Suggested order of required courses for BS in Biology – PRE-HEALTH PROFESSIONAL TRACK

The most important suggestions re: Core Required Courses:

1. BIOL 3402 Genetics should be taken the first semester the student enters a biology degree program
2. BIOL 3407 Ecology should also be taken within the first two semesters
3. BIOL 3301 Evolutionary theory should be taken AFTER BIOL 3402 Genetics
4. Physiology Courses – for the multidisciplinary track we recommend both BIOL 3408 (animal) and BIOL 4411 (plant)
5. Student can take either Microbiology/Bacteriology – Note: Although Bacteriology has the pre-req of Microbiology – we will WAIVE that pre-req in order to allow the student to take only Bacteriology.
6. BIOL 4012 Seminar should be taken 3rd, or 4th semester.
7. Research courses should begin no earlier than 2nd semester.

First Semester - 8 hours BIOL
Class 1: BIOL 3402 – Genetics with lab
Class 2: BIOL 3408 - Animal Physiology
Class 3: CHEM 3123/3323 – Organic Chemistry I with lab
Class 4: MATH 4304 – Statistical Methods or MATH 4301 Biostatistics

Second Semester – 7 hours BIOL
Class 1: BIOL 3301 – Evolutionary Theory
Class 2: BIOL 3407 – Ecology
Class 3: CHEM 3124/3324 – Organic Chemistry II with lab

Third Semester – 5 to 9 hours BIOL
Class 1: BIOL 4406 – Bacteriology (unless already taken BIOL 2421 - Microbiology)
Class 2: BIOL 4102 – Seminar
Class 3: Choose from the suggestive elective list

Fourth Semester – 8 hours BIOL needed, but for well-rounded degree we suggest 12.
Class 1: Choose from the suggestive elective list
Class 2: Choose from the suggestive elective list
Class 3: Choose from the suggestive elective list

FOR THOSE INTERESTED IN RESEARCH OPPORTUNITIES:

BIOL 3104 – Research Experience in Biology - This course is a 1-credit course aimed at giving you the opportunity to observe and participate in research being conducted by a faculty member and his or her researchers. This is a good pre-course prior to taking the course below.

BIOL 4304 – Research Projects in Biology. If you are interested in more in-depth research experience, this course is designed to allow you to conducting research with a participating faculty member. Registration for this course requires the instructor’s permission and is dependent upon room in their lab and your interest level, and your qualifications (to be determined by the faculty member). If interested, please contact the faculty member listed with the course.

Suggested Electives

CELLULAR/MOLECULAR
BIOL 4356 – Diagnostic Microbiology
BIOL 4401 – Molecular Biology
BIOL 4408 – Immunology (spring only)
BIOL 4410 – Virology (fall only)
BIOL 4426 – Cellular Physiology

ORGANISMAL
BIOL 4402 – Vertebrate Embryology
BIOL 4409 – Biology of Disease Vectors (spring only)
BIOL 4430 – Parasitology (fall only)

CHEMISTRY
CHEM 4341 – Biochemistry I
CHEM 4342 – Biochemistry II