

Suggested Curriculum - This should be used as a guide only. Semester offerings are subject to change.

Year	Autumn	Spring
1	____ PHYSICS 1250 (<i>Intro to Physics I</i>) 5 hr ____ MATH 1151 (<i>Calculus I</i>) 5 hr ____ ENGR 1181 (<i>Fundamentals of Engineering I</i>) 2 hr ____ ENGR 1100 (<i>Engineering Survey</i>) 1 hr ____ General Education (<i>Writing and Info Literacy</i>)..... 3 hr 16 hr	____ PHYSICS 1251 (<i>Intro to Physics II</i>)..... 5 hr ____ MATH 1172 (<i>Engineering Math A</i>)..... 5 hr ____ ENGR 1182 (<i>Fundamentals of Engineering II</i>)..... 2 hr ____ CSE 1224 (<i>Intro to Programming in Python</i>)..... 3 hr ____ *GENED 1201 (<i>GE Launch Seminar</i>)..... 1 hr 16 hr
2	____ MATH 2568 (<i>Linear Algebra</i>)..... 3 hr ____ STAT 3470.01 or .02 (<i>Probability & Statistics</i>).. 3 hr ____ MECHENG 2040 (<i>Statics & Mechanics</i>)..... 4 hr ____ ISE 2500 (<i>Intro to Manufacturing</i>)..... 3 hr ____ CSE 2112 (<i>Spreadsheets/Databases for Engineers</i>) 3 hr 16 hr	____ MATH 2415 (<i>Ordinary/Partial Diff. Equations</i>)..... 3 hr ____ ISE 2400 (<i>Design of Work</i>)..... 2 hr ____ ISE 2040.01 or .02 (<i>Engineering Economics</i>)..... 2 hr ____ General Ed. Theme (<i>Citizenship</i>) 4 hr ENGR 2301 is strongly recommended. ____ ISE 3200 (<i>Linear & Integer Programming</i>) 3 hr ____ General Education (<i>Social & Behavioral Sci</i>) 3 hr 17 hr
3	____ ISE 3210 (<i>Non-linear & Dynamic Optimization</i>)..... 3 hr ____ ISE 3800 (<i>Project Management</i>) 3 hr ____ ISE 3600 (<i>Workplace Ergonomics</i>)..... 3 hr ____ ISE 3700 (<i>Cognitive Systems Engineering</i>) 3 hr ____ General Education (<i>Theme: Student Choice</i>) 4 hr 16 hr	____ Additional Science ¹ 4-5 hr ____ ISE 4120 (<i>Quality & Reliability Engineering</i>) 3 hr ____ ISE 3400 (<i>Product Planning & Facilities Design</i>) ... 4 hr ____ ^PHILOS 1332 (<i>Engineering Ethics</i>)..... 3 hr 14 hr
4	____ ISE 4100 (<i>Stochastic Modeling & Simulation</i>)..... 4 hr ____ Technical Elective ² 3 hr ____ Technical Elective..... 3 hr ____ Technical Elective..... 3 hr ____ General Education (<i>Racial/Ethnic/Gender Div.</i>)..... 3 hr 16 hr	____ ISE 4900 (<i>Capstone Design</i>)..... 4 hr ____ Technical Elective..... 3 hr ____ Technical Elective..... 3 hr ____ General Education (<i>Lit., Visual, and Perf. Arts</i>)..... 3 hr 13 hr

Total hours required to complete the degree program = 127

*GENED 1201 must be taken within your first 3 semesters of enrollment at OSU (not including summer).

^PHILOS 1332 can overlap with Foundations GE: Historical and Cultural Studies.

Additional Science Options

¹Choose one of the following: ANATOMY 2220, 2300, 3300, ANTHROP 2200, BIOLOGY 1113, 1114, 2100, CHEM 1210, 1250, EARTHSC 1911, 2155, 2203, 2204, 3203, ENR 2155, 3280, EEOB 2510, 2520, GEOG 2200, 3300, PHYSICS 3700 All students must satisfy a 30 credit hour minimum for math and basic sciences. Students with high math or science placements and transfer students without credit for lower courses should consult with an ISE academic advisor to ensure this minimum is met. Such students may be required to take additional approved coursework to meet graduation requirements.

Technical Electives

²The ISE program includes at least 15 semester hours of technical electives from a specific track. These tracks are designed to provide depth within an area of ISE that is of interest to each student and include the following options: Supply Chain Management & Logistics, Data Analytics & Optimization, Management Systems & Operations Research*, Human Systems Integration & Design*, and Manufacturing*. (*In these tracks, students choose 9 credit hours of depth elective courses from a defined set and 6 credit hours of additional depth or breadth elective courses, also from a defined set.)