

B.S. Biology Agriculture Science (BAGS) Degree Pathway 2025-2026

Freshman Year						
Fall				Spring		
Course Number	Course Title	Credits		Course Number	Course Title	Credits
UNV 1000	Freshman Seminar	1		ENG 1060	Composition II	3
ENG 1050	Composition I	3		BIO 1010 or BIO 1020	General Botany or General Zoology	4
MAT 1070 or MAT 1090	College Algebra or Precalculus	3 or 4		CHM 1300	General Chemistry	3
BIO 1000*	Principles of Biology	3		CHM 1100	General Chemistry Laboratory I	1
BIOL 1000	Lab. Inv. & Exp. in Gen. Bio.	1		BIO 2010 ³ (this is an elective course – see Plant Cropping electives)	Techniques in Horticulture	4
BIO 1040 (odd falls) (OR General Education)	Introduction to Animal Science (OR Fine Arts)	3 (3)			(OR Fine Arts & Physical Education)	(3) (1)
Total Credits		14-15		Total Credits		15

Sophomore Year						
Fall				Spring		
Course Number	Course Title	Credits		Course Number	Course Title	Credits
BIO 1010 or BIO 1020	General Botany or General Zoology	4		MAT 2100	Introduction to Statistics	3
CHM 1310	General Chemistry II	3		ENV 2450 (odd springs)	Principles of Sustainable Agriculture	4
CHM 1110	General Chemistry Laboratory II	1		General Education ² (WE)	Literature	3
Agricultural Science Elective ³		3-4		ENV 3200 (odd springs)	Soils and Hydrology	4
General Education	History	3		University Wide Elective ⁴		3
Total Credits		14-15		Total Credits		14

Junior Year						
Fall				Spring		
Course Number	Course Title	Credits		Course Number	Course Title	Credits
BIO 3180	Principles of Genetics	4		ENV 3250 (even springs)	Plant Cropping and Weed Management	4
Agricultural Science Elective ³		3-4		BIO 3040	Principles of Ecology	4
Agricultural Science Elective ³		3-4		University Wide Elective ⁴		3
General Education ² (ICC)	Social Science	3		General Education	Elective	3
General Education	Physical Education	1		General Education	Philosophy and Religion	3
Total Credits		15-16		Total Credits		17

Senior Year						
Fall				Spring		
Course Number	Course Title	Credits		Course Number	Course Title	Credits
ENV 4200 ² (even falls)	Pest Management	3		BIO 4700 (WD) ¹		3
BIO 4010	Agriculture Internship	3		General Education	Social Science	3
General Education ² (WE)	Social Science	3		University Wide Electives ⁴		3
University Wide Electives ⁴		3		University Wide Electives ⁴		3
University Wide Electives ⁴		3		University Wide Electives ⁴		3
Total Credits		15		Total Credits		15

¹ **Indigenous Cultures and Communities (ICC):** Students entering the university in Fall 2023 or later shall complete the ICC requirement for graduation. Students may satisfy this requirement by completing two 3-credit hour ICC-designated courses. Students who transfer over 60 or more hours shall complete one 3-credit hour ICC course. Designated ICC courses can satisfy other graduation requirements such as major electives and required courses. This degree has two required courses that meet the students' needs for ICC (ENV 4200 and BIO 3010).

² **Writing Intensive Program:** Students must complete a combined total of 9 credit hours of Writing Enriched (WE) and Writing in the Discipline (WD) coursework. One course must be a WD course (of any number of credits) and can be BIO 4700 or any other WD course. The WE coursework can come from any discipline. Double majors need only fulfill the Writing Intensive Program requirement once. It is recommended that you "double dip" by taking a General Education Requirement that is also designated as WE. NOTE: Successful completion (grade of "C" or better) of ENG 1050 is a prerequisite for all WE or WD courses.

³ **Approved Agricultural Science Electives:** Students may take any of the courses from the list below. Many courses are only offered every other year and in spring OR fall. All students should review the Biology Course Catalog to see availability.

- **Area of interest – Animal Husbandry**
BIO 3190 Animal Parasitology (4), BIO 2410 Animal Nutrition (3), BTEC 4300 Principles of Medical Biotechnology (3), BIO 2060 Animal Reproductive Physiology (4)
- **Area of interest – Plant Cropping**
BIO 3540 Plant Physiology (4), BIO 3010 Entomology (4), BIO 2010 Techniques in Horticulture (4), BIO 2020 Tropical Horticulture (3)
- **Area of interest – Niche Farming**
BIO 2080 Introductory Mycology (4), BIO 2420 Beekeeping (3), BIO 3020 Greenhouse Crop Production and Management (4), BIO 2020 Tropical Horticulture (3)
- **Area of interest – Food Systems**
ENV 4100 Environmental Laws and Regulations (3), ECN 3080 Environmental Economics (3)
- **Area of interest – Sustainable Agriculture**
BIO 3420 Pollution Ecology (3), BIO 4320 Conservation Biology (4), BIO 4510 Small Farm Systems (4), ENV 3100 Freshwater Ecosystems and Watershed Management (4)
- **Area of interest – Agricultural Technology**
GLY 2700 Intro to GIS (4), GLY 4040 Remote Sensing (3), GLY 2620 Environmental Geology (3), GLY 2460 Weather and Climate (3)

⁴ **University wide Electives:** University wide electives can be any course in any department at the university. Students with an interest in entrepreneurship or small business are encouraged to use some of their university electives to obtain an Entrepreneurship Certificate. The following courses are required for this certificate: ENTR 2000, ENTR 2100, ENTR 4000

Additional Notes

- **ALL GENERAL EDUCATION COURSES CAN BE INTERCHANGED**
- ***Note:** C or higher is required in BIO 1000 to matriculate to other BIO Courses in the major
- Twelve hours of natural sciences and mathematics within this degree count toward gen. ed. requirements. Students should only take those natural sciences and mathematics courses required by the degree program.
- QPA Requirements for Baccalaureate Graduation: "Have a minimum overall cumulative quality point average of 2.0 and have a minimum cumulative quality point average of 2.0 in all work attempted at the University of North Carolina at Pembroke; Have a minimum overall cumulative quality point average of 2.0 in the major field of study"