

**FLORIDA ATLANTIC UNIVERSITY**

*All courses are three (3) credits unless otherwise indicated. Course selections should be made in consultation with an academic advisor.*

**NEUROSCIENCE & BEHAVIOR MAJOR  
(2011 – 2012)**

The Charles E. Schmidt College of Science  
Bachelor of Science (BS) and Honors in Major

**FOUNDATIONS OF WRITTEN COMMUNICATION  
(Gordon Rule Writing (GRW), 6 credits required)  
(A grade of "C" or higher is required in each course)**

- \_\_\_ ENC 1101 ..... College Writing I (**REQUIRED**)
- \_\_\_ ENC 1102+ ..... College Writing II

**THE FOLLOWING COURSES CAN BE SUBSTITUTED FOR ENC 1102:**

- \_\_\_ ANT 1471+ ..... Cultural Difference in a Globalized Society
- \_\_\_ ENC 1930+ ..... University Honors Seminar in Writing (**Permit Only**)
- \_\_\_ ENC 1939+ ..... Special Topic: College Writing II
- \_\_\_ ENC 2452+♦ ..... Advanced Composition for Science
- \_\_\_ NSP 1195+ ..... Being Cared For: Reflections from Other Side of Bed

**After completing this section, two additional (GRW) classes are required from two different departments. Choices are available in: Foundations in Global Citizenship and/or Foundations of Creative Expression.**

**FOUNDATIONS OF SOCIETY & HUMAN BEHAVIOR  
(6 credits required, select 2 courses from 2 different departments)**

**Anthropology Department**

- \_\_\_ ANT 2000 & D ..... Introduction to Anthropology

**Economics Department**

- \_\_\_ ECO 2013# ..... Macroeconomic Principles
- \_\_\_ ECO 2023# ..... Microeconomic Principles
- \_\_\_ ECP 2002 ..... Contemporary Economic Issues

**Exceptional Student Education Department**

- \_\_\_ EEX 2091 ..... Disability and Society

**Political Science Department**

- \_\_\_ POS 2041 ..... Government of the United States

**Psychology Department**

- \_\_\_ PSY 1012 ..... General Psychology (**REQUIRED**)

**Public Administration Department**

- \_\_\_ PAD 2258 ..... Changing Env. of Soc., Bus., & Government

**Sociology Department**

- \_\_\_ SYG 1000 ..... Sociological Perspectives
- \_\_\_ SYG 2010 ..... Social Problems

**Geosciences Department**

- \_\_\_ EVR 2017 ..... Environment and Society

**Urban & Regional Planning Department**

- \_\_\_ URP 2051 ..... Designing the City

**FOUNDATIONS OF SCIENCE & THE NATURAL WORLD  
(8 credits req., 2 courses)**

**(Biology & Chemistry courses must be taken with a Lab)**

**Biology Department**

- \_\_\_ BSC 1011 & L & D ..... Biodiversity (4 cr. incl. Lab and Discussion)

**Chemistry Department**

- \_\_\_ CHM 2045 & L† ..... General Chemistry I (4 credits Incl. Lab)

**Additional Biology and Chemistry classes are needed.**

**FOUNDATIONS OF MATHEMATICS & QUANTITATIVE REASONING  
(Grade of "C" or higher required. 6 credits required)  
**PRETEST IS REQUIRED BEFORE TAKING YOUR FIRST MATH CLASS****

- \_\_\_ MAC 1105 ..... College Algebra
- \_\_\_ MAC 1114 ..... Trigonometry
- \_\_\_ MAC 1140 ..... Precalculus Algebra
- \_\_\_ MAC 1147 ..... Precalculus Algebra & Trigonometry (5 cr)
- \_\_\_ MAC 2233 ..... Methods of Calculus (**REQUIRED**)

**A higher level calculus class can be taken instead of MAC 2233**

- \_\_\_ MAC 2311 ..... Calculus with Analytic Geometry I (4 cr)

**Additional math courses are available upon request.  
Consult with your academic advisor.**

**FOUNDATIONS IN GLOBAL CITIZENSHIP  
(Select 2 courses from 2 different departments)  
(6 credits required. At least 1 course from Global Perspectives)**

----- **WESTERN IDENTITIES:** -----

**Sociology Department**

- \_\_\_ SYD 2790 ..... Race, Class, Gender, and Sexuality

**Philosophy Department**

- \_\_\_ PHI 2010++ ..... Introduction to Philosophy (**GRW**)

