B.S. Mechanical Engineering 2020-2021 Academic Year

Student Information

Name:_____ OSU Email:_____

Suggested Curriculum

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

Year	Autumn	Spring
1	___ MATH 1148 *(College Algebra)* 4 hr ___ ENGR 1100.15 *(Engineering Survey)* 1 hr ___ General Education 3 hr ___ General Education 3 hr ___ General Education 3 hr	___ MATH 1149 *(Trigonometry)* 3 hr ___ CHEM 1250 *(Gen Chem for Engineers)* ǂ 4 hr ___ General Education 3 hr ___ General Education 3 hr
2	___ MATH 1151 *(Calculus 1)* 5 hr ___ PHYSICS 1250 *(Mechanics, Thermal, Waves)* 5 hr ___ ENGR 1181 *(Fundamentals of Engr 1)* 2 hr ___ General Education 3 hr	___ MATH 1172 *(Engineering Math A)* 5 hr ___ PHYSICS 1251 *(E&M, Optics, Modern Phys)* 5 hr ___ ENGR 1182 *(Fundamentals of Engr 2)* 2 hr ___ General Education 3 hr
3	___ MATH 2173 *(Engineering Math B)* 3 hr ___ MECHENG 2010 *(Statics)** 2 hr ___ STAT 3450 *(Stat Methods for Engineers)** 2 hr ___ ISE 2040 *(Engineering Economics)** 2 hr ___ MATSCEN 2010 *(Intro Engineering Materials)†* 3 hr	___ MATH 2174 *(Lin Alg & Diff Eq)** 3 hr ___ MECHENG 2020 *(Mechanics of Materials)** 3 hr ___ MECHENG 2030 *(Dynamics)** 3 hr ___ MECHENG 2900 *(Intro to Design in ME)* 3 hr ___ MECHENG 2850.01 *(Numerical Methods)* 3 hr
4	___ ECE 2300 *(Circuits)** 3 hr ___ MECHENG 3260 *(System Dynamics)* 3 hr ___ MECHENG 3501 *(Thermodynamics)* 3 hr ___ MECHENG 3670 *(Dsgn Analysis Mach Elm 1)* 2 hr ___ MECHENG 3751 *(Kinematics & Mech Design)* 2 hr	___ MECHENG 3360 *(Sys Integration & Control)* 3 hr ___ MECHENG 3503 *(Intro to Fluid Mechanics)* 3 hr ___ MECHENG 3671 *(Dsgn Analysis Mach Elm 2)* 3 hr ___ MECHENG 3870 *(Msmts & Data Analysis)* 3 hr
5	___ MECHENG 4510 *(Heat Transfer)* 3 hr ___ ISE 4500 *(Mfg Process Engineering)* 3 hr ___ MECHENG 4900 *(Capstone Design 1)* 1.5 hr ___ MECHENG 490X.01 *(Capstone Design 2)* 1 hr ___ Technical Elective 3 hr ___ Technical Elective 3 hr	___ MECHENG 490X.02 *(Capstone Design 3)* 2.5 hr ___ MECHENG 4870 *(Multidisciplinary ME Lab)* 2 hr ___ Technical Elective 3 hr ___ Technical Elective 3 hr ___ General Education 3 hr

Total hours to complete the degree program = 130

**These required courses can be taken without being admitted to the Mechanical Engineering major program.*

† BIOLOGY 2100 (4 hours), CHEM 2000-level (3 hours or more) or above, and ANATOMY 2220 can substitute for MATSCEN 2010.

ǂ *CHEM 1210 can substitute for CHEM 1250*

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 the MAE Undergraduate Academic Advisors to ensure this minimum is met. Such students may be required to take extra coursework to meet graduation requirements.

Acceptance Criteria

Acceptance into this program is based on a holistic review of the student's record including an essay. Admission to major is considered only after a student has taken at least 12 credit hours of letter grade in their undergraduate career at OSU and have completed or are in progress for the following courses: MATH 1151, 1172; ENGR 1181, 1182; PHYSICS 1250, (or their equivalents).

Applications are accepted Autumn and Spring semester ONLY.

Technical Electives and Capstone

Please contact an MAE Undergraduate Academic Advisor for information about Technical Elective and Capstone options.

General Education Requirement

Writing and Communication

English 1110.xx 3 hr

Second Writing Course 3 hr

Social Science

Must choose each course from a distinct subgroup of this category.

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

Optional: Foreign Language

Foreign Language 1103 Course: 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.

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.

Optional: University Capstone

Completion of a Social Science 3597 or 4597 can be substituted for a Social Science general education course in any subgroup. 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