \times 0.1 + 3.33 \times 0.15 + 3.67 \times 0.15 + 4 \times 0.2 + 3.67 \times 0.2 = 3.718$ (or an A-).

Participation and Professionalism (10%):

Overall, your **class participation grade** will be based on the following criteria:

- Regular attendance and preparation for class, including bringing the required readings
- Serious prior engagement with the assigned course readings
- A sustained effort at contributing to class discussions through visible attention, helpful questions, and worthwhile insights into the issues being discussed

You can use the **self-assessment questionnaire** below to understand how you are doing as a class participant. Please consider it from time to time as we go through the course and feel free to share your evaluation with me during office hours (this is not necessary, but always welcome):

- Are you prepared for discussions? Have you read the assigned texts carefully and thoroughly? Do you come to class with issues to raise in discussion?
- Do you participate regularly? Energetically? Do you participate actively in group activities?
- Do you listen to your fellow classmates and respond to them? Do you ask them questions?
- Do your interventions spark our discussions? Raise significant questions? Challenge our understanding of the readings and major themes? Offer insightful and unexpected reactions to discussions?
- How does your participation compare to that of other students? Are you a class leader or a follower? Do you try to take responsibility for what happens in class?

Attendance: You are expected to attend all scheduled meetings, complete all the assigned readings, participate in discussion, and behave in a respectable and collegial manner. You will be permitted **three unexcused absences** over the course of the term; every unexcused absence thereafter will **lower your participation grade by one third**. You will **not be able to pass the course** if the total number of unexcused absences **exceeds eight**. Guidelines for excused absences can be found here: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/#absencestext>
It is also important to **arrive** to class **on time**. **Punctuality** is a show of respect for your instructor and classmates, and it is important not just in class but in a job and your eventual career.

Readings: Please come to each lecture class having completed the assigned readings for that day. “To complete the readings” means allowing yourself sufficient time both to **read through** the assigned materials and to **think about them**. Please bring all assigned readings to class on the day for which the reading has been assigned. It is your responsibility to contact me if you have difficulty locating the reading assignments.

Discussion: Active participation in discussions is essential for the success of this course. In the first two hours of each week, I will attempt to introduce the thinker(s) and text(s) we will be reading. I will provide an overview of the political, social, economic, cultural, and intellectual circumstances in which the work(s) in question appeared. During the second part of our Thursday meetings, we will discuss the texts together. At the start of each week, I will send out a series of **questions** about the **readings** in order to frame our discussions. You are strongly encouraged to think of these as you complete the readings. You should be able to provide a **formal two- or three-minute answer** to at least one of the questions if called on. Bear in mind that “active participation” means asking good questions as well as proposing good answers. You are encouraged to bring questions about the readings to class. If one of you had questions or difficulties, others certainly did as well.

Reading Journal (10%): To assist you with **reading actively**, you will be asked to keep a reading journal. This journal is a good place in which to write down your **reflections** on the readings, highlighting what you found to be most **interesting, surprising, or confusing**. You might use it to make **comparisons** between some of our authors and their approaches to central themes of the course. The journal is also a good way prepare **responses** to the **reading questions** or to pose your own questions about the texts. There is **no specific length** requirement for entries, but they should be at least a paragraph, and they should demonstrate an **active, thoughtful, and thorough engagement** with the **primary sources**. There should be **one entry** for **each week's** primary sources readings, and the entries will be evaluated on a **complete/incomplete** basis every couple of weeks. In some cases, you will work on the journal entries during class time.

Primary Source Analysis (10%): As preparation for the longer papers, you will write a primary sources analysis paper. You will pick a particular primary source they have read by that point in the semester and analyze a theme of their choice. The papers should be focused on discussing a specific question. You are welcome to engage with some of the discussion questions or write about topics you find of particular interest. The source analysis will be due **Friday, September 19th**. The response paper should be between **750 and 1,000 words**. The paper should be turned in via Canvas and monitored with the Turnitin Anti-Plagiarism Service. More specific instructions will be provided closer to the deadline. You will be able to **resubmit revisions** for this assignment.

Two Mid-Term Papers (30% total/15% each): For the two paper assignments, you will be asked to **compare** and **contrast three authors** we read in the course. I will provide you with a selection of possible themes and topics, though you may also write about a subject of your choosing (pending approval). The papers will be due on **Friday, October 10th** and **Friday, November 14th**, respectively. The essays should be between **1,200 and 1,500 words**, and they should be based on your reading and understanding of the texts. No outside research is required or expected. The papers should be turned in via the Canvas and monitored with the Turnitin Anti-Plagiarism Service. More specific instructions will be provided closer to the deadline. You will be able to **resubmit revisions** for these assignments.

