

Industrial & Systems Engineering

2026/2027 (127-128 Hours)

Academic Checksheet

Student A#				Student Name (Last, First)		Offered: F=Fall S=Spr M=Sum
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	
English - 6 hours						
		EH 101	3	College Writing I	Placement	FSM*
		EH 102	3	College Writing II	EH 101	FSM*
Mathematics - 18 hours						
		MA 171	4	Calculus I	MA 113 or Level III Placement	FSM*
		MA 172	4	Calculus II	MA 171 or MA 151	FSM*
		MA 201	4	Calculus III	MA 172	FSM*
		MA 238	3	Applied Differential Equations	Prereq w/Con: MA 201	FSM*
		MA 244	3	Introduction to Linear Algebra	MA 172	FSM*
Chemistry - 4 hours						
		CH 121	3	General Chemistry I	Plcmt or Prereq w/Con: MA 113 or higher, CH 125	FSM*
		CH 125	1	General Chemistry Lab I	Prereq w/Con: CH 121	FSM*
Physics - 8 hours						
		PH 111	3	General Physics w/Calculus I	MA 171 or MA 151; Coreq: 114	FSM*
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM*
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, PH 114; Coreq: 115	FSM*
		PH 115	1	General Physics Lab II	Coreq: PH 112	FSM*
Science Elective - 3 hours						
			3	BYS 119, CH 123, PH 113, or 300/400 MA course		
History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours						
			3	History	For more information on HSBS/HFA Requirements: http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms	FSM*
			3	Literature		FSM*
			3	Fine Art		FSM*
			3	Social & Behavioral Science		FSM*
			3	Sequence Course (HY or EH)		FSM*
			3	HSBS/HFA		FSM*
Engineering - 4 hours						
		FYE 101	1	Charger Success: Engineering	None	F
		EGR 101	3	Computing for Engineers	Prereq w/Con: MA 113 or MA 151	FSM*
		EGR 299	0	Engineering Mentoring I	EGR 101, Prereq w/Con: MA 201	FS
		EGR 399	0	Engineering Mentoring II	EGR 299, Prereq w/Con: ISE 391	FS
Industrial & System Engineering - 45-46 hours						
		XXX 211	2-3	Graphics or Programming (CE 211, MAE 211 or CPE 211/211L)	Varies based on choice	FSM*
		ISE 224	3	Intro to Industrial & Systems Engineering	EGR 101	F
		MAE 271	3	Statics	EGR 101, PH 111; Prereq w/Con: MA 201	FSM*
		EE 21X	3	Electrical Circuits (EE 213 or EE 215)	Prereq w/Con: PH 112, MA 201 (or MA 238 if doing EE 213)	FSM*
		ISE 321	3	Engineering Economy	EGR 101	FSM*
		ISE 324	3	Work Design	ISE 390	S
		ISE 327	3	Management Systems Analysis	ISE 390	S
		ISE 340	3	Operations Research	MA 244, ISE 390	F
		MAE 341	3	Thermodynamics I	CH 121, PH 112, MA 201	FSM*
		MAE 370	3	Mechanics of Materials	MAE/CE 271, MA 244, (MAE or CE 211 or CPE 211); Coreq: MAE 375	FSM*
		MAE 375	1	Mechanics of Materials Lab	Coreq: MAE 370	FSM*
		ISE 390	3	Probability & Engineering Statistics I	Prereq w/Con: MA 201	FSM
		ISE 391	3	Probability & Engineering Statistics II	ISE 390	S
		ISE 428	3	Systems Analysis & Design I	ISE 224, ISE 321, ISE 391, EGR 399	F
		ISE 429	3	Systems Analysis & Design II	ISE 428	S
		ISE 447	3	Intro to Systems Simulation	EGR 101, ISE 391	F
Industrial & System Engineering Electives - 21 hours						
		ISE 328	3	Intro to Systems Engineering	ISE 321, ISE 390	F
		ISE 426	3	Design & Analysis of Experiments	ISE 391	S
		ISE 480	3	Systems Engineering Modeling	ISE 328	S
			3	Technical Elective	200+ Level Science or Engineering course approved by advisor	
			3		Select System Track Option Courses	
			3			
			3			
			3			
Select one Systems Track Option	Aerospace Systems:			MAE 200, MAE 272, MAE 371		
	Mechanical Systems:			MAE 272, MAE 284, MAE 364		
	Computer Systems:			EE 202, CPE 221, CPE 348		
	Control Systems:			EE 382, EE 383, EE 386		
		ISE 423	3	Statistical Quality Control	Prereq w/Con: ISE 391	S
		ISE 430	3	Manufacturing Systems and Facilities Design	ISE 324 or MAE 378	F
		ISE 433	3	Production & Inventory Control Systems	ISE 390	S
			3	Technical Elective	200+ Level Science or Engineering course approved by advisor	
			3	Choose from MA 385, ISE 328, ISE 402, ISE 403, ISE 426, ISE 439, ISE 480, or other upper-level courses approved by the Department.		
			3	May select a maximum of 6 hours from the following: EH 301, ACC 211, MGT 301, MKT 301, MGT 363, or MGT 462.		

All prerequisite classes must be completed with a "C-" or higher grade.
The Catalog is the final authority for all degree requirements.

Note: No ET courses may be used to satisfy degree requirements.
***Summer class offerings are subject to instructor availability**