

Biology and Chemistry Advising

Biology

Courses for non-science majors

(Note: students typically need a natural science with a lab. Some courses are offered as a 4 credit course that includes the lab, others are offered as a 3 credit lecture and a separate 1 credit lab. Two of the non-major courses, BIOL 110 General Biology & BIOL 120 Human Biology, are similar enough that students do not get credit for taking both. Therefore if you have an advisee who has taken one of these classes, do not put them in the other for their other lab science.)

- BIOL 110 General Biology – Basic biology course available to any non-major. Cannot receive credit for both BIOL 110 and 120. Recommended for education majors.
- BIOL 120/120L Human Biology – Non-majors course similar to 110 by focusing on humans. Cannot receive credit for both BIOL 110 and 120. Nursing and exercise science majors take this course as a warm-up for BIOL243. Also good for psychology majors.
- BIOL 270/270L Intro to Environmental Biology – Non-majors course with no prerequisites. Available to all students.
- BIOL 200/200L Plant Biology – General survey of the plant kingdom. The course is designed for the non-science major and should serve as a science elective for most majors. The lab component is not required for the course but certainly enhances understanding of the material as well as assists in broadening the student's experience. The later part of the lab course will involve some field experiences both on and off campus.

Non-biology major courses for nursing, exercise science, and related majors

- BIOL 243/243L Human Anatomy and Physiology I – Non-biology major course taken by nursing, pharmacy, and exercise science majors. CHEM 102 is a prerequisite. Students often take BIOL 120 to prepare for this course.
- BIOL 244/244L Human Anatomy and Physiology II – Non-biology major course taken by nursing, pharmacy, and exercise science majors. BIOL 243 is a prerequisite.
- BIOL 250/250L Microbiology – Non-biology major course taken mostly by nursing majors. College chemistry and biology courses are prerequisites. Lab may be required depending on program of study.

Courses for biology and other science majors

- BIOL 101/101L Biological Principles I – First year intro biology course for biology and related majors. Also taken by chemistry, pre-pharmacy, pre-vet, pre-health (dental, medical, physician assistant), physical therapy, and exercise science majors. Lab is a requirement for almost all these majors.
- BIOL 102/102L Biological Principles II – First year intro biology course for biology and related majors. Also taken by chemistry, pre-pharmacy, pre-vet, pre-health (dental, medical, physician assistant), physical therapy, and exercise science majors. Lab required for almost all these majors.

- BIOL 301/301L Ecology and Evolution – Sophomore level biology majors course. Prerequisite is BIOL 102. Lab optional.
- BIOL 302/302L Cell and Molecular Biology – Sophomore level biology majors course. Prerequisite is BIOL 102. CHEM 333 is pre- or corequisite. Lab optional.
- BIOL 303 Fundamental Genetics – Sophomore level biology majors course. Prerequisite is BIOL 102. No lab.

Chemistry

Courses for non-science majors

- CHEM 101 Fundamental Chemistry I – Conceptual and qualitative approach to chemistry, its evolution, achievements, and goals and its impact on technology, the environment, and modern life and thought. This course is designed for non-science majors and may be used a laboratory science elective. It should also be taken by anyone who needs to strengthen their Chemistry background before going into CHEM 102, CHEM 111, or BIOL 250.
- CHEM 107 Forensic Chemistry – Surveys chemical aspects of criminal investigation and adjudication including drug, arson, DNA, paint, and fiber identification. This course can be used to fulfill a laboratory science requirement for non-science majors, and may be of particular interest to those majoring in Criminal Justice.

Non-chemistry major courses for nursing, exercise science, and related majors

- CHEM 102 Fundamentals of Chemistry II –An introductory survey of organic and biochemistry. This course is required for BS Nursing majors and may be taken by exercise science majors as preparation for anatomy and physiology. Prerequisite for this course is one year high-school chemistry, CHEM 101, 111, or equivalent.

Courses for chemistry and other science majors

- CHEM 111 General Chemistry I – A survey of the principles that underlie all chemistry with applications illustrating these principles. This course is intended for Science, Engineering, Pre-health (pre-vet, pre-dental, pre-medical, pre-physician assistant), and Pre-Pharmacy majors. Prerequisite is MATH 111 or 115.
- CHEM 112 General Chemistry II – A continuation of CHEM 111. Special emphasis on chemical equilibrium. This course is intended for Science, Engineering, Pre-health (pre-vet, pre-dental, pre-medical, pre-physician assistant), and Pre-Pharmacy majors. Prerequisites are MATH 111 or 115 and a grade of C or better in CHEM 111 or SCCC 103.
- CHEM 321 Quantitative Analysis – Gravimetric, volumetric, and introductory instrumental analysis. This course is required for Chemistry majors and may be taken as a science elective for other science majors. Prerequisite is CHEM 112 or CHEM 142; co-requisite is CHEM 321L.

- CHEM 321L Quantitative Analysis Lab – Co-requisite is CHEM 321.
- CHEM 333 Organic Chemistry I – Contemporary theories, nomenclature, reactions, mechanisms, and syntheses of carbon compounds. Required for chemistry majors. This course is intended for Chemistry, Chemical Engineering, Pre-Med, and Pre-Pharmacy majors. Prerequisite is CHEM 112 or SCCC 104.
- CHEM 334 Organic Chemistry II – This course is a continuation of CHEM 333. Required for chemistry majors. This course is intended for Chemistry, Chemical Engineering, Pre-Med, and Pre-Pharmacy majors. Prerequisite is CHEM 333, or with permission of instructor, CHEM 331.
- CHEM 331L* Essentials of Organic Chemistry Lab I – Laboratory safety, syntheses, separation, and purification of carbon compounds. For non-chemistry majors. Prerequisite or co-requisite is CHEM 333.
- CHEM 332L* Essentials of Organic Chemistry Lab II – Continuation of CHEM 331L. Spectroscopic identification of carbon compounds. For non-chemistry majors. Prerequisite is CHEM 331L or, with permission of instructor, CHEM 333L, prerequisite or co-requisite is CHEM 334.
- CHEM 333L* Comprehensive Organic Chemistry Lab I – Laboratory safety, synthesis, separation, and purification of carbon compounds. Required for chemistry majors. Six laboratory hours per week. Prerequisite or co-requisite is CHEM 333.
- CHEM 334L* Comprehensive Organic Chemistry Lab II – This laboratory is a continuation of CHEM 333L. Spectroscopic identification of carbon compounds. Required for chemistry majors. Six laboratory hours per week. Prerequisite CHEM 332L or 333L; prerequisite or co-requisite is CHEM 334.

** Labs that accompany CHEM 333 and 334 vary depending on the students major, thus either 331L or 333L accompany CHEM 333 and either 332L or 334L accompany CHEM 334.*

Environmental Studies

- ENVR 101 Intro to the Environment – This can be taken as a science course for most non-science majors. Not many degree programs list it specifically, but for the few Dr. Scarlett has checked on, the school or college has indicated that they would accept it. Doctor Scarlett tries to keep the material from overlapping with BIOL 270 so they can take both if they want, but Dr. Scarlett suggests checking to make sure both courses will be accepted before advising a student to take them. This is also part of the Environmental Studies minor that can be taken with any major.