

# OSU - College of Engineering, Architecture & Technology

## Mechanical Engineering, 2023-2024 Fire Protection Systems Option

REFER TO THE CATALOG TO CONFIRM  
PREREQUISITE COURSES

Semester 1, 17 credit hours	Semester 2, 18 credit hours	Semester 3, 17 credit hours	Semester 4, 16 credit hours
<p>ENGR 1111 Intro to Engr</p> <p>MATH 1513 ALEKS &gt;=56</p> <p>CHEM 1414 or 1515 Chem for Engineers</p> <p>ENSC 2213 ENSC 3313</p> <p>ENGR 1332 CAD/SolidWorks</p> <p>MATH 1813 ALEKS &gt;=75</p> <p>MATH 2144 Calc 1</p> <p>MATH 2153 PHYS 2014 ENSC 2113 ENSC 2213</p> <p><sup>1</sup>ENGL 1113 Comp 1</p> <p>ENGL 1213</p> <p>POLS 1113 Am Govt</p>	<p>ENGR 1412 Intro Eng Computer Prgm</p> <p>MAE 3403</p> <p>HIST 1103 or 1483 or 1493 Am History</p> <p>MATH 2144</p> <p>PHYS 2014 Physics 1</p> <p>ENSC 2113 ENSC 2213 PHYS 2114</p> <p>MATH 2144</p> <p>MATH 2163 MATH 2233 ENSC 2613 MAE 3333 IEM 3503</p> <p>ENGL 1113</p> <p><sup>1</sup>ENGL 1213 Comp 2</p> <p><sup>2</sup>Social &amp; Behavioral Sciences (S) D or I</p>	<p>MATH 2144</p> <p>PHYS 2014</p> <p>CHEM 1314, 1414 or 1515 MATH 2144 PHYS 2014</p> <p>ENSC 2113 ENSC 2213 Thermo</p> <p>MAE 3153<sub>cc</sub></p> <p>PHYS 2014</p> <p>PHYS 2114 Physics 2</p> <p>ENSC 2613</p> <p>MATH 2153</p> <p>MATH 2163 Calc 3</p> <p>MATH 2153</p> <p>MATH 2233 Diff Eq</p> <p>MAE 3013</p> <p>ENGR 2421 Data Acq Ctrl Lab</p> <p>MAE 3333<sub>cc</sub> MAE 3724 MAE CAT II</p>	<p>ENSC 2113</p> <p>ENSC 2113</p> <p>ENSC 2113 MATH 2153 ENGR 2421<sub>cc</sub></p> <p>CHEM 1314, 1414 or 1515</p> <p>ENSC 2113<sub>cc</sub> ENSC 2213<sub>cc</sub></p> <p>See note 8</p> <p>ENSC 2123 Dynamics</p> <p>MAE 3403 MAE 3724</p> <p>ENSC 2143 Strengths</p> <p>MAE 3324</p> <p>MAE 3333 Fluids</p> <p>MAE 3233<sub>cc</sub> MAE 3524 FPST 2243 FPST 3373 FPST 4143</p> <p>ENSC 3313 Mat Sci</p> <p>MAE 3324</p> <p>MAE 3153 Intro ME Design</p> <p>MAE 3324 MAE 3524</p> <p>Engineering Science Laboratory</p> <p>MAE CAT II Various Electives</p>

**Summary of Graduation and School Requirements:** Grades of "C" or better in all prerequisite courses, their prerequisites, and courses that directly support ABET student outcomes. (footnote 1 on Degree Requirements Sheet 2023-2024/Underlined on Flowchart). Grades of "C" or higher in all Upper Division Major Requirements courses. (footnote 2 on Degree Requirements Sheet 2023-2024/Shaded on Flowchart). A minimum Technical GPA of 2.00, Technical GPA is calculated from all courses in the curriculum with a prefix belonging to the degree program, or substitutions for these courses.