**History Department**

- \_\_\_ AMH 2010 (P/F) ..... United States History to 1877
- \_\_\_ AMH 2020 (P/F) ..... United States History Since 1877

**Languages, Linguistics, & Comparative Literature Department**

- \_\_\_ LAS 2000 ..... Intro to Caribbean & Latin American Studies

----- **GLOBAL PERSPECTIVES (1 course required):** -----

**Anthropology Department**

- \_\_\_ ANT 2410 ..... Culture and Society

**Geography Department**

- \_\_\_ GEA 2000 & D ..... World Geography

**History Department**

- \_\_\_ WOH 2012 & D++ ..... History of Civilization I (**GRW**)
- \_\_\_ WOH 2022 ..... History of Civilization II

**Sociology Department**

- \_\_\_ SYP 2450 ..... Global Society

**Political Science Department**

- \_\_\_ INR 2002 ..... Introduction to World Politics

**Languages, Linguistics, & Comparative Literature Department**

- \_\_\_ LIN 2607 ..... Global Perspectives on Language

**Curriculum, Culture, & Educational Inquiry Department**

- \_\_\_ EDF 2854 ..... Educated Citizen in Global Context

**Social Work Department**

- \_\_\_ SOW 1005 ..... Global Perspectives on Social Services

**FOUNDATIONS OF CREATIVE EXPRESSION  
(6 credits req., select 2 courses from 2 different departments)**

**Architecture Department**

- \_\_\_ ARC 2208 ..... Culture & Architecture

**Visual Art & Art History Department**

- \_\_\_ ARH 2000 (P/F) ..... Art Appreciation

**School of Communication & Multimedia Studies**

- \_\_\_ FIL 2000 & D ..... Film Appreciation

**English Department**

- \_\_\_ LIT 2010++ ..... Interpretation of Fiction (**GRW**)
- \_\_\_ LIT 2030++ ..... Interpretation of Poetry (**GRW**)
- \_\_\_ LIT 2040++ ..... Interpretation of Drama (**GRW**)

**Languages, Linguistics, & Comparative Literature Department**

- \_\_\_ LIT 2100 & D ..... Global Great Books

**Music Department**

- \_\_\_ MUL 2010 ..... History & Appreciation of Music

**Theatre & Dance Department**

- \_\_\_ DAN 2100 ..... Appreciation of Dance
- \_\_\_ THE 2000 ..... Appreciation of Theatre

**STUDENTS ASSUME RESPONSIBILITY FOR MEETING ALL GRADUATION REQUIREMENTS**  
*Course selections should be made in consultation with an advisor*

**Legend**

- +** - ENC 1101 is a prerequisite.
- ++** - Two Foundations of Written Communications classes are required before taking this class.
- #** - Sophomore standing (30 credits earned) is required.
- \*\*** - MAC 2281 or MAC 2311 is a prerequisite for this class. If a lab is needed take General Physics 1 Lab (PHY 2048 Lab).
- \*\*\*** - MAC 1105 and MAC 1114 are prerequisites for this class. If a lab is needed take General Physics 1 Lab (PHY 2048 Lab).
- ‡** - A corequisite of College Algebra (MAC 1105) or a prerequisite of Introductory Chemistry (CHM 1025).
- GRW** - (WAC) Writing across the curriculum class.
- D** - A discussion is linked to the lecture. Students must register for the discussion in addition to the lecture.
- L** - A lab is linked to the lecture. Students must register for the lab in addition to the lecture.
- P/F** - Course may be taken pass (P) or fail (F) or for a letter grade. Indicate your preferred grading option during registration.

**FOREIGN LANGUAGE** (4 - 8 credits, 1 or more courses in the same language) - **REQUIRED FOR MAJOR**

Students with more than one year of a foreign language in high school should enroll in the second half of the beginners foreign language class (FOL/FRE/GER/GRE/GRK/HBR/ITA/JPN/LAT/SPN 1121) or a higher level course. Proficiency for a first-level course can be earned by successfully completing a second-level course. For questions related to this requirement, consult an academic advisor. CLEP exam credits meet this requirement: see the catalog.

*∄ NOTE: Native Speakers of a foreign language must consult the Languages, Linguistics, and Comparative Literature Department regarding this requirement.*

**CLAS:** College Level Academic Skills (CLAS) requirements need to be met prior to graduation. See the university catalog for additional information.

