Electro-Mechanical Technology- EM-Tech

Certificate (48 Quarter Credits) – Year 1

Associate of Applied Science Degree (100 Quarter Credits) – Year 1 and Year 2

2018-2019

Prerequisites:

- MTH 65 Intermediate Algebra (4 credits) completed with a "B" or better, or placement into MTH 95
- WR 115 Introduction to Expository Writing (4 credits) or placement into WR 121
- RD 115 Critical Reading (4 credits) or placement "No Reading Required"

Term	Required Courses	Course Title	Prerequisites	Credits
Year 1				
Fall	☐ EET 111	DC Circuits	MTH 65 (with "B" or better), WR 115, RD 115 or test	5
	☐ MEC 123	Industrial Mechanical Systems	WR 115, RD 115, MTH 20 or test	5
	☐ MTH 95	Intermediate Algebra	MTH 65 or test; place into WR 115	4
	☐ SAF 188	Industrial Safety & OSHA 10	none	2
Winter	☐ EET 112	AC Circuits	EET 111	5
	☐ MEC 120	Fluid Power & Electrical Control of Fluid Power Systems	MTH 65	5
	☐ RET 101	Introduction to Wind Turbine Operations	EET 111	2
	☐ WR 121	English Composition	WR 115 & RD 115, or test	4
	☐ CG 209	Job Finding Skills	none	1
Spring	☐ EET 113	AC Power	EET 112	5
	☐ EET 141	Motor Control	EET 112	5
	☐ PSY 101	Psychology & Human Relations	MTH 20 or test; Pre/co: WR 121	4
	☐	Physical Education Elective (Any PE course)	none	1
Year 2				
Fall	☐ EET 251	Digital Electronics 1: Programmable Logic Devices	EET 113	5
	☐ EET 221	Semiconductor Devices and Circuits	EET 113	5
	☐ RET 223	Power Generation	EET 222	5
	☐	General Education Elective: Arts & Letters	MTH 20 or test; Pre/co: WR 121	4
Winter	☐ EET 252	Digital Electronics 2: Programmable Logic Devices	EET 251	5
	☐ EET 222	Operational Amplifier Circuits	EET 221	5
	☐ EET 219	Programmable Logic Controllers	EET 251	3
	☐	Gen. Ed. Elective: Science, Math, Computer Science	MTH 20 or test; Pre/co: WR 121	4
Spring	☐ EET 242	Microcontroller Systems	EET 252, EET 222	5
	☐ EET 273	Electronic Control Systems	EET 222	3
	☐ UAS 101	Introduction to Unmanned Aircraft Systems	MTH 65 or higher; WR 115, RD 115, or test	4
	☐	General Education Elective	MTH 20 or test; Pre/co: WR 121	4

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. No more than two courses may come from courses required by specific programs. PSY 101 will count as 4 credits of Social Science for the AAS: EM-Tech degree.

- **Arts and Letters**: Art*, Communication, English Literature, Language, Music*, Philosophy, Theater*, Writing*, Women's Studies
- **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 2018-19 Catalog, as not all courses within discipline will meet requirement.

Career Description and Course of Study

1 Year Certificate Classes – Prepares students for employment in electro-mechanical technology fields. This industry seeks employees with skills in electrical engineering, electronics, and mechanical engineering. The certificate provides a basic level of knowledge in these areas and skills in computer applications, math, and writing.

Associate Degree Classes – 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 after their first year of study at CGCC.

Comprehensive Associate Degree Requirements & Limitations:

- 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.