

# Psychology 507 (L01) – Sleep and Circadian Rhythms

# Winter 2008

Instructor:	Dr. Michael Antle	Lecture Location:	EDC 154
Phone:	2202574	Lecture Days/Time:	MWF 12:00-12:50
Email:	antlem@ucalgary.ca		
Office:	Admin 018		
Office Hours:	By appointment		

## **Course Description and Goals**

Behaviours are temporally coordinated and occur in a rhythmic fashion. The most obvious rhythmic behaviour humans engage in is sleeping; we spend  $1/3^{rd}$  of our lives asleep. This course will survey the behavioural, physiological, and clinical aspects of sleep and rhythms.

The course will consist of lectures on Mondays and Wednesdays. Fridays will be reserved for either class presentations or class discussions.

Presentations (5 Fridays):

Each student will be given a scientific article ahead of time and will be asked to summarize the major points of the paper for the class. These presentations will be purely oral (i.e., no PowerPoint) and will be brief (~10 minutes including time for class discussion/questions). Depending on final class enrolment, students may not present every time.

Discussions (4 Fridays):

The whole class will read the same paper, and will participate in a general discussion led by the professor.

## **Required Text available at the bookstore**

Dunlap JC, Loros JJ, DeCoursey PJ, Eds. (2004) *Chronobiology: Biological Timekeeping*. Sinauer Associates, Inc.: Sunderland, MA. (ISBN: 087893149X)

Note: Students will only be responsible for certain specific subsets of each chapter.

## Evaluation

Exam #1	In Class - Feb 15 <sup>th</sup> , 2008	20%
Exam #2	In Class - March 19th <sup>th</sup> , 2008	20%
Exam #2	During exam period	20%
Paper	Due in Class, April 18 <sup>th</sup>	30%
Participation	Weekly Friday Discussions	10%

Exams will be short answer format

There will be a 10% penalty per day, including weekends, for assignments handed in late. **E-mailed assignments will not be accepted** 

# **Grading Scale**

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
А	90-95%	В	76-79%	С	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 (i.e., 89.5% will be rounded up to 90%; 89.4% will be rounded down to 89%, etc.).

# Lecture Schedule

DATE	Topics	Readings
Jan. 14	Sleep – course introduction and basics	
Jan. 16	Sleep – Terminology and methodology	Provided
Jan. 18	Sleep – Aging + lifespan	Provided
Jan. 21	Sleep – Evolution	Provided
Jan. 23	Sleep – Neural regulation 1	Provided
Jan. 25	Friday Sleep Discussions – Studying Sleep	
	Last day for Winter registration and change of registration. No fee refunds for withdrawals after this date.	
Jan. 28	Sleep – Neural regulation 2	Provided
Jan. 30	Sleep – Neural regulation 3	Provided
Feb. 2	Friday Sleep Presentations – Sleep disorders	
Feb. 4	Sleep – disorders – Insomnia	Provided
Feb. 6	Sleep – disorders – Narcolepsy	Provided
Feb. 8	Friday Sleep Discussions – Sleep aids	
Feb. 11	Sleep – disorders – Alzheimer's and aging	Provided
Feb. 13	Sleep – disorders – Depression and other psychiatric disorders	Provided
Feb. 15	Exam #1	
Feb 17 - 24	No classes – Reading Week – University closed	
Feb. 25	Sleep – Learning – Evidence for	Provided
Feb. 27	Sleep – Learning – Evidence against	Provided
Feb. 29	Friday Sleep Discussions – Sleep and Learning	
March 3	Circadian Rhythms – Basics	Chapter 1
March 5	Circadian Rhythms – Properties 1	Chapter 2
March 7	Friday Sleep Presentations – Daylight Saving Time	•
March 10	Circadian Rhythms – Properties 2	Chapter 2
March 12	Circadian Rhythms – Organization	Chapter 5
March 14	Friday Rhythms Presentations – Classic papers identifying the SCN as the clock	•
March 17	Circadian Rhythms – Mammalian organization	Chapter 5 + 6
March 19	Exam #2	•
March 21	No classes – Good Friday – University Closed	
March 24	Circadian Rhythms – Molecular 1	Chapter 7
March 26	Circadian Rhythms – Molecular 2	Chapter 7
March 28	Friday Rhythms Presentations – Genetics papers	•
March 31	Circadian Rhythms – Human 1	Chapter 9 + 10
April 2	Circadian Rhythms – Human 2	Chapter 9 + 10
April 4	Friday Rhythms Discussions – Human circadian	i
April 7	Circadian Rhythms – Feeding	
April 9	Circadian Rhythms – Exercise / non-photic	
April 11	Friday Rhythms Presentations – Non-photic	
April 14	Circannual Rhythms 1	Chapter 4
April 16	Circannual Rhythms 2	Chapter 4
April 18	Guest Lecture – Topic TBA	2.000101
A	Last day to withdraw from full courses and Winter Session half courses.	
April 21-30	Winter Session Final Examinations	

# **University of Calgary Curriculum Objectives**

This course addresses the following core competencies:

- Critical and creative thinking
- Analysis of problems
- Effective oral and written communication
- Gathering and organizing information
- Interpretive and assessment skills

With the following course characteristics:

- Considerable class discussion; students are prompted to think critically about course material
- Test questions in which students are required to design novel research studies to address theoretical issues
- A final assignment in which students are required to integrate information from the primary literature

This course addresses the following curriculum redesign features:

- A defined interdisciplinary component
- Integration of research

With the following course characteristics:

- All readings are published research articles
- Class discussions centering on methodological and conceptual issues in research studies

## **Reappraisal of Grades**

A student who feels that a piece of graded term work (term paper, essay, test, etc.) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within fifteen days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next fifteen days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same.

If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within fifteen days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

## **Plagiarism and Other Academic Misconduct**

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

#### Academic Accommodation

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and **have not** registered with the Disability Resource Centre, please contact their office at 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

#### **Absence From A Test**

Make-up exams are NOT an option without an official University medical excuse (see the University Calendar). You must contact the instructor <u>before</u> the scheduled examination or you will have forfeited any right to make up the exam. At the instructor's discretion, a make-up exam may differ significantly (in form and/or content) from a regularly scheduled exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup exam is written within two (2) weeks of the missed exam.

A completed Physician/Counselor Statement will be required to confirm absence from a test for health reasons. The student will be required to pay any cost associated with the Physician Counselor Statement.

#### **Course Credits for Research Participation**

Course Credits for Research Participation will not be available for this course

#### **Student Organizations**

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in the Administration building, room 170 or may be contacted at 220-5567.

<b>Student Union VP Academic:</b>	Phone: 220-3911	<u>suvpaca@ucalgary.ca</u>
Student Union Faculty Rep.:	Phone: 220-3913	socialscirep@su.ucalgary.ca

#### **Important Dates**

The last day to drop this course and **still receive a fee refund** is January 25, 2008. The last day to withdraw from this course is April 18, 2008.