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

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

+ENGR 2301 can overlap with Theme GE: Citizenship

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

#Free Elective only required

Additional Science Options

[1]Choose 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

[2]The 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.)