

# Columbia Gorge Community College Associate of Applied Science in Electro-Mechanical Technology to

## Oregon Institute of Technology Bachelor of Science in Electronics Engineering Technology

### Articulation Agreement 2022 - 2023 Catalog

It is agreed that students transferring with Columbia Gorge Community College's (CGCC) Associate of Applied Science in Electro-Mechanical Technology to Oregon Institute of Technology's (Oregon Tech) Bachelor of Science in Electronics Engineering Technology (BEET) program will be given full credit for all selected courses listed below. This agreement is based on the evaluation of the rigor and content of the general education and technical courses at both CGCC and Oregon Tech and is subject to a yearly reevaluation by both schools for continuance. This agreement is dated June 20, 2022.

Baccalaureate students must complete a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division is defined as 300-and 400-level classes at a bachelor's degree granting institution. Baccalaureate students at Oregon Tech must complete 45 credits from Oregon Tech before a degree will be awarded.

Admission to Oregon Tech is not guaranteed. Students must apply for admission to Oregon Tech in accordance with the then-existing rules, policies and procedures of Oregon Tech. Students are responsible for notifying the Oregon Tech Admissions and Registrar's Office when operating under an articulation agreement to ensure their credits transfer as outlined in this agreement. To utilize this agreement students must be attending CGCC during the above catalog year. Students must enroll at Oregon Tech within three years of this approval.

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Columbia Gorge Community College		Oregon Institute of Technology	
Robert Wells-Clark	3/29/2023	Docusigned by:	3/22/2023
Roberto Woodles Chark, Director		Carleen Drogos Storf, Director	
Technology and Trades		Educational Outreach and Par	tnerships
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Janett Gilbert	4/3/2023	- VI O. J.	3/22/2023
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		Electrical Engineering & Renewable Energy	
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		University Registrar	

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### **Columbia Gorge Community College Degree Courses & Oregon Tech Equivalent Credits**

Columbia Gorge Community College Course Number & Title	Qtr. Units	Oregon Institute of Technology Course Number & Title	Qtr. Units
EET 219 - Programmable Logic Controllers EET 231 - Semiconductor Devices and Circuits 2 EET 242 - Microcontroller Systems EET 273 - Electronic Control Systems RET 223 - Power Generation	3 5 5 3 5	200-Level Technical Electives	16
CG 209 - Job Finding Skills	1	Elective	
EET 111 - Electrical Circuit Analysis 1 EET 112 - Electrical Circuit Analysis 2 EET 113 - Electrical Circuit Analysis 3 Must take all three	15	EE 121 - Electric Circuits I EE 123 - Electric Circuits II	8
EET 141 - Motor Control	5	Elective	
EET 180 - Industrial Computing	3	Elective	2
EET 221 - Semiconductor Devices and Circuits 1	5	EE 219 - Semiconductor Devices and Amplifiers	4
EET 251 - Digital Electronics 1: Programmable Logic Devices EET 252 - Digital Electronics 2: Programmable Logic Devices Must take both	10	EE 131 - Digital Electronics I EE 133 - Digital Electronics II	8
General Education Electives <sup>1</sup> Humanities Electives <sup>2</sup> Social Science Electives <sup>3</sup>	9 8	Humanities Electives <sup>2</sup> Social Science Electives <sup>3</sup>	9 8
MEC 120 - Hydraulics and Pneumatics	5	Elective	
MEC 123 - Industrial Mechanical Systems	5	Elective	
MEC 124 - Mechatronic Systems in Advanced Manufacturing	3	Elective	
MTH 110 – Technical Math	4	Lower Division Math	
SAF 188 - Industrial Safety and OSHA 10	2	Elective	
WR 121 - College Composition	4	WRI 121 - English Composition	4
UAS 101 - Introduction to Unmanned Aircraft Systems	5		-
Total CGCC Degree Credits 1	105	Total Oregon Tech Degree Credits	57

### Courses not required for Columbia Gorge Community College's AAS in Electro-Mechanical Technology but are required for Oregon Tech's BS in Electronics Engineering Technology and can be taken at CGCC or Oregon Tech.

Columbia Gorge Community College Course Number & Title	Qtr. Units	Oregon Institute of Technology Course Number & Title	Qtr. Units
COMM 111 - Public Speaking	4	SPE 111 - Public Speaking	4
COMM 215 - Small Group Communication: Process and Theory	4	SPE 321 - Small Group and Team Communication <sup>4</sup>	3
MTH 111 - College Algebra	4	MATH 111 - College Algebra	4
MTH 112 - Elementary Functions	5	MATH 112 - Trigonometry	4
MTH 243 - Statistics I	4	MATH 243 - Introductory Statistics	4
MTH 251 - Calculus I	5	MATH 251 - Differential Calculus	4
MTH 252 - Calculus II	5	MATH 252 - Integral Calculus	4
Social Science Electives <sup>3</sup>	4	Social Science Electives <sup>3</sup>	4
WR 227 - Technical and Professional Writing	4	WRI 227 - Technical Report Writing	4
Additional CGCC Degree Credits	42	Additional Oregon Tech Degree Credits	37
Total CGCC Degree Credits	146	Total Oregon Tech Degree Credits	94

### In addition to the above courses, the courses listed below are also required for the BS in Electronics Engineering Technology and should be completed at Oregon Tech.

Oregon Institute of Technology Course Number & Title	Qtr. Units
CST 116 - C++ Programming I	4
EE 320 - Advanced Circuits and Systems Analysis	5
EE 321 - Electronics I	5
EE 323 - Electronics II	5
EE 325 - Electronics III	5
EE 331 - Digital System Design with HDL	4
EE 333 - Introduction to Microcontrollers	4
EE 335 - Advanced Microcontrollers	4
EE 401 - Communication Systems	5
EE 430 - Linear Systems and Digital Signal Processing	5
EE 432 - Advanced Digital System Design	4

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Engineering Elective	5
ENGR 267 - Engineering Programming	3
ENGR 265 - Capstone Project	6
MATH 321 - Applied Differential Equations I	4
MGT 345 - Engineering Economy	3
PHY 221 - General Physics with Calculus	4
PHY 222 - General Physics with Calculus	4
PHY 223 - General Physics with Calculus	4
Upper Division Writing Elective - choose one: WRI 327 - Advanced Technical Writing WRI 350 - Documentation Development WRI 410 - Proposal and Grant Writing	3
Additional Oregon Tech Credits <sup>5</sup>	
Total Oregon Tech Degree Credits <sup>6</sup>	

- 1. To maximize useable credits toward the BEET, the listed course is recommended.
- 2. Students can transfer up to nine (9) credit hours of Humanities electives into the BEET; these courses should be designated as Humanities electives by Oregon Tech. However, only three (3) humanities credits can be studio/performance based. Choose from the following CGCC prefixes: ART, ENG, MUS, PHL, TA, or Languages (second year/200-level only).
- 3. Students can transfer up to twelve (12) credit hours of Social Science electives into the BEET; these courses should be designated as Social Science elective by Oregon Tech. Choose from the following CGCC prefixes: ATH, EC, HST, PS, PSY, or SOC.
- 4. Does not count toward the 60 upper-division credit requirement.
- 5. Baccalaureate students must complete a minimum of 60 credits of upper-division work before a degree will be awarded. Upper-division is defined as 300- and 400- level classes at a bachelor's degree granting institution.
- 6. Oregon Tech's BEET requires 180 credits.