

Sinclair Community College – Ohio University Plan

Industrial and Systems Engineering Pathway

The Industrial and Systems Engineering (ISE) degree provides a broad technical background with special attention to productivity, costs, quality, and human factors in production and other systems. To prepare graduates for their job responsibilities, the primary objective of the Industrial and Systems Engineering program is to produce engineers who are able to apply ISE tools and knowledge to support, improve, manage, develop, design, or implement a project, process, or system that has a positive impact on relevant key-performance indicators, such as financial results, productivity, quality or safety. We want graduates to actively seek to be leaders among their peers by demonstrating a professional attitude; a commitment to integrity and ethical behavior; effective communication across stakeholders; and engagement in life-long learning.

Admission Requirements

- Freshmen applicants should complete a college-preparatory curriculum and have above-average grades in math and science classes. Four years of college preparatory math and one year of either chemistry or physics are required, and one year of an additional science (physics, chemistry, or biology) is strongly recommended.
- Transfer applicants must have a cumulative grade-point average of 2.5 or higher from all institutions previously attended and completed the equivalent of MATH 1200 (or higher) and CHEM 1210, CHEM 1500, CHEM 1510 or PHYS 2051 to be considered for admission. If you have completed fewer than 20 semester hours of 30 quarter hours of university or college coursework, you must also submit your high school transcript for evaluation.
- Official transcripts sent directly to Ohio University from all colleges and universities you have attended.

Application Information

Apply online ohio.edu/admissions/apply

Students can complete this program through OHIO regional campus

Submit all college-level transcripts to:

Undergraduate Admissions
Ohio University
Chubb Hall 120
1 Ohio University Drive
Athens, OH 45701

Ohio University Contact Information

Undergraduate Admissions

740.593.4100

E-mail general questions to

transfer@ohio.edu

For more information visit www.ohio.edu/sinclaircc



OHIO
UNIVERSITY

Undergraduate Admissions
Chubb Hall 120
1 Ohio University Drive
Athens OH 45701-2979

T: 740.593.4100
www.ohio.edu

Graduation Pathway: Sinclair Community College Engineering & Engineering Technology University Transfer to Ohio University Industrial and Systems Engineering

Sinclair Community College Engineering & Engineering Technology University Transfer Courses

Courses that may satisfy Ohio University BRICKS General Education requirements are inside brackets [].

Semester 1 Sinclair Community College	Semester Hours
[ENG 1101] English Composition I	3.0
OT36: Social and Behavioral Sciences Elective (suggested [PSY 1100])	3.0
OT36: Arts and Humanities Elective (suggested [HIS 1111*])	3.0
[MAT 2270] Calculus and Analytic Geometry I	5.0
Engineering Elective (suggested: MEE 2101)	3.0
Total	17.0

Semester 2 Sinclair Community College	Semester Hours
OT36: Social and Behavioral Sciences Elective (suggested [ECO 2180])	3.0
[COM 2211] Effective Public Speaking	3.0
[MAT 2280] Calculus and Analytic Geometry II	5.0
[CHE 1211 and CHE 1251] General Chemistry I and Lab	5.0
Total	16.0

Semester 3 Sinclair Community College	Semester Hours
[PHY 2201 and PHY 2207] General Physics I and Lab	5.0
MAT 2310 Elementary Differential Equations	4.0
Engineering Elective (suggested MEE 2201)	3.0
Engineering Elective (suggested [CHE 1221 and CHE 1261])	5.0
Total	17.0

Semester 4 Sinclair Community College	Semester Hours
OT36: Arts and Humanities Elective (suggested [ART 1110])	3.0
OT36: Second Writing (suggested [ENG 1201])	3.0
[PHY 2202 and PHY 2208] General Physics II and Lab	5.0
Engineering Elective (suggested MEE 2301)	3.0
Total	14.0



Industrial and Systems Engineering Major Requirements

Industrial and Systems Engineering Major Courses

Complete the following courses with a grade of C or better

Required combined 2.0 GPA for business minor.

Courses completed through Sinclair Community College or OHIO.

