[Environmental Science Technology](https://bluegrass.kctcs.edu/education-training/program-finder/environmental-science-technology.aspx)

Associate in Applied Science

Coordinator: Tracy Knowles ([tracy.knowles@kctcs.edu](mailto:tracy.knowles@kctcs.edu)) 859-246-6460

Student Name: Student ID:

*Students must meet college readiness benchmarks as identified by the Council on Postsecondary Education or remedy the identified skill deficiencies.*

Semester 1

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| ENG 101 Writing I\* | 3 |  |  |  |  |
| EST 150 Introductory Ecology\* | 4 |  |  |  |  |
| MAT 150 College Algebra\* | 3 |  |  |  | Must earn C or better in MAT 150 to take CHE 170 |
| BIO 112 Introduction to Biology\* | 3 |  |  |  |  |
| Digital Literacy | 3 |  |  |  |  |
| Total Semester Credit Hours | 16 |  |  |  |  |

Semester 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| ENG 102 Writing II\* | 3 |  |  |  |  |
| COM 181 Basic Public Speaking OR  COM 252 Intro. to Interpersonal Comm.\* | 3 |  |  |  |  |
| CHE 170 General College Chemistry I\* | 4 |  |  | C or better in MAT 150 |  |
| CHE 175 General College Chemistry Lab I\* | 1 |  |  | Coreq: CHE 170 |  |
| EST 160 Hydrologic Geology\* | 3 |  |  |  |  |
| EST 161 Hydrologic Geology Lab\* | 1 |  |  | Pre/Coreq: EST 160 |  |
| Total Semester Credit Hours | 15 |  |  |  |  |

Semester 3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| Heritage or Humanities course\* | 3 |  |  |  |  |
| EST 220 Pollution of Aquatic Ecosystems | 3 |  |  |  |  |
| EST 230 Aquatic Chemistry Lab | 2 |  |  | EST 150, EST 160, CHE 170 and CHE 175 |  |
| EST 240 Sources and Effects of Air Pollution | 4 |  |  | EST 150 |  |
| Social and Behavioral Sciences course\* | 3 |  |  |  |  |
| Total Semester Credit Hours | 15 |  |  |  |  |

Semester 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| EST 170 Environmental Sampling Laboratory | 2 |  |  | EST 150 |  |
| EST 250 Solid and Hazardous Waste Manag. | 3 |  |  | EST 150 and EST 160 |  |
| EST 260 Environmental Analysis Laboratory | 2 |  |  | CHE 170 and CHE 175 |  |
| EST 270 Environmental Law and Regulation | 3 |  |  | Pre/Coreq: EST 220, EST 240, EST 250 |  |
| EST 290 Applied Projects in Environmental Science Technology | 2 |  |  | Consent of program coordinator |  |
| Technical Elective | 3 |  |  |  |  |
| Total Semester Credit Hours | 15 |  |  |  |  |
| Total Degree Credit Hours | 61 |  |  |  |  |

**Graduation Requirements:**

* 25% or more of Total Degree Credit Hours must be earned at BCTC.
* Cumulative GPA must be 2.0 or higher.

Advisor Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Advisor Contact \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Additional Information**

\* This course satisfies a General Education requirement for the Associate in Science degree.

All EST courses are taught once per year. See the Course Rotation Schedule below.

**Technical Elective Courses**

|  |  |  |
| --- | --- | --- |
| Course | Cr. Hrs. | Prerequisites |
| ACH 195 Computer Aided Drafting I | 3 |  |
| BTN 101 Introduction to Biotechnology | 1 |  |
| BTN 201 Biotechnology Techniques I | 4 | Semester of college biology or chemistry with lab |
| BTN 202 Biotechnology Techniques II | 4 | BTN 201 |
| CAD 100 Intro to Computer Aided Design | 3 | Satisfies Digital Literacy requirement |
| CHE 180 General College Chemistry II\* | 4 | CHE 170 with C or better, MAT 150 with C or better |
| CHE 185 General College Chemistry Lab II\* | 1 | CHE 175 with C or better, Coreq: CHE 180 |
| CIT 234 Advanced Productivity Software | 3 | CIT 130 |
| COE 199 Cooperative Education (Internship) | 1 – 3 |  |
| ECO 201 Principles of Microeconomics\* | 3 |  |
| ENG 203 Business Writing | 3 | ENG 101 and ENG 102 |
| ENG 204 Technical Writing | 3 | ENG 101 and ENG 102 |
| EST 299 Selected Topics in EST | 1 – 3 | Instructor Consent Required |
| GLY 101 Physical Geology\* | 3 | Coreq: GLY 111 |
| GLY 111 Physical Geology Laboratory\* | 1 | Coreq: GLY 101 |
| PHY 151 Introductory Physics I\* | 3 |  |
| STA 210 Making Sense of Uncertainty: An Introduction to Statistical Reasoning\* | 3 |  |
| Other courses approved by the Environmental Science Technology Program Coordinator | 1 – 3 |  |

**Course Rotation Schedule**

|  |  |  |
| --- | --- | --- |
| Course | Fall | Spring |
| EST 150 Introductory Ecology | X |  |
| EST 160 Hydrologic Geology |  | X |
| EST 161 Hydrologic Geology Lab |  | X |
| EST 170 Environmental Sampling Laboratory |  | X |
| EST 220 Pollution of Aquatic Ecosystems | X |  |
| EST 230 Aquatic Chemistry Laboratory | X |  |
| EST 240 Sources and Effects of Air Pollution | X |  |
| EST 250 Solid and Hazardous Waste Management |  | X |
| EST 260 Environmental Analysis Laboratory |  | X |
| EST 270 Environmental Law and Regulation |  | X |
| EST 290 Applied Projects in Environmental Science Technology |  | X |

*Reviewed by: Tracy Knowles Effective Term: Fall 2021*

*Review Date: 02/18/2021*