# OSU Engineering Major Pre-Requisites and CSCC Course Equivalencies

<table>
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<tr>
<th>Major</th>
<th>Prerequisites available at CSCC</th>
<th>Advising Notes</th>
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| Aero & Astro     | CHEM 1171 & 1172  
                    | ENGL 1100  
                    | ENGR 1181, 1182 & 2040  
                    | MATH 1172 & 2173  
                    | PHYS 1250 & 1251  | • AEROENG 2200 is a pre-req which is not offered at CSCC- Can possibly take through HECC  
                    | • Apply for Autumn  
                    | • 3.2 GPA |
| Aviation         | ENGL 1100  
                    | ENGR 1181 & 1182  
                    | Math 1151, 1172  
                    | PHYS 1250  | • AVN 2000 &2100 are also pre-reqs not available at CSCC  
                    | • Apply for Autumn or Spring  
                    | • 2.85 GPA |
| Biomedical       | CHEM 1171 & 1172  
                    | ENGR 1181 & 1182  
                    | ENGR 2040*  
                    | MATH 1151 & 1172  
                    | PHYS 1250  | • ENGR 2040 (MECHENG 2040) is not a pre-req for admission to BME, however it is a requirement for the degree and can be taken here  
                    | • Very competitive  
                    | • Average GPA: 3.6  
                    | • Apply for Spring |
| Chemical         | CHEM 1171 & 1172  
                    | ENGL 1100  
                    | ENGR 1181 & 1182  
                    | MATH 1151 & 1172  
                    | PHYS 1250*  | • PHYS 1250 is not a pre-req for admission to Chem E, however it is a requirement for the degree and can be taken here  
                    | • Apply for Autumn or Spring  
                    | • 3.2 GPA |
| Civil            | ENGL 1100  
                    | ENGR 1181 & 1182  
                    | MATH 1151 & 1172  
                    | PHYS 1250  
                    | PHYS 1251 OR CHEM 1171  | • Apply for Autumn or Spring  
                    | • 3.0 GPA |
| Computer Science | CSCI 2467*  
                    | ENGL 1100  
                    | ENGR 1181 & 1182  
                    | MATH 1151  
                    | PHYS 1250  | • CSCI 2467 transfers to OSU as CSE 1223 (if student gets A or B grade). This course serves as a pre-req to the required CSE 2221 which is only offered at OSU. Students can attempt to take CSE 2221 through HECC at OSU, although it does quickly fill up. The pre-req for our CSCI is 1103 and students can request to take a proficiency test to override 1103 if they have programming experience. There is a $50 charge to do so |

*Note: asterisked courses are specific to the major and may not be universally available at CSCC. Additional prerequisites and notes may apply, as indicated in the Advising Notes column.
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<th>Course Requirements</th>
<th>Additional Requirements</th>
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| (Can also choose other science or math courses instead of Physics 1251 to complete Math and Science Elective requirements at CSCC) | - It is typically recommended that students pursuing the CSE major at OSU do not obtain our A.S. degree due to pre-requisite requirements.  
- Students must complete 15 graded hours at OSU before applying to CSE  
- Students wishing to stay on a 4-year graduation timeline must take CSE 1223 during Year 1 AU and CSE 2221 at OSU Year 1 SP. Strongly recommended that students transfer to Ohio State during Year 1 SP or Year 1 SU and plan to take 15 credit hours to establish GPA and apply to major. |                                                                                           |
| Electrical & Computer Science | CHEM 1171 & 1172  
ENGL 1100  
ENGR 1181 & 1182  
MATH 1151 & 1172  
PHYS 1250 & 1251 | - CSE 1222 is a pre-req and is only offered at OSU  
- Students must complete 12 graded hours at OSU, therefore students may want to consider the timeline of completing our AS degree.  
- Apply any semester  
- 3.2 GPA  
- Transfer students with less than 6 hours of admission to major coursework completed at OSU should consult with an OSU ECE advisor, as the department may look at transfer grades as part of admission process. |                                                                                           |
| Engineering Physics          | ENGR 1181 & 1182  
MATH 1151 & 1172  
PHYS 1250 & 1251 | - Apply for Spring  
- 3.0 GPA  |                                                                                           |
| Environmental                | CHEM 1171 & 1172  
ENGL 1100  
ENGR 1181, 1182 & 2040  
MATH 1151 & 1172  
PHYS 1250 | - Apply for Autumn or Spring  
- 3.0 GPA  |                                                                                           |
| Food, Ag, Bio &Eco           | ENGL 1100  
ENGR 1181 & 1182  
MATH 1151 & 1172  
PHYS 1250  
CHEM 1171 | - Apply for Autumn or Spring  
- 2.0 GPA  |                                                                                           |
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| Industrial & Systems       | CSCI 2467*  
ENGL 1100  
ENGR 1181 & 1182  
ENGR 2040**  
MATH 1151, 1172 & 2568  
PHYS 1250 & 1251  
STAT 2470                                                   | * Students must earn an A or B in order for OSU to transfer this as CSE 1223. The pre-req for our CSCI is 1103 and students can request to take a proficiency test ($50) to override 1103 if they have programming experience.  
** ENGR 2040 (MECHENG 2040) is not a pre-req for admission to the major, however it is a requirement of the degree and can be taken here  
- Apply for Autumn or Spring  
- 3.5 GPA                                                                                                           |
| Material Science           | CHEM 1171  
ENGL 1100  
ENGR 1181 & 1182  
*ENGR 2040  
MATH 1151 & 1172  
*MATH 2177  
PHYS 1250                                                   | * ENGR 2040 (MECHENG 2040) and MATH 2177 are not pre-reqs for admission to the major, however they are both requirements for the degree and can be taken here  
MATSCE 1010 is a pre-req and only offered at OSU  
- Apply for Autumn or Spring – major sequence only starts in Spring, so students who submit application to major in Spring will have to wait until following spring to start major course sequences. Strongly recommend students submit application to major in Autumn  
- 2.6 GPA                                                                                                           |
| Mechanical                 | CHEM 1171  
ENGL 1100  
ENGR 1181 & 1182  
ENGR 2040*  
MATH 1172 & 2173  
PHYS 1250 & 1251  
STAT 2470**                                                   | *ENGR 2040 (MECHENG 2040) can be substituted for the MECHENG 2010 requirement, however once students are admitted into the major they must complete MECHENG 2020 at OSU  
**OSU transfers our STAT 2470 as their STAT 3470, and will accept this as a substitution for 3450  
- Apply for Autumn or Spring  
- Can only apply to MECH E major twice  
- 3.4 GPA                                                                                                           |
| Welding                    | CHEM 1171 & 1172  
ENGL 1100  
ENGR 1181 & 1182  
ENGR 2040*  
MATH 1151 & 1172  
PHYS 1250                                                   | * ENGR 2040 (MECHENG 2040) is not a pre-req for admission to the major, however it is a requirement of the degree and can be taken here  
- MATSCE 2010 is a pre-req and only offered at OSU  
- Can apply for Autumn or Spring – major sequence only starts in Spring, so students who submit application to major in Spring will have to wait until following spring to start major course sequences. Strongly recommend students submit application to major in Autumn  
- 2.6 GPA                                                                                                           |

**Students must also complete ENGR 1100 (University Survey) for all ENGR majors. This course is not available at CSCC**