

The Neurobiology of Pain COMP MED 89SS

Quarter: Summer 2023

Credits: 3

Course Coordinator: Cholawat Pacharinsak (Dr. P) DVM, PhD, DACVAA

Department of Comparative Medicine

Email: cholawat@stanford.edu

Office location: Research Animal Facility, Room AF067C

Office hours: By appointment

Course Teaching Assistant: Krystal Tien (krtien@stanford.edu); Janis Atuk-Jones

(janis@stanford.edu)

Class Time: **9 – 10.30 am Monday & Wednesday**

Class Location: Edwards 358

Office hour: by appointment only

Course Objectives

This class will focus on understanding the basic neurobiology of pain pathways, and will include lectures on the physiology, pharmacology, and clinical aspects and variety of effective pain management from expertise in the field. Students will be introduced to and obtain a broad understanding of comparative neurobiology of pain. Although this class will be a lecture format, students are highly encouraged to participate in class discussions. Students may examine current scientific literature and lead discussions. In addition, laboratory tours will expose students to contemporary experimental methodologies (when possible). Guest lectures will highlight pain research from Stanford and other institutions. This course is appropriate for students wishing to understand basic comparative neurobiology pain mechanisms. At the completion of this course, students will have a basic understanding in comparative neurobiology of pain.

By the end of this course, students should be able to:

- Understand basic pain pathways
- Understand terminologies in pain research
- Understand different types of pain
- Understand pain recognition in animals
- Understand basic pharmacology in pain management
- Experience pain research at different settings

Reading Materials

Reading assignments (if any) will be posted on the “Canvas” website

Attendance 20%

Homework 40% **(due every Friday at noon; submitted on Canvas)**

Final exam 40% (take-home)

Attendance: Attendance is important component for this class. Please contact Krystal prior to the scheduled class time if you will not be able to attend due to illness or emergency. Excused absences will not impact your grade. Unexcused absence may impact your overall grade.

Grading scale:

97-100=A+
94-96= A
90-93= A-
87-89= B+
84-86= B
80-83= B-
77-79= C+
74-76= C
70-73= C-
60-69= D
<59= F