

Description of the Bachelor's degree in Biopsychology

The Biopsychology program exposes the student to concepts of biology and psychology, emphasizing the understanding of neural and pharmacological mechanisms. In addition, it provides a foundation of development and neuroscience. This program would allow the student to prepare for graduate studies in Biology, and Neuropsychology. If the student wishes to pursue studies in psychology, he/she must take other requirements of individual programs as part of the prescribed distributives.

The program allows the student to develop skills that can be useful to work as a research assistant in laboratories in areas of neurology, pharmacology and / or biology.

Mission

The Bachelor of Science in Biopsychology is designed to develop the basic competencies related to the study of the biological foundations of human behavior. In addition, it will help graduates to work or continue graduate studies in fields related to Biopsychology.

Alumni Competencies Profile

The Bachelor of Science in Biopsychology program is designed to develop the professional competencies that allow the student to acquire the following:

Knowledge

1. demonstrate basic knowledge of the concepts, principles and theories related to Biology and Psychology.
2. demonstrate knowledge to integrate information from multiple sources in Biology and Psychology relevant to the study of human behavior problems.

Skills

1. Apply scientific models or processes in the solution of problems related to the study of Biopsychology.
2. Properly use the equipment and materials relevant to the study of Biopsychology.
3. Apply the appropriate methodology in the solution of problems related to Biopsychology.

Abilities

1. Identify ethical situations and their possible informed and responsible explanations.
2. Demonstrate a critical attitude towards the decisions that are made from the information generated by Biopsychological research.

Admission's Requirements

Every student to be admitted must present a valid document proving their identity, for purposes of compliance with the law and applicable regulations.

1. Option A:
 1. Deliver an official document issued in any tangible medium that serves to certify that the student has completed the graduation requirements of an accredited high school, with an academic index of 2.00 or its equivalent.
 2. Submit the results obtained in the University Admission Test (PAA), the Scholastic Aptitude Test or any other equivalent.
 3. Obtain an index of 785 or its equivalent, according to the procedure carried out by the Admissions Office.

2. Option B:
 1. Deliver an official document issued in any tangible medium that serves to certify that the student has completed the graduation requirements.
 - a. This admission option does not require the presentation of the result of the PAA test, the Scholastic Aptitude Test or any other equivalent.

Transfer Requirements

1. Comply with the admission requirements for transfer students established in the General Catalog.
2. Have completed university studies at another Institution and have passed with a grade of C or more; a minimum of 12 credits.

Academic Progress Requirement

1. Comply with all the Satisfactory Progress Standards established in the General Catalog.
2. Students in this Program must pass all concentration courses with a minimum grade of C.

General Education Requirements

General Education Requirements – 42 credits

| Course | Title | Credits | NOTES |
|---------------------------|--|---------|---|
| GEIC 1010 | Information Technology and Computing | 3 | |
| GEEN (1101 ó 1201 ó 2311) | English I | 3 | |
| GEEN (1102 ó 1202 ó 2312) | English II | 3 | Pre-requisite GEEN (1101 ó 1201 ó 2311) |
| GEEN (1103, 1203 ó 2313) | English III | 3 | Pre-requisite GEEN (1102 ó 1202 ó 2312) |
| GESP 1101 | Literature and Communication: Narrative and Poetry | 3 | |

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| GESP 1102 | Literature and Communication: Essay and Theatre | 3 | |
| GESP 2203 | Literature and Worldview | 3 | |
| GEMA 1200 | Fundamentals of Algebra | 3 | |
| GECF 1010 | Introduction to the Christian Faith | 3 | |
| GEHS 2010 | Historical Process of Contemporary Puerto Rico | 3 | |
| GEHS 3020 | Global Society | 3 | Choose one of the courses. |
| GEHS 3050 | Human Formation, Society and Culture | | |
| GEHS 4020 | Western, Ancient and Medieval Civilization | | |
| GEHS 4030 | Modern and Contemporary Western Civilization | | |
| GEPE 3010 | Art Appreciation | 3 | Choose one of the courses. |
| GEPE 3020 | Music Appreciation | | |
| GEPE 3030 | Appreciation of the Theatre | | |
| GEPE 4040 | Ethics and Social Responsibility | 3 | |
| GEEC 2000 | Entrepreneurial Culture | 3 | |

Concentration and Core Requirements: 68 credits

| Course | Title | Credits | NOTES |
|-----------|------------------------------|---------|--|
| BIOL 1101 | General Biology I | 3 | |
| BIOL 1103 | Biology Skills Laboratory I | 1 | Concurrent with BIOL 1101 |
| BIOL 1102 | General Biology II | 3 | Pre-requisite BIOL 1101 BIOL 1103 |
| BIOL 1104 | Biology Skills Laboratory II | 1 | Concurrent with BIOL 1102 |
| BIOL 2100 | Introduction to Neurobiology | 3 | Pre-requisite BIPS 1200 |
| BIPS 1200 | Biopsicología General | 3 | Pre-requisite BIOL 1102 and PSYC 1051 |
| CHEM 1111 | General Chemistry I | 4 | Pre-requisite GEMA1200 Contains Laboratory |
| CHEM 2212 | General Chemistry II | 4 | Pre-requisite MATH 1500 ó MATH 1511 and CHEM 1111 Contains Laboratory |
| CHEM 2221 | Organic Chemistry I | 4 | Pre-requisite CHEM 2212 Contains Laboratory |

