

BS IN INDUSTRIAL ENGINEERING PLAN OF STUDY

This is the suggested plan of study to graduate in four years with a Bachelor of Science in Industrial Engineering. This plan assumes the student hasn't taken three years of foreign language in high school.

Please [consult the online course catalog](#) for course prerequisites and course descriptions.

YEAR ONE

Fall	Credit	Spring	Credit
†MATH 191 Calculus I*	4	†MATH 192 Calculus II*	4
†CHEM 103/4/5 General Chemistry	4	†ENGR 270 Materials Science	3
ENGR 106 Intro to Engineering Design and Analysis	2	ENGR 296 Manufacturing Process	2
ENGL 101 English Composition	3	Communication	3
IL 101 Information Literacy	1	Theology	3
NSS 101 New Student Seminar	1	ENGR 126 Makerspace Design Lab	1
ENGR 156 Computational Tools for Engineers	1		
Total Credits	16	Total Credits	16

YEAR TWO

Fall	Credit	Spring	Credit
†MATH 291 Calculus III Multi-Variable Calculus	4	†MATH 290 Linear Algebra	3
†MATH 300 Probability & Statistics	3	†PHYS 253 General Physics II	4
†PHYS 251 General Physics I	4	†ENGR 220 Statics &	3
†ENGR 251 Engineering Design Lab*	3	†ENGR 265 Engineering Economy	3
ENGR 201 Engineering Service	0	Social Science	3
Philosophy	3	KIN 149	1
Total Credits	17	Total Credits	17

YEAR THREE

Fall	Credit	Spring	Credit
†MATH Elective (301, 320, or 390)	3	†IE 319 Operations Research Mathematical Programming	3
†IE 305 Industrial Engineering Methods	3	†IE 340 Ergonomics and Occupational Safety	3
†IE 335 Quality Control and Reliability	3	†IE 360 Introduction to Simulation	3
†ENGR 303 Strength of Materials	3	†ENGR 302 Engineering Dynamics	3
Foreign Language 101	3	Foreign Language 102	3
Creative Arts Course	3	KIN Activity	1
Total Credits	18	Total Credits	16

YEAR FOUR

Fall	Credit	Spring	Credit
†IE 403 Design Fundamentals for Industrial Engineering	3	Engineering Elective	3
†IE 415 System Integration and Design	3	†IE 490 Senior Design Seminar*	3
†IE 350 Operations Planning Scheduling and Control	3	ENGR 301 Participation	0
†IE 419 Operations Research Probability Models	3	ENGR 401 Exit Survey	0
Humanities (Historical/Cultural)	3	PHIL/THEO 300+	3
PHIL 207/305 Ethics	3	Humanities (Literature/Film)	3
Total Credits	18	Total Credits	12

#Must be taken at SAU to satisfy writing intensive

*Must receive a grade of C or better

†Check online course catalog for pre-requisite