

11220LS 374300 行為神經科學 (Behavioral Neuroscience)

Lecture:

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Time: F3F4

Classroom: LSII-206

Textbook: “Neuroscience: Exploring the Brain 4th edition” (2016) by Mark F. Bear, Barry W. Connors, and Michael A. Paradiso (藝軒圖書 02-2918-2288)

Reference: “Behavioral Neuroscience 9th edition” (2020) by S. Marc Breedlove & Neil V. Watson (易利圖書 02-28485568 or 02-28479525)

Grading policy:

Take Home Essay Midterm (33%)

Take Home Essay Final (33%)

Group Presentation on Topics of Neuroethology (34%)

Materials:

Course materials can be found on the NTHU’s E-learning website, <https://eeclass.nthu.edu.tw/>

Schedule:

Week	Date	Topic	chapters
1	2/23	Functional Neuroanatomy (mini review) “ <i>Behavioral Neuroscience, chapter 2</i> ”	2, 7
2	3/1	Neurophysiology (mini review) “ <i>Behavioral Neuroscience, chapter 3</i> ”	3, 4, 5, 6
3	3/8	Wiring the Brain	23
4	3/15	Chemical Control of the Brain and Behavior	15
5	3/22	Motivation	16
6	3/29	Sex and Brain Take Home Essay Midterm (due 4/12)	17
7	4/5	兒童節補假	
8	4/12	Brain Mechanisms of Emotion	18
9	4/19	Brain Rhythms and Sleep	19
10	4/26	Language	20
11	5/3	The Resting Brain, Attention, and Consciousness	21
12	5/10	Mental Illness	22
13	5/17	Learning and Memory “ <i>Behavioral Neuroscience, chapter 17</i> ” Take Home Essay Final (due 5/31)	24, 25
14	5/24	Group Presentation	
15	5/31	Group Presentation	
16	6/7	Group Presentation	

Guidelines for Group Presentation on Topics of Neuroethology

- **What is Neuroethology?**

According to International Society for Neuroethology:

"**Neuro-**" refers to neurons, and "**ethology**" is the study of animal behavior, so "**neuroethology**" is a branch of science that seeks to understand the neural basis of "**natural**" animal behavior.

- Where to find your topics?

- Journal of Comparative Physiology A
- Journal of Experimental Biology | Subject Collection: Neuroethology
- Proceedings of the Royal Society B

- Find your group members by week 5 (3/22), 2-3 people per group

** I will random assign groups if you do not come up a group yourself by then**

- Group assignment announced by week 6 (3/29)

- Group discussion day on week 8 (4/12)

- Declare your topics
** NO overlap in topics among groups **
- Decide presentation schedules on week 14 (5/24) – week 16 (6/7), two groups per week

Date	Group	Members	Topic
Week14 (5/24)			
Week15 (5/31)			
Week16 (6/7)			

- For presentation

- One essential review paper + one original research paper (within 3 years, aka after 02/2021)
- EVERY group MUST upload the references to eeclash website by week 13 (5/17)
** 討論區 → 發表討論 → 標題 "Group X - your topic" → attach your two pdf files → 確定**
- On the day of presentation,
 - 15-20 min background introduction (the major review paper + other references if needed)
 - 20-25 min (original research paper)
 - 5-10 min Q&A

- Grading policy

- Within group evaluation (5%)
- Between group evaluation (15%)
- Evaluation by the lecture (9%)
- Summary and commentary of the presentation of ONE other group (5%)
** 2 page A4, 1.5 line space, in English, due 6/11 (Tue) 10am, upload to eeclash **