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**Biotechnology Laboratory Technician**

**Associates in Applied Science degree**

**Program Coordinator: Deborah Davis E-mail:** **deborah.davis@kctcs.edu** **Phone: (859) 246-6451**

[**Program Website**](https://bluegrass.kctcs.edu/education-training/program-finder/biotechnology.aspx)

**Student Name: Student ID:**

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

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| **First Semester** | **Credit Hours** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| BTN 101 Introduction to Biotechnology  | 1 |  |  |  |  |
| Digital Literacy | 0 – 3 |  |  |  | Digital Literacy course or competency exam |
| Heritage or Humanities course | 3 |  |  |  |  |
| Natural Sciences course with Laboratory | 4 – 5 |  |  |  | One semester of college Biology with lab or college Chemistry with lab |
| Quantitative Reasoning course | 3 |  |  |  |  |
| Written Communication course | 3 |  |  |  |  |
| **Total Semester Credit Hours** | **14 – 18** |  |  |  |

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| **Second Semester** | **Cr. Hrs.** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| BTN 105 Applied Laboratory Calculations for Biotechnology  | 3 |  |  |  |  |
| BTN 201 Biotechnology Techniques I | 4 |  |  | A semester of college biology with lab or college chemistry with lab | First 8 weeks |
| BTN 202 Biotechnology Techniques II  | ~~4~~ |  |  | BTN 201 | Second 8 weeks |
| Social and Behavioral Sciences course  | 3 |  |  |  |  |
| Technical Support course | 4 |  |  |  | See Additional Information on back. |
| **Total Semester Credit Hours** | **18** |  |  |  |

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| **Third Semester** | **Credits** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| Required Technical Elective courses | 14 |  |  |  | See list on back. |
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| **Total Semester Credit Hours** | **14** |  |  |  |

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| **Fourth Semester** | **Credits** | **Term** | **Grade** | **Prerequisites** | **Notes** |
| Required Technical Elective courses | 14 |  |  |  | See list on back. |
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| **Total Semester Credit Hours** | **14** |  |  |  |
| **Total Degree Credit Hours** | **60 – 64** |  |  |  |

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| * **25% or more of Total Degree Credit Hours must be earned at BCTC**
* **Cumulative GPA must be 2.0 or higher**
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**Graduation Requirements:**

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

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| **Additional Information** |
| Required Technical Support courses can be courses within Natural Sciences and Mathematics, usually courses with prefixes ANA, BIO, BTN, CHE, EST, GLY, MA, MAT, PGY, PHY, STA or any course approved by the program coordinator. BTN courses not used to satisfy Technical Electives may be used to satisfy Technical Support. Students are strongly encouraged to gain hands-on experience by enrolling in BTN 295, BTN 298 or COE 199, to reinforce technical skills learned in the classroom. |

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| **Technical Elective Courses** |
| **Course** | **Cr. Hrs.** | **Prerequisites** | **Notes** |
| BTN 106 Fundamentals of Scientific Communication | 3 |  |  |
| BTN 110 Nucleic Acid Methods | 4 | One semester of college biology with lab or college chemistry with lab |  |
| BTN 115 Biomanufacturing  | 4 | BTN 201 and BTN 202 with grade of C or better |  |
| BTN 120 Biofuels | 4 | BTN 201 and BTN 202 with grade of C or better |  |
| BTN 125 Bioinformatics I | 2 | Prereq or coreq: BTN 201 and BTN 202 |  |
| BTN 126 Bioinformatics II  | 2 | BTN 125 with grade of C or better |  |
| BTN 160 Introduction to Agricultural Biotechnology | 4 | BTN 201 and BTN 202 with grade of C or better |  |
| BTN 210 Cell Culture and Function  | 4 | BTN 110 with grade of C or better |  |
| BTN 220 Immunological Methods  | 4 | BTN 110 with grade of C or better |  |
| BTN 225 Protein Bioseparation Methods | 4 | BTN 201 and BTN 202 with grade of C or better |  |
| BTN 295 Independent Investigation in Biotechnology OR BTN 298 Biotechnology Learning Laboratory OR COE 199 Cooperative Education | 1 – 31 – 8 | BTN 201 and BTN 202 with grade of C or better |  |
| Other courses approved by the Biotechnology Laboratory Technician Coordinator | 1 – 28 |  |  |

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| **Sample Course Rotation Schedule for BTN Courses**BTN 101, BTN 105, BTN 201, BTN 202 and BTN 298 are commonly offered in both the Fall and Spring semesters. |
|  | **Fall** | **Spring** | **Summer** |
| BTN 106, 220, 225, and 295 are commonly offered in a 2-year block |  | X | BTN 106 may be offered |
| BTN 110 | X |  |  |
| BTN 115, 125, 126, and 160 are commonly offered in a 2-year block | X |  | BTN 126 may be offered |
| BTN 210 |  | X |  |

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| **Embedded Credentials** |
| Credential | Title | Requirements | Total Credit Hours |
| Certificate | Advanced Biotechnician | BTN 101, BTN 105, BTN 201, BTN 201, 15 credit hours from Technical Elective Courses list | 27 |
| Certificate | Basic Biotechnician | BTN 101, BTN 105, BTN 201, BTN 202, One semester of college biology with lab or college chemistry with lab or course approved by Program coordinator | 16 – 17 |

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| * **25% or more of Total Certificate Credit Hours must be earned at BCTC**
* **Grade of C or higher in each course required for certificate**
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**Certificate Requirements:**