

Course Syllabus

PSY490 Course description

The course will present an analysis of biological rhythms from several perspectives. We will address the diverse roles that timing and timekeeping play in optimizing physiological and behavioral processes, regulating thought and action, and enabling anticipation of future events and conditions. Particular attention will be directed toward the temporal opportunities and constraints that are imposed on human behavior and physiology, including the significant impacts on memory, personality, emotional regulation, and the awareness of time. Weekly topics have been chosen by the instructor and placed in a presentation order whereby later topics may refer to the earlier discussions.

Assignments

1 per week. 2-3 page (double spaced) discussion paper on the topic of the week. 10 papers count toward your final mark, and there are 11 opportunities. The lowest mark out of 11 will be dropped before the final mark is calculated.

- a. Treat the discussion question according to your own perspective and interests.
- b. There are 11 discussions scheduled. The first meeting does not count.
- c. The papers should be concise, focused discussions of an aspect of each topic. The introduction presents the "thesis" of the paper, and you need to back up statements with appropriate citations. Include a list of references (3-4 should be sufficient).
- d. Discussion leaders. Each student is asked to lead at least one discussion. This is a partnership with the instructor to generate a lively and "on-topic" discussion amongst all the class members. The student is asked to present their perspective. (This is NOT a lecture). Other students may agree, disagree, or bring a different perspective to each topic. . e.

Marking

10 discussion papers (60%). As a discussion leader (see part d), you may substitute one paper for this activity. Participation (15%). This is an assessment of your overall participation through the term. This is broken down into 2 parts (attendance 5%, discussion and leadership 10%). Attendance but no contributions to discussion, this is still 5 points. The remaining, 10 points are at the instructor's discretion. The points are assigned on the basis of reaching a threshold for participation – not on weekly participation. The remaining **25%** is an in-depth paper (12-15 pages, typed, double spaced) on a relevant topic.

Course Summary:

Date	Details
Tue Sep 10, 2024	Assignment 1. Chronotype
Tue Sep 17, 2024	Assignment 2. Time memory
Tue Sep 24 2024	Assignment 3. Time perception
Tue Oct 01, 2024	Assignment 4. Episodic memory
Tue Oct 08, 2024	Assignment 5. Sleep, torpor, hibernation and memory
Tue Oct 15, 2024	Assignment 6. Social Zeitgebers
Tue Oct 22, 2024	Assignment 7. Metabolism, nutrition, food entrainment,
Tue Nov 5, 2024	Assignment 8. Ultradian rhythms and brain communication
Tue Nov 12, 2024	Assignment 9. Circadian/sleep disorganization and chronic disease (cardiovascular, obesity), and personality?
Tue Nov 19, 2024	Assignment 10. Circadian disorganization and neuropsychiatric disorders
	Assignment 11. Discussion: Ancient and modern roles of biological clocks, their adaptive advantages, and evolutionary origins
Tue Nov 26, 2024	Assignment 0. Participation
	Assignment 12. Final paper