BS, Environmental Science, Professional Concentration, 121B Appalachian State University College of Arts & Sciences **Environmental Science Program** 

**Programs of Study** 2017-2018

DUE TO COURSE SEQUENCING AND REQUIREMENTS, IT IS STRONGLY RECOMMENDED THAT STUDENTS COMPLETE 30 UGETC HOURS AND SCIENCE COURSEWORK AND THEN TRANSFER.

## Universal General Education Transfer Component (UGETC)

| English Composition (6 SCH): Complete BOTH English courses |                         |              |                |                              |                     |                                |       |  |  |
|--|-------------------------|--------------|----------------|------------------------------|---------------------|--------------------------------|-------|--|--|
| Prefix   | Course Name             | Credit Hours | Pre-requisites | University Course Equivalent | <b>Credit Hours</b> | Required or Preferred by Major | Notes |  |  |
| ENG 111  | Expository Writing      | 3            | None           | RC 1000                      | 3                   | Required                       |       |  |  |
| ENG 112  | Argument-Based Research | 3            | ENG 111        | RC 2001                      | 3                   | Required                       |       |  |  |
| <b>Total Credit Hours Requir</b>                           | ed                      | 6            |                |                              | 6                   |                                |       |  |  |
|  |                         |              |                |                              |                     |                                |       |  |  |

| Humanities/Fine Arts (6    | SCH): Select 2 classes from at least two different disciplines |              |                     |                              |              |                                |       |
|----------------------------|--|--------------|---------------------|------------------------------|--------------|--------------------------------|-------|
| Prefix                     | Course Name  | Credit Hours | Pre-requisites      | University Course Equivalent | Credit Hours | Required or Preferred by Major | Notes |
| ART 111                    | Art Appreciation   | 3            | None                | ART 2011                     | 3            |                                |       |
| ART 114                    | Art History Survey I   | 3            | None                | ART 2030                     | 3            |                                |       |
| ART 115                    | Art History Survey II  | 3            | None                | ART 2130                     | 3            |                                |       |
| COM 231                    | Public Speaking  | 3            | None                | COM 2105                     | 3            |                                |       |
| ENG 231                    | American Literature I  | 3            | ENG 112, 113 or 114 | ENG 2350                     | 3            |                                |       |
| ENG 232                    | American Literature II   | 3            | ENG 112, 113 or 114 | ENG 2350                     | 3            |                                |       |
| ENG 241                    | British Literature I   | 3            | ENG 112, 113 or 114 | ENG 2050                     | 3            |                                |       |
| ENG 242                    | British Literature II  | 3            | ENG 112, 113 or 114 | ENG 2050                     | 3            |                                |       |
| MUS 110                    | Music Appreciation   | 3            | None                | MUS 2011                     | 3            |                                |       |
| MUS 112                    | Introduction to Jazz   | 3            | None                | MUS 2014                     | 3            |                                |       |
| PHI 215                    | Philosophical Issues   | 3            | ENG 111             | PHL Elective                 | 3            |                                |       |
| PHI 240                    | Introduction to Ethics   | 3            | ENG 111             | PHL 2000                     | 3            |                                |       |
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| To | otal Credit Hours Require | ed . | 6 |  | 9 |  |
|----|---------------------------|------|---|--|---|--|

| Social /Rehavioral So | cial /Behavioral Science (6 SCH): Select 2 classes from at least two different disciplines |              |                |                              |              |                                |       |  |  |
|-----------------------|--|--------------|----------------|------------------------------|--------------|--------------------------------|-------|--|--|
| Prefix                | Course Name  | Credit Hours | Pre-requisites | University Course Equivalent | Credit Hours | Required or Preferred by Major | Notes |  |  |
| ECO 251               | Principles of Microeconomics   | 3            | None           | ECO 2030                     | 3            |                                |       |  |  |
| ECO 252               | Principles of Macroeconomics   | 3            | None           | ECO 2040                     | 3            |                                |       |  |  |
| HIS 111               | World Civilizations I  | 3            | None           | HIS 1101                     | 3            |                                |       |  |  |
| HIS 112               | World Civilizations II   | 3            | None           | HIS 1102                     | 3            |                                |       |  |  |
| HIS 131               | American History I   | 3            | None           | HIS 1200                     | 3            |                                |       |  |  |
| HIS 132               | American History II  | 3            | None           | HIS 1200                     | 3            |                                |       |  |  |
| PSY 150               | General Psychology   | 3            | None           | PSY 1200                     | 3            |                                |       |  |  |
| POL 120               | American Government  | 3            | None           | P S 1100                     | 3            |                                |       |  |  |
| SOC 210               | Introduction to Sociology  | 3            | None           | SOC 1000                     | 3            |                                |       |  |  |
| Total Credit Hours Re | equired  | 6            |                |                              | 6            | •                              |       |  |  |