OHIO Course Name	OHIO Course Number	Partner Course Number
Engineering and Technology: Career Orientation	ET 1500	
Software Tools for Industrial and Systems Engineering	ISE 1200	
Engineering Probability	ISE 3210	
Work Design	ISE 3341	
Inventory and Manufacturing Control 1	ISE 4120	
Industrial Computer Simulation	ISE 4130	
Introduction to Operations Research	ISE 4140	
Information Systems Engineering	ISE 4151	
Principles of Six Sigma	ISE 4160	
Lean Manufacturing and Service Systems	ISE 4170	
Senior Capstone	ISE 4192	
Applied Systems Engineering	ISE 4311	
Human Factors Engineering	ISE 4380	
Project Management	ISE 4490	
Industrial and Systems Engineering Electives (minimum of 7 hours) <i>Complete a minimum of 15 hours of ISE technical elective courses, with at least 7 hours from ISE technical electives and no more than 5 hours from non-engineering technical electives.</i>	Work with academic advisor for appropriate course selection.	MEE 2101, MEE 2201, or MEE 2301
History of Technology in Society	[HIST 2905] or [ET 2905]	
Calculus 2	[MATH 2302]	[MAT 2280]
Discrete Mathematics	MATH 3050	
Applied Linear Algebra	MATH 3200	MAT 2320
Engineering Graphics Fundamentals	ET 1100	
Engineering Programming	ET 2100	
Engineering Statistics	ET 2450	
Basic Electrical Engineering 1	ET 3132	
Engineering Economy	ET 3300	
Principles of Microeconomics	[ECON 1030]	[ECO 2180]
General Psychology	[PSY 1010]	[PSY 1100]



Industrial and Systems Engineering Major Courses

Continued

OHIO Course Name	OHIO Course Number	Partner Course Number
Business Electives (complete at least 2 course)*	ACCT 1005 or ACCT 1010, BUSL 2000, ECON 1040, MGT 2000, MGT 3550, MKT 2020	ACCT 1010, [ECON 1040], ENGR 1010*
Math/Science Elective (complete at least 6 hours)	[BIOS 1030], [CHEM 1220], [CHEM 1520], MATH 3300, MATH 3320, MATH 3400, MATH 4630, [PHYS 2052] or [PHYS 2056 and PHYS 2057]	[BIO 1107]; [CHE 1221 and CHE 126]; [MAT 2310]; [PHY 2202 and PHY 2208];

*Business Elective:

Students are required to complete two courses as part of OHIO's Business Elective requirement. Sinclair Community College's ENGR 1010 Fundamentals of Engineering will be applied towards one of OHIO's Business Elective course requirements.

Additional Course Requirements

Note: Courses completed as part of the associate degree that are not specifically listed may apply as elective credit towards this requirement

Industrial and Systems Engineering Degree Requirements

To qualify for the Industrial and Systems Engineering major, a student must complete all Ohio University graduation requirements: general education, College, major, and residency. Students must earn a minimum of 30 semester hours of Ohio University credit, complete a minimum of 50% of the major course requirements at Ohio University, and complete a minimum of 125.5 total semester hours for graduation (elective hours may be required) with a 2.0 GPA. Students are responsible for tracking their degree completion on their DARS, and are encouraged to work with an Ohio University academic advisor in their degree planning.

Ohio University BRICKS General Education Requirements

BRICKS is Ohio University's general education program, and requirements must be fulfilled by all baccalaureate degree students. BRICKS includes a minimum of 38 credit hours across five categories: Foundations, Pillars, Arches, Bridges, and Capstone. Courses used to satisfy BRICKS requirements may be completed through Sinclair Community College OHIO Online. The table below lists Sinclair Community College courses that have direct course equivalencies at Ohio University which meet BRICKS requirements. General education courses that may also satisfy program requirements are inside brackets. HIST courses marked with an asterisk (*) will automatically equate to HIST 1320 and/or HIST 1330, but may instead equate to HIST 1210 and/or HIST 1220. Work with your academic advisor to make adjustments as necessary.

BRICKS and the Ohio Transfer 36 or Prior Degree Completion

Students who complete the minimum requirements of the Ohio Transfer 36 (OT36, formerly the Ohio Transfer Module), an Associate of Arts (AA), Associate of Science (AS), or bachelor's degree from an accredited institution* prior to enrollment in a degree-seeking program at Ohio University will receive transfer credit equivalent to fulfilling Ohio University's BRICKS general education requirements in Foundations (excluding the Advanced Writing component, which requires completion of an equivalent course), Pillars, and Arches. Students who have not completed the OT36 or an approved degree will have their courses evaluated individually to determine appropriate general education requirement fulfillment. *Institutions must be accredited by regional accrediting commissions recognized by the Council on Higher Education Accreditation (CHEA) to qualify.

Disclaimer:

The information on this guide is based on the catalog requirements posted in the 2025-2026 Ohio University catalog and related Sinclair Community College equivalents as of the Last Updated date. All information is subject to change without notice. Students must complete a minimum of 120 total semester hours, are responsible for tracking their degree completion on their DARS, and are encouraged to work with an Ohio University academic advisor in their degree planning. Courses are subject to availability at each institution. It is suggested that students meet with an advisor to discuss course selection based on offered options. **Last Updated: 8/22/2025**



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