

**LPS H 125: What Is Time?
Winter Quarter 2019**

Instructor: Jim Weatherall, Professor of Logic and Philosophy of Science

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Office: Social Science Tower 781

Office Hours: By appointment

Meeting Times: Tu/Th 3:30 – 4:50pm in SSL 171

Course Description: What is time? We will explore this question through engagement with a broad spectrum of fields, including physics, philosophy, fiction, and film. The course will be organized around two ways of parsing the question. The first is: how is time represented in our physical theories, from Newton to Einstein? The second is: what is our subjective experience of time and how does it relate to narrative and memory? To gain a satisfying understanding of time, one needs to reckon with both of these questions. But from the standpoint of contemporary physics, there is an important tension between them. It feels to us as though time flows, sometimes quickly and sometimes more slowly; we believe that we can affect the future but not the past, and conversely, that we can remember the past but not the future; and we have a conception of a common “now” shared among the people we interact with. Yet it is difficult to find a basis for any of these features of our experience in physics. Our goal will be to understand the relationship between these two ways of understanding the question and to try to reconcile them.

Audience: This course is designed as an intensive upper-division honors seminar, open only to students in the Campuswide Honors Program.

Prerequisites: There are no formal prerequisites for this course, though typically students should have completed the Humanities Core.

Requirements Satisfied: This course may replace an honors core course; it also satisfies GE III.

Readings / Films: Students are expected to have copies of the following novels:

- Ishiguro, Kazuo (1986). *An Artist of the Floating World*.
- Lispector, Clarice (1943). *Near to the Wild Heart*.
- Pynchon, Thomas (1966). *The Crying of Lot 49*.
- Woolf, Virginia (1927). *To the Lighthouse*.

In addition, students must gain access to the following films, some of which are available in the library:

- Carruth, Shane (2004). *Primer*.
- Hill, George Ray (1972). *Slaughterhouse-Five*.
- Kelly, Richard (2001). *Donnie Darko*.
- Nolan, Christopher (2000). *Memento*.
- Nolan, Christopher (2014). *Interstellar*.
- Ramis, Harold (1993). *Groundhog Day*.
- Villeneuve, Dennis (2016). *Arrival*.

Access to other course materials will be discussed in class. If you have difficulty accessing one of these titles, please contact me immediately for help.

Grading and Course Requirements: Your grade is based on course participation and writing assignments. There are two options for the writing assignment. The default option involves writing nine short essays, of approximately 400 words each, due on each Tuesday from Week 2 until Week 11. (Nine because you are permitted to skip a week of your choosing.) Alternatively, you may write a term paper of about 10 pages. If you elect to pursue option two, please meet with me early in the quarter to discuss the topic and ensure that you have a concrete plan. I am also open to proposals for alternative ways to earn a grade in the course.

Students with Disabilities: Inform me first week if you will need special accommodation.

Preferred names/pronouns: This course is intended as a safe space for all students at UCI. If you have a preferred name that is not listed on the official roster, or if you have a preference regarding gender pronouns, please contact me and I will do my best to follow your preferences.

Academic Integrity: UCI has a strict policy on academic dishonesty; violations, including cheating and plagiarism, will be report to the appropriate authorities.

Course Schedule:

Week 1: Introduction / The Texture of Time

Tuesday 1/8: Ramis, *Groundhog Day*; Borges, "The Garden of Forking Paths".

Thursday 1/10: Ismael, "Temporal Experience"; Joyce, "The Dead"; Dvořák, "New World" Symphony.

Week 2: The Here-Now

Tuesday 1/15: Dōgen, "Uji", from *Shōbōgenzō*; Lispector, *Near to the Wild Heart*, Part 1, pp. 3-92.

Thursday 1/17: Lispector, *Near to the Wild Heart*, Part 2, pp. 95-194.

Week 3: Times Passes 1

Tuesday 1/22: Woolf, "The Window," *To the Lighthouse* pp. 3-124.

Thursday 1/24: Woolf, "Time Passes" and "The Lighthouse," *To the Lighthouse* pp. 125-209.

Week 4: Physical Time

Tuesday 1/29: Newton, *Principia*, "Scholium to the definitions"; Leibniz-Clarke correspondence, Clarke §2.1 & Leibniz §§3.1-8; du Chatelet, *Foundations of Physics*, Ch. 6 "Of Time".

Thursday 1/31: Weatherall notes.

Week 5: Time Passes 2 / Time Travel 1

Tuesday 2/5: Mellor, "The Time of Our Lives"; Fiocco, "What is Time?"; Deng, "Our Experience of Passage on the B-Theory".

Thursday 2/7: Lewis, "The Paradoxes of Time Travel"; Vihvelin, "What Time Travelers Cannot Do"; Caruth, *Primer*.

Week 6: Time Travel 2

Tuesday 2/12: No class

Tuesday 2/14: Villeneuve, *Arrival*; Kelly, *Donnie Darko*.

Week 7: The Persistence of Memory / Time Travel 3

Tuesday 2/19: Ishiguro, "October 1948" and "April 1949," *An Artist of the Floating World* pp. 7-127.

Thursday 2/21: Ishiguro, "November 1949" and "June 1950," *An Artist of the Floating World* pp. 131-206; Hill, *Slaughterhouse-Five*.

Week 8: Narrative

Tuesday 2/26: Nolan, *Memento*. Pynchon, *The Crying of Lot 49*, Chs. 1-3.

Thursday 2/28: Pynchon, *The Crying of Lot 49*, Chs. 4-6.

Week 9: Relativity Theory

Tuesday 3/5: Einstein, *Relativity: The Special and General Theory*, §§8-10; Weatherall notes.

Thursday 3/7: Savitt, "Being and Becoming in Modern Physics" (esp. section 3); Nolan, *Interstellar*.

Week 10: Relativity Theory & Experience

Tuesday 3/12: Callender, "The Common Now"; Hartle "The Physics of Now".

Thursday 3/14: No reading.