| Total Credit Hours Nequired      |                                       |                     |                |                              |                     | 0                              |       |  |  |  |
|----------------------------------|---------------------------------------|---------------------|----------------|------------------------------|---------------------|--------------------------------|-------|--|--|--|
|                                  |                                       |                     |                |                              |                     |                                |       |  |  |  |
| Mathematics (8 SCH): Sel         | Mathematics (8 SCH): Select 2 courses |                     |                |                              |                     |                                |       |  |  |  |
| Prefix                           | Course Name                           | <b>Credit Hours</b> | Pre-requisites | University Course Equivalent | <b>Credit Hours</b> | Required or Preferred by Major | Notes |  |  |  |
| MAT 171                          | Precalculus Algebra                   | 4                   | None           | MAT 1020                     | 4                   |                                |       |  |  |  |
| MAT 172                          | Precalculus Trigonometry              | 4                   | MAT 171        | MAT 1025                     | 4                   |                                |       |  |  |  |
| MATH 263                         | Brief Calculus                        | 4                   | MAT 171        | MAT 1030                     | 4                   |                                |       |  |  |  |
| MATH 271                         | Calculus I                            | 4                   | MAT 172        | MAT 1110                     | 4                   | Required                       |       |  |  |  |
| MAT 272                          | Calculus II                           | 4                   | MAT 271        | MAT 1120                     | 4                   | Required                       |       |  |  |  |
| <b>Total Credit Hours Requir</b> | ed                                    | 8                   |                |                              | 8                   |                                |       |  |  |  |

| Natural Sciences (8 S | atural Sciences (8 SCH): Select 2 courses |              |                     |                              |              |                                |                                    |  |  |  |
|-----------------------|---|--------------|---------------------|------------------------------|--------------|--------------------------------|------------------------------------|--|--|--|
| Prefix                | Course Name                               | Credit Hours | Pre-requisites      | University Course Equivalent | Credit Hours | Required or Preferred by Major | Notes                              |  |  |  |
| AST 151/151A          | General Astronomy I and lab I             | 4            | None                | AST 1001                     | 4            |                                |                                    |  |  |  |
| BIO 110               | Principles of Biology                     | 4            | None                | BIO 1201/BIO 1204            | 4            |                                |                                    |  |  |  |
| BIO 111               | General Biology I                         | 4            | None                | BIO 1801                     | 4            | See Notes                      | must take both BIO 111 and BIO 112 |  |  |  |
| BIO 112               | General Biology II                        | 4            | BIO 111             | BIO 1802                     | 4            | See Notes                      | must take both BIO 111 and BIO 112 |  |  |  |
| CHM 151               | General Chemistry I                       | 4            | None                | CHE 1101/CHE 1110            | 4            | See Notes - Preferred          | must take both CHM 151 and CHM 152 |  |  |  |
| CHM 152               | General Chemistry II                      | 4            | CHM 151             | CHE 1102/CHE 1120            | 4            | See Notes - Preferred          | must take both CHM 151 and CHM 152 |  |  |  |
| GEL 111               | Introduction Geology                      | 4            | None                | GLY 1101                     | 4            |                                |                                    |  |  |  |
| PHY 110/110A          | Conceptual Physics and Lab                | 4            | None                | PHY 1100                     | 4            |                                | must take course with lab          |  |  |  |
| PHY 151               | College Physics I                         | 4            | MAT 171             | PHY 1103                     | 4            |                                | must take PHY 151 and PHY 152      |  |  |  |
| PHY 152               | College Physics II                        | 4            | PHY 151             | PHY 1104                     | 4            |                                | must take PHY 151 and PHY 152      |  |  |  |
| PHY 251               | General Physics I                         | 4            | MAT 271             | PHY 1150                     | 4            | See Notes                      | must take PHY 251 and PHY 252      |  |  |  |
| PHY 252               | General Physics II                        | 4            | MAT 272 and PHY 251 | PHY 1151                     | 4            | See Notes                      | must take PHY 251 and PHY 252      |  |  |  |

| Total Credit Hours Required | <del>-</del> 8 | 8              |
|-----------------------------|----------------|----------------|
| Total UGETC Hours           | 34             | 3/             |
| Total Ode Te Hours          | 34             | J <del>1</del> |

|                           | Additional General Education Courses (13-14 SHC) |              |                |                              |              |          |                    |  |  |  |  |
|---------------------------|--|--------------|----------------|------------------------------|--------------|----------|--------------------|--|--|--|--|
| Prefix                    | Course Name                                      | Credit Hours | Pre-requisites | University Course Equivalent | Credit Hours | Category | Notes              |  |  |  |  |
| BIO 111                   | General Biology I                                | 4            |                | BIO 1801                     | 4            | UGETC    | Required for major |  |  |  |  |
| PHY 251                   | General Physics I                                | 4            |                | PHY 1150                     | 4            | UGETC    | Required for major |  |  |  |  |
| GEL 111                   | Introduction to Geology                          | 4            |                | GLY 1101/1104                | 4            | UGETC    | Required for major |  |  |  |  |
| Total Credit Hours Requir | red  | 12           |                |                              | 12           |          |                    |  |  |  |  |

