



Electro-Mechanical Technology Career

Program Goals Statement

This program prepares students to work in high-tech industries as technical employees who can work on equipment that uses both electrical and mechanical engineering principles. Students, by selecting the recommended electives, can prepare themselves for employment in the expanding Green Technology industries of Solar Energy and Wind Power. Graduates, by selecting the recommended electives, may prepare themselves for transfer to a Bachelor of Science in Engineering Technology program.

Program Information

- This program is especially valuable to the person who wants technical diversity.
- It can open employment doors to many jobs that require multidisciplinary competencies.
- Students should be in a Math course every semester until they have completed their sequence.
- Summer courses will reduce fall and spring semester course loads.

Recommended Electives

- If interested in Automation and Robotics, EGR 113 and/or EGR 171 recommended.

After Bristol

- Graduates work as engineering aides, field service technicians, technical representatives, maintenance technicians and automation technicians.
- If you plan to transfer to a four-year institution, speak with your advisor and visit the Transfer Affairs website at www.BristolCC.edu/transfer

Infused General Education Competencies

Oral Communication

Subject: Engineering
Type: Associate Degree

Campus

Campus:



Fall River
Item #
Title
Credits

General Education Courses

Item #	Title	Credits
CSS 101	College Success Seminar	1
ENG 101	Composition I: College Writing	3
ENG 102	Composition II: Writing about Literature	3

Choose one of the following

Item #	Title	Credits
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3

Elective Courses - Choose one Humanities elective and one Social Phenomenon elective

Humanities elective: See General Education Competency Courses for Humanities course listings (ARC 201, COM 101, COM 114, COM 118, PHL 152, or modern language recommended)

Item #	Title	Credits
	Humanities Elective	3
	Social Phenomenon Elective	3
ART 106	Survey of Art History II: Modern Art	3
GVT 111	U.S. Government	3
GVT 112	Comparative Government	3
HST 111	The West and the World I	3
HST 112	The West and the World II	3
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3
HST 257	History of Modern East Asia (China and Japan)	3
PSY 271	Global Leadership	3
SOC 101	Principles of Sociology	3
SOC 212	The Sociology of Social Problems	3
SOC 252	The Sociology of Human Relations	3



Math and Science Courses

For students with adequate mathematics preparedness and interested in transfer, PHY 211 & 212 can be substituted for PHY 101 & 102.

Item #	Title	Credits
PHY 101	Technical Physics I	4

Choose two sequential Math courses

Item #	Title	Credits
MTH 152	College Algebra	3
MTH 172	Precalculus with Trigonometry	4
MTH 214	Calculus I	4
MTH 215	Calculus II	4
MTH 172	Precalculus with Trigonometry	4
MTH 214	Calculus I	4

Choose one of the following in Fall or Spring

Item #	Title	Credits
PHY 101	Technical Physics I	4
PHY 211	General Physics I	4
	Core Elective	3-4

Core Courses

Item #	Title	Credits
EGR 131	Introduction to Electrical Circuits	4
EGR 132	Electrical Circuits	4
EGR 211	Programmable Control Systems	4
EGR 251	Statics	3

Choose one of the following

Item #	Title	Credits
EGR 102	Introduction to Sustainable and Green Energy Technologies	3
EGR 103	Computer Skills for Engineers and Technicians	3



Choose one of the following

Item #	Title	Credits
CAD 101	Computer Aided Drafting	3
CAD 111	Mechanical Design with Solidworks	3
CAD 172	Mechanical Design using Inventor	3

Core Elective - Choose two from the following

Core Electives - Choose two from: EGR, CAD, CED 210, GIS, CHM 113, PHY 102, PHY 212 or MTH 214. - (6-8 credits)

Item #	Title	Credits
EGR 113	Introduction to Robotics	4
EGR 137	Digital Electronics	4
EGR 171	Fluid Systems	4
EGR 172	Material Science	4
EGR 235	Electronic Theory I	4

Recommended Course Sequence - Semester 1

Item #	Title	Credits
CSS 101	College Success Seminar	1
ENG 101	Composition I: College Writing	3
EGR 131	Introduction to Electrical Circuits	4
MTH 152	College Algebra	3
MTH 172	Precalculus with Trigonometry	4
MTH 214	Calculus I	4
PHY 101	Technical Physics I	4
PHY 211	General Physics I	4
	Core Elective	3-4



Recommended Course Sequence - Semester 2

Item #	Title	Credits
ENG 102	Composition II: Writing about Literature	3
EGR 132	Electrical Circuits	4
EGR 102	Introduction to Sustainable and Green Energy Technologies	3
EGR 103	Computer Skills for Engineers and Technicians	3
MTH 172	Precalculus with Trigonometry	4
MTH 214	Calculus I	4
MTH 215	Calculus II	4
PHY 101	Technical Physics I	4
PHY 211	General Physics I	4
	Core Elective	3-4

Recommended Course Sequence - Summer

Summer courses will reduce fall and spring semester course loads.

Recommended Course Sequence - Semester 3

Item #	Title	Credits
CAD 101	Computer Aided Drafting	3
CAD 111	Mechanical Design with Solidworks	3
CAD 172	Mechanical Design using Inventor	3
EGR 251	Statics	3
	Social Phenomenon Elective	3
	Humanities Elective	3
	Core Elective	3-4
	Core Elective	3-4

Recommended Course Sequence - Semester 4

Item #	Title	Credits
EGR 211	Programmable Control Systems	4
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3
	Social Phenomenon Elective	3
	Humanities Elective	3
	Core Elective	3-4
	Total credits:	62-65