*∄ NOTE: Honors Seminars SHALL BE ACCEPTED AS MEETING THE GORDON RULE WRITING REQUIREMENT. See the Freshman Academic Advising Services Office for details.*

*∄ HONORS NOTE: Students can apply for the PSYCHOLOGY HONORS PROGRAM after completion of 60 credits, and before completion of 105 credits. Students must have a 3.2 overall & Psychology GPA to be admitted and retained in the Honors track.*

|                    |  |
|--------------------|--|
| 46 credits         | Intellectual Foundations Program and Foreign Language      |
| 18 credits         | Free Electives (13 credits must be upper-division)         |
| <u>56 credits</u>  | <u>Neuroscience and Behavior Major &amp; Concentration</u> |
| <b>120 CREDITS</b> | <b>TOTAL (45 credits at upper division)</b>                |

**NOTE:** See the catalog for specific requirements, course descriptions, and additional information. The requirements for some Intellectual Foundations Program (I.F.P.) courses & other courses may be satisfied by passing the appropriate AP or CLEP exam. Check with your advisor and college.

The Charles E Schmidt College of Science has the following requirements: (1) Any course work in the major field transferred from another institution must be approved by the major dept; (2) No major course may be taken pass/fail; (3) The maximum amount of credit which may be earned through co-op is 10 credits, some departments allow some of these credits to substitute for major courses, check with department for specifics. Psychology has the following requirements: (1) up to a maximum of 20 credits in Psychology may be transferred from another institution, with dept. approval; and (2) 22 credits minimum must be taken from courses with the department at FAU. All course selections should be made in consultation with an advisor.

## MAJOR COURSES, COLLEGE REQUIREMENTS and ELECTIVES

### NEUROSCIENCE AND BEHAVIOR MAJOR

#### Major Core (21 credits, 7 courses)

|              |  |
|--------------|--|
| BSC 1010 & L | Biological Principles with lab (3 + 1 = 4 cr)  |
| PSB 3002     | Biological Basis of Behavior I (3 cr) – <b>PSY 1012 is a prerequisite</b>                |
| PCB 3063     | Genetics (4 cr) – <b>BSC 1011 &amp; BSC 1010 with labs are prerequisites</b>             |
| PSY 3213     | Research Methods in Psychology (3 cr) – <b>PSY 1012 is a prerequisite</b>                |
| PSY 3234     | Experimental Design and Statistical Inference (3 cr) – <b>PSY 1012 is a prerequisite</b> |
| STA 3163L    | Intermediate Statistics Lab (1 cr) – <b>PSY 3234 is a prerequisite</b>                   |
| CBH 4024     | Comparative Animal Behavior (3 cr) – <b>PSY 1012 &amp; BSC 1010 are prerequisites</b>    |

#### Other Science Requirements (23 credits, 25 credits with Physics Labs, 6 courses)

|              |  |
|--------------|--|
| CHM 2046 & L | General Chemistry II with lab (3 + 1 = 4 cr)   |
| CHM 2210 & D | Organic Chemistry I (3 cr)   |
| CHM 2211 & L | Organic Chemistry II (5 cr including Lab)  |
| BCH 3033     | Biochemistry I (3 cr) – <b>BSC 1010/1011 and CHM 2045/2046 all with labs are prerequisites</b> |

#### Select two (2) Physics classes:

|                     |  |
|---------------------|--|
| PHY 2048**          | General Physics I (4 + 1 (optional lab) = 5 cr)  |
| <b>AND</b> PHY 2049 | General Physics II (4 + 1 (optional lab) = 5 cr) |

**OR**

|                     |  |
|---------------------|--|
| PHY 2053***         | College Physics I (4 + 1 (optional lab) = 5 cr)  |
| <b>AND</b> PHY 2054 | College Physics II (4 + 1 (optional lab) = 5 cr) |

#### CONCENTRATION AREA REQUIREMENTS (12 credits in ONE AREA, 3-4 courses)

Students are expected to complete a minimum of 12 credits in **one** of the following areas of concentration:

