

# Mathematics and Psychology, BS

In the mathematics and psychology combined-major BS program, psychology and mathematics courses help lay the groundwork for strong basic training that seeks to prepare the student toward developing psychological models using mathematics.

## Program Requirements

### Mathematics Requirements

| Code   | Title   | Hours |
|--|---|-------|
| <b>Problem Solving</b>   |   |       |
| MATH 1365  | Introduction to Mathematical Reasoning                    | 4     |
| <b>Calculus</b>  |   |       |
| MATH 1341  | Calculus 1 for Science and Engineering                    | 4     |
| MATH 1342  | Calculus 2 for Science and Engineering                    | 4     |
| MATH 2321  | Calculus 3 for Science and Engineering                    | 4     |
| <b>Intermediate and Advanced Mathematics</b>   |   |       |
| MATH 2341  | Differential Equations and Linear Algebra for Engineering | 4     |
| MATH 2331  | Linear Algebra  | 4     |
| MATH 3081  | Probability and Statistics                                | 4     |
| <b>Math Electives</b>  |   |       |
| Complete two courses in the following range that are not required in the requirements above: |   | 8     |
| MATH 3001 to MATH 5999   |   |       |

### Psychology Requirements

| Code   | Title                                  | Hours |
|--|--|-------|
| <b>Required Courses</b>                                |  |       |
| PSYC 1101  | Foundations of Psychology              | 4     |
| PSYC 2320  | Statistics in Psychological Research   | 4     |
| <b>Area A (Personality/Social Basis of Behavior)</b>   |  |       |
| Complete two of the following:                         |  | 8     |
| PSYC 3400  | Personality                            |       |
| PSYC 3402  | Social Psychology                      |       |
| PSYC 3404  | Developmental Psychology               |       |
| PSYC 3406  | Abnormal Psychology                    |       |
| <b>Area B (Biological/Cognitive Basis of Behavior)</b> |  |       |
| Complete two of the following:                         |  | 8     |
| PSYC 3450  | Learning and Motivation                |       |
| PSYC 3452  | Sensation and Perception               |       |
| PSYC 3458  | Biological Psychology                  |       |
| PSYC 3464  | Psychology of Language                 |       |
| PSYC 3466  | Cognition                              |       |
| <b>Psychology Laboratory</b>                           |  |       |
| Complete one of the following:                         |  | 4     |
| PSYC 4600  | Laboratory in Research Design          |       |
| PSYC 4606  | Laboratory in Biological Psychology    |       |
| PSYC 4610  | Laboratory in Psycholinguistics        |       |
| PSYC 4612  | Laboratory in Cognition                |       |
| PSYC 4614  | Laboratory in Social Psychology        |       |
| PSYC 4616  | Laboratory in Personality              |       |
| PSYC 4622  | Laboratory in Sensation and Perception |       |

|           |   |
|-----------|---|
| PSYC 4624 | Laboratory in Affective Science               |
| PSYC 4626 | Laboratory in Life-Span Emotional Development |
| PSYC 4628 | Laboratory in Developmental Psychology        |

### Psychology Capstone Requirement

|                                |  |   |
|--------------------------------|--|---|
| Complete one of the following: |  | 4 |
| PSYC 4654                      | Seminar in Behavioral Modification           |   |
| PSYC 4656                      | Seminar in Biological Psychology             |   |
| PSYC 4658                      | Seminar in Psycholinguistics                 |   |
| PSYC 4660                      | Seminar in Cognition                         |   |
| PSYC 4662                      | Seminar in Personality                       |   |
| PSYC 4664                      | Seminar in Social Psychology                 |   |
| PSYC 4666                      | Seminar in Clinical Psychology               |   |
| PSYC 4668                      | Seminar in Sensation and Perception          |   |
| PSYC 4674                      | Seminar in Cognitive Neuroscience            |   |
| PSYC 4676                      | Seminar in Developmental Psychology          |   |
| PSYC 4678                      | Seminar in Social and Affective Neuroscience |   |

### Psychology Elective

|  |   |
|--|---|
| Any PSYC course in the 3000 range and up | 4 |
|--|---|

### Integrative Requirement

| Code      | Title   | Hours |
|-----------|---|-------|
| PSYC 4540 | Quantitative Topics in Psychology and Behavioral Neuroscience | 4     |

### Mathematics and Psychology Combined-Major Credit Requirement

Complete 76 semester hours in the major.

### Program Requirement

128 total semester hours required

### Plan of Study

#### Year 1

| Fall                   | Hours | Spring        | Hours | Summer 1 | Hours | Summer 2 | Hours |
|------------------------|-------|---------------|-------|----------|-------|----------|-------|
| MATH 1365              | 4     | MATH 1341     | 4     | Vacation |       | Vacation |       |
| PSYC 1101              | 4     | PSYC Area A   | 4     |          |       |          |       |
| NUpath EI              | 4     | Open elective |       | 4        |       |          |       |
| ENGW 1111              | 4     | NUpath IC     | 4     |          |       |          |       |
| MATH 1000 or PSYC 1000 | 1     |               |       |          |       |          |       |
|                        |       | 17            |       | 16       |       | 0        |       |

#### Year 2

| Fall        | Hours | Spring        | Hours | Summer 1 | Hours | Summer 2 | Hours |
|-------------|-------|---------------|-------|----------|-------|----------|-------|
| MATH 1342   | 4     | MATH 2321     | 4     | Vacation |       | Co-op    |       |
| PSYC 2320   | 4     | PSYC Area A   | 4     |          |       |          |       |
| PSYC Area B | 4     | Open elective |       | 4        |       |          |       |

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|           |    |               |    |   |   |
|-----------|----|---------------|----|---|---|
| NUpath DD | 4  | MATH elective | 4  |   |   |
|           |    | EESC 2000     | 1  |   |   |
|           | 16 |               | 17 | 0 | 0 |

**Year 3**

| Fall  | Hours | Spring        | Hours | Summer 1    | Hours | Summer 2 | Hours |
|-------|-------|---------------|-------|-------------|-------|----------|-------|
| Co-op |       | MATH 2331     | 4     | MATH 2341   | 4     | Co-op    |       |
|       |       | PSYC Area B   | 4     | Adv writing | 4     |          |       |
|       |       | PSYC elective | 4     |             |       |          |       |
|       |       | Open elective | 4     |             |       |          |       |
|       | 0     |               | 16    |             | 8     |          | 0     |

**Year 4**

| Fall  | Hours | Spring    | Hours | Summer 1      | Hours | Summer 2 | Hours |
|-------|-------|-----------|-------|---------------|-------|----------|-------|
| Co-op |       | PSYC lab  | 4     | Open elective | 4     | Co-op    |       |
|       |       | MATH 3081 | 4     | Open elective | 4     |          |       |
|       |       | PSYC 4540 | 4     |               |       |          |       |
|       |       | NUpath ER | 4     |               |       |          |       |
|       | 0     |           | 16    |               | 8     |          | 0     |

**Year 5**

| Fall  | Hours | Spring        | Hours |
|-------|-------|---------------|-------|
| Co-op |       | PSYC seminar  | 4     |
|       |       | MATH elective | 4     |
|       |       | Open elective | 4     |
|       |       | Open elective | 4     |
|       | 0     |               | 16    |

Total Hours: 130