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

Associate in Applied Science

Coordinator: John Jors ([john.jors@kctcs.edu](mailto: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 OR  higher-level Quantitative Reasoning 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 AND  EET 271 Motor Controls Lab | 4 |  |  | ELT 110 |  |
| PHY 171 Applied Physics | 3 – 4 |  |  |  |  |
| Total Semester Credit Hours | 15 – 16 |  |  |  |  |

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. AND  EET 277 Programmable Logic Cont. Lab | 4 |  |  |  |  |
| Digital Literacy | 3 |  |  |  | See Addit. Info |
| ENG 101 Writing I | 3 |  |  |  |  |
| Social and Behavioral Sciences course | 3 |  |  |  |  |
| Total Semester Credit Hours | 16 |  |  |  |  |

Semester 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Courses | Cr. Hrs. | Term | Grade | Prerequisites | Notes |
| ELT 260 Robotics and Ind. Automation | 4 - 5 |  |  |  | See Addit. Info |
| FPX 100 Fluid Power AND  FPX 101 Fluid Power Lab | 5 |  |  |  |  |
| ELT 289 Eng. & Elec. Tech. Capstone | 1 |  |  | ELT 120 and ELT 210 | Online only |
| Heritage or Humanities course | 3 |  |  |  |  |
| Oral Communications course | 3 |  |  |  |  |
| Total Semester Credit Hours | 16 – 17 |  |  |  |  |
| Total Degree Credit Hours | 63 – 66 |  |  |  |  |

**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**

* 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.
* General Education courses (math, natural sciences, writing, social and behavioral sciences, oral communications, heritage or humanities) and Digital Literacy can be taken in any order. It is recommended that math be taken in the first semester if possible.
* 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.
* 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.
* 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.

**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: 10-27-2021*