#### I. Ethology/Comparative Psychology

|              |   |
|--------------|---|
| EXP 4304     | Psychology of Motivation (3 cr) – <b>PSY 1012 is a prerequisite</b>                                       |
| OCB 4043 & L | Marine Biology & Marine Biology Field Studies & Lab (4 cr. total) – <b>ZOO 2203 is prerequisite</b>       |
| PCB 4043     | Principles of Ecology (3 cr) – <b>BSC 1011 &amp; 1010, CHM 2045 &amp; 2046 with labs</b>                  |
| PCB 4414C    | Behavioral Ecology (4 cr) – <b>PCB 3063 is a prerequisite</b>   |
| PCB 4674     | Evolution (3 cr) – <b>PCB 3063 &amp; BCH 3033 are prerequisites</b>                                       |
| PCB 4723 & L | Comparative Animal Physiology & Lab (4 cr) – <b>BSC 1011/1010 &amp; CHM 2210 are prerequisites</b>        |
| PSB 3002L    | Computer Laboratory in Psychobiology (3 cr) – <b>PSB 3002 is a prerequisite</b>                           |
| PSB 4004L    | Lab in Psychobiology (3 cr) – <b>EXP 44040 or PSB 4504 or PSB 3302 is a prerequisite</b>                  |
| PSB 4504     | Developmental Psychobiology (3 cr) – <b>PSY 1012 is a prerequisite</b>                                    |
| ZOO 2203 & L | Invertebrate Zoology and Lab (5 cr) – <b>BSC 1011 &amp; BSC 1010 with labs are prerequisites</b>          |
| ZOO 4402 & L | Functional Biology of Marine Animals & Lab (4 cr) - <b>BSC 1011/1010 &amp; OCB 4043 are prerequisites</b> |
| ZOO 4472 & L | Ornithology and Lab (4 cr) – <b>BSC 1011 &amp; BSC 1010 with labs are prerequisites</b>                   |
| ZOO 4690 & L | Comparative Vertebrate Morphogenesis with lab (3 cr) – <b>8 credits of general biology prerequisites</b>  |

#### II. Behavioral Neuroscience

|              |   |
|--------------|---|
| EXP 4120     | Auditory Perception   |
| EXP 4204     | Human Perception (3 cr) – <b>PSY 1012 and either EXP 3505 or PSB 3002 are prerequisites</b>         |
| PCB 4723 & L | Comparative Animal Physiology & Lab (4 cr) – <b>BSC 1011/1010 &amp; CHM 2210 are prerequisites</b>  |
| PSB 3002L    | Computer Laboratory in Psychobiology (3 cr) – <b>PSB 3002 is a prerequisite</b>                     |
| PSB 4004L    | Lab in Psychobiology (3 cr) – <b>EXP 4404 or PSB 4504 or PSB 3002 is a prerequisite</b>             |
| PSB 4006     | Biological Basis of Behavior II (3 cr) – <b>PSB 3002 is a prerequisite</b>                          |
| PSB 4240     | Neuropsychology (3 cr) – <b>PSY 1012 &amp; PSB 3002 are prerequisites</b>                           |
| PSB 4323     | Human Psychophysiology (3 cr) – <b>PSB 3002 is a prerequisite</b>                                   |
| PSB 4444     | Psychopharmacology (3 cr) – <b>PSY 1012 &amp; PSB 3302 are prerequisites</b>                        |
| PSB 4504     | Developmental Psychobiology (3 cr) – <b>PSY 1012 is a prerequisite</b>                              |
| PSB 4810     | Neurobiology of Learning and Memory (3 cr) – <b>PSB 3002, PSB 4006 &amp; PSY 3213 prerequisites</b> |
| PSY 4833     | Biopsychology of Language (3 cr) – <b>PSY 1012 is a prerequisite</b>                                |
| PSY 6515     | Developmental Neurobiology (3 cr) – <b>PSY 1012 &amp; PSB 3002 are prerequisites</b>                |

### III. Cellular Molecular Neuroscience

- PCB 4842 § Cellular Neuroscience and Disease (cr) – **PCB 3063 & PCB 4023 are prerequisites**  
or  
PCB 4843C § Practical Cell Neuroscience (3 cr) – **PCB 3063, PCB 4023 & PCB 4842 are prerequisites**  
PCB 3703 & L Human Morphology and Function I & Lab (4 cr) – **BSC 1011 & 1010 with labs are prerequisites**  
PCB 3704 & L Human Morphology and Function II & Lab (4 cr) – **BSC 1011/1010 & CHM 2221 are prerequisites**  
PCB 4023 Molecular and Cell Biology (3 cr) – **BCH 3033 is a prerequisite**  
PCB 4723 & L Comparative Animal Physiology & Lab (4 cr) – **BSC 1011/1010 & CHM 2210 are prerequisites**  
PSB 4810 Neurobiology of Learning and Memory (3 cr) – **PSB 3002, PSB 4006 & PSY 3213 prerequisites**

§ **One of these courses is required.**

**FREE ELECTIVES** (18 credits, 13 credits must be upper-division)

Free electives are courses in any college, any department, needed to meet the 120 credits required for graduation.