[Engineering and Electronics Technology – Robotics and Automation Track](https://bluegrass.kctcs.edu/education-training/program-finder/engineering-electronics-technology.aspx)

Diploma

Coordinator: John Jors (john.jors@kctcs.edu) 859-246-6718

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 |
| ELT 110 Circuits I  | 5 |  |  |  |  |
| ELT 114 Circuits II | 5 |  |  | ELT 110  |  |
| BRX 120 Basic Blueprint Reading OR CAD 100 Intro to Computer Aided Design  | 3 – 4 |  |  |  | See Additional Information |
| MAT 126 Tech Algebra and Trig ORhigher-level Quantitative Literacy course | 3 |  |  | KCTCS Placement Policy |  |
| Total Semester Credit Hours | 16 – 17 |  |  |  |  |

Semester 2

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| ELT 210 Devices I | 4 |  |  | ELT 110  |  |
| Technical Elective  | 4 |  |  |  | ELT 214 Recommended |
| EET 270 Motor Controls I ANDEET 271 Motor Controls II Lab | 4 |  |  | ELT 110  |  |
| Digital Literacy | 3 |  |  |  | See Addit. Info. |
| Total Semester Credit Hours | 15 |  |  |  |  |

Semester 3

|  |  |  |  |  |  |
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| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| ELT 120 Digital I | 3 |  |  |  | Online Only |
| EET 276 Programmable Logic Cont. ANDEET 277 Programmable Logic Cont. Lab  | 4 |  |  |  |  |
| Technical Elective | 1 |  |  |  |  |
| Written Communication OR Oral Communications  | 3 |  |  | KCTCS Placement Policy |  |
| Total Semester Credit Hours | 11 |  |  |  |  |

Semester 4

|  |  |  |  |  |  |
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| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| ELT 260 Robotics and Ind. Automation  | 5 |  |  |  | See Addit. Info. |
| ELT 265 Applied Fluid Power | 3  |  |  |  | See Addit. Info. |
| ELT 289 Eng. & Elec. Tech. Capstone | 1 |  |  | ELT 120 and 210 | Online only |
| COE 199 Cooperative Education OR COED 198 Practicum  | 1 – 2  |  |  |  | See Additional Information |
| Total Semester Credit Hours | 10 – 11 |  |  |  |  |
| Total Diploma Credit Hours | 52 – 54 |  |  |  |  |

**Graduation Requirements:**

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

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

**Additional Information**

* Students must complete MAT 065 or demonstrate an equivalent placement level before enrolling in an ELT class.
* Students must earn a grade of C or better in all technical courses and a cumulative 2.0 GPA to continue in the Engineering and Electronics Technology Program.
* Digital Literacy, BRX 120 or CAD 100 can be taken in any semester.
* Students who take CAD 100 to meet the Digital Literacy requirement must take an additional 3 credit hours of technical electives in place of the CAD 100/BRX 120 requirements.
* For COE 199, the completion of at least 12 credit hours in the Associate in Applied Science Degree, diploma, or certificate program of study, and/or marketable skills in the area in which the student is enrolled in, and minimum cumulative grade point average (GPA) of 2.
* For COED 198, consent of the instructor is a prerequisite.
* If ELT 265 Applied Fluid Power is not available, FPX 100/101 Fluid Power and Lab may be substituted with the approval of the Engineering and Electronics Technology Program Coordinator.
* If ELT 260 Robotics and Industrial Automation is not available IMT200 Industrial Robotics and Robotic Maintenance can be substituted with the approval of the Engineering and Electronics Technology Program Coordinator. This may require an additional 1 credit hour taken to make up the credit hour difference between ELT 260 and IMT 200 to meet the minimum 62 credit hour requirement for the degree.
* Technical Electives can be any EET, ELT, IMT, CIT, ISM, CAD, ICT, MFG, PLW, WLD or any other courses approved by the Engineering and Electronics Technology Program Coordinator.

**Embedded Credentials**

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| --- | --- | --- | --- |
| Credential | Title | Requirements | Total Cr. Hours |
| Certificate | Automation Technician | ELT 110, ELT 265, ELT 270, ELT 271, ELT 276, ELT 277 | 16 |
| Certificate | Electronics Tester | ELT 110, ELT 114, ELT 120 | 13 |
| Certificate | Industrial Electronics Technician I | ELT 110, ELT 114, ELT 120, ELT 276, ELT 277  | 17 |
| Certificate | Maintenance Technician | BRX 120 or CAD 100 or CAD 103, ELT 110, ELT 114, ELT 265, EET 270, EET 271, EET 276, EET 277 | 24-25 |
| Certificate | Robotics and Automation Technician | ELT 110, ELT 114, ELT 120, ELT 260, ELT 265, EET 270, EET 271, EET 276, EET 277 | 29 |

**Certificate Requirements:**

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

*Reviewed by: John Jors Effective Term: Spring 2021*

 *Review Date: 11-15-2021*