

SCTM-2013FA What is Time?

Schedule: Mondays 3:10-6:10 PM (online synchronous delivery)

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Course Description

The concept of time has intrigued thinkers from all ages. The impact of measuring and marking time intervals on the development of human culture, and our understanding of the world around us, cannot be understated. The drive to measure and understand time led ancient peoples to a very sophisticated knowledge of the sky; from that knowledge emerged accurate calendars, as well as mathematics itself. We will look at how changing concepts of time and the technological accuracy of measuring time drove fundamental changes in physics, from the Scientific Revolution through to Relativity and Quantum Mechanics.

About This Course

What is time? When we raise this question, either in everyday life or in the sciences, we speak as if we were inquiring about a thing: about its definition, properties, etc. But is time reducible to a thing? With what things must we have already become familiar, so that we come to wonder what time is? What is the sense in which time “is”? These are difficult questions ever since the human being began to think; time has been the gem on the crown of philosophy. On the other hand, however, it seems that philosophy and science share a preference for the invariant and eternal over the mutant and ephemeral; their history is one in which the core issues of temporal experience are meticulously and systematically avoided or explained *away*. Thus, St. Augustine of Hippo once said, “What is time then? If nobody asks me, I know; but if I were to explain it to one that should ask me, I do not know.”

Meanwhile, the way in which time is *intimated* (without becoming thoroughly intelligible) has been affecting the way in which we navigate our lives. This is especially clear in an age of acceleration, synchronization, procrastination, and distraction, when time affords managing, saving, wasting, sparing, spending, ‘killing’, skipping over, etc. Beneath the paradox of whether we control time or whether it dominates us, beneath the extrapolation of historical narrative into billions of years despite our mortality, beneath the eager expectation of a new day and the painful regret for an irreversible act—a primordial sense of ‘inhabiting’ time continues to transpire.

In this course, we will take an adventure into this primordial sense of time, with the help of both our everyday lived experience and previous efforts to theorize time. For this purpose, we need both to learn and to *un-learn* about time. We begin with a lived “enigma” of time as expressed in literary works (W2). Then, we take four weeks surveying the attempts to theorize time in Antiquity (W3), the Scientific Revolution (W4, W6), and the new physics of the 20th Century, relativity theory and quantum mechanics (W7). Our aim is not just to learn about these theories but more importantly to question what have

motivated the efforts to theorize, what aspects of temporal experience are epitomized in the theories, and what aspects are left out, remaining incomprehensible.

Then, we will follow a couple of “humanist” philosophers to reflect upon some of the irreducible dimensions of the human being’s temporal existence. We will look at Bergson’s criticism of the “spatialization of time” in thinking (W8), and we will get to explore the full sense of the past (W9) and the future (W10), beyond the image of “points” on a chronology. With the help of these, we shall be able to see the temporal richness of ethical phenomena like vengeance, forgiveness, and promise (W11). Finally, we will summarize the primordial sense of time as that of Becoming—more precisely, time can be interpreted as the *way* in which the growth, decay, and unfolding of things take place (W12).

Upon taking this course, the student will acquire a comprehensive grasp of historical and prevalent ways of construing time; more importantly, they will have a chance to experiment with a rigorous thinking aimed at excavating, beneath sedimentations of everyday platitude, some profound assumptions we have been making about what time is and in what sense time “is”. Apart from a training in thinking and writing, this course also aims at “loosening” stereotypes about time and thus opening up a space for creative representations of time and temporal experience in art and design.

Course Material

Course readings will be made available online.

Evaluation Method

1. Participation (10%). May involve group work – TBA.
2. Online discussion: post 3 questions about readings and 7 responses to others’ questions (30%). Questions are due every Monday; Responses are due every Friday.
3. Mid-term essay: (30%).
Analysis of a work of art about how it expresses time.
Due **October 24**. 1,000 words maximum.
4. Final exam (30%).
Select 3 from 5 essay questions on course content, 500 words maximum each.
Scheduled for 3 hours during the exam period; exact date TBA.

Late Policy

Late submissions without an extension will be penalized by 5% every 24-hour period (rounded up) beyond the deadline.

No extension will be granted for weekly online discussion postings. If the student needs an extension for the mid-term essay or for the final take-home exam, be sure to meet both of the following requirements: (a) inform the instructor by email before the official deadline; (b) present a note from a doctor, a Student Accessibility Services (SAS) officer, or a family member, specifying the situation—this proof may come in after the deadline. The instructor and the student will then set up a reasonable schedule for the student to complete the assignment.

Email Policy

Be sure to include “SCTM-2013” in the title of any email communication. Allow 48 hours (excluding weekends and holidays) for a response. Emails that are brief and clear about the demands will get a quicker response. For an extensive reply, consider coming to office hours instead.

Office Hour Format

To make an office hour appointment, use the web form to sign up for a 15-min slot. I will then send a link to the meeting. The 15-min length is for scheduling purposes only. Time permitting, and depending on the nature of the topic, meetings can take longer or shorter.