Mid-Term Exam (20%): The exam will take place **in class** on **Tuesday, November 4th**. It will contain **two parts**. The first part will ask you to **recreate**, as accurately as possible, one of the **arguments** from our readings (you will have a choice of 4–5 options). These will be arguments that are central to the texts that we read (e.g. Descartes's first proof of God). The second part will involve a **comparative essay** about **three authors** from the course that will ask you to address a particular **theme** (you will have a choice of 2–3 options). You will be evaluated on your knowledge of the texts and your understanding of the internal logic of our authors.

Final Assignment (20%): The final assignment will be due on **Friday, December 5th**, by **11:59PM**. For the final assignment you will write **three distinct *Encyclopédie* articles** about three of the authors we read in the course. Your articles reviews should have a clear introduction and conclusion. They should highlight what you see as the most important **agreements** and **disagreements** between Diderot/d'Alembert and the authors you are writing about. Since this is a creative exercise, you have a relatively significant leeway in interpreting what these thinkers might have thought. However, your interpretations should be based on a solid understanding of the relevant texts. The articles should be between **750 and 1,000 words each** for a **total of 2,200-3,000 words**.

COURSE POLICIES AND EXPECTATIONS:

Extensions and Late Penalties: In general, the penalty for turning in late assignments is **one letter grade** (A to B, B to C, and C to D) for **each day** that the assignment is late. Assignments that are **over three days late** will **not be accepted** and will automatically receive a **failing grade**.

Extensions can be granted on an individual basis; they must be **requested in writing** at least 24 hours ahead of the deadline. You must **complete all assignments to pass the course**.

Classroom Etiquette: Please **use electronic devices** (such as **laptops** and **tablets**) only for the purposes of **taking notes** or **consulting the readings**. The improper use of electronic devices can be distracting to both you and your classmates, disrupting the learning experience. The instructor reserves the right to **prohibit** the use of electronic devices in cases where students use them **inappropriately**. The use of **phones** is **not permitted** during class time.

Contact: The University of Florida requires that you use your UF Gatorlink account for university related e-mail communication. Please see <http://www.it.ufl.edu/policies/#email> to read more on this policy. It is important to check Canvas and your UF e-mail accounts regularly. I will do my best to respond to all course-related emails within 24 hours on weekdays and 48 hours on weekends and during breaks. Please note that if you contact me about an assignment at the last minute, I may not have time to respond. Like most UF faculty, I treat e-mail as a formal means of communication. Your e-mails should be written with a basic greeting (i.e. *Dear, Hello, Hi*, then my name), body, and salutation (i.e. *Thank you, Sincerely, Best*, then your name). Proper grammar is expected.

Office Hours: My office hours are **Tuesdays 1–2PM** and **Thursdays 1–3PM** in Keene-Flint 230; or by appointment. You are highly encouraged to attend office hours at least once during the semester. I would like to get to know each of you individually.

STATEMENT REGARDING ACADEMIC HONESTY:

Students are expected to uphold the Academic Honor Code of the University of Florida. UF students are bound by The Honor Pledge which states “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The [Conduct Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. See the UF Conduct Code website for more information. If you have any questions or concerns, please consult with the instructor or TAs in this class. An excellent website that discusses plagiarism, correct citing of references, and correct use of quotations is:

<http://mediasite.video.ufl.edu/mediasite/Viewer/?peid=adaa44500eaf460a84f238e6b9a558f9>.

Unless otherwise instructed, you are **not permitted to use generative A.I.** (such as Chat GPT) to generate your essays or other assignments. The use of such software will be considered **equivalent to plagiarism**. Please consult UF guidelines regarding the use of such technologies.

Any assignment demonstrating evidence of **plagiarism** or otherwise **violating** the Academic Honor Code will automatically receive a **failing grade** and be **reported** to the Dean of Students.

UF ACADEMIC POLICIES AND RESOURCES:

This course complies with all UF academic policies. For information on those policies and for resources for students, please see [this link](#). (The direct link is <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>.)

WEEKLY TOPICS AND READING ASSIGNMENTS

Note: Readings Marked as (C) are available for download on Canvas

WEEK 1 (AUGUST 20–22): INTRODUCTION

Recommended readings: Peter Dear, *Revolutionizing the Sciences: European Knowledge in Transition, 1500–1700*, 1–9

WEEK 2 (AUGUST 25–29): THE ARISTOTELIAN SCHOLASTICS

Required readings: Thomas Aquinas, selections from, John Y. B. Hood, *The Essential Writings of Aquinas*, 1–25, 28–39, 44–56, 59–67, 87–89 (C) and *The Five Ways* 1–4 (C)

Recommended readings: Dear, *Revolutionizing the Sciences*, 10–28

WEEK 3 (SEPTEMBER 1–5): CHALLENGING THE PRESUMPTIVE AUTHORITY OF THE PAST

Required readings: Francis Bacon, *Selected Philosophical Works*, 4–9, 30–36, 44–55, 86–133, 145–148

