

**ODE-Sinclair Credit Crosswalk: Engineering & Science Technologies**

**Engineering and Science Technologies (F6)**

**ARTICULATED**

| ODE Course                        | Subject Code | Sinclair Course   | Credit Hours | Notes   |
|-----------------------------------|--------------|---|--------------|---|
| Digital Electronics               | N/A          | EET 1198: Digital Technology                                | 2            | This course can only be captured via PLTW with scale score of 420 or stanine of 6. Both instructor and students MUST be PLTW. |
| N/A                               |              | ISE 1201: Introduction to Manufacturing Safety              | 2            | MSSC - Certified Production Technician (CPT) Certification or MSSC - Introduction to Manufacturing Safety Certificate         |
| N/A                               |              | ISE 1202: Quality Practices & Measurement for Manufacturing | 2            | MSSC - Certified Production Technician (CPT) Certification or MSSC - Quality Practices and Measurement for Manufacturing      |
| N/A                               |              | ISE 1203: Manufacturing Processes & Production              | 2            | MSSC - Certified Production Technician (CPT) Certification or MSSC - Manufacturing Processes and Production                   |
| N/A                               |              | ISE 1204: Maintenance Awareness for Manufacturing           | 2            | MSSC - Certified Production Technician (CPT) Certification or MSSC - Maintenance Awareness for Manufacturing                  |
| N/A                               |              | ISE 1300: Fundamentals of Dimensional Metrology             | 3            | NEW! Credit option for AY 24-25, FPS - Cole Glover, cole.glover@sinclair.edu  |
| N/A                               |              | ISE 2240: Six Sigma: Green Belt                             | 3            | The student must supply proof of earning a Six Sigma Green Belt Credential  |
| Computer Integrated Manufacturing | 175006       | MET 1231: Introduction to Engineering Design Using 3D CAD   | 4            |   |
| N/A                               |              | MET 1301: SolidWorks Basics                                 | 4            | Proof of Solidworks certification required for credit.  |
|                                   |              | MET 1401: Additive Design and Printing                      | 3            | NEW! Credit option for AY 24-25, FPS - Michael Neal, michael.neal1@sinclair.edu. Course includes 3-D printing.                |

**CTAG**

| ODE Course                        | Subject Code | CTAN   | Sinclair Course   | Credit Hours | Notes |
|-----------------------------------|--------------|--|---|--------------|-------|
| Plan Reading and Estimating       | 178019       | CTCON001 - Plan Reading                                    | CAT 1141: Reading Architectural Drawings                  | 2            |       |
| Computer Software                 | 145030       | CTIT005 - Intro Desktop O.S.                               | CIS 1107: Introduction to Operating Systems               | 3            |       |
| Computer Software                 | 145030 and   | CTIT011 - MS Windows Desktop OS                            | CIS 1510: Windows Client Operating System                 | 3            |       |
| Network Operating Systems         | 145040       |  |   |              |       |
| Computer Software                 | 145030       | CTIT014 - PC Operating System/A+                           | CIS 2731: A+ Hardware & Software                          | 4            |       |
| Computer Hardware                 | 145025 and   |  |   |              |       |
| Digital Electronics               | 175007       | CTEET002 - Digital Electronics                             | EET 1131: Digital Electronics                             | 4            |       |
| DC Electronic Circuits            | 175105       | CTEET001 - DC Circuits                                     | EET 1150: DC Circuits                                     | 4            |       |
| Energy Systems Management         | 010715       | CTAE001 - Introduction to Alternative and Renewable Energy | EGV 1101: Alternate & Renewable Energy Sources            | 3            |       |
| Computer Integrated Manufacturing | 175006       | CTMET005 - Computer Aided Drafting and Design (CADD)       | MET 1231: Introduction to Engineering Design Using 3D CAD | 4            |       |

| PROFICIENCY NON-PLTW        |              |  |              |       |
|-----------------------------|--------------|--|--------------|-------|
| ODE Course                  | Subject Code | Sinclair Course  | Credit Hours | Notes |
| N/A                         |              | CAM 1107: Introduction to Mechanical Drafting with CAD | 3            |       |
| N/A                         |              | CAM 1108: Machine Shop Fundamentals                    | 3            |       |
| Machine Tools               | 176004       | CAM 1109: Fundamentals of Tooling & Machining          | 3            |       |
| N/A                         |              | CAM 1110: Advanced Machine Operations                  | 3            |       |
| Plan Reading and Estimating | 178019       | CAT 1401: Construction Cost Estimating                 | 3            |       |

| <b>Robotics (F7)</b>   |              |  |   |              |  |
|--|--------------|--|---|--------------|--|
| <b>ARTICULATED</b>   |              |  |   |              |  |
| ODE Course   | Subject Code | Sinclair Course  |   | Credit Hours | Notes  |
| Hydraulics and Pneumatics  | 010225       | EGR 1217: Fluid Power & Control                          |   | 2            | Proof of passing WebXam Score required for credit. |
| Industrial Robotics  | 176025       | EGR 2252: Teach Pendant Robot Programming                |   | 3            | Proof of passing WebXam Score required for credit. |
| <b>CTAG</b>  |              |  |   |              |  |
| ODE Course   | Subject Code | CTAN   | Sinclair Course                               | Credit Hours | Notes  |
| Plan Reading and Estimating  | 178019       | CTCON001 - Plan Reading                                  | CAT 1141: Reading Architectural Drawings      | 2            |  |
| Computer Software  | 145030       | CTIT014 - PC Operating System/A+                         | CIS 2731: A+ Hardware & Software              | 4            |  |
| Computer Hardware  | 145025 and   |  |   |              |  |
| DC Electronic Circuits   | 175105       | CTEET001 - DC Circuits                                   | EET 1150: DC Circuits                         | 4            |  |
| Digital Electronics  | 175007       | CTEET002 - Digital Electronics                           | EET 1131: Digital Electronics                 | 4            |  |
| <b>PROFICIENCY</b>   |              |  |   |              |  |
| ODE Course   | Subject Code | Sinclair Course  |   | Credit Hours | Notes  |
| Plan Reading and Estimating  | 178019       | CAT 1401: Construction Cost Estimating                   |   | 3            |  |
| <b>General Tech Prep Courses for All Pathways</b>  |              |  |   |              |  |
| The following are general tech prep courses available to all pathways but often paired with courses in this pathway. These courses may be taught by academic |              |  |   |              |  |
| <b>CTAG</b>  |              |  |   |              |  |
| ODE Course   | Subject Code | CTAN   | Sinclair Course                               | Credit Hours | Notes  |
| Current and valid OSHA 10-hour safety card   |              | CTS001 - Safety  | CAT 1431: OSHA Construction Standards 10 Hour | 1            |  |
| <b>PROFICIENCY</b>   |              |  |   |              |  |
| ODE Course   | Subject Code | Sinclair Course  |   | Credit Hours | Notes  |
| N/A  |              | BIS 1400: Customer Service                               |   | 3            |  |
| N/A  |              | MAT 1110: Math for Technologists                         |   | 3            |  |
| N/A  |              | MET 1131: Personal Computer Applications for Engineering |   | 1            |  |