School: Baruch Ivcher School of Psychology

Biological Basis of Behavior B

Lecturer:
Dr. Limor Shtoots  slimor@idc.ac.il

Tutors:
Mr. Josh Levine  josh.levine@post.idc.ac.il

Course No.: 8937  
Course Type : Lecture  
Weekly Hours : 2  
Credit: 4

Course Requirements : Final Exam
Group Code : 202893710  
Language: English

Prerequisites

Prerequisite:
8935 - Biological Basis of Behavior A

Students who took one of the courses listed below will not be allowed to register to the course Biological Basis of Behavior B (8937):

8892 - Biological Basis of Behavior B

Course Description

During the second semester, we will advance into the interface between brain and
behavior. We will learn about the principles of evolution, get a glimpse at animal behavior, and investigate the mechanisms of sex and reproduction. We will track the homeostatic processes involving feeding, temperature control, circadian rhythms, sleep and dreaming, and find out about the hormones that help control them. Finally, we will learn how motor actions are executed, how we plan complex behaviors, and about the diseases that impair these functions.

Course Goals

The goals of the course are to acquaint students with the principles of evolutionary biology, sensory transduction, homeostasis, and action, and to provide them with information about the biological bases of:

- sexual behavior and development
- tactile and chemical senses
- nutrition and eating disorders
- temperature and fluid regulation
- life rhythms, sleep and dreaming
- taking actions
- movement disorders

Grading

Grade components for the semester: 3 assignments (20%), semester exam (80%).

Learning Outcomes

Students should be able to:

1. Explain the principles of evolutionary biology, sensory transduction, homeostasis, and action

2. Provide detailed information about the biological bases of: sexual behavior and development, tactile and chemical senses, nutrition and eating disorders, temperature and fluid regulation, life rhythms, sleep and dreaming, movement and movement disorders.
Lecturer Office Hours
By appointment through e-mail: slimor@idc.ac.il.

Tutor Office Hours
By appointment through e-mail: jn.levine85@gmail.com

Teaching Assistant
By appointment through e-mail: jn.levine85@gmail.com

Reading List
Textbook: Laura A. Freberg, Discovering Behavioral Neurosciences, 3rd Ed.

<table>
<thead>
<tr>
<th>Date</th>
<th>Unit</th>
<th>Recitation (Sunday 15:45-17:15)</th>
<th>Lecture (Thursday 11:30-13:00)</th>
<th>Reading</th>
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</thead>
<tbody>
<tr>
<td>19,23 Apr</td>
<td></td>
<td>Ethology and Evolution: Principles</td>
<td>Territoriality.</td>
<td>Alcock ch. 1</td>
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<td></td>
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<td>- Freberg 326-336; 349-353.</td>
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<tr>
<td>3,7 May</td>
<td></td>
<td>Sexual Orientation and Attraction</td>
<td>Sex Hormones, Sexual Behavior</td>
<td>Freberg 353-358; 344-349</td>
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<tr>
<td>10,14 May</td>
<td></td>
<td>Sex Differences in Nervous System and Cognition</td>
<td>Parenting; 1st Assignment due (by 16:00).</td>
<td>- Freberg 337-344; 358-361.</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Subtopics</td>
<td>Reading Material</td>
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<tr>
<td>17, 21 May</td>
<td>Body Senses</td>
<td>Touch, Temperature &amp; Pain</td>
<td>Freberg 233-245</td>
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<td>24 May</td>
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<tr>
<td>31 May, 4 Jun</td>
<td>Homeostasis</td>
<td>Balance, Nutrition; Nutrition and Eating Disorders</td>
<td>Freberg 231-233; 307-316</td>
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<td>7, 11 Jun</td>
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<td>14, 18 Jun</td>
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<td>Sleep Basics, Biological Rhythms</td>
<td>Freberg 364-390</td>
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<td>21, 25 Jun</td>
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<td>Dreaming, Sleep Disorders</td>
<td>- Freberg 390-398; - Solms article.</td>
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<td>5, 9 Jul</td>
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<td>Reflexes, Disorders of Movement, Plasticity and Rehabilitation;</td>
<td>Freberg 266-268; 278-287</td>
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