

Sample Biology Roadmap: Medical Laboratory Science

The following is one potential roadmap to prepare for a career in medical laboratory science. It is only a suggestion; students have successfully prepared for medical laboratory science fields using a variety of course schedules. Some choose to reduce their course load each semester by taking summer courses. **Students should consult their advisors and programs of interest to plan their academic schedule.**

The Biology Department also offers a combined BS in Biology with MLS Certification in collaboration with Carolina College of Health Science in Charlotte, NC. This roadmap does NOT reflect the combined degree/certification.

Students interested in the Accelerated BS – MS (4+1) program at Winthrop should contact the graduate director, Dr. Kristi Westover, and apply before their senior year. Students may receive credit for 9 hours of 500-level courses towards the MS degree if certain requirements are met. For more information, please visit (<https://www.winthrop.edu/graduateschool/master-of-science-in-biology.aspx>).

Freshman Year

Fall (17 credits)	Spring (16 credits)
ACAD 101 (1) WRIT 101 (3) BIOL 202 (1) BIOL 220 (3) and BIOL 222 (1)* CHEM 201 (4) PESH (1) MATH 150 or 151 (3)	HMXP 102 (3) BIOL 221 (3) and BIOL 223 (1)* MATH 241; Quantitative requirement (3) CHEM 202 (4) and 204 (2)

*SEA-PHAGES labs 270 and 271 are 2 credits each. If you are accepted into this program students should take 220 in their first semester

Sophomore Year

Fall (18 credits)	Spring (17 credits)
CRTW 201 (3) BIOL 300 (4) Gen Ed elective (3) Foreign Language 101 (4) BIOL 307; Area D (4)	BIOL 316 (3) or BIOL 317 (4) Gen Ed elective (3) Gen Ed Elective (3) Foreign Language 102 (4) HCMT 200 (3)

Junior Year

Fall (15.5-16.5 credits)	Spring (15.5 credits)
BIOL 310; Area C (4) BIOL Elective Area A (3-4) BIOL 390 (0.5) CHEM 301 (4)** Gen Ed elective (3) CSCI 101 (1.5)	BIOL 490 (0.5) BIOL 315; Area B (4) CHEM 302 (3) and 304 (1)** Gen Ed elective (3) BIOL 308; Area D (4) CSCI 101A (.5)

**Chemistry: Organic Chemistry I (4 credits: CHEM 301 or CHEM 310/311), and Organic Chemistry II with lab (4 credits: CHEM 302/304) are on possibility. As an alternative, students may take a combination of Organic Chemistry and Biochemistry such as CHEM 301 (Organic I - 4 credits) or CHEM 310/311 (Essentials of Organic Chemistry and Lab – 3 + 1 credits) followed by CHEM 323 (Introduction to Biochemistry - 3 credits).

Senior Year

Fall (13.5 credits)	Spring (12.5-14.5 credits)
BIOL 480 (3) BIOL 522; Area B and 500 level requirement (4) Gen Ed Elective (3) Gen Ed Elective (3) CSCI 101B (.5)	HCMT 300 (3) Gen Elective (3) CSCI 101C (.5) Math or Science Elective (3-4) BIOL Elective Area A, B, C or D (3-4)