

## 11020LS 374300 行為神經科學 (Behavioral Neuroscience)

### Lecture:

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**Time:** F3F4

**Classroom:** LSII-206

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

**Reference:** “Behavioral Neuroscience 8<sup>th</sup> edition” (2017) 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	2/18	Functional Neuroanatomy (mini review) “ <i>Behavioral Neuroscience, chapter 2</i> ”	2, 7
2	2/25	Wiring the Brain	23
3	3/4	Neurophysiology (mini review) “ <i>Behavioral Neuroscience, chapter 3</i> ”	3, 4, 5, 6
4	3/11	Chemical Control of the Brain and Behavior	15
5	3/18	Motivation	16
6	3/25	Sex and Brain <b>Take Home Essay Midterm (due 4/8)</b>	17
7	4/1	<b>Group Discussion Day</b>	
8	4/8	Brain Mechanisms of Emotion	18
9	4/15	Brain Rhythms and Sleep	19
10	4/22	Language	20
11	4/29	The Resting Brain, Attention, and Consciousness	21
12	5/6	Mental Illness	22
13	5/13	Learning and Memory “ <i>Behavioral Neuroscience, chapter 17</i> ” <b>Take Home Essay Final (due 5/27)</b>	24, 25
14	5/20	Group Presentation	
15	5/27	Group Presentation	
16	6/3	<b>No class (端午節)</b>	
17	6/10	Group Presentation	
18	6/17	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 (3/18), 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 (3/25)

- Group discussion day on week 7 (4/1)

- Declare your topics  
\*\* NO overlap in topics among groups \*\*
- Decide presentation schedules on week 14 (5/20) – week 18 (6/17), two groups per week

Date	Group	Members	Topic
Week14 (5/20)			
Week15 (5/27)			
Week17 (6/10)			
Week18 (6/17)			

- For presentation

- One essential review paper + one original research paper (within 3 years, aka after 02/2019)
- EVERY group MUST upload the references to eeclash website by week 13 (5/13)  
\*\* 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 6/20 (Mon) 10am, upload to eeclash \*\*