

720.08**Chronobiology Summer School****Fall 2020**

Instructor:	Michael Antle	Lecture Location:	Online/remote
Phone:	403-220-2574	Lecture Days/Time:	T Th 9:00-10:45; actual day/time TBD
Email:	antlem@ucalgary.ca		
Office:	AD18		
Office Hours:	By appointment		

Course Description and Objectives

Students who attended the online 2020 International Chronobiology Summer School held weekly from May 14th to August 27th, will apply the knowledge acquired in that course to assignments in this course.

Throughout the fall students will prepare written and oral summaries of lectures to be scored by the course instructor (Antle) to provided assessment linked to their learning activities from the online 2020 International Chronobiology Summer School. Students will meet as a group with the course instructor for weekly Chronobiology Chats to have question and answer sessions on topics that emerged for them through the summer course to enhance and expand their understanding in an interactive format.

This current course build on the prerequisite enrolment in the 2020 International Chronobiology Summer School. Lectures from the online 2020 International Chronobiology Summer School provided background on molecular basis for biological rhythms in plants, insects, mammals. Students learned how researchers are working to develop biomarkers and how to assess phase resetting. Everyone received hands-on experience analyzing rhythmic data and creating simple mathematical models. Instruction in the online 2020 International Chronobiology Summer School was provided by leading researchers in the field.

Acknowledgments and Respect for Diversity

Our classrooms view diversity of identity as a strength and resource. Your experiences and different perspectives are encouraged and add to a rich learning environment that fosters critical thought through respectful discussion and inclusion. The Department of Psychology would also like to acknowledge the traditional territories of the people of the Treaty 7 region in southern Alberta. The City of Calgary is also home to Métis Nation of Alberta, Region III.

Course Format

- Students will meet as a group with the course instructor for weekly Chronobiology Chats to have question and answer sessions on topics that emerged for them through the summer course. These weekly meetings will enhance and expand their understanding in an interactive format. The date and time will be determined prior to the semester start by polling registered students to determine a time and day that works for everyone.

Prerequisites

- Admission to the Graduate Program in Psychology or by permission of the Instructor.
- Successful completion of the 2020 International Chronobiology Summer School <https://sophia.smith.edu/chronoschool/> held weekly from May 14th to August 27th, 2020.

Required Texts and Readings

There is no required text.

Assessment Methods

The final course grade will be based on:

- 1) Thought papers (80% of final grade; 10 X 8% each)
 - a. Maximum 2-page, double-spaced thought paper on 10 of the lectures (student's choice) presented during the chronobiology summer school. The thought papers should integrate and summarize the main take home learning points of each lecture. Reiterating the details is not expected, nor required. Rather, students should consider how to explain the concepts clearly, focusing on the big picture (describe "the forest" not "the trees").
 - b. Marking Scheme for Thought papers:
 - i. Writing: Clarity and organization of writing. Relevance. (4 points)
 - ii. Accuracy and efficacy of summary (4 points).
 - c. Thought papers are to be submitted to the instructor by email. They are due one a week throughout the fall semester, submitted by 4pm Friday each week
- 2) Oral presentation (20% of final grade) Day/Time to be determined.
 - a. Each student will select one of the course topics to explore more deeply. They will then present a 30-minute mini lecture on the topic to the course instructor and other students. Presentations will occur in November. Date and time to be determined. Delivery will be over Zoom
 - b. Marking Scheme for Oral presentation
 - i. Clarity and organization of presentation, both of speaking style and of the prepared slides (PowerPoint). (10 points)
 - ii. Accuracy and efficacy of mini-lecture, how well was the material explained, and how accurate was the information conveyed (10 points).

University of Calgary Academic Integrity Policy

Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity.

Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional code of conduct and promote academic integrity in upholding the University of Calgary's reputation of excellence. It is your responsibility to ensure that you have read and are familiar with the student academic misconduct policy:

<https://www.ucalgary.ca/policies/files/policies/student-academic-misconduct-policy.pdf>.

Faculty of Graduate Studies Grading System

A+ = Outstanding performance, A = Excellent performance, A- = Very good performance

B+ = Good performance, B = Satisfactory performance, B- = Minimum pass

C+ All grades of "C+" or lower are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements. Individual programs may require a higher passing grade

Grading Scale

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades.