Recommended readings: Dear, *Revolutionizing the Sciences*, 29–60

WEEK 4 (SEPTEMBER 8–12): REVOLUTIONS IN THE HEAVENS

Required readings: Nicolaus Copernicus, “Dedication to Paul III” in *De revolutionibus orbium coelestium* (C); Galileo Galilei, *The Essential Galileo*, 45–59, 63–67, 109–145, 185–192, 267–271

Recommended readings: Dear, *Revolutionizing the Sciences*, 61–80

WEEK 5 (SEPTEMBER 15–19): COGITO ERGO SUM: DESCARTES’S EPISTEMOLOGY

Required readings: René Descartes, *Philosophical Essays and Correspondence*, 46–56, 60–73, 97–141

PRIMARY SOURCE ANALYSIS DUE FRIDAY, SEPTEMBER 19TH AT 11:59PM

WEEK 6 (SEPTEMBER 22–26): TWO-SUBSTANCE METAPHYSICS: CARTESIAN DUALISM

Required readings: René Descartes, *Philosophical Essays and Correspondence*, 30–43, 222–246, 253–272, 297–315; *Correspondence between Princess Elisabeth of Bohemia and René Descartes*, 1–13 (C)

Recommended readings: Dear, *Revolutionizing the Sciences*, 81–101

WEEK 7 (SEPTEMBER 29–OCTOBER 3): EMPIRICISM, MATERIALISM, AND DETERMINISM

Required readings: Thomas Hobbes, “Objections” in René Descartes, *Philosophical Essays and Correspondence*, 167–176; Thomas Hobbes, *The Leviathan*, 3–37, 47–50, 57–88, 106–110, 136–145

Recommended readings: Dear, *Revolutionizing the Sciences*, 102–130

WEEK 8 (OCTOBER 6–10): CRITIQUES OF THE NEW PHILOSOPHY

Required readings: Margaret Cavendish, *Observations upon Experimental Philosophy*, 3–82

Recommended readings: Dear, *Revolutionizing the Sciences*, 131–150

On Thursday, October 9th, we'll be visiting UF Special Collections (Judaica Suite, Smathers Library)

FIRST MID-TERM PAPER ONE DUE FRIDAY, OCTOBER 10TH AT 11:59PM

WEEK 9 (OCTOBER 13–17): SPINOZA'S PANTHEISM

Required readings: Baruch Spinoza, *The Essential Spinoza*, 3–60, 102–104, 143–161, 191–215

WEEK 10 (OCTOBER 20–24): ENGLISH EMPIRICISM

Required readings: John Locke, *An Essay Concerning Human Understanding*, 1–51, 56–60, 66–75, 117–129, 138–140, 192–195, 235–246, 250–257

WEEK 11 (OCTOBER 27–31): NEWTONIAN PHYSICS

Required readings: Isaac Newton, *Newton's Philosophy of Nature*, 3–29, 41–67, 99–112, 116–134; *Newton: Texts, Backgrounds and Commentaries*, 301–308, 342–356 (C)

Recommended readings: Dear, *Revolutionizing the Sciences*, 151–169

WEEK 12 (NOVEMBER 3–7): SKEPTICISM AND SCIENCE

Required readings: Pierre Bayle, *The Historical and Critical Dictionary*, 124–139, 144–153, 166–209, 288–316, 350–358, 399–420

MID-TERM EXAM IN CLASS ON TUESDAY, NOVEMBER 4TH

WEEK 13 (NOVEMBER 10–14): LEIBNIZIAN METAPHYSICS

Required readings: Gottfried Wilhelm Leibniz, *Discourse on Metaphysics and Other Essays*, 1–81; *A New System*, 1–8 (C)

NO CLASS Tuesday, November 11 (Veterans Day)

SECOND MID-TERM PAPER ONE DUE FRIDAY, NOVEMBER 14TH AT 11:59PM

WEEK 14 (NOVEMBER 17–21): CONSOLIDATING THE SCIENTIFIC REVOLUTION

Required readings: Voltaire, *Letters Concerning the English Nation*, 44–75 (C); Jean Le Rond d'Alembert, *The Preliminary Discourse to the Encyclopédie*, 3–31, 45–55, 70–97 (C); Pick two articles from here:

<https://quod.lib.umich.edu/d/did/title/A.html>

On Thursday, November 20th, we'll be visiting UF Special Collections (Judaica Suite)

NOVEMBER 24–28: THANKSGIVING BREAK

WEEK 15 (DECEMBER 1–DECEMBER 3): CONCLUSIONS

Recommended readings: Dear, *Revolutionizing the Sciences*, 170–172

FINAL PAPER DUE FRIDAY, DECEMBER 5TH AT 11:59AM