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|-----------|--|---|---|
| CHEM 2222 | Organic Chemistry II | 4 | Pre-requisite CHEM 2221 Contains Laboratory |
| MATH 1511 | Precalculus I | 3 | Pre-requisite GEMA 1200 |
| MATH 1512 | Precalculus II | 3 | Pre-requisite MTH 1511 |
| PSYC 1051 | General Psychology I | 3 | |
| PHYS 3001 | General Physics I | 4 | Pre-requisite MATH 1500 Contains Laboratory |
| PHYS 3002 | General Physics II | 4 | Pre-requisite PHYS 3001 Contains Laboratory |
| BIOL 3010 | Genetics | 3 | Pre-requisite BIOL 1102 and GEMA1200 |
| BIOL 3106 | Human Anatomy and Physiology | 4 | |
| BIPS 3900 | Neuroscience of Human Behavior | 3 | |
| BIPS 4900 | Integrative Seminar in Biopsychology | 3 | Pre-requisite: Have passed 30 credits in courses of the concentration in Biopsychology. |
| MATH 2100 | Introduction to Probability and Statistics | 3 | |
| PSYC 3200 | Comparative Psychology | 3 | |
| PSYC 4234 | Personality Psychology | 3 | Pre-requisite PSYC 2010 |

Prescribed Distribution Requirements: 12 credits

The student will select (6) credits from among the following:

BIOL 4200 Neuroscience (3 credits)

BIOL 4604 Cellular and Molecular Biology (3 credits)

BIOL 4494 Pharmacology (3 credits)

BIOL 4960 Bioethics (3 credits)

MATH 2251 Calculus (5 credits)

Select six (6) credits from the following courses:

PSYC 3100 Learning (3 credits)

PSYC 2010 Developmental Psychology (3 credits)

PSYC 3144 Motivation and Emotion (3 credits)

PSYC 3300 Social psychology (3 credits)

PSYC 397_ Special Theme (3 credits)

PSYC 4213 Psychopathology (3 credits)

List of Core Concentration Courses

BIPS 1200 General Biopsychology.

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, emotion, among others. BIOL 1102 and PSYC 1051 requirements. (3 credits)

BIPS 3900 Neuroscience of Human Behavior

Discussion of the biological basis underlying human behavior with emphasis on neuroanatomy and neurochemistry. Analysis of neurophysiological processes related to vision, the auditory system, sleep, language production. Emphasis on the influence of different brain structures on emotional states, learning, memory and mental disorders. Requirement: BIOL 2100, BIOL 3106 and PSYC 1051. (3 credits)

BIPS 4900 Integrative Seminar in Biopsychology

Integration of the knowledge and skills acquired in the courses of the program. Analysis of cases and research of topics of interest in biopsychology. It requires the presentation of written and oral works. Requirement: Have passed 30 credits in courses of the concentration in Biopsychology. (3 credits)

Requirements for Minor Concentration in Biopsychology

The minor concentration in Biopsychology is aimed at students who intend to continue studies in Neurosciences, Medicine, Dentistry and graduate programs in sciences related to human behavior. It develops the basic competences related to the integration of general concepts of biology and psychology.

The student can select the following courses:

Option A

| Course | Title | Credits | NOTES |
|-----------|------------------------------|---------|---|
| BIOL 1101 | General Biology I | 3 | |
| BIOL 1103 | Biology Skills Laboratory I | 1 | Concurrent with BIOL 1101 |
| BIOL 1102 | General Biology II | 3 | Pre-requisite BIOL 1101 BIOL 1103 |
| BIOL 1104 | Biology Skills Laboratory II | 1 | Concurrent with BIOL 1102 |
| BIOL 2100 | Introduction to Neurobiology | 3 | Pre-requisite BIPS 1200 |
| BIOL 3106 | Human Anatomy and Physiology | 4 | Pre-requisite BIOL 1102, BIOL 1104 Contains Laboratory |

Option B:

| Course | Title | Credits | NOTES |
|-----------|--------------------------------|---------|--|
| BMSC 3011 | General Biology I | 3 | |
| BIPS 1200 | General Biopsychology | 3 | BIOL 1102 and PSYC 1051 are requirements. |
| BIPS 3900 | Neuroscience of Human Behavior | 3 | BIOL 2100, BIOL 3106 and PSYC 1051 are requirements. |
| PSYC 1051 | General Psychology I | 3 | |

The student will select additionally (3) credits among the following:

BIOL 4200 Neuroscience (3 credits)

PSYC 3200 Comparative Psychology (3 credits)

PSYC 3144 Motivation and Emotion (3 credits)

PSYC 3300 Social psychology (3 credits)