

## First Year (Total Credits: 39)

| Semester | Course Code | Course Title                      | Credits | Degrees                      |
|----------|-------------|-----------------------------------|---------|------------------------------|
| Fall     | MATH 202    | Geometry Math Lab                 | 2       | Mathematics                  |
|          | CIS 210     | Computer Science I                | 4       | Physics and Computer Science |
|          | PHYS 251    | Foundations of Physics I          | 4       | Physics                      |
|          | CH 221      | General Chemistry I               | 4       | Physics                      |
| Winter   | MATH 282    | Several-Variable Calculus II      | 4       | Mathematics and Physics      |
|          | PHYS 290    | Foundations of Physics Laboratory | 1       | Physics                      |
|          | PHYS 252    | Foundations of Physics I          | 4       | Physics                      |
|          | CH 222      | General Chemistry II              | 4       | Physics                      |
| Spring   | MATH 203    | Analysis and Number Theory        | 2       | Mathematics                  |
|          | MATH 201    | Algebra Math Lab                  | 2       | Mathematics                  |
|          | MATH 342    | Elementary Linear Algebra         | 4       | Mathematics                  |
|          | PHYS 253    | Foundations of Physics I          | 4       | Physics                      |

## Second Year (Total Credits: 42)

| Semester | Course Code | Course Title                   | Credits | Degrees          |
|----------|-------------|--------------------------------|---------|------------------|
| Fall     | MATH 205    | Foundations Math Lab           | 2       | Mathematics      |
|          | MATH 307    | Intro to Proof                 | 4       | Mathematics      |
|          | PHYS 351    | Foundations of Physics II      | 4       | Physics          |
|          | PHYS 391    | Physics Exp. Data Analysis Lab | 4       | Physics          |
| Winter   | MATH 316    | Fundamentals of Analysis I     | 4       | Mathematics      |
|          | CS 122      | Intro to Programming           | 4       | Mathematics      |
|          | CIS 211     | Computer Science II            | 4       | Computer Science |
|          | PHYS 352    | Foundations of Physics II      | 4       | Physics          |
| Spring   | MATH 317    | Fundamentals of Analysis II    | 4       | Mathematics      |
|          | MATH 433    | Intro to Differential Geometry | 4       | Mathematics      |
|          | PHYS 353    | Foundations of Physics II      | 4       | Physics          |

## Third Year (Total Credits: 36)

| Semester | Course Code | Course Title                          | Credits | Degrees     |
|----------|-------------|---------------------------------------|---------|-------------|
| Fall     | MATH 444    | Intro to Abstract Algebra I           | 4       | Mathematics |
|          | MATH 320    | Theory of Differential Equations      | 4       | Mathematics |
|          | PHYS 412    | Mechanics, Electricity, and Magnetism | 4       | Physics     |
| Winter   | MATH 445    | Intro to Abstract Algebra II          | 4       | Mathematics |
|          | PHYS 411    | Mechanics, Electricity, and Magnetism | 4       | Physics     |
|          | PHYS 413    | Mechanics, Electricity, and Magnetism | 4       | Physics     |
| Spring   | PHYS 422    | Electromagnetism                      | 4       | Physics     |
|          | PHYS 414    | Quantum Physics                       | 4       | Physics     |
|          | PHYS 431    | Analog Electronics                    | 4       | Physics     |

## Fourth Year (Total Credits: 36)

| Semester | Course Code           | Course Title                        | Credits | Degrees          |
|----------|-----------------------|-------------------------------------|---------|------------------|
| Fall     | PHYS 415              | Quantum Physics                     | 4       | Physics          |
|          | CIS 212               | Computer Science III                | 4       | Computer Science |
|          | MATH 231              | Elements of Discrete Mathematics I  | 4       | Computer Science |
| Winter   | MATH 232              | Elements of Discrete Mathematics II | 4       | Computer Science |
|          | PHYS 417              | Topics in Quantum Physics           | 4       | Physics          |
|          | PHYS 432              | Digital Electronics                 | 4       | Physics          |
| Spring   | CIS 313               | Introduction to Data Structures     | 4       | Computer Science |
|          | CS elective (399-409) |                                     | 4       | Computer Science |
|          | CS elective (399-409) |                                     | 4       | Computer Science |