

科目ナンバリング	U-LAS14 20043 LE68						
授業科目名 <英訳>	Introduction to Behavioral Neuroscience A-E2 Introduction to Behavioral Neuroscience A-E2						
担当者所属職名・氏名	医学研究科 助教 VEALE, Richard Edmund						
群	自然科学科目群	分野(分類)					
生物学(各論)	使用言語	英語					
旧群	B群	単位数	2単位	週コマ数	1コマ	授業形態	講義 (対面授業科目)
開講年度 開講期	2024・前期	曜時限	金5	配当学年	全回生	対象学生	全学向

## [授業の概要・目的]

Behavioral Neuroscience investigates the neural basis of behavior. Part A of this course will provide an introduction to basic neuroanatomy, neural functioning, neuroscience methods, perception, attention, and movement. The course will employ an integrative approach by discussing both research results obtained with brain imaging in humans and experiments in animal models.

## [到達目標]

- To understand how our brain processes information.
  - To understand the methods used to investigate the brain and behavior.
  - To be able to critically evaluate research findings in behavioral neuroscience reported in the public and scientific media.

## 【授業計画と内容】

- 1) Introduction to Behavioral Neuroscience
  - 2) Coarse anatomy of the nervous system
  - 3) Cells in the nervous system
  - 4) Neural information processing
  - 5) Neurotransmitters, drugs, and hormones
  - 6) Demonstration of Electroencephalography
  - 7) Methods in Behavioral Neuroscience
  - 8) Vision
  - 9) Audition
  - 10) Touch and pain
  - 11) Integrating the senses
  - 12) Attention
  - 13) Voluntary body movement
  - 14) Movement planning
  - 15) Feedback (Please arrange by email)

[履修要件]

Basic knowledge of high-school level biology is recommended. The course will continue in the following semester with "Introduction to Behavioral Neuroscience B".

## **Introduction to Behavioral Neuroscience A-E2(2)**

### **[成績評価の方法・観点]**

Evaluation will be based on class attendance and active participation (30 points), short student presentation or report (20 points), and 10 random in-class open-note quizzes(50 points), the lowest of which is not counted. Students who are absent more than five times will not be credited.

### **[教科書]**

Bear, Connors, Paradiso **『Neuroscience: Exploring the brain』** ( Lippincott ) ISBN:1451109547 ( textbook not mandatory, lecture notes will be provided )

### **[参考書等]**

( 参考書 )

Kandel, Schwartz, et al. **『Principles of Neural Science』** ( McGraw-Hill ) ISBN:0071390111 ( textbook with more detailed information, not mandatory )

### **[授業外学修（予習・復習）等]**

To achieve the course goals students should review the course materials plus optionally the according chapters in the recommended text books after each class. The time necessary for review should be in the range of 2-3 hours per class.

### **[その他（オフィスアワー等）]**

No fixed office hours, but students are welcome to arrange appointments by email.