

B.S. in INDUSTRIAL ENGINEERING
Suggested 4-Year Academic Flowchart

Updated 7/8/2019

FRESHMAN			SOPHOMORE			JUNIOR			SENIOR		
Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring	Fall	Winter	Spring
Intro to IME IME 101 (1)	Mfg. Proc: Net Shape IME 141 (1)	Basic Electronics Manufacturing IME 156 (2)	Process Improvement Fundamentals IME 223 (4) (MATH 141, Recom: IME 101)	Intro to Enterprise Analytics IME 212 (4) (CSC 232)	Financial Decision Making for Engineers IME 315 (3) (MATH 142)	Operations Research I IME 301 (4) (MATH 244)	Operations Research II IME 305 (4) (IME 301 or STAT 321)	Applications of Enterprise Analytics IME 372 (4) (IME 212, 312, 326 & MATH 244)	Senior Design Project I IME 481 (2)^{2,3} (Sr. Standing, Instr. consent)	Senior Design Project II IME 482 (2)^{2,3} (IME 481)	Senior Design Project III IME 483 (2)^{2,3} (IME 482)
Intro to Design & Manufacturing IME 144 (4) (Recom: IME 140 or ME 129)	General Physics IA PHYS 141 (4) (MATH 141 w/min C-, MATH 142 or 182*) [Add'l Area B]	General Physics II PHYS 132 (4) (PHYS 131, HNRS 131, or PHYS 141)	General Physics III PHYS 133 (4) (PHYS 131, HNRS 131, or PHYS 141; MATH 142, Recom: MATH 241)	Probability & Stats for Engineers & Scientists STAT 321 (4) (MATH 142) [B6]	Take concurrently: BIO 213 (2) & BMED 213 (2) (MATH 142, Recom: CHEM 124) [B2]	Engineering Test Design & Analysis IME 326 (4) (STAT 321 w/min C-)	Data Management & System Design IME 312 (4) (CSC 232)	Production Planning & Control Sys IME 410 (4) (IME 342 or 305)	Ergonomics Laboratory IME 429 (1) (IME 319; & 326 or 327)	Approved Technical Elective (4)¹	Approved Technical Elective (3)¹
Calculus I MATH 141 (4) * [B1]	Calculus II MATH 142 (4) (MATH 141 w/min C-) [B1]	Calculus III MATH 143 (4) (MATH 142 w/min C-) [Add'l Area B]	Calculus IV MATH 241 (4) (MATH 143)	Linear Analysis I MATH 244 (4) (MATH 143)	General Psychology PSY 201 or PSY 202 (4) [E]	Choose Two: ⁴ CE 204 (3) EE 321 (3) ME 212 (3) *	Human Factors Engineering IME 319 (3) (PSY 201 or 202; Jr Standing)	Simulation IME 420 (4) (IME 305; 326 or 327)	Quality Engineering IME 430 (4) (IME 326, 327, 503, STAT 302, or 312)	Approved Technical Elective (4)¹	Approved Technical Elective (2)¹
General Chem for Physical Sci & Engineering I CHEM 124 (4) * [B3/B4]		Computer Prog. for Scientists & Engineers CSC 232 (3) (MATH 118 or equiv.)	Materials Engineering & Lab MATE 210 (3) & 215 (1) *		Electric Circuit Theory & Lab EE 201(3) & 251(1) (MATH 244 & PHYS 133)				Facilities Planning & Design IME 443 (4) (IME 144; 223; 314; & 305 or 342, Recom: IME 319 & 420)		GE (4) **
Expository Writing ENGL 133 or 134 (4)** [A1] Can be taken anytime during Freshman Year				GE (4) **	Engineering Statics ME 211 (3) (PHYS 131 or 141, MATH 241*)		GE (4) **	GE (4) **	Supply Chain & Logistics Management IME 417 (4) (IME 342 or 410)	GE (4) **	GE (4) **
Oral Communication COMS 101 or 102 (4)** [A2] Can be taken anytime during Freshman Year											
17	17	17	16	16	18	14	15	16	15	14	15
										TOTAL: 190	

Fall:
CEA Madrid, Spain
CEA Paris, France

Summer:
TECNUN, Spain
CEA Barcelona, Spain

Spring:
Munich, Germany

Summer:
Munich, Germany
TECNUN, Spain

Fall - Spring:
CSU IP Queretaro, Mexico

Summer:
CEA Barcelona, Spain
Cal Poly Affiliated Programs

Fall:
CEA Madrid, Spain
Swinburne, Australia
TECNUN, Spain
Lucerne, Switzerland

Fall:
KTH, Sweden
TECNUN, Spain
Swinburne, Australia
Lucerne, Switzerland