



Richard E. & Sandra J. Dauch

**COLLEGE OF  
BUSINESS & ECONOMICS**  
ASHLAND UNIVERSITY



## Curriculum Guide: B.S. in Industrial & Systems Engineering

*Four Year Curriculum Guide (Beginning with the 2024 catalog)*

### Year 1 - Fall Semester

Course #	Title	CR
MATH 205	Calculus I (Core 1) (FA)	5
IE 203	Intro to Engineering Analysis (FA)	3
ENG 101	English Composition I (Core 2)	3
CHEM 103	General Chemistry I (Core 3) (FA)	4
MATH 223	Discrete Mathematics I	3
		<b>18</b>

### Year 2 - Fall Semester

Course #	Title	CR
CORE	Institutional Requirement (Core 6)	3
MATH 305	Calculus III(FA)	4
MATH 317	Probability	3
PHYS 205	University Physics (FA)	5
IE 202	Engineering Economics Analysis	3
		<b>18</b>

### Year 3 - Fall Semester

Course #	Title	CR
CORE	Institutional Requirement (Core 8)	3
IE 303	Productivity Analysis (FA)	3
IS 304	Facility Layout & Material Handling (FA)	3
IE 305	Human Factors Engineering (FA)	3
IE 401	Statistical Testing & Regression (FA)	3
		<b>15</b>

### Year 4 - Fall Semester

Course #	Title	CR
IE 406	Simulation Modeling (SP)	3
CORE	Institutional Requirement (Core 12)	3
IE 403	Supply Chain Analysis (FA)	3
MFG 310	Electrical Circuits & Devices	3
IE 405	Probabilistic Methods in Operating Researc	3
		<b>15</b>

This plan accommodates a 15 credit hour minor.

Refer to program evaluation for verification of program progress.

Institutional Requirements (CORE) - refer to catalog for specific guidelines/course options.

### Year 1 - Spring Semester

Course #	Title	CR
MATH 206	Calculus II (SP)	5
ENG 102	English Composition II (Core 4)	3
MFG 201	Manufacturing Processes (SP)	3
ECON 232	Microeconomics (Core 5)	3
MATH 250	Mathematical Proof	1
		<b>15</b>

### Year 2 - Spring Semester

Course #	Title	CR
MATH 307	Linear Algebra (SP)	3
IE 205	Intro to Info Systems Engineering (SP)	3
IE 201	Engineering Management (SP)	3
PHYS 206	University Physics II (Core 7)	5
		<b>14</b>

### Year 3 - Spring Semester

Course #	Title	CR
CORE	Institutional Requirement (Core 9)	3
CORE	Institutional Requirement (Core 10)	3
CORE	Institutional Requirement (Core 11)	3
IE 402	Design of Experiments & Quality Assuranc	3
MATH 308	Operations Research	3
		<b>15</b>

### Year 4 - Spring Semester

Course #	Title	CR
CORE	Institutional Requirement (Core 13)	3
CORE	Institutional Requirement (Core 14)	3
CORE	Institutional Requirement (Core 15)	3
IE 407	Senior Project (SP)	3
MATH 313	Differential Equations (SP)	3
		<b>15</b>

**Total Credit Hours 125**

### OFFICE OF ADMISSIONS

401 College Avenue Ashland, OH 44805  
**Phone:** 419.289.5052 **Fax:** 419.289.5999  
**E-Mail:** enrollme@ashland.edu