

Introduction to Neuroscience: Behavioral Neuroscience

# Course Formalities

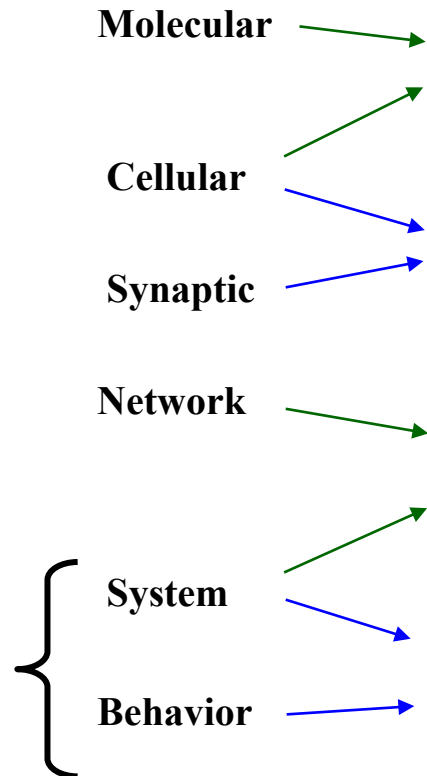
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Weizmann Institute of Science

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# Core courses at the Weizmann Institute in Brain Sciences: Systems, Computational and Behavioral Neuroscience

## Levels of Analysis of the Nervous System



## Four Core Courses in Neuroscience

**Introduction to Neuroscience:  
Molecular Neuroscience - Genes to Behavior**

**Introduction to Neuroscience:  
Cellular and Synaptic Physiology**

**Introduction to Neuroscience:  
Systems Neuroscience**

**Introduction to Neuroscience:  
Behavioral Neuroscience**



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**Course Website** (*will include ALL the presentations*):

[www.weizmann.ac.il/brain-sciences/labs/ulanovsky/courses](http://www.weizmann.ac.il/brain-sciences/labs/ulanovsky/courses)

All lectures will be delivered Physically – and also video will be recorded.

# Course syllabus (by week)

Characteristics of this course:

- No classical structure to courses in Behavioral Neuroscience (unlike the course in Cellular and synaptic Physiology) – as there is no Grand Theory of Behavior.
- We structured the course based on the Tradeoff between two approaches: The Neuroethological approach and the Neuropsychological approach.

(Go over the syllabus)

[www.weizmann.ac.il/brain-sciences/labs/ulanovsky/courses](http://www.weizmann.ac.il/brain-sciences/labs/ulanovsky/courses)

# Dates of subsequent lectures

- Every Thursday at 9:15 until 12:00. Location: WSOS Teaching Lab 3.
- Special Lectures – see course website for details.

# Formalities

- **Grading:** 100% - Final exam (*open material*). NO compulsory reading.
- **Bibliography:**

We will use four main textbooks in this course:

- *Natural Neuroscience*, Ulanovsky N. (MIT Press, 2025)
- *Behavioral Neurobiology, An integrative approach*, 3'rd ed., Zupanc G. (Oxford, 2018)
- *Behavioral Neurobiology*, Carew J. (Sinauer, 2000)
- *Learning and Behavior*, Bouton M. (Sinauer, 2007)

Additional material for some of the lectures is covered in the following books:

- *Sensory Ecology*, Dusenbery D. (Freeman, 1992)
- *An Introduction to Behavioral Endocrinology*, 4'th ed., Nelson R. (Sinauer, 2011)
- *Neuroeconomics: Decision making and the Brain*, 2nd ed., Glimcher P. and Fehr E. (Academic Press, 2013)
- *Neural nets in Electric Fish*, Heiligenberg W. (MIT Press, 1991).