

**Virginia Western Community College/Old Dominion University**

2016-2017 Catalog

**ARTICULATION AGREEMENT**

Associate of Applied Science in Mechatronics Systems Engineering Technology with General Education Courses to  
Bachelor of Science in Engineering Technology (Mechanical Engineering Technology)

| Virginia Western Community College<br>Associate of Applied Science |     |  |           | Old Dominion University<br>Equivalency  |           |                                       |           |
|--|-----|--|-----------|---|-----------|---------------------------------------|-----------|
| CAD  | 111 | Technical Drafting*  | 3         | MET                                     | 120       | Computer Aided Drafting               | 3         |
| EGR  | 216 | Computer Methods in Eng. & Technology*   | 3         | ENGN                                    | 2ELE      | Elective (substitute for ENGT 111)    | 3         |
| ENG  | 111 | College Composition I*   | 3         | ENGL                                    | 110C      | English Composition                   | 3         |
| ETR  | 113 | DC and AC Fundamentals I   | 4         | EET                                     | 110       | Electrical Circuits I                 | 4         |
| SDV  | 101 | Orientation to EGR or SDV 100  | 1         | UNIV                                    | 100       | University Orientation                | 1         |
| MTH  | 166 | Precalculus I and II*  | 5         | MTH                                     | 166       | Precalculus I and II                  | 5         |
| EGR  | 105 | Intro to Problem Solving in Technology*  | 1         | ENGN                                    | 1ELE      | Elective (substitute for ENGN 110)    | 1         |
| CAD  | 241 | Parametric Solid Modeling*   | 3         | MET                                     | 240       | Computer Solid Modeling               | 3         |
| MEC  | 113 | Materials and Processes of Industry*   | 3         | MET                                     | 200       | Manufacturing Processes and Materials | 3         |
| MEC  | 131 | Mechanics I-Statics for Engn. Technology*  | 3         | CET                                     | 200       | Statics                               | 3         |
| MEC  | 162 | Applied Hydraulics and Pneumatics  | 3         | ENGN                                    | 1ELE      | Elective                              | 3         |
| MTH  | 173 | Calculus with Analytic Geometry I*   | 4         | MATH                                    | 211       | Calculus I                            | 4         |
| ETR  | 237 | Industrial Electronics I   | 4         | ENGN                                    | 2ELE      | Elective                              | 4         |
| IND  | 250 | Intro to Basic Computer Integrated Manuf.  | 3         | STEM                                    | 2ELE      | Elective                              | 3         |
| MEC  | 132 | Mechanics II-Strength of Materials*  | 3         | CET                                     | 220       | Strength of Materials                 | 3         |
| PHY  | 201 | General College Physics I*   | 4         | PHYS                                    | 111N      | General Physics I                     | 4         |
| Social Science   | ELE | ECO 120, 201, 202, GEO 200, 210, PLS 211, 212, 241, 242, PSY 200, 230, 235 or SOC 200* | 3         | HB                                      | 1REQ      | Human Behavior Way of Knowing         | 3         |
| HUM  | ELE | ART 101, 102, HUM 201, 202, MUS 121, 122 or CST 130*                                   | 3         | HC                                      | 1REQ      | Human Creativity Way of Knowing       | 3         |
| HLT/PED  | ELE | Health or Physical Education   | 1         | HLTH/PE                                 | 1ELE      | Elective                              | 1         |
| IND  | 230 | Applied Quality Control  | 3         | STEM                                    | 2ELE      | Elective                              | 3         |
| IND  | 251 | Automated Manufacturing Systems I  | 4         | STEM                                    | 2ELE      | Elective                              | 4         |
| IND  | 290 | Coordinated Internship II  | 3         | --                                      | --        | No credit awarded                     | 0         |
| SAF  | 127 | Industrial Safety  | 2         | --                                      | --        | No credit awarded                     | 0         |
| <b>Total Credits in AAS Degree</b>                                 |     |  | <b>66</b> | <b>Transfer Credits from AAS Degree</b> |           |                                       | <b>61</b> |
| Additional Required Courses for BS Degree                          |     |  |           | ODU Equivalency                         |           |                                       |           |
| ENG  | 112 | College Composition II *   | 3         | ENGL                                    | 211       | English Composition                   | 3         |
| CST  | 110 | Prin. of Public Speaking (or CST 105)*   | 3         | COMM                                    | 101R      | Public Speaking                       | 3         |
| CHM  | 111 | College Chemistry I*   | 4         | CHEM                                    | 121N/122N | Foundations of Chemistry I            | 4         |
| PHY  | 202 | General College Physics II*  | 4         | PHYS                                    | 112N      | General Physics II                    | 4         |
| HUM  | ELE | ENG 125, 241, 242, 243, 244, 251 or 252*   | 3         | LIT                                     | 1REQ      | Literature Way of Knowing             | 3         |
| Social Science   | ELE | HIST 101, 102, 111, 112, 121 or 122*   | 3         | INTP                                    | 1REQ      | Interpreting the Past Way of Knowing  | 3         |
| EGR  | 123 | Intro to Engineering Design*   | 2         | STEM                                    | 231       | Materials/Processes Technology        | 2         |
| <b>Additional Credits Required</b>                                 |     |  | <b>22</b> |   |           |                                       | <b>22</b> |

