

# Mathematics and Physics

## Department Information

- **Department Location:**  
Minard Hall or South Engineering
- **Department Phone:**  
701-231-8171
- **Department Web Site:**  
[www.ndsu.edu/math/](http://www.ndsu.edu/math/) or [www.ndsu.edu/physics/](http://www.ndsu.edu/physics/) (<http://www.ndsu.edu/math/> or [www.ndsu.edu/physics/](http://www.ndsu.edu/physics/))
- **Credential Offered:**  
B.S.; B.A.
- **Official Program Curriculum:**  
[catalog.ndsu.edu/undergraduate/program-curriculum/mathematics-physics/](http://catalog.ndsu.edu/undergraduate/program-curriculum/mathematics-physics/) (<http://catalog.ndsu.edu/undergraduate/program-curriculum/mathematics-physics/>)

This program is intended for students who desire additional mathematical background and preparation for graduate school or technical careers in the sciences, especially theoretical physics.

## Sample Program Guide

Please note this is a sample program guide and not an official curriculum. Actual student schedules for each semester will vary depending on start year, education goals, applicable transfer credit, and course availability. Once admitted, students are encouraged to work with their assigned academic advisor on a regular basis to review degree progress.

| <b>Freshman</b>                         |                |                                    |                |
|---|----------------|------------------------------------|----------------|
| <b>Fall</b>                             | <b>Credits</b> | <b>Spring</b>                      | <b>Credits</b> |
| PHYS 171                                |                | 1 PHYS 251<br>& 251L               | 5              |
| MATH 165                                |                | 4 PHYS 251R                        | 1              |
| CHEM 150<br>& CHEM 160                  |                | 4 MATH 166                         | 4              |
| ENGL 110 or 120 (based on<br>placement) |                | 3 COMM 110                         | 3              |
| MATH 129                                |                | 3 CHEM 151<br>& CHEM 161           | 4              |
|   |                | <b>15</b>                          | <b>17</b>      |
| <b>Sophomore</b>                        |                |                                    |                |
| <b>Fall</b>                             | <b>Credits</b> | <b>Spring</b>                      | <b>Credits</b> |
| PHYS 252<br>& 252L                      |                | 5 PHYS 350                         | 3              |
| PHYS 252R                               |                | 1 MATH 266                         | 3              |
| MATH 265                                |                | 4 CSCI 160                         | 4              |
| MATH 270                                |                | 3 Gen Ed Social/Behavioral Science | 3              |
| Gen Ed Humanities/Fine Arts             |                | 3 Gen Ed Wellness                  | 2              |
|   |                | MATH 346                           | 3              |
|   |                | <b>16</b>                          | <b>18</b>      |
| <b>Junior</b>                           |                |                                    |                |
| <b>Fall</b>                             | <b>Credits</b> | <b>Spring</b>                      | <b>Credits</b> |
| PHYS 360                                |                | 3 PHYS 361                         | 3              |
| MATH 420                                |                | 3 PHYS 370                         | 3              |
| PHYS 355                                |                | 3 ENGL 324                         | 3              |

|                                  |                |           |                                  |  |                |
|----------------------------------|----------------|-----------|----------------------------------|--|----------------|
| MATH 450                         |                | 3         | Gen Ed Social/Behavioral Science |  | 3              |
| Gen Ed Social/Behavioral Science |                | 3         | MATH 452 or 483                  |  | 3              |
| Gen Ed Humanities/Fine Arts      |                | 3         | MATH 329                         |  | 3              |
|                                  |                | <b>18</b> |                                  |  | <b>18</b>      |
| <b>Senior</b>                    |                |           |                                  |  |                |
| <b>Fall</b>                      | <b>Credits</b> |           | <b>Spring</b>                    |  | <b>Credits</b> |
| PHYS 462                         |                | 3         | PHYS 486                         |  | 3              |
| PHYS 485                         |                | 3         | PHYS 489                         |  | 2              |
| Physics Elective                 |                | 3         | Physics Elective                 |  | 3              |
| MATH 4XX Math Elective           |                | 3         | MATH 491                         |  | 2              |
| PHYS 488                         |                | 1         | Gen Ed Humanities/Fine Arts      |  | 3              |
|                                  |                | <b>13</b> |                                  |  | <b>13</b>      |
| <b>Total Credits: 128</b>        |                |           |                                  |  |                |