- If a 'B' or better is earned in ENGL 1113 or 1313, ENGL 3323 may be substituted for ENGL 1213 or 1413 (per Academic Regulation 3.5).
- Min 6 hrs (H) and 3 hrs (S). Of these hours, 1 course must meet the International Dimension (I) and 1 course must meet the Diversity (D) requirement

**Please note:** Some FPST courses have prerequisites that are not inherently required by the Mechanical Engineering degree

130 hours		
Prereqs to Course ABC	Course ABC	Course ABC is a prereq to these courses.

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PREREQUISITE COURSES

Semester 5, 15 credit hours	Semester 6, 16 credit hours	Semester 7, 15 credit hours	Semester 8, 16 credit hours
<p>MAE 3333<sup>cc</sup> <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">MAE 3233 Heat Transfer</span> MAE 3524</p> <p>MATH 2233 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">MAE 3013 Engr Analysis</span> MAE 3403 PHYS 2114 MAE 3724</p> <p><span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">FPST 1213 Hazards Recognition</span></p> <p>MATH 2153 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">ENSC 2613 Circuits</span> MAE 3724 PHYS 2114</p> <p><span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">FPST 1373 Suppress &amp; Detect</span> FPST 2243</p>	<p>ENSC 2213 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">MAE 3524 Thermal Fluid Design</span> MAE CAT II MAE 3153 Various Electives MAE 3333 MAE 3233</p> <p>MAE 3153 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">MAE 3324 Mech Des 1</span> MAE CAT II ENSC 3313 Various Electives</p> <p>ENGR 2421 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">MAE 3724 Sys Analysis and Control</span> MAE 3403<sup>cc</sup> ENSC 2123 MAE CAT II ENSC 2613 Various Electives MAE 3013</p> <p>MAE 3333 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">FPST 2243 Sprinkler Design &amp; Analysis</span> ENGR 1332</p> <p>See note 8 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">Engineering Science Laboratory</span> MAE CAT II Various Electives</p>	<p>Prereqs Vary by Course <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">3 MAE CAT I Elective</span></p> <p>Prereqs Vary by Course <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">5 MAE Elect</span></p> <p>MATH 2153 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">IEM 3503 Engr Econ</span></p> <p>ENGR 1412 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">MAE 3403 Comp Meth</span> Various Electives ENSC 2123 MAE 3013 MAE 3724<sup>cc</sup></p> <p>STAT 2013 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">FPST 3373 Fire Dynamics</span> FPST 4143 MATH 2153 MAE 3333 (ENSC 2213 or MAE 3233) CHEM 1314, 1414 or 1515</p>	<p>MAE 3524 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">4 MAE CAT II Senior Design Project</span> MAE 3324 MAE 3724 ENGR2421 See notes 4 and 7</p> <p>FPST 3373 <span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">FPST 4143 Ventilation &amp; Smoke Ctrl</span> MAE 3333 MAE 3233</p> <p><span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">6 FPST/CET ELECTIVE</span></p> <p><span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">2 Humanities (H) D or I</span></p> <p><span style="border: 1px solid orange; padding: 2px; display: inline-block; text-align: center;">2 Humanities (H) D or I</span></p>

3. Category I – MAE 4243, 4263, 4353, 4363, 4513, 4623, 4703, 4713, or 4723 (See Catalog for Prerequisites).
4. Category II – MAE 4344 or MAE 4354 (See Catalog for Prerequisites)
5. MAE Elective (3 Hours) – MAE 3033, 3123, 3253, 3293, 4003, 4010, 4053, 4063, 4243, 4263, 4273, 4313, 4333, 4353, 4363, 4513, 4583, 4623, 4703, 4713, 4723, 4733
6. FPST/CET Elective (3 hours) – CET 4443, FPST 3113, 3383, 4213, 4383
7. In order to fulfill the Lab requirement you must complete ENGR 2421 and select two of the following lab courses:  
ENSC 2141, ENSC 2411, ENSC 2611, ENSC 3231, ENSC 3311, or ENSC 3431. Each course can be taken concurrently or after its corresponding course in any semester before MAE CAT II (MAE 4344 or MAE 4354)

**Please note:** Some FPST courses have prerequisites that are not inherently required by the Mechanical Engineering degree

