

# MAJOR IN NEUROSCIENCE, BEHAVIORAL AND COGNITIVE NEUROSCIENCE CONCENTRATION

## Requirements Effective Fall 2024

### Freshman

|  |   | AUCC | Credits |
|--|---|------|---------|
| CHEM 111   | General Chemistry I (GT-SC2)                  | 3A   | 4       |
| CHEM 112   | General Chemistry Lab I (GT-SC1)              | 3A   | 1       |
| CHEM 113   | General Chemistry II                          |      | 3       |
| CHEM 114   | General Chemistry Lab II                      |      | 1       |
| CO 150   | College Composition (GT-CO2)                  | 1A   | 3       |
| LIFE 102   | Attributes of Living Systems (GT-SC1)         | 3A   | 4       |
| MATH 155   | Calculus for Biological Scientists I (GT-MA1) | 1B   | 4       |
| NB 192   | Introductory Neuroscience Seminar             |      | 1       |
| PSY 100  | General Psychology (GT-SS3)                   | 3C   | 3       |
| Arts and Humanities ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities</a> )                                    |   | 3B   | 3       |
| Diversity, Equity, and Inclusion ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#diversity-equity-inclusion</a> ) |   | 1C   | 3       |

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**Total Credits** **30**

### Sophomore

|   |   |    |   |
|---|---|----|---|
| CHEM 341  | Modern Organic Chemistry I  |    | 3 |
| CHEM 343  | Modern Organic Chemistry II   |    | 3 |
| CHEM 344  | Modern Organic Chemistry Laboratory                                   |    | 2 |
| LIFE 201B   | Introductory Genetics: Molecular/Immunological/Developmental (GT-SC2) | 3A | 3 |
| LIFE 210  | Introductory Eukaryotic Cell Biology                                  |    | 3 |
| PSY 252   | Mind, Brain, and Behavior   |    | 3 |
| Select one from the following:  |   |    | 3 |
| CO 300  | Writing Arguments (GT-CO3)  | 2  |   |
| CO 301B   | Writing in the Disciplines: Sciences (GT-CO3)                         | 2  |   |
| Select one of the following:  |   |    | 2 |
| LIFE 203  | Introductory Genetics Laboratory                                      |    |   |
| LIFE 212  | Introductory Cell Biology Laboratory                                  |    |   |
| Select one from the following:  |   |    | 5 |
| PH 121  | General Physics I (GT-SC1)  | 3A |   |
| PH 141  | Physics for Scientists and Engineers I (GT-SC1)                       | 3A |   |
| Arts and Humanities ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#arts-humanities</a> ) |   | 3B | 3 |

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**Total Credits** **30**

### Junior

|         |                                |  |   |
|---------|--------------------------------|--|---|
| BC 351  | Principles of Biochemistry     |  | 4 |
| BMS 300 | Principles of Human Physiology |  | 4 |
| NB 399  | Thesis Preparation             |  | 1 |

2 Major in Neuroscience, Behavioral and Cognitive Neuroscience Concentration

|   |   |       |              |
|---|---|-------|--------------|
| PSY 250   | Research Design and Analysis I              |       | 3            |
| Select one from the following:  |   |       | 3            |
| PSY 352   | Learning and Memory                         |       |              |
| PSY 452   | Cognitive Psychology                        |       |              |
| Select one from the following:  |   |       | 3            |
| STAT 301  | Introduction to Applied Statistical Methods |       |              |
| STAT 307  | Introduction to Biostatistics               |       |              |
| Select two elective lecture courses not previously taken:   |   |       | 6            |
| BMS 405   | Nerve and Muscle-Toxins, Trauma and Disease |       |              |
| BMS 425   | Introduction to Systems Neurobiology        |       |              |
| BZ 433  | Behavioral Genetics                         |       |              |
| CHEM 320  | Chemistry of Addictions                     |       |              |
| MIP 300   | General Microbiology                        |       |              |
| PSY 454   | Biological Psychology                       | 4B    |              |
| PSY 456   | Sensation and Perception                    | 4B    |              |
| PSY 458   | Cognitive Neuroscience                      | 4B    |              |
| Select two elective laboratory courses not previously taken:  |   |       | 4-5          |
| BMS 302   | Laboratory in Principles of Physiology      |       |              |
| CHEM 442  | Chemistry of Hemp and Cannabis              |       |              |
| MIP 302   | General Microbiology Laboratory             |       |              |
| PSY 455   | Biological Psychology Laboratory            |       |              |
| PSY 457   | Sensation and Perception Laboratory         |       |              |
| PSY 459   | Cognitive Neuroscience Laboratory           | 4A    |              |
| Historical Perspectives ( <a href="http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives">http://catalog.colostate.edu/general-catalog/all-university-core-curriculum/aucc/#historical-perspectives</a> ) |   |       | 3            |
| <b>Total Credits</b>  |   |       | <b>31-32</b> |
| <b>Senior</b>   |   |       |              |
| BMS 325   | Cellular Neurobiology                       |       | 3            |
| BMS 345   | Functional Neuroanatomy                     |       | 4            |
| NB 493  | Senior Seminar                              | 4C    | 1            |
| NB 499  | Senior Thesis                               | 4A,4C | 3            |
| Select two groups from the following:   |   |       | 10           |
| Group A:  |   |       |              |
| PSY 454   | Biological Psychology                       | 4B    |              |
| PSY 455   | Biological Psychology Laboratory            |       |              |
| Group B:  |   |       |              |
| PSY 456   | Sensation and Perception                    | 4B    |              |
| PSY 457   | Sensation and Perception Laboratory         |       |              |
| Group C:  |   |       |              |
| PSY 458   | Cognitive Neuroscience                      | 4B    |              |
| PSY 459   | Cognitive Neuroscience Laboratory           | 4A    |              |
| Electives <sup>1</sup>  |   |       | 7-8          |
| <b>Total Credits</b>  |   |       | <b>28-29</b> |
| <b>Program Total Credits:</b>   |   |       | <b>120</b>   |

<sup>1</sup> Select enough elective credits to bring the program total to a minimum of 120 credits, of which at least 42 must be upper-division (300- to 400-level).