To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

Prerequisite Summer 2020 International Chronobiology Summer School Lecture Schedule

Date	Topic	Lecturers
April 25	Weeks 1 & 2 Coursera course	Martha Merrow, Till Roenneberg
May 14	Weeks 3 & 4 Coursera course	Martha Merrow, Till Roenneberg, Mary Harrington
May 21	Weeks 1 & 2 Coursera course	Martha Merrow, Till Roenneberg
May 28	Molecular clocks in plants, insects & mammals	Stacey Harmer, Joanna Chiu & Andrew Liu
June 1 – June 3	SRBR Virtual Conference	
June 11	Molecular clocks in plants, insects & mammals	Stacey Harmer, Joanna Chiu & Andrew Liu
June 18	Circadian photoreception in mammals	Stuart Peirson & Russell Foster
June 25	The SCN	Erik Herzog
July 2	A clock for all seasons	Michael C. Tackenberg
July 9	Measuring circadian rhythms in humans	Steve Lockley
July 16	Oscillatory Theory and Chronobiology	Hanspeter Herzog
July 23	Oscillatory Theory and Chronobiology	Hanspeter Herzog, Bharath Ananthasubramaniam, Christoph Schmal
July 30	How can modeling help to understand the clock mechanism?	Jaekyoung Kim
Aug 6	Data analysis 1	Tanya Leise
Aug 13	Data analysis 2	Tanya Leise
Aug 20	Circadian regulation of sleep	India Nichols
Aug 27	Circadian disruption and mental health	Luoying Zhang

Fall 2020 University of Calgary Assessment component

Week	Topic	Assignment
Sep 8-11	Course organization and expectations	
Sep 14-18	Chronobiology Chat 1	Lecture Summary 1
R Sep 17	<i>Last day to drop a class without a penalty</i>	
F Sep 18	<i>Last day to add or swap a course</i>	
Sep 21-25	Chronobiology Chat 2	Lecture Summary 2
F Sep 25	<i>Fee payment deadline for Fall Term full and half courses.</i>	
Sep 28-Oct 2	Chronobiology Chat 3	Lecture Summary 3
Oct 5-9	Chronobiology Chat 4	Lecture Summary 4
Oct 12-16	Chronobiology Chat 5	Lecture Summary 5
M Oct 12	<i>Thanksgiving Day, University closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.</i>	
Oct 19-23	Chronobiology Chat 6	Lecture Summary 6
Oct 26-30	Chronobiology Chat 7	Lecture Summary 7
Nov 2-6	Chronobiology Chat 8	Lecture Summary 8
Nov 8-14	<i>Term Break No Classes</i>	
W Nov 11	<i>Remembrance Day (Observed). University Closed (except Taylor Family Digital Library, Law, Medical, Gallagher and Business Libraries). No lectures.</i>	
Nov 16-20	Oral presentations	Oral presentations
Nov 23-27	Oral presentations	Oral presentations
Nov 30-Dec 4	Chronobiology Chat 9	Lecture Summary 9
Dec 7-11	Chronobiology Chat 10	Lecture Summary 10

Reappraisal of Graded Term Work <http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

Reappraisal of Final Grade <http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

Academic Accommodations

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/. Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>.

Academic Misconduct

For information on academic misconduct and its consequences, please see the University of Calgary Calendar at <http://www.ucalgary.ca/pubs/calendar/current/k.html>

Instructor Intellectual Property

Course materials created by professor(s) (including course outlines, presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the professor(s). These materials may NOT be reproduced, redistributed or copied without the explicit consent of the professor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

Copyright Legislation

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (www.ucalgary.ca/policies/files/policies/acceptable-use-of-material-protected-by-copyright.pdf) and requirements of the copyright act (<https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html>) to ensure they are aware of the consequences of unauthorized sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy.

Freedom OF Information and Protection of Privacy

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary

Student Support and Resources

<https://www.ucalgary.ca/registrar/registration/course-outlines>

Important Dates

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Thursday, September 17, 2020**. Last day add/swap a course is **Friday, September 18, 2020**. The last day to withdraw from this course is **Wednesday, December 9, 2020**.

<https://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>