

Student Information

Name: _____ OSU ID: _____ OSU Admit Term: _____

Phone: _____ Email (*name.number@osu.edu*): _____

Suggested Curriculum

This should be used as a **guide** only. Semester offerings are subject to change.

Year	Autumn	Spring
1	___ PHYSICS 1250 (<i>Intro Physics 1</i>) 5 hr ___ MATH 1151 (<i>Calculus 1</i>) 5 hr ___ ENGR 1181 (<i>Fundamentals of ENGR 1</i>) 2 hr ___ ENGR 1100 (<i>Engineering Survey</i>) 1 hr ___ General Education (<i>1st Social Science</i>)..... 3 hr	___ PHYSICS 1251 (<i>Intro Physics 2</i>)..... 5 hr ___ MATH 1172 (<i>Engineering Math A</i>)..... 5 hr ___ ENGR 1182 (<i>Fundamentals of ENGR 2</i>)..... 2 hr ___ CSE 1223 (<i>Programming Java</i>)..... 3 hr ___ General Education (<i>Writing I, English 1110.xx</i>)... 3 hr
2	___ MATH 2568 (<i>Linear Algebra</i>)..... 3 hr ___ STAT 3470 (<i>Probability & Statistics</i>)..... 3 hr ___ MECHENG 2040 (<i>Statics & Mechanics</i>)..... 4 hr ___ Additional Science ¹ 4-5 hr ___ General Education (<i>Writing II</i>)..... 3 hr	___ MATH 2415 (<i>Ordinary & Partial Diff Eq</i>)..... 3 hr ___ ISE 2400 (<i>Design of Work</i>)..... 2 hr ___ MECHENG 2850 (<i>Numerical Methods</i>)..... 3 hr ___ ISE 2040 (<i>Engineering Economics</i>)..... 2 hr ___ CSE 2112 (<i>Modeling w/ Sprdst & DB for Engr.</i>).... 3 hr
3	___ ISE 2500 (<i>Intro to Manf. Engineering</i>)..... 3 hr ___ ISE 3200 (<i>Linear & Integer Programming</i>)..... 3 hr ___ ISE 3600 (<i>Workplace Ergonomics</i>)..... 3 hr ___ ISE 3700 (<i>Cognitive Systems Eng</i>)..... 3 hr ___ General Education (<i>History</i>)..... 3 hr	___ ISE 3210 (<i>Non-linear & Dynamic Optimization</i>)... 3 hr ___ ISE 3800 (<i>Project Management</i>)..... 3 hr ___ ISE 4120 (<i>Quality & Reliability Engineering</i>)..... 3 hr ___ ISE 3400 (<i>Prod Plan & Fac Design</i>)..... 4 hr ___ General Education (<i>Literature</i>)..... 3 hr
4	___ ISE 4100 (<i>Stoch Modeling & Simulation</i>)..... 4 hr ___ Technical Elective ² 3 hr ___ Technical Elective..... 3 hr ___ Technical Elective..... 3 hr ___ General Education (<i>Visual & Performing Arts</i>)... 3 hr	___ ISE 4900 (<i>Capstone Design</i>)..... 4 hr ___ Technical Elective..... 3 hr ___ Technical Elective..... 3 hr ___ General Education (<i>2nd Social Science</i>)..... 3 hr ___ General Education (<i>Ethics + Cultures & Ideas</i>)... 3 hr

Total Hours to complete the degree program = 127

Program 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 32 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.

Acceptance Criteria

Acceptance into this program is based on the eligibility point hour ratio (EPHR) of Math 1151, 1172; Engineering 1181; English 1110; Physics 1250, 1251; and CSE 1223. The following additional classes must be completed before applying to the major, but are not included in the EPHR calculation: ENGR 1100 and ENGR 1182.01. Additionally, Math 2568 and Statistics 3470 must be completed or in progress during the term the student applies. Acceptance into ISE requires a C or better in Math 2568, STAT 3470, CSE 1223, and ENGLISH 1110. The application review includes assessment of grades (including transfer grades) in the courses listed above, along with a complete review of each student’s full academic record and personal statement. Applications are accepted during autumn and spring terms.

Technical and Other Electives

² The ISE program includes 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 particular 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. The Supply Chain Management & Logistics and Data Analytics & Optimization tracks require a separate application for admission.

General Education Requirement

Writing and Communication

English 1110.xx 3 hr

Second Writing Course: recommend ENR 2367, COMM 2367, NURSING 2367 or COMPSTD 2367.04 3 hr

Social Science

Only one course per Social Science group may count.

_____ 3 hr

_____ 3 hr

Literature

_____ 3 hr

Visual and Performing Arts

_____ 3 hr

Historical Study

_____ 3 hr

Second Historical Study or Cultures and Ideas

_____ 3 hr

Social Diversity in the U.S. or Global Diversity

Some courses may overlap with another GE category, See course list.

_____ 0 / 3 hr

Ethics

Some courses may overlap with another GE category, See course list.

_____ 0 / 3 hr

Foreign Language

Pre-approved substitutions

- A. **Foreign Language 1103:** credit (including EM) for a foreign language sequence through 1103, or credit for a foreign language course with a prerequisite of 1103, can be used to satisfy the Cultures & Ideas Gen Ed category.
- B. **Foreign Language Minor Courses:** completion of a foreign language minor permits a student to overlap up to 6 credit hours between the Gen Ed and minor. A curricular petition must be submitted to the student's program, which will forward it to the college for review. The courses must meet the spirit of the Gen Ed category for which overlap is requested.

University Capstone (Cross-Disciplinary Seminar)

Pre-approved substitutions

Completion of a Social Science 3597 or 4597 can be substituted for a Social Science general education course in any group. Completion of an Arts & Humanities 3597 or 4597 can be substituted for a Visual/Performing Arts general education course.

See the list of approved general education courses for additional details: www.advising.engineering.osu.edu.