

# INDUSTRIAL & SYSTEMS ENGINEERING

## Bachelor of Science (BS)

This is a guide based on the 2024-2025 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

### CURRICULUM CHECKLIST

Accredited by the Engineering Accreditation Commission of ABET, <http://www.abet.org>

#### 84-85 Hour Major – No minor required

- EG201 Systems Engineering (1)
- EG301 Industrial Ergonomics (3)
- EG410 Principles of Supply Chain Management (3)
- EG412 Advanced Manufacturing Systems (3)
- EG492 Modeling & Simulation (3)
- EG506 Operations Research (3)
- EP240 Circuit Analysis I (3)
- EP261 Engineering Mechanics Statics (3)
- ET304 Fundamentals of Programmable Logic Controllers (3)
- IM300 Technical Communication (3)
- IM301 Industrial Safety & Supervision (3)
- IM313 Facilities Planning (3)
- IM411 Total Quality Assurance (3)
- IM417 Manufacturing Resource Analysis (3)
- IM506 Projects in Industrial & Engineering Technology (3)
- MA140 Analytic Geometry and Calculus I (5)
- MA145 Analytic Geometry and Calculus II (4)
- MA223 Elementary Probability & Statistics (3)
- MA244 Analytic Geometry and Calculus III (3)
- MA345 Linear Algebra (3)
- MN120 Fundamentals of Engineering Design Processes (3)
- MN170 Engineering Materials & Testing (3)
- MN203 Industrial Materials & Processes I (3)
- PH230 General Physics I (5)
- PH231 General Physics II (5)

#### Choose one course:

- CS155 Computer Science I (4)
- EG316 Data Cleaning and Linkage (3)

#### Additional requirements:

- CH184 General Chemistry I Lab (1)
- CH185 General Chemistry I (3)
- MN220 Engineering Economic Analysis (3)
- SW207 Understanding Cultural & Social Diversity (3)

**General Education Requirements** – some requirements may be fulfilled by coursework in major program.

- Social and Behavioral Sciences – 6 hours
- Constitution Requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)
- Civics examination

### SAMPLE FOUR-YEAR PLAN

	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
<b>FIRST YEAR</b>	UI100	1	CH184/CH185	4
	EN100	3	EG201	1
	MA140	5	IM301	3
	MN120	3	MA145	4
			CS155/ EG316	3-4
	<b>Total</b>	<b>12</b>	<b>Total</b>	<b>15-16</b>
<b>SECOND YEAR</b>	MA223	3	IM300	3
	MA244	3	MN170	3
	PH230/030	5	PH231/031	5
	SW207	3	General Education	3
	Elective	3	General Education	3
	<b>Total</b>	<b>17</b>	<b>Total</b>	<b>17</b>
<b>THIRD YEAR</b>	EP261	3	EG410	3
	IM411	3	EG492	3
	MA345	3	EP240	3
	MN203	3	MN220	3
	General Education	3	General Education	3
	<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
<b>FOURTH YEAR</b>	EG301	3	EG412	3
	EG506	3	ET304	3
	IM313	3	IM417	3
	IM506	3	General Education	3
	General Education	3	Elective	2
	<b>Total</b>	<b>15</b>	<b>Total</b>	<b>14</b>

\*Many major courses are on a set rotation and thus dependent on when prerequisite courses are completed. The actual semester a course is taken may vary based on the rotation.

**Degree requirements for all students:** a minimum of 120 credit hours, completion of the General Education program, and completion of 39 senior division hours (300-599). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.

A minimum 2.0 GPA in the major and overall are required to graduate with a BS degree.



Engineering Accreditation Commission



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# 2024-2025 degree map



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