**BACHELOR of SCIENCE (B.S.) in BIOLOGY (2023-2024)**

**BMED -- Biomedical Emphasis**

**Four-Year Degree Plan**

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| 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. BIO 3710 (see page 2) will count as 4 WE hours, so you will need at least 2 more hours of WE or WD coursework, which 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 Biology elective or 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.  INDIGENOUS CULTURES AND COMMUNITIES (ICC): Students entering the university inFall 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 hoursshall complete one 3-credit hour ICC course. Designated ICC courses can satisfy other graduation requirements such as General Education and/or Writing Intensive Program requirements (see above); it is possible to “double dip” or even “triple dip” (e.g.,MUS 1210 may satisfy a Fine Arts, WE, and ICC requirement).  **\*\*\*ALL GENERAL EDUCATION COURSES CAN BE INTERCHANGED\*\*\***  \*C or higher is required in BIO 1000 to matriculate to other BIO courses in the major  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.” Note: QPA cannot be rounded up (e.g., a QPA of 1.996 is not sufficient for graduation). |

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| **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 1 | 3 |  | BIO 1020 | General Zoology | 4 |
|  | MAT 1070 or  MAT 1090 | College Algebra or Precalculus | 3-4 |  | MAT 2100 | Introduction to Statistics | 3 |
|  | BIO 1000\* | Principles of Biology | 3 |  | CHM 1300 | General Chemistry I | 3 |
|  | BIOL 1000 | Laboratory Investigation and Experiences in General Biology | 1 |  | CHM 1100 | General Chemistry Laboratory I | 1 |
|  | PSY 1010 | Introduction to Psychology | 3 |  | General Education | Physical Education | 1 |
| **Total Credits** | | | 14-15 |  | **Total Credits** | | 15 |

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| **Sophomore Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | BIO 2110 | Anatomy & Physiology I | 4 |  | BIO 2120 | Anatomy & Physiology II | 4 |
|  | CHM 1310 | General Chemistry II | 3 |  | CHM 2500 | Organic Chemistry I | 3 |
|  | CHM 1110 | General Chemistry Laboratory II | 1 |  | CHM 2520 | Organic Chemistry I Lab | 1 |
|  | MAT 2150 or  MAT 2210 | Calculus with Applications or  Calculus I | 4 |  | General Education | Fine Art | 3 |
|  | General Education | Literature | 3 |  | General Education | Elective | 3 |
|  |  |  |  |  | General Education | History | 3 |
| **Total Credits** | | | 15 |  | **Total Credits** | | 17 |

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| **Junior Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | BIO 3150 | Microbiology | 4 |  | PHY 1500 | College Physics I | 3 |
|  | CHM 3110 | Biochemistry | 3 |  | PHY 1560 | College Physics I Lab | 1 |
|  | CHM 2510 | Organic Chemistry II | 3 |  | BIO 3180 | Principles of Genetics | 4 |
|  | CHM 2530 | Organic Chemistry II Lab | 1 |  | BIO 3040 | Principles of Ecology | 4 |
|  | General Education | Social Science | 3 |  | CHM 3120 | Experimental Methods in Biochemistry | 1 |
|  | General Education | Physical Education | 1 |  | General Education | Social Science | 3 |
| **Total Credits** | | | 15 | **Total Credits** | | | 16 |

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| **Senior Year** | | | | | | | |
| **Fall** | | | | **Spring** | | | |
|  | Course Number | Course Title | Credits |  | Course Number | Course Title | Credits |
|  | BIO 3710 (WE) | Cell Biology | 4 |  | BIO 4610 | Animal Physiology | 4 |
|  | PHY 1510 | College Physics II | 3 |  | BIO 4700 (WD) | Reading and Writing in the Natural Sciences | 3 |
|  | PHY 1570 | College Physics Lab II | 1 |  | BIO 3190 or BIO 3200 or BIO 3750 or BIO 3810 or BIO 3015 or  BTEC 4300 |  | 3-4 |
|  | General Education | Philosophy or Religion | 3 |  | University-wide Elective |  | 3-4 |
|  | University-wide Elective |  | 3 |  |  |  |  |
| **Total Credits** | | | 14 | **Total Credits** | | | 13-15 |