

## Industrial Engineering 2023-2024 Catalog: Suggested Course Sequence

Degrees	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
<b>B.S. in IE 122 or 123 credits</b>	<b>MATH 165</b> Calc I 4 cr Placement Exam or C- or better in Math 143	<b>MATH 166</b> Calc II 4 cr C- or better in MATH 165	<b>MATH 265</b> Calc III 4 cr C- or better in MATH 166 or MATH 166H	<b>MATH 267</b> Diff Eq/Lap 4 cr C- or better in MATH 166 or MATH 166H	<b>I E 305</b> Engr Econ Analysis 3 cr MATH 166	<b>I E 348</b> Solidif Processes 3 cr IE 248 MAT E 273 <i>Spring Only</i>	<b>I E 413</b> Stoch Modeling 4 cr Math 265 Stat 231 <i>Fall Only</i>	<b>I E 441</b> IE Design 3 cr IE 248, IE 271, IE 361, Credit/Enrollment in IE 341, IE 413, IE 448
	<b>Social Sciences and Humanities Elective</b> 3 cr	<b>PHYS 231 &amp; PHYS 231L</b> Classical Phys I 5 cr Credit/enrollment in MATH 166	<b>I E 248</b> Intro Mfg Processes 3 cr MATH 166, PHYS 231 & 231L, Credit/enrollment in IE 101, MAT E 273 <i>Fall Only</i>	<b>STAT 231</b> Prob & Stat 4 cr Credit/enrollment in MATH 265 or MATH 265H	<b>I E 312</b> Optimization 3 cr Credit/enrollment in MATH 267 <i>Fall Only</i>	<b>I E 361</b> Quality Assurance 3 cr STAT 231	<b>ENGL 314</b> Tech Comm 3 cr Junior Classification ENGL 250	<b>I E 448</b> Manuf Sys Engr 3 cr IE 248 <i>Spring Only</i>
	<b>CHEM 167</b> Engr Chem 4 cr MATH 140 & CHEM 50 or HS Equivalent	<b>Social Sciences and Humanities Elective</b> 3 cr	<b>MAT E 273</b> Principles of Materials Science 3 cr CHEM 167 or 177, MATH 165	<b>I E 222</b> Design & Analysis Sys Improvements 3 cr IE 248, Credit/enrollment in IE 271 <i>Spring Only</i>	<b>I E 341</b> Production Systems 3 cr STAT 231, Credit/enrollment in IE 312 <i>Fall Only</i>	<b>Engineering Topic Elective</b> 3 cr	<b>M E 231</b> Engineering Thermodynamics I 3 cr MATH 166, CHEM 167, PHYS 231 & PHYS 231L	<b>Focus Elective</b> 3 cr
	<b>IE 148</b> Information Engr 3 cr Credit/enrollment in MATH 143	<b>ENGL 150</b> Comp I 3 cr Credit/enrollment in LIB 160	<b>PHYS 232 &amp; PHYS 232 L</b> Classical Phys II 5 cr PHYS 231 & 231 L MATH 166	<b>I E 271</b> Appl Ergonomics 3 cr PHYS 231 & PHYS 231L <i>Spring Only</i>	<b>IE 432</b> Ind. Automation 3 cr <b>OR:</b> <b>E E 442</b> Intro to Circuits 2 cr PHYS 232 & 232L(both), Math 267(EE 442 only)	<b>Social Sciences and Humanities Elective</b> 3 cr	<b>Focus Elective</b> 3 cr	<b>Management Elective</b> 3 cr
	<b>ENGR 101</b> Orientation R cr	<b>LIB 160</b> Library 1 cr	<b>ENGL 250 or ENGL 250H</b> Comp II 3 cr C or better in ENGL 150 or placement, Credit/enrollment in LIB 160		<b>SP CM 212</b> Fund of Public Speaking 3 cr	<b>C E 274</b> Statics 3 cr PHYS 231 & 231L, Credit/enrollment in MATH 166	<b>Social Sciences and Humanities Elective</b> 3 cr	<b>Engineering Topic Elective</b> 3 cr
		<b>I E 101</b> I E Orient R cr						
122 or 123 Total Credits	14 cr	16 cr	18 cr	14 cr	14-15 cr	14 cr	16 cr	15 cr

Applicable prerequisites and co-requisites are listed under each course.

Note: Please verify all prerequisites and semester offerings with current course catalog

Elective List can be found on the IMSE website at <http://www.imse.iastate.edu/undergraduate-program/advising/>

Course Descriptions can be found at: <http://catalog.iastate.edu/azcourses/>

Light blue shading indicates Basic Program classes for all Engineering Majors; Dark blue indicates the IE core, course descriptions on the back of this page

Last Updated

9/13/2023 DPS