Clackamas Community College Associate of Applied Science Microelectronics Systems Technology

to

Oregon Institute of Technology Bachelor of Applied Science in Technology and Management

Articulation Agreement 2016 - 2017 Catalog

It is agreed that students transferring with Clackamas Community College's (Clackamas) Associate of Applied Science (AAS) Microelectronics Systems Technology program to Oregon Institute of Technology's (Oregon Tech) Bachelor of Applied Science (BAS) in Technology and Management 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 Clackamas and Oregon Tech, and is subject to a yearly reevaluation by both schools for continuance. This agreement is dated July 21, 2016.

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. Dual Enrollment is possible according to an existing Memorandum of Understanding. In order to utilize this agreement students must be attending Clackamas Community College during the above catalog year. Students must enroll at Oregon Tech within three years of this approval.

Clackamas Degree Courses & Oregon Tech Equivalent Credits

| Clackamas Community College Course Number & Title | Qtr. Units | Oregon Institute of Technology Course Number & Title | Qtr. Units |
|--|---------------|--|---------------|
| CH 104 Introductory Chemistry | 5 | Lab Science elective Math/Science elective ¹ | 4 1 |
| MTH 111 College Algebra ² | 5 | MATH 111 College Algebra Math/Science elective ¹ | 4 1 |
| WR 121 English Composition (recommended) ² | 4 | WRI 121 English Composition | 3 |
| Associate of Applied Science AND | | | |
| EET 112 Electronic Test Equipment/Soldering | 3 | | |
| EET 127 Semiconductor Circuits I | 4 | | |
| EET 137 Electrical Fundamentals I | 4 | | |
| EET 139 Principles of Troubleshooting I | 2 | | |
| EET 141 Electrical Fundamentals II | 4 | | |
| EET 142 Electrical Fundamentals III | 4 | | |
| EET 157 Digital Logic I | 3 | | |
| EET 215 Electromechanical Systems I | 2 | | |
| EET 230 Laser and Fiber Optics | 3 | | |
| EET 239 Principles of Troubleshooting II | 2 | | |
| EET 250 Linear Circuits | 3 | | |
| ESH 100 Environmental Regulations | 2 | | |
| MFG 104 Print Reading MFG 107 Industrial Safety & First Aid | 2 3 | Career Technical Education Credits | |
| MFG 109 Computer Literacy for Technicians | 3 | | 60 |
| MFG 123 Instrumentation & Controls | 3 | | |
| MFG 133 Programmable Logic Controllers | 3 | | |
| MFG 140 Principles of Fluid Power | 3 | | |
| MFG 209 Programming and Automation for | 5 | | |
| Manufacturing | 3 | | |
| SM 136 Photolithography | 2 | | |
| SM 150 Semiconductor Processing I | 2 | | |
| SM 160 Semiconductor Processing II | 2 2 | | |
| SM 170 Semiconductor Processing III | 2 | | |
| SM 229 Vacuum Technology | 3 | | |
| SM 280 Electronics & Microelectronics/CWE | 4 | | |
| Human Relations requirement (see page 74) | 3 | | |
| Microelectronics Systems Technology prog elec. | 12 | | |
| TOTAL CLACKAMAS DEGREE CREDITS ³ | 99 | TOTAL OREGON TECH DEGREE CREDITS | 73 |

Courses not required for Clackamas's Associate of Applied Science Microelectronics Systems Technology, but are required for Oregon Tech's Bachelor of Applied Science in Technology and Management and can be taken at Clackamas or Oregon Tech.

| Clackamas Community College Course Number & Title | Qtr. Units | Oregon Institute of Technology Course Number & Title | Qtr. Units |
|---|---------------|---|---------------|
| BA 211 Financial Accounting I | 4 | ACC 201 Principles of Accounting I | 4 |
| BA 213 Decision Making with Accounting Information | 4 | ACC 203 Principles of Managerial Accounting | 4 |

