

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	___ ENGR 1110 (<i>Engineering Survey</i>) 1 hr ___ ENGR 1181 (<i>Fundamentals of Engr 1</i>) 2 hr ___ MATH 1151 (<i>Calculus I</i>) 5 hr ___ PHYSICS 1250 (<i>Mechanics, Thermal, Waves</i>) 5 hr ___ General Education 3 hr	___ ENGR 1182 (<i>Fundamentals of Engr 2</i>) 2 hr ___ MATH 1172 (<i>Engineering Math A</i>) 5 hr ___ CHEM 1250* (<i>Gen Chem for Engineers</i>) 4 hr ___ General Education 3 hr ___ General Education 3 hr
2	___ MATSCEN 2010 (<i>Intro to Mats Sci & Engr</i>) 3 hr ___ MATH 2177 (<i>Math Topics for Engineers</i>) 4 hr ___ PHYSICS 1251 (<i>E&M, Optics, Modern Phys</i>) 5 hr ___ STAT 3450 (<i>Statistics for Engineers</i>) 2 hr ___ MECHENG 2040 (<i>Statics & Mechanics</i>) 4 hr	___ MATSCEN 2251 (<i>Mat Thermodyn</i>) 3 hr ___ WELDENG 3001 (<i>Survey of Weld Eng</i>) 3 hr ___ WELDENG 3601 (<i>Intro Arc Welding Lab</i>) 1 hr ___ ECE 2300 (<i>Electrical Cir and Elect Devices</i>) 3 hr ___ ENGR 1221 (<i>Comp Prog MATLAB</i>) 2 hr ___ General Education 3 hr
3	___ MATSCEN 3141 (<i>Structural Transformations</i>) .. 3 hr ___ MATSCEN 3333 (<i>Mat Processing Lab 1</i>) 2 hr ___ WELDENG 4001 (<i>Phy Prin Weld Proc & Lab</i>).. 4 hr ___ WELDENG 4201 (<i>Engr Anlys Dsgn Sim & Lab</i>) 4 hr ___ General Education 3 hr	___ WELDENG 4002 (<i>Phy Prin Weld Proc & Lab 2</i>) 4 hr ___ WELDENG 4101 (<i>Welding Metallurgy 1</i>) 3 hr ___ WELDENG 4202 (<i>Welding Design</i>) 3 hr ___ WELDENG 4301 (<i>Nondestr Eval & Lab</i>) 3 hr ___ WELDENG 4611 (<i>Welding Mtlrgy Lab 1</i>) 1 hr ___ ISE 4500 (<i>Fund of Manufacturing Engr</i>) 3 hr
4	___ WELDENG 3189 (<i>Industrial Experience</i>) 1 hr ___ WELDENG 4102 (<i>Welding Mtlrgy 2</i>) 3 hr ___ WELDENG 4612 (<i>Welding Mtlrgy Lab 2</i>) 1 hr ___ WELDENG 4901 (<i>Capstone Weld Dsgn 1</i>) 2 hr ___ Technical Elective 2 hr ___ Technical Elective 2 hr ___ General Education 3 hr	___ WELDENG 4902 (<i>Capstone Weld Dsgn 2</i>) 3 hr ___ ISE 2040 (<i>Engineering Economics</i>) 2 hr ___ Technical Elective 2 hr ___ Technical Elective 3 hr ___ General Education 3 hr ___ General Education 3 hr

Total Hours to complete the degree program = 129

Program Options

*Chem 1210 (*Gen Chem 1*) and Chem 1220 (*Gen Chem 2*) may be used to fulfill Chemistry requirements. Please consult with the Welding Engineering academic advisor.

Technical Electives are chosen based on student's interest and desired focus area in Welding Engineering.

Acceptance Criteria

Acceptance into the Welding Engineering major is based on cumulative point hour ratio (CPHR) and eligibility point hour ratio (EPhR) consisting of: Math 1151, 1172 (or 1161, 2162); Engineering 1181, 1182 (or 1281H, 1282H); Chemistry 1250; Physics 1250; MSE 2010. To apply, students must have a CPhR of 2.0 or higher, an EPhR of 2.0 or higher, and

credit for English 1110. Students applying with a CPHR and EPHR of 3.0 or higher are guaranteed admission. Applications are accepted by November 1 prior to the Spring Term of desired entry.

Technical and Other Electives

Nine credit hours of technical electives are required. Two credit hours may be taken in non-graded (S/U) courses. In general, technical electives may be any course in Engineering, Math, Biological, or Physical Sciences numbered 3000 or higher. WeldEng courses used as technical electives must be numbered 4000 or higher. Exceptions and recommendations: Chem 2310 or 2510 (*Organic Chemistry*) may be used as a technical elective.

General Education Requirement

Writing and Communication

English 1110.xx 3 hr

Second Writing Course 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

Course may overlap with another general education category.

_____ 0 / 3 hr

Ethics

Ethics courses listed below may overlap with their corresponding general education category.

Social Science, Individual & Groups sub-category: Economics 3048.

Social Science, any sub-category: Sociology 3302, Sociology 3464.

Cultures & Ideas: Comparative Studies 2341, Philosophy 1332,

Philosophy 1337.

_____ 0 / 3 hr

Foreign Language

Pre-approved substitutions

- A. Substitution A: Completion through enrollment in a foreign language sequence through 1103, or enrollment in a foreign language course with a prerequisite of 1103, can be substituted for one Gen Ed course requirement as a Cultures & Ideas.
- B. Substitution B: Completion of a foreign language minor can be substituted for two Gen Ed courses: one course as a Social Science, (Individuals & Groups or Organizations & Politics subgroups only) and one course as either a Literature or a Cultures & Ideas.

Parameters: These substitutions are permitted when the credit is earned through successful completion of the course at OSU. Credit earned at another institution (K credit), or credit by examination (EM credit) is not applicable.

Students must choose either Substitution A OR Substitution B. Both substitutions cannot be applied simultaneously.

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.engineering.osu.edu/major.