



ELECTRO-MECHANICAL TECHNOLOGY (EM-TECH)

Associate of Applied Science Degree
(98 Quarter Credits)

2022-2023

Program Prerequisites:

- MTH 65 Beginning Algebra II (4 credits) completed with a “B” or better, or equivalent placement
- IRW 115 Critical Reading and Writing (5 credits) or WR 115 Introduction to Expository Writing (4 credits) or equivalent placement

Coursework:

Course Number	Course Title	Prereqs	Credits
Fall Term Yr 1			15
EET 111	Electrical Circuit Analysis 1	MTH 65 (with “B” or better), IRW 115 or WR 115, or place	5
MEC 123	Industrial Mechanical Systems	IRW 115 or WR 115 or place; place into MTH 65 or MTH 98	5
MTH 110	Technical Math	MTH 65 or place. Rec: concurrent enrollment in EET 111.	4
SAF 188	Industrial Safety and OSHA 10	none	1
Winter Term Yr 1			18
CG 209	Job Finding Skills	none	1
EET 112	Electrical Circuit Analysis 2	EET 111	5
EET 180	Industrial Computing	MTH 65 or place	3
MEC 120	Hydraulics and Pneumatics	MTH 65 or place	5
WR 121	College Composition	IRW 115 or WR 115 or place	4
Spring Term Yr 1			17
EET 113	Electrical Circuit Analysis 3	EET 112 or dept approval	5
EET 141	Motor Control	EET 112	5
MEC 124	Mechatronic Systems in Advanced Manufacturing	IRW 115 or WR 115, MTH 65, or place	3
	General Education Elective	place into MTH 65 or MTH 98. Pre/con: WR 121	4
Fall Term Yr 2			19
EET 221	Semiconductor Devices and Circuits 1	EET 113	5
EET 251	Digital Electronics 1: Programmable Logic Devices	EET 113	5
RET 223	Power Generation	none	5

	General Education Elective	place into MTH 65 or MTH 98. Pre/con: WR 121	4
Winter Term Yr 2			17
EET 219	Programmable Logic Controllers	EET 251	3
EET 231	Semiconductor Devices and Circuits 2	EET 221	5
EET 252	Digital Electronics 2: Programmable Logic Devices	EET 251	5
	General Education Elective	place into MTH 65 or MTH 98. Pre/con: WR 121	4
Spring Term Yr 2			12
EET 242 or UAS 101	Microcontroller Systems or Introduction to Unmanned Aircraft Systems	EET 252, EET 222 IRW 115 or WR 115, MTH 65, or place	5
EET 273	Electronic Control Systems	EET 222	3
	General Education Elective	place into MTH 65 or MTH 98. Pre/con: WR 121	4
Total Quarter Credits			98

General Education Requirements

Students must earn a minimum of 16 credits of General Education taken from the list of approved courses. They must include at least one course with a minimum of 3 credits from each of the following categories.

- **Arts and Letters:** Art*, Communication, English Literature, Language, Music*, Philosophy, Theater*, Writing*
- **Social Sciences:** Anthropology, Economics, History, Political Science, Psychology, Sociology, Women's Studies
- **Science and Math:** Biology, Chemistry, Environmental Science, General Science, Geology, Math*

*See list of General Education Electives in current Catalog, as not all courses within discipline will meet requirement.

Career Description and Course of Study

The Associate of Applied Science degree prepares students for employment as technicians in a broad range of industries: wind, solar, hydropower, avionics manufacturing, food and beverage manufacturing, engineering, and others. The degree provides a basic level of knowledge and skills in programmable logic controllers, industrial control systems, semiconductors, and higher levels of math.

Transfer Information


Students interested in transferring to Oregon Institute of Technology (OIT) or Embry Riddle Aeronautical University may start their studies at Columbia Gorge Community College (CGCC). Upon completion of their AAS degree in EM-Tech, students can transfer to one of these partner universities and complete a degree in a related engineering field. Students interested in this option are recommended to meet with a CGCC academic advisor and an advisor from their planned transfer institution within their first year of study at CGCC.

More information on webpage: <https://www.cgcc.edu/academics/transfer-college-information>

Comprehensive Degree Requirements

- All candidates must earn a minimum of 90 credits which count toward an associate degree.
- Credit courses numbered below 100 cannot be used to fulfill the 90 credit minimum requirement for any degrees.
- All candidates for a degree must have at least a 2.0 minimum cumulative grade point average ("C" average).
- All degree candidates must accumulate at least 30 credits of satisfactory work at CGCC to establish residency. Nontraditional credit, credit transferred from another institution or challenge credit may not be used to establish residency. 24 of the credits earned at CGCC must apply to the specific associate degree requirements the student is pursuing.
- Transfer credits accepted for letter grade C- or better. Transfer grades of "pass" accepted if no letter grade required

- A maximum of 3 credits of physical education (PE) courses may be used as electives.
- Credit courses with passing grades may only be applied once in meeting a degree or certificate requirement (unless approved to be repeated). In addition, repeated courses are only counted once in accumulated hour and point totals.
- No more than 12 credits of Cooperative Education courses may be used.
- No more than 9 credits of experimental courses can be used (course numbers 199-199Z and 299-299Z).
- A maximum of 24 credits of "P" (pass) grades will apply to degree.
- No Management/Supervisory Development workshops will apply.



This form is intended for advising purposes only. See your declared catalog for a complete list of degree requirements.

Columbia Gorge Community College is an equal opportunity educator and employer.