

**INTERAMERICAN UNIVERSITY OF PUERTO RICO
METROPOLITAN CAMPUS
SCIENCE AND TECHNOLOGY FACULTY
NATURAL SCIENCES DEPARTMENT**

I. GENERAL INFORMATION

Course Title	:	General Biopsychology
Code and Number	:	BIPS 1200
Credits	:	3
Academic Term	:	
Professor	:	
Office Hours	:	
Office Phone	:	787-250-1912 x 2323
Email	:	

II. DESCRIPTION

Study of the relationship between the nervous system and behavior, learning, memory, cognition, and perception. Study of the fundamental notions of the biological bases related to sensations, motivation, and emotion, among others. BIOL 1102 and PSYC 1051 requirements.

III. COURSE OBJECTIVES

At the end of the course, the student must:

1. Understand how the brain and neurotransmitters affect behavior.
2. Identify normal and abnormal mental processes.
3. Identify diversities in behavior and knowledge.
4. Identify the basic anatomy of the nervous system.
5. Recognize plasticity and neural disorders.
6. Explain the difference between the sensory and motor systems; chemical and somatosensory.
7. Name and identify the visual and auditory systems.
8. Differentiate between innate behavior and cognition.
9. Explain the biological basis for learning and memory.
10. Describe ingestive and reproductive behaviors, sleep, and sleep.
11. Discuss cognitive functions, stress, and emotions.
12. Explain the mode of action of the most common addictive drugs.

IV. COMPETENCES

COMPETENCES OF THE GRADUATE PROFILE THAT ARE ATTENDED IN THIS COURSE

Knowledge

C1. Demonstrate basic **knowledge** of concepts, principles, and theories related to biology and psychology.

Skills

D3. Apply the appropriate methodology in the solution of problems related to Biopsychology.

V. CONTENT

Unit 1: Fundamentals

Introduction to Biopsychology (Chapter 1).
Anatomy of the Nervous System (Chapter 4) Neural Physiology (Chapters 2 and 3).
Drugs' actions on the Nervous System (Chapter 3).

EXAM 1

Unit 2: Sensory and Motor Systems.

Visual System (Chapter 6).
Auditory, chemical, and somatosensory systems (Chapter 7).
Motor System (Chapter 8).

EXAM 2

Unit 3: Innate Behavior and Cognition.

Ingestive Behavior (Chapter 10).
Reproductive Behavior (Chapter 11).
Sleep and Sleep (Chapter 9).
Learning and Memory (Chapter 13).

EXAM 3

Unit 4: Plasticity and disorders.

Neural Plasticity and Brain Damage (Chapter 5).
Cognitive Functions (Chapter 14).
Stress and Emotions (Chapter 12).
Mental Disorders (Chapter 15).

FINAL EXAMINATION

VI. ACTIVITIES

- Use of the Game Scavenger Hunt.
- Forum will create an FAQ forum where students will ask questions and answer each other. Students will be encouraged to answer questions to common problems or topic questions.
- Study Guide- Students will be encouraged to ask review questions to study. The teacher will also be able to ask questions for students to answer.
- Videos explaining assignments. The professor will make a video presentation explaining the assignment.
- Conferences on the topics

VII. EVALUATION

Evaluation Criteria	Points	% of Final Grade
Three (3) Midterm Exams	300 pts. (100 pts. each uno)	50
Case Study	100	15
Scavenger Hunt Game	100	5
Participation in the study guide	100	10
Assignments	100	10
Participation in the discussion forum	100	10
Total	800	100

The curve is Standard Rounded.

VIII. SPECIAL NOTES

A. Auxiliary Services or Special Needs

All students who require auxiliary services or special assistance must request these at the beginning of the course or as soon as they know that they need them through the proper registry in the Office of the Coordinator of Services to Students with Disabilities, Dr. María de los Angeles Cabello, located in the Counseling Program, Room 419, on the fourth floor of the John Will Harris Building, 787-250-1912, extension 2306.

B. Honesty, fraud, and plagiarism

Dishonesty, fraud, plagiarism, and any other inappropriate behavior with academic work constitute major infractions sanctioned by the General Student Regulations. The major infractions, as stated in the General Student Regulations, may consequently be suspension from the University for a definite period greater than one year or permanent expulsion from the University, among other sanctions.

C. Use of electronic devices

Cellular telephones and any other electronic device that could interrupt the teaching and learning processes or alter the environment leading to academic excellence will be deactivated. Any urgent situation will be dealt with, as appropriate. The handling of electronic devices that allow students to access, store, or send data during evaluations or examinations is prohibited.

D. Compliance with the Provisions of Title IX

The Federal Higher Education Act, as amended, prohibits discrimination because of sex in any academic, educational, extracurricular, and athletic activity or in any other program or function, sponsored or controlled by a higher education institution, whether it is conducted within or outside the property of the institution if the institution receives federal funds.

In harmony with current federal regulations, in our academic unit an Assistant Coordinator of Title IX has been designated to offer assistance and orientation in relation to any alleged incident constituting discrimination because of sex or gender, sexual harassment, or sexual aggression. The Assistant Coordinator, Mr. George Rivera, can be reached by phone at (787) 250-1912 extension 2147, or by e-mail at grivera@metro.inter.edu.

