GENETICS
(for students entering Biology in Fall 2010 or later)

Graduation Requirements:
- A minimum 2.0 average in all biology courses required for this major
- A minimum of 32 credits at or above the 30000-level completed at a Purdue campus
- At least one 50000-level Biology course other than BIOL 50000 or 54200
- 124 Total Credits

BIOLOGY:
1. BIOL 12100  Biology I: Diversity, Ecology and Behavior (2 cr.; fall)
2. BIOL 13100  Biology II: Development, Structure, and Function of Organisms (3 cr.; spring)
3. BIOL 13500  First Year Biology Lab (2 cr.; both)
4. BIOL 23100  Biology III: Cell Structure and Function (3 cr.; fall)
5. BIOL 23200  Laboratory in Biology III: Cell Structure and Function (2 cr.; fall)
6. BIOL 24100  Biology IV: Genetics and Molecular Biology (3 cr.; spring)
7. BIOL 24200  Laboratory in Genetics and Molecular Biology (2 cr.; spring)
8. BIOL 28600  Intro. to Ecology and Evolution (2 cr.; spring) or BIOL 29500, Intro. To Evolution & Ecology (2 cr.; fall)
9. One of these four options: (Genetics majors may not use BIOL 43800, General Microbiology, or BIOL 439, Laboratory in Microbiology, to satisfy this requirement)
   a. BIOL 32800  Principles of Physiology (4 cr.; spring)
   b. BIOL 36600  Principles of Development (4 cr.; spring)
   c. BIOL 39500  Macromolecules (3 cr.; fall)
   d. BIOL 43800  General Microbiology (3 cr.; fall) and BIOL 43900  Microbiology Lab (2 cr.; fall)
10. BIOL 41600  Viruses and Viral Diseases (3 cr.; spring)
11. BIOL 44100  Senior Seminar in Genetics (1 cr.; fall)
12. BIOL 48100  Eukaryotic Genetics (3 cr.; spring)
13. BCHM 56100  General Biochemistry (3 cr.; both) or CHM 533 Introductory Biochemistry (3 cr.; fall)
14. BIOL 500001  Introductory Module: Protein Expression plus two additional modules of BIOL 50000 (2 cr.; both) or 54200 (1 cr.; both) (various titles)

16. Six credits of the following:
   BIOL 43800  General Microbiology (3 cr.; fall)
   BIOL 44400  Human Genetics (3 cr.; fall)
   BIOL 47800  Intro to Bioinformatics (3 cr.; fall)
   BIOL 51600  Molecular Biology of Cancer (3 cr.; spring)
   BIOL 54100  Molecular Genetics of Bacteria (3 cr.; fall)
   BIOL 55000  Plant Molecular Biology (3 cr.; spring)
   BIOL 57300  Molecular Biology of Animal Cells (3 cr.; fall)
   BIOL 58000  Evolution (3 cr.; spring)
   AGRY 53000  Plant Genetics (3 cr.; fall)
   ANSC 51100  Population Genetics (3 cr.; fall)
   BCHM 56200  General Biochemistry II (3 cr.; both)
   CHM 11500  General Chemistry (4 cr.; both)
   2. CHM 11600  General Chemistry (4 cr.; both)

3. One of these three options:
   1. CHM 25500  Organic Chemistry (3 cr.; both) and CHM 25501  Organic Chemistry Lab (1 cr.; both)
   2. CHM 26505  Organic Chemistry (3 cr.; fall) and CHM 26300  Organic Chemistry Lab (1 cr.; fall)
   3. CHM 26605  Organic Chemistry (3 cr.; spring) and CHM 26400  Organic Chemistry Lab (1 cr.; spring)

PHYSICS
One of these two options:
1. PHYS 22000  General Physics (4 cr.; both) and PHYS 22100  General Physics (4 cr.; both)
2. PHYS 17200  Modern Mechanics (4 cr.; both) and one of the following two choices:
   A. PHYS 27200  Electric and Magnetic Interactions (4 cr.; both)
   B. PHYS 24100  Electricity and Optics (3 cr.; both) and PHYS 25200  Electricity and Optics Laboratory (1 cr.; spring)

COLLEGE OF SCIENCE CORE REQUIREMENTS
Composition and Presentation; Teambuilding and Collaboration; Language and Culture; Great Issues; General Education; Multidisciplinary Experience; Mathematics; Statistics; Computing (see handout).

FREE ELECTIVES  Approximately 0 - 22 credits

1 Three credits of research, approved by the Undergraduate Studies Committee, may replace some or all of these modules.