| Requirements for BS to be Completed at ODU |  |   |            |
|--|--|---|------------|
| EET  | 350  | Fund. of Electrical Tech.   | 3          |
| EET  | 355  | Electrical Laboratory   | 1          |
| MET  | 300  | Thermodynamics  | 3          |
| MET  | 310  | Dynamics  | 3          |
| MET  | 320  | Design of Machine Elements  | 3          |
| CET  | 345W   | Materials Testing Lab or MET 225 – Materials Science Lab for 1 credit | 2          |
| EET  | 305  | Adv. Technical Analysis   | 3          |
| MET  | 330  | Fluid Mechanics   | 3          |
| MET  | 335W   | Fluid Mechanics Laboratory  | 1          |
| MET  | 350  | Thermal Applications  | 3          |
| MET 370 & 386                              |  | Automation and Controls & Automation and Controls Lab                 | 4          |
| ENMA                                       | 480  | Ethics and Philosophy in Engineering Applications                     | 3          |
| MET  | 387  | Power and Energy Laboratory   | 2          |
| ENGT                                       | 434  | Intro to Senior Project   | 1          |
| ENGN                                       | 401  | Fund. of Engineering Review   | 1          |
| ENGT                                       | 435W   | Senior Design Project (grade of C or better required)                 | 3          |
| Senior Electives                           |  | (MET)   | 12         |
| Minor                                      | Students must select from any minor in either the College of Engineering and Technology or the College of Sciences |   | 12         |
| <b>Credits to be Taken at ODU</b>          |  |   | <b>63</b>  |
| <b>SUMMARY</b>                             |  |   |            |
| <b>Transfer Credits from AAS Degree</b>    |  |   | <b>61</b>  |
| <b>Additional Credits Required</b>         |  |   | <b>22</b>  |
| <b>Credits to be Taken at ODU</b>          |  |   | <b>63</b>  |
| <b>Total Credits</b>                       |  |   | <b>146</b> |

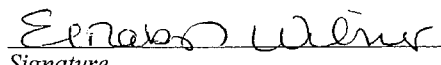
The lower division general education Language and Culture requirements will be satisfied by completion of all courses outlined in this program agreement.

Philosophy and Ethics, Information Literacy and Research and Impact of Technology are met through the major.

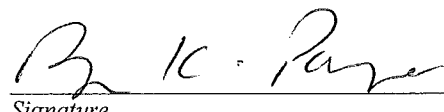
\*Student must earn C or better for course to transfer.

To participate in this articulation agreement please visit Old Dominion University's website to complete The Letter of Intent:  
<https://www.odu.edu/newtransfer/letter-of-intent>

Completion of this articulation agreement alone does not guarantee admission to Old Dominion University. All students must meet the requirements set by the Office of Admissions and the Guaranteed Admissions Agreement (GAA). Please visit [admissions.odu.edu](http://admissions.odu.edu) for more information regarding guaranteed admission to Old Dominion University.

 1/12/17  
 Signature Date

Dr. Elizabeth Wilmer  
 Vice President of Academic & Student Affairs  
 Virginia Western Community College

 2/6/17  
 Signature Date

Dr. Brian Payne  
 Vice Provost for Academic Affairs  
 Old Dominion University