The Normative Document Titled Norms and Procedures to Deal with Alleged Violations of the Provisions of Title IX is a document that contains the institutional rules to direct any complaint that appears to be this type of allegation. This document is available on the Web site of the Inter-American University of Puerto Rico (www.inter.edu).

IX. EDUCATIONAL RESOURCES:

Textbook

Kalat J. (2016). *Biological Psychology*. 13th Edition Wadsworth Publ. New York.
ISBN: 978-1-337-40820-2

Audiovisual Resources

Anatomy of the Nervous System -

<https://www.youtube.com/watch?v=F76mL4rcpLA>

Structure and Functioning of the Central Nervous System -

<https://www.youtube.com/watch?v=0tlegH34r40>.

The Brain – All About the Brain documentary -

<https://www.youtube.com/watch?v=wAQH4gzEAjU>

Biological Basis of Behavior The Brain - <http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/la-neuropsicologia-el-cerebro-video>

The brain - Parts 1 to 9. - <https://www.youtube.com/watch?v=cuzTCIfOszs>

Neuropsychology: Parts of the brain. -

<http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/la-neuropsicologia-partes-del-cerebro-video>

Peripheral nervous system. -

<https://www.youtube.com/watch?v=BehmPx2FF0U>

Psychophysiology - Characteristics and functions of the peripheral nervous system

<http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/psicofisiologia-caracteristicas-y-funciones-del-sistema-nervioso-periferico-snp-video>

Nerve impulses - <http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/psicofisiologia-caracteristicas-y-funciones-del-sistema-nervioso-periferico-snp-video>

<http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/psicofisiologia-caracteristicas-y-funciones-del-sistema-nervioso-periferico-snp-video>

What is the endocrine system? - <http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/que-es-el-sistema-endocrino-video>

Main features of the endocrine system: hormones -

<http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/sistema-endocrino-principales-caracteristicas-y-funciones-las-hormonas-video>

Neurotransmitters -

<http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/neurotransmisores-video>

Behavioral and molecular genetics -

<http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/genetica-conductual-y-molecular-video>

Genetics and evolution. - <http://www.educatina.com/psicologia/bases-biologicas-de-la-conducta/genes-la-evolucion-y-la-conducta-de-las-personas-video> behavior

Visual system: importance, alterations, and contributions to the Psychology - <https://www.youtube.com/watch?v=YzFnbgyAyIM>

Sensory and Perceptual Activities - <https://www.youtube.com/watch?v=DXzI9VMRUaI>

Well-explained motor system - https://www.youtube.com/watch?v=kIS_QqzcPNo

Nervous control of the motor system - <https://www.youtube.com/watch?v=neocMjpdIyE>

The role of satiety signals for the control of satiety intake. - Foods. <https://www.youtube.com/watch?v=HaUmElew96A>

Mechanisms of hunger and satiety - <https://www.youtube.com/watch?v=Hc8D9rzHs2I>
Eating for Good Brain Health https://www.youtube.com/watch?v=wLuTE_qcNKg

Family visits to families and individuals experiencing suicidal behavior- <https://www.youtube.com/watch?v=XSyinW8DXPQ>

Risk classification of suicidal behavior- <https://www.youtube.com/watch?v=esBFSvfzkn0>

Psychobiology of Emotion - Stress – 1/2 <https://www.youtube.com/watch?v=rUWOmXl8Gh8>

Psychobiology of Emotion - Stress 2/2 <https://www.youtube.com/watch?v=Z4LQiYTekjs>

Stress, emotional Disorders, and their consequences on the digestive system. https://www.youtube.com/watch?v=3S_Kaim-PIA

Mental Disorders - An overview- <https://www.youtube.com/watch?v=K6ZcQnJXx8s>

The Most Common Mental Illnesses - <https://www.youtube.com/watch?v=G6LYnQckxDs>

What you need to know about depression, stress, and anxiety
<http://www.vidaysalud.com/reportes-gratis/lo-que-debes-saber-sobre-la-depresion-el-estres-y-la-ansiedad/>

Cognitive Processes Video 1 - Cognitive Processes-
<https://www.youtube.com/watch?v=EzsDRRGDhYs>

Basic cognitive processes. <https://www.youtube.com/watch?v=F2bqIT2uKfU>

Further reading

Sequie, L. & Kandel, E. R. (2008). *Memory: From Mind to Molecules*.

Kandel, E. R. (2007). *In Search of Memory: The Emergence of a New Science of Mind*.

Gluck, M. A. & Mercado E. (2013). *Learning and Memory: From Brain to Behavior*.

X. BIBLIOGRAPHY

Breedlove, M. & Watson, N. 2010. *Biological Psychology: An Introduction to Behavioral, cognitive, and Clinical Neuroscience*. Sunderland, MA

Klein, S. B. & Thorne, B. M. 2006. *Biological Psychology*. Worth Publishers. McMillan Higher Ed. NY

Pinel, J. 2013. *Biopsychology Plus NEW MyPsychLab with eText - Access Card Package, 9/E*, Pearson, NY

Pinel, J. *Biopsychology*. 9th ed. Pearson. New York.

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