



**Clackamas Community College  
Associate of Science with Electrical Engineering Emphasis  
to  
Oregon Institute of Technology  
Bachelor of Science in Electrical Engineering**

**Articulation Agreement  
2022 - 2023 Catalog**

It is agreed that students transferring with Clackamas Community College’s (CCC) Associate of Science in Engineering to Oregon Institute of Technology’s (Oregon Tech) Bachelor of Science in Electrical Engineering (BSEE) 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 CCC and Oregon Tech. This agreement 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. Dual Enrollment is possible under an existing Memorandum of Understanding. Students are responsible for notifying the Oregon Tech Admissions and Registrar’s Offices when operating under an articulation agreement to ensure their credits transfer as outlined in this agreement. This agreement applies to students attending CCC during the above catalog year. Students must enroll at Oregon Tech within three years of this approval.

Clackamas Community College

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Ni Cole Sims 10/4/2022  
Ni Cole Sims, Director  
Office of Education Partnerships

DocuSigned by:  
Jason Kovac 10/4/2022  
Jason Kovac, Dean  
Institutional Effectiveness and Planning

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David Plotkin, Vice President  
Instruction and Student Services

Oregon Institute of Technology

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Carleen Drago Starr, Director Educational  
Outreach and Partnerships

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Scott Prater, Department Chair  
Electrical Engineering & Renewable Energy

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Tom Keyser 9/28/2022  
Tom Keyser, Dean  
College of Engineering, Technology, and Management

DocuSigned by:  
Wendy Irie 9/28/2022  
Wendy Irie, University Registrar

**Clackamas Community College Degree Courses & Oregon Tech Equivalent Credits**

Clackamas Community College Course Number & Title	Qtr. Units	Oregon Institute of Technology Course Number & Title	Qtr. Units
CH 221 - General Chemistry	5	Satisfies CHE 201/204 requirement: CHE 221 - General Chemistry I	4
CH 222 - General Chemistry	5	Satisfies CHE 202/205 requirement: CHE 222 - General Chemistry II	4
COMM 111 - Public Speaking	4	SPE 111 - Public Speaking	4
CS 161 - Computer Science I	4	CST 116 - C++ Programming I	4
ENGR 111 - Introduction to Engineering	3	ENGR 101 - Introduction to Engineering I <sup>1</sup> ENGR 102 - Introduction to Engineering II <sup>1</sup>	3
ENGR 171 - Digital Logic	4	EE 131 - Digital Electronics I	4
ENGR 221 - Electrical Circuit Analysis I	4	EE 221 - Circuits I	4
ENGR 222 - Electrical Circuit Analysis II	4	EE 223 - Circuits II	4
ENGR 223 - Electrical Circuit Analysis III	4	EE 225 - Circuits III	4
ENGR 271 - Digital Systems	4	EE 133 - Digital Electronics II	4
Humanities (Arts and Letters) <sup>2</sup>	3	Humanities Elective <sup>2</sup>	3
MTH 251 - Calculus I	5	MATH 251 - Differential Calculus	4
MTH 252 - Calculus II	5	MATH 252 - Integral Calculus	4
MTH 253 - Calculus III	5	MATH 253 - Sequences and Series	4
MTH 254 - Vector Calculus	5	MATH 254 - Vector Calculus I	4
MTH 256 - Differential Equations	4	MATH 321 - Applied Differential Equations I <sup>3</sup>	4
MTH 261 - Linear Algebra	4	MATH 341 - Linear Algebra I <sup>3</sup>	4
PH 211 - General Physics with Calculus	5	PHY 221 - General Physics with Calculus	4
PH 212 - General Physics with Calculus	5	PHY 222 - General Physics with Calculus	4
PH 213 - General Physics with Calculus	5	PHY 223 - General Physics with Calculus	4
Social Science <sup>4</sup>	3	Social Science Elective <sup>4</sup>	3
WR 121 - English Composition	4	WRI 121 - English Composition	4
WR 227 - Technical Report Writing	4	WRI 227 - Technical Report Writing	4
Total CCC Degree Credits <sup>1</sup>	102	Total Oregon Tech Degree Credits	89

**Courses not required for Clackamas Community College's AS in Engineering but are required for Oregon Tech's BS in Electrical Engineering and can be taken at CCC or Oregon Tech.**

Clackamas Community College Course Number & Title	Qtr. Units	Oregon Institute of Technology Course Number & Title	Qtr. Units
COMM 219 - Small Group Communication	4	SPE 321 - Small Group and Team Communication <sup>3</sup>	3
Humanities Elective <sup>2</sup>	6	Humanities Elective <sup>2</sup>	6
Social Science Elective <sup>4</sup>	9	Social Science Elective <sup>4</sup>	9
Additional CCC Degree Credits <sup>1</sup>	19	Additional Oregon Tech Degree Credits	18
Total CCC Degree Credits <sup>1</sup>	121	Total Oregon Tech Degree Credits	104

**In addition to the above courses, the courses listed below are also required for the BSEE and should be completed at Oregon Tech.**

Oregon Institute of Technology Course Number & Title	Qtr. Units
EE 321 - Electronics I	5
EE 323 - Electronics II	5
EE 331 - Digital Systems Design with HDL	4
EE 333 - Introduction to Microcontrollers	4
EE 335 - Advanced Microcontrollers	4
EE 341 - Electricity and Magnetism with Transmission Lines	4
EE 343 - Solid-State Electronic Devices	3
EE 401 - Communication Systems	5
EE 430 - Linear Systems and Digital Signal Processing	5
EE 461 - Control System Design	4
ENGR 267 - Engineering Programming	3
ENGR 465 Capstone Project	6
Engineering Electives	14
MATH 465 - Mathematical Statistics	4
MGT 345 - Engineering Economy	3
<b>Upper-Division Writing Elective - choose from:</b> WRI 327 - Advanced Technical Writing WRI 350 - Documentation Development WRI 410 - Proposal and Grant Writing	3
Additional Oregon Tech Credits <sup>5</sup>	76
Total Oregon Tech Degree Credits <sup>6</sup>	184

1. Developmental course work credits do not transfer to Oregon Tech. Other excess credits will transfer to Oregon Tech as general elective credits; these credits cannot be used toward the BSEE degree.
2. Students can transfer up to nine (9) credit hours of Humanities electives into the BSEE; these courses should be designated as Humanities electives by Oregon Tech. Choose these electives from the following CCC prefixes: ART, ENG, HUM, MUS, PHL, R, TA, or Languages (second year/200-level only). Only three (3) humanities credits can be studio/performance based.
3. Does not count toward the 60 upper-division credit requirement.
4. Students can transfer up to twelve (12) credit hours of Social Science electives into the BSEE; these courses should be designated as Social Science elective by Oregon Tech. Choose from the following CCC prefixes: ANT, EC, GEO, HST, PS, PSY, or SOC.
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 BSEE requires 184 credits.