

## B.S. Degree in Biochemistry and Biotechnology

Name \_\_\_\_\_ Student # \_\_\_\_\_

### Biology Core Courses (prerequisites in bold)

- \_\_\_\_\_ Biol 1831, Introductory Biology: From Molecules to Organisms (5) (place into Math 1030, Eng 1100)
- \_\_\_\_\_ Biol 2012, Genetics (3) (Biol 1831, Chem 1111)
- \_\_\_\_\_ Biol 2013, Genetics Laboratory (2) (Biol 1831, Chem 1111)
- \_\_\_\_\_ Biol 2482, Microbiology (3) (Biol 1831, Chem 1111)
- \_\_\_\_\_ Biol 2483, Microbiology Laboratory (2) (Biol 1831, Chem 1111)
- \_\_\_\_\_ Biol 3622, Cell Biology (3) (Biol 1831, 2012, Chem 2612)

### Chemistry Core Courses (prerequisites in bold)

- \_\_\_\_\_ Chem 1111, Introductory Chemistry I (5) (Math 1030, 1035 concurrently)
- \_\_\_\_\_ Chem 1121, Introductory Chemistry II (5) (Chem 1111)
- \_\_\_\_\_ Chem 2223, Quantitative Analysis (3) (Chem 1121)
- \_\_\_\_\_ Chem 2612, Organic Chemistry I (3) (Chem 1121)
- \_\_\_\_\_ Chem 2622, Organic Chemistry II (3) (Chem 2612)
- \_\_\_\_\_ Chem 2633, Organic Chemistry Laboratory (2) (Chem 2612)
- \_\_\_\_\_ Chem 3302, Physical Chemistry for Life Sciences (3) [Spring] (Math 1100, Phys 1012, Chem 2612)

### Math and Physics Core Courses (prerequisites in bold)

- \_\_\_\_\_ Math 1030, College Algebra (3) (ACT 22, or C in Intermed Alg)
- \_\_\_\_\_ Math 1035, Trigonometry (2) (Math 1030 or concurrently)
- \_\_\_\_\_ Math 1100, Basic Calculus (3) or Math 1800, Analytic Geometry and Calculus I (5) (1030, or ACT 26)
- \_\_\_\_\_ Phys 1011, Basic Physics (4) (Math 1030, 1035, Math 1100 strongly recommended)
- \_\_\_\_\_ Phys 1012, Basic Physics (4) (Phys 1011)

### Biochemistry and Biotechnology Core Courses (prerequisites in bold)

- \_\_\_\_\_ Biol 4602, Molecular Biology\* (3) or Biol 4612, Molecular Genetics of Bacteria\* (3) (Biol 2482, 2012)
- \_\_\_\_\_ Chem/Biol 4712, Biochemistry (3) (Chem 2612, Biol 1831 or Chem 2622)
- \_\_\_\_\_ Chem 4722, Advanced Biochemistry (3) [Spring] (Chem/Biol 4712)
- \_\_\_\_\_ Chem 4733, Biochemistry Laboratory [Fall] (2) (Chem 2223, 4712 concurrently)
- \_\_\_\_\_ Biol 4614, Biotechnology Laboratory I (4) or Biol 4615, Biotechnology Laboratory II\* (4) (Biol 2012)
- \_\_\_\_\_ Chem/Biol 4797, Biochemistry & Biotechnology Seminar (1)

### Biochemistry and Biotechnology Elective Courses – 6 credit hours chosen from the courses below:

- \_\_\_\_\_ Biol 4442, Developmental Biology (3) [Spring, odd years] (Biol 2012, 3622)
- \_\_\_\_\_ Biol 4550, Bacterial pathogenesis (3) [Fall] (Biol 2482, 2012)
- \_\_\_\_\_ Biol 4602, Molecular Biology\* (3) [Spring] (Biol 1831, Chem 2612)
- \_\_\_\_\_ Biol 4612, Molecular Genetics of Bacteria\* (3) [Fall] (Biol 2482, 2012)
- \_\_\_\_\_ Biol 4615, Biotechnology Laboratory II\* (4) [Spring] (Biol 4614, Biol 4602 or Biol 4612)
- \_\_\_\_\_ Biol 4622, Cellular Basis of Disease (3) [Spring, even years] (Biol 3622)
- \_\_\_\_\_ Biol 4632, Nucleic Acid Structure and Function (3) [Fall] (Biol 2012, Chem/Biol 4712 or equivalent)
- \_\_\_\_\_ Biol 4642, Plant Molecular Biology and Genetic Engineering (3) [Fall, odd years] (Biol 4602 or 4612)
- \_\_\_\_\_ Biol 4652, Virology (3) [Spring] (Biol 2012, 3622)
- \_\_\_\_\_ Biol 4842, Immunobiology (3) [Fall] (Biol 3622, Chem 2612)
- \_\_\_\_\_ Biol 4905, Research (up to 3 credits)
- \_\_\_\_\_ Biol 4920, Selected Topics (3) – *requires approval from your advisor*
- \_\_\_\_\_ Chem 3643, Advanced Organic Chemistry Lab (2) [Fall] (Chem 2223, 2622, 2633, 3022 concurrently)
- \_\_\_\_\_ Chem 3905, Chemical Research (up to 3 credit hours)
- \_\_\_\_\_ Chem 4772, Physical Biochemistry (3) [Fall] (Chem 3312 or Chem/Biol 4712)

\* counts as either an elective or a core course, not both