



# ARTICULATION AGREEMENT GUIDE

Catalog Year: 2018-2019

Department Name – Engineering Technology  
 Transfer Guide with Oregon Institute of Technology

Purpose: Student transfer from Clackamas Community College to the Oregon Institute of Technology

<b>Clackamas Community College</b> Associate of Engineering Transfer	<b>Oregon Institute of Technology</b> Bachelor of Science in Mechanical Engineering
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### Program/Major Requirements:

Clackamas Community College Course Number & Title	Qtr. Units	Oregon Institute of Technology Course Number & Title	Qtr. Units
Humanities elective <sup>1</sup>	3	Humanities elective <sup>1</sup>	3
CH-221 General Chemistry	5	CHE 201 General Chemistry CHE 204 General Chemistry Lab	3 1
CH-222 General Chemistry	5	CHE 202 General Chemistry CHE 205 General Chemistry Lab	3 1
ECON-201 Principles of Economics: MICRO <b>or</b> ECON-202 Principles of Economics: Intro to MACRO	4	ECO 201 Principles of Economics, Microeconomics <b>or</b> ECO 202 Principles of Economics, Macroeconomics	3
CDT-103 Computer Aided Drafting I	3	MET 241 CAD for Mechanical Design I	2
ENGR-111 Introduction to Engineering	3	ENGR 111 MMET Orientation	2
ENGR-112 Engineering Programming	3	ENGR 266 Engineering Computation	3
ENGR-211 Statics	4	ENGR 211 Engineering Mechanics: Statics	4
ENGR-212 Dynamics	4	ENGR 212 Engineering Mechanics: Dynamics	3
ENGR-213 Strength of Materials	4	ENGR 213 Engineering Mechanics: Strength of Materials	4
ENGR-221 Electrical Circuit Analysis	4	ENGR 236 Fundamentals of Electric Circuits	3
ENGR-222 Electrical Circuit Analysis II	4		
ENGR-231 Properties of Materials	4	MECH 260 Engineering Materials I	3
MTH-251 Calculus I	5	MATH 251 Differential Calculus	4
MTH-252 Calculus II	5	MATH 252 Integral Calculus	4
MTH-254 Vector Calculus	5	MATH 254 Vector Calculus I	4
MTH-256 Differential Equations <sup>2</sup>	4	MATH 321 Applied Differential Equations I <sup>2</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 elective <sup>3</sup>	3	Social Science elective <sup>3</sup>	3
COMM-111 Public Speaking	4	SPE 111 Public Speaking	3
WR-121 English Composition	4	WRI 121 English Composition	3
WR-122 English Composition	4	WRI 122 Argumentative Writing	3
WR-227 Technical Report Writing	4	WRI 227 Technical Report Writing	3
<b>Total Clackamas Credits <sup>4</sup></b>	<b>103</b>	<b>Total Oregon Tech Degree Credits <sup>4</sup></b>	<b>81</b>

**Courses required for Oregon Tech's Bachelor of Science in Mechanical Engineering and can be taken at either Clackamas or Oregon Tech.**

<b>Clackamas Community College Course Number &amp; Title</b>	<b>Qtr. Units</b>	<b>Oregon Institute of Technology Course Number &amp; Title</b>	<b>Qtr. Units</b>
COMM-219 Small Group Discussion <sup>2</sup>	4	SPE 321 Small Group and Team Communication <sup>2</sup>	3
MTH-261 Linear Algebra <sup>2</sup>	4	MATH 341 Linear Algebra I <sup>2</sup>	4
Social Science elective <sup>3</sup>	6	Social Science elective <sup>3</sup>	6
WLD-150 Welding Processes	4	MFG 103 Introductory Welding Processes	3
<b>Additional Clackamas Credits <sup>4</sup></b>	<b>18</b>	<b>Additional Oregon Tech Credits</b>	<b>16</b>
<b>Total Articulated Credits <sup>4</sup></b>	<b>121</b>	<b>Total Articulated Degree Credits</b>	<b>97</b>

**In addition to the above courses, the courses listed below are also required for the Bachelor of Science in Mechanical Engineering and should be completed at Oregon Tech.**

<b>Oregon Institute of Technology Course Number &amp; Title</b>	<b>Qtr. Units</b>
ENGR 326 Electric Power Systems	3
ENGR 355 Thermodynamics	3
ENGR 491 MMET Senior Projects I	3
ENGR 492 MMET Senior Projects II	3
ENGR 493 MMET Senior Projects III	3
HUM 125 Introduction to Technology, Society and Values <sup>2</sup>	3
MATH 451 Numerical Methods I	4
MECH Elective <sup>5</sup>	12
MECH 313 Thermodynamics II	3
MECH 315 Machine Design I	3
MECH 316 Machine Design II	3

MECH 318 Fluid Mechanics I	4
MECH 323 Heat Transfer I	3
MECH 351 Finite Element Analysis	3
MECH 360 Engineering Materials II	3
MECH 363 Engineering Instrumentation	3
Fluid Mechanics II Requirement MECH 417 Fluid Mechanics II OR MECH 418 Fluid Mechanics II	3
MECH 436 Classical Control Systems	3
MECH 437 Heat Transfer II	2
MECH 480 Mechanical Vibrations	3
MET 242 CAD for Mechanical Design II	2
MET 375 Solid Modeling	3
MFG 120 Manufacturing Processes I	4
MFG 314 Geometric Dimensioning and Tolerancing	3
MGT 345 Engineering Economy	3
PHIL 331 Ethics in Professions <sup>2</sup>	3
Statistics Requirement Choose from: MATH 361 Statistical Methods I MATH 465 Mathematical Statistics	4
WRI 327 Advanced Technical Writing	3
<b>Additional Oregon Tech Credits <sup>6</sup></b>	<b>95</b>
<b>Total Degree Credits <sup>7</sup></b>	<b>192</b>

In addition to the departmental requirements listed above, students must also complete coursework for university admission, general education requirements and BA/BS requirements. Meet with an Oregon Institute of Technology Academic & Career Coach to develop an effective transfer plan that will meet your individual needs.

### **General Education Requirements**

- Students can transfer up to 9 credit hours of Humanities electives (Arts & Letters). **No more than 3 credits of activity or performing based humanities courses are accepted.** Choose from the following Clackamas prefixes: ART, ENG, HUM, MUS, PHL, R, TA, Second-year Foreign Languages or other courses designated as Humanities electives by the Oregon Tech Registrar's Office.
- Does not count toward 60 upper-division credit requirement.
- Students can transfer up to 6 credit hours of Social Science electives. Choose from the following Clackamas course prefixes: ANT, EC, GEO, HST, PS, PSY, SOC, SSC, and WS or other courses designated as Social Science electives by the Oregon Tech Registrar's Office.

- Excess credits will transfer to Oregon Tech as general elective credit; these credits will **not** be used toward the Bachelor of Science in Mechanical Engineering degree.
- Oregon Tech requires a total of at least 12 credits of Mechanical Electives.
- Baccalaureate degree students must complete a minimum of 60 upper-division credits before a degree will be awarded. Upper-division is defined as 300- and 400-level classes at a bachelor's degree granting institution. A minimum of 45 credits must be from Oregon Tech.
- Oregon Tech's Bachelor of Science in Mechanical Engineering requires 192 total credits.