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| TOTAL CLACKAMAS CREDITS ³ | 153 | TOTAL OREGON TECH DEGREE CREDITS | 117 |
|---|-----|--|-----|
| Additional Clackamas credits ³ | 58 | Additional Oregon Tech Degree credits | 47 |
| WR 227 Technical Report Writing | 4 | WRI 227 Technical Report Writing | 3 |
| WR 122 English Composition | 4 | WRI 122 Argumentative Writing | 3 |
| Math/Science elective ¹ | 2 | Math/Science elective (up to 4 credits) ¹ | 2 |
| Humanities elective ⁴ | 6 | Humanities elective (up to 6 credits) ⁴ | 6 |
| EC 202 Principles of Economics: Macro | 4 | ECO 202 Principles of Economics, Macroeconomics | 3 |
| EC 201 Principles of Economics: Micro | 4 | ECO 201 Principles of Economics, Microeconomics | 3 |
| CS 135DB Microsoft Access OR CS 275 Database Design | 3 | MIS 113 Introduction to Database Systems OR MIS 275 Introduction to Relational Databases | 3 |
| CS 135S Microsoft Excel | 3 | MIS 102 Spreadsheet Software Laboratory | 1 |
| COMM 111 Public Speaking | 4 | SPE 111 Public Speaking | 3 |
| BA 226 Business Law I | 4 | BUS 226 Business Law | 3 |
| BA 223 Principles of Marketing | 4 | BUS 223 Marketing I | 3 |
| BA 206 Management Fundamentals | 4 | BUS 215 Principles of Management | 3 |

In addition to the above courses, the courses listed below are also required for the Bachelor of Applied Science in Technology and Management and should be completed at Oregon Tech. All classes below are available online.

| Oregon Institute of Technology Course Number & Title | Qtr. Units |
|---|---------------|
| ACC 325 Finance | 4 |
| ANTH 452 Globalization | 3 |
| BUS 349 Human Resource Management I | 3 |
| BUS 356 Business Presentations | 4 |
| BUS 457 Business Research Methods II | 3 |
| BUS 441 Leadership I | 3 |
| BUS 467 Service Management | 3 |
| BUS 478 Cases in Strategy and Policy | 3 |
| BUS 495 Senior Project Proposal | 1 |
| BUS 496 Senior Project | 2 |
| BUS 497 Senior Project | 3 |
| MATH 361 Statistical Methods | 4 |

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| MGT 321 Operations Management I | |
|--|---|
| MGT 335 Project Management | |
| MGT 461 Lean/Six Sigma Management I | |
| MIS 206 Introduction to Management Information Systems | |
| PHIL 331 Ethics in the Professions OR PHIL 342 Business Ethics | 3 |
| PSY 347 Organizational Behavior | |
| SPE 321 Small Group and Team Communication | 3 |
| Technical electives (upper-division) | |
| WRI 327 Advanced Technical Writing | |
| Additional Oregon Tech Credits ⁵ | |
| Total Oregon Tech Degree Credits ⁶ | |

- Students can transfer up to 4 credit hours of math/science electives into the BAS program; these courses should be designated as math/science electives by Oregon Tech. Choose from the following Clackamas prefixes: BI, BOT, CH, G, GS, MTH, PH, Z or other courses designated as math/science electives by the Oregon Tech Registrar's Office. Please note that Oregon Tech does not grant science credit for computer science courses.
- 2. To maximize useable credits toward the BAS degree, the listed course is recommended.
- 3. Excess credits will transfer to Oregon Tech as general elective credit with the exception of developmental course work; these credits will **not** be used toward the BAS degree.
- 4. Students can transfer up to 6 credit hours of humanities electives into the BAS program; these courses should be designated as humanities electives by Oregon Tech. However, only 3 humanities credits can be studio/performance based. Choose from the following Clackamas prefixes: ART, ENG, HUM, MUS, PHL, R, TA, Second-year Foreign Languages or other courses designated as humanities electives but the Oregon Tech Registrar's Office.
- 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 Bachelor of Applied Science in Technology and Management requires 180 credits.