Etiquette in Online Sessions

Familiarize yourself in advance with basic Teams features—mute/unmute; turn video on/off; raise a hand; type in the chat-box; join a breakout room; ask for help when in a breakout room; leave a breakout room (and return to main session). Be aware how the virtual format affects the way one participates in the discussion and be prepared to adjust to the situation.

When in an online session, include first name/preferred first name in the attendant ID. Speak more slowly and enunciate the words, allowing for some loss of sound quality in transmission. Mute microphone, especially when the environment is noisy; but don't forget to unmute before speaking. Raise a hand (virtually) to signal intention to speak. Though attending with video on is not mandatory, it is strongly encouraged, as it gives the instructor immediate feedback and contributes greatly to vivid and thought-provoking discussion. Participating with video and audio off throughout a session will not count towards attendance.

Course Schedule

Week 1 (Sept 13): Introduction

Week 2 (Sept 20): The Enigma of Time

Marcel Proust, *In Search of Lost Time (À la recherche du temps perdu)*, excerpt.

Gabriel García Márquez, *One Hundred Years of Solitude (Cien años de soledad)*, excerpt.

Thomas Mann, *The Magic Mountain (Der Zauberberg)*, excerpt.

Week 3 (Sept 27): Theorizing Time: Antiquity

Aristotle, *Physics*, Book IV, 10-14.

St. Augustine of Hippo, *The Confessions*, Book XI, excerpt.

Week 4 (Oct 4): Theorizing Time: The Scientific Revolution

Sir Isaac Newton, *Mathematical Principles of the Philosophy of Nature*, Scholium to “Definitions”.
Immanuel Kant, *Critique of Pure Reason*, “Time” (excerpt): A30-41/B46-58.

Week 5 (Oct 11): Thanksgiving & Study Week

Week 6 (Oct 18): The Scientific Revolution (cont.): What Is So Revolutionary?

Alexandre Koyré, *From the Closed World to the Infinite Universe*, Chapter X (Absolute Space and Absolute Time: God’s Frame of Action); Chapter XI (The Work-Day God and the God of the Sabbath).
G. M. Clemence, “Time Measurement for Scientific Use,” in *The Voices of Time*.

*****Mid-term essay due Oct 24.*****

Week 7 (Oct 25): Theorizing Time: Relativity Theory and Quantum Mechanics

Steven Savitt, “Time in the Special Theory of Relativity,” in *The Oxford Handbook of Philosophy of Time*.
E. J. Zimmerman, “Time and Quantum Theory,” in *The Voices of Time*.

Week 8 (Nov 1): Attack on the Spatialization of Time

Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, Chapter II (“The Multiplicity of Conscious States. The Idea of Duration”).

Week 9 (Nov 8): Lived Time: Grasping the Past as Past

Nicolas de Warren, *Husserl and the Promise of Time*, Chapter 4: “The retention of time past.”
Edmund Husserl, *On the Phenomenology of the Consciousness of Internal Time*, excerpt.

Week 10 (Nov 15): Lived Time: Radical Openness of the Future

Claude Romano, *Event and Time*, Part 2, Section B: “The other guiding thread: time and change.”
Claude Romano, *There Is: The Event and the Finitude of Appearing*, Chapter 2: “Possibility and Event.”

Week 11 (Nov 22): Ethical Temporalization: Vengeance, Forgiveness, and Promise

Paul Ricoeur, “Justice and Vengeance.” In *Reflections on the Just*, 223-231.
Hannah Arendt, *The Human Condition*, §33: “Irreversibility and the Power to Forgive”; §34: “Unpredictability and the Power of Promise.”

Week 12 (Nov 29): Time as Becoming: Growth, Decay, and Unfolding of Things

Walther Dürr, “Rhythm in Music: A Formal Scaffolding of Time,” in *The Voices of Time*.
Hajime Nakamura, “Time in Indian and Japanese Thought,” in *The Voices of Time*.
Maurice Merleau-Ponty, *Phenomenology of Perception*, “There is no time in things”; “The perceptual synthesis is temporal.”

Week 13 (Dec 6): Recapitulation

Statements

This course is delivered remotely. Resources for remote learning can be found at <https://www.ocadu.ca/students/remote-support/remote-learning>.

OCAD University values academic integrity. All students must, therefore, understand the meaning and consequences of cheating, plagiarism and other academic offences. See the University's website (<https://www.ocadu.ca/students/academic-integrity>) for further information.

Student well-being is a priority for the University. To access services or get more information, visit <https://www.ocadu.ca/services/health-and-wellness>.

OCAD University acknowledges the ancestral and traditional territories of the Mississaugas of the Credit, the Haudenosaunee, the Anishinaabe and the Huron-Wendat, who are the original owners and custodians of the land on which we stand and create.

The content of this syllabus, especially the reading schedule, is subject to change (in conformity with teaching objectives and student progress). Be sure to check regularly for updates. A notification will be sent upon major modification to the syllabus.