

Student Information

Name: _____

OSU Email: _____

Suggested Curriculum

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

Bolded courses are offered only in the terms indicated.

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 Launch 1 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 (see Chem note below) General Education 3 hr General Education 3 hr
2	MATSCEN 2010 (<i>Intro to Mats Sci & Engr</i>) 3 hr PHYSICS 1251 (<i>E&M, Optics, Modern Phys</i>) 5 hr MATH 2173 (<i>Engineering Mathematics B</i>) 3 hr MECHENG 2040 (<i>Statics & Mechanics</i>) 4 hr STAT 3450 (<i>Statistics for Engineers</i>) 2 hr	WELDENG 2001 (<i>Survey of Weld Eng</i>) 3 hr MATSCEN 2251 (<i>Mat Thermodyn</i>) 3 hr MATH 2174 (<i>Lin Alg Diff Eq for Engineers</i>) 3 hr WELDENG 2601 (<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
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 Theme 4 hr	WELDENG 4002 (<i>Phy Prin Weld Proc & Lab 2</i>) 4 hr WELDENG 4101 (<i>Welding Metallurgy & Lab 1</i>) 4 hr WELDENG 4202 (<i>Welding Design</i>) 3 hr WELDENG 4301 (<i>Nondestr Eval & Lab</i>) 3 hr ISE 4500 (<i>Fund of Manufacturing Engr</i>) 3 hr
4	WELDENG 4189 (<i>Industrial Experience</i>) 1 hr WELDENG 4102 (<i>Welding Mtlrgy & Lab 2</i>) 4 hr WELDENG 4901 (<i>Capstone Weld Dsgn 1</i>) 2 hr Technical Elective 3 hr General Education 3 hr General Education Theme 4 hr	WELDENG 4902 (<i>Capstone Weld Dsgn 2</i>) 3 hr ISE 2040 (<i>Engineering Economics</i>) 2 hr Technical Elective 3 hr Technical Elective 1 hr General Education 3 hr General Education 3 hr

Total Hours to complete the degree program = 129

Program Options

- *Chem 1210 + Chem 1220 are encouraged to fulfill Chemistry requirements. Please consult with academic advisor.
- Math 2177 can substitute for Math 2174 + 2174

Acceptance Criteria

Welding Engineering is direct admission, to change major to Welding Engineering, e-mail or make an appointment in OnCourse with Kami Westhoff.11@osu.edu.

Students begin major courses in spring term after completion of MATSCEN 2010 with a C or higher, regardless of the term in which they change majors.

Technical and Other Electives

Seven credit hours of technical electives are required.

Technical electives are 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.

The WELDENG 4193.01 – *Lincoln Electric Welding “Boot Camp”* may be taken in a non-graded (S/U) course.

General Education Requirement

Launch Seminar

GENED 1201	1 hr
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Foundations

Writing and Information Literacy	3 hr
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Historical and Cultural Studies	3 hr
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Social and Behavioral Sciences	3 hr
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Race, Ethnicity and Gender Diversity	3 hr
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Literary, Visual and Performing Arts	3 hr
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Thematic Pathways

Citizenship for a Just and Diverse World	4-6 hr
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Additional Theme(s)	4-6 hr
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Foreign Language

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.

For more information about general education courses:

<https://www.advising.engineering.osu.edu/current-students/curriculum/general-education>