## **Total General Education Hours Required**

46

46

|                        | Other REQUIRED HOURS (15-16 SHC) |              |                |                              |              |                        |                    |  |  |  |
|------------------------|----------------------------------|--------------|----------------|------------------------------|--------------|------------------------|--------------------|--|--|--|
| Prefix                 | Course Name                      | Credit Hours | Pre-requisites | University Course Equivalent | Credit Hours | Category               | Notes              |  |  |  |
| ACA 122                | College Transfer Success         | 1            | None           |                              | 1            | GEC                    | required by CAA    |  |  |  |
| BIO 112                | General Biology II               | 4            | BIO 112        | BIO 1802                     | 4            | UGETC                  | Required for major |  |  |  |
| PHY 251                | General Physics I                | 4            | PHY 251        | PHY 1151                     | 4            | UGETC                  | Required for major |  |  |  |
| Pre-Major/GEC/Elective |                                  | 3            |                |                              | 3            | Pre-Major/GEC/Elective |                    |  |  |  |
| Pre-Major/GEC/Elective |                                  | 3            |                |                              | 3            | Pre-Major/GEC/Elective |                    |  |  |  |

## Other Required Hours (15-16 SCH)

15

15

## Total Semester Credit Hours in Program: 61

- This degree requires science sequences in Biology, Chemistry, Geology, and Physics. It is preferred that the Chemistry sequence be complete prior to transfer.
- Students should plan to complete one sequence at their community college, depending on course availability.

| 3rd - 4th Year Plan: | : BS, Environmental Science, Professional Concentr    | ation |   |                          |
|----------------------|---|-------|---|--------------------------|
| Semester             | Course  | Hours | Notes   |                          |
| SU 1                 | CHE 2101 & 2102 OR CHE 2201 & 2203                    | 4     | See Program of Study                          | 4                        |
| 5                    | ENV 1010 Intro to Environmental Science & Engineering | 3     | See Program of Study                          |                          |
| 5                    | ENV 3100 Issues in Environmental Science              | 1     | See Program of Study                          |                          |
| 5                    | GLY 2250 Evolution of the Earth                       | 4     | Major Requirement                             |                          |
| 5                    | Concentration Course 1                                | 4     | See Program of Study                          | 12                       |
| 6                    | BIO 3302 Ecology                                      | 4     | Major Requirement                             |                          |
| 6                    | ENV 3100 Issues in Environmental Science              | 1     | Writing in the Discipline                     |                          |
| 6                    | Concentration Course 2                                | 4     | See Program of Study                          |                          |
| 6                    | Science Electives                                     | 3     | Major Requirement                             |                          |
| 6                    | Free Elective   | 3     |   | 15                       |
| 7                    | GHY 3812 Introduction to GIS                          | 3     | Requires prerequisite; see department         |                          |
| 7                    | STT 3850 Statistical Data Analysis                    | 4     | Major Requirement                             |                          |
| 7                    | CHE 2550 or GLY 3131                                  | 3     | Major Requirement                             |                          |
| 7                    | PHY/GLY 3160  | 3     | Major Requirement                             |                          |
| 7                    | GLY 4630 Hydrogeology                                 | 3     | See Program of Study                          | 16                       |
| 8                    | ENV 4110 Environmental Management & Impact Analysis   | 3     | CAPSTONE                                      |                          |
| 8                    | PLN 4460 Environmental Policy & Planning              | 3     | Major Requirement                             |                          |
| 8                    | Concentration course 3                                | 4     | See Program of Study                          |                          |
| 8                    | Concentration course 4                                | 4     | See Program of Study                          |                          |
| 8                    | Free Elective   | 1     | Take enough Free Electives to reach 123 hours | 15                       |
|                      |   |       |   | 62                       |
|                      |   |       |   | 62 transfer hours        |
|                      |   |       |   | 123 hours for graduation |

- Study Abroad: Please see program director
- Summer courses: Please refer to the appropriate departmental policy for courses
- THIS 4 YEAR PLAN IS AN EXAMPLE AND SHOULD BE MODIFIED DURING STUDENT ADVISING. PLEASE SEE ENVIRONMENT.APPSTATE.EDU FOR OTHER EXAMPLE 4-YEAR PLANS.
- Residency Requirements:
  - o 31 hours must be from ASU
  - o 18 hours in the major must be from ASU
  - o 9 hours in the minor must be from ASU
  - o Final 30 hours must be courses taken through ASU (includes internships, study abroad taken through ASU)