

Industrial and Systems Engineering 5 Year Plan of Study for ROTC Students

First Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
CHEM 1035	General Chemistry <i>Co: MATH 1025 or MATH 1225</i>	3	ENGE 1216	Foundations of Engineering (C-) <i>Pre: ENGE 1215</i>	2
CHEM 1045	General Chemistry Lab <i>Co: CHEM 1035</i>	1	ENGL 1106	First-Year Writing <i>Pre: ENGL 1105</i>	3
ENGE 1215	Foundations of Engineering (C-)	2	MATH 1226	Calculus of a Single Variable <i>Pre: MATH 1225 (C-)</i>	4
MATH 1225	Calculus of a Single Variable (C-) <i>Pre: Math Ready</i>	4	PHYS 2305	Foundations of Physics <i>Pre: (MATH 1205 or MATH 1205H or MATH 1225) or (MATH 1206 or MATH 1206H or MATH 1226); Co: 2325 or (MATH 1206 or MATH 1206H or MATH 1226)</i>	4
ENGL 1105	First-Year Writing	3			
	ROTC	Varies		ROTC	Varies
Total Credit Hours		13 - 18	Total Credit Hours		13 - 18
Second Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
ISE 2004	Intro to ISE (C-)	2 [F,S,SI]	ISE 2014	Engineering Economy (C-)	2 [F,S,SI,SII]
MATH 2114	Intro. to Linear Algebra <i>Pre: MATH 1225 (B) or MATH 1226</i>	3	ISE 2024	Prob Foundations for ISEs (C-) <i>Pre: MATH 2204 or MATH 2204H</i>	3 [S,SII]
	OR	OR			
MATH 1114	Elementary Linear Algebra	2			
CS 1044	Intro to Programming C	3	ISE 2404	Deter. Operations Research I (C-) <i>Pre: MATH 1114 or MATH 2114</i>	3 [S,SII]
CS 1064	Intro to Prog Python	3			
CS 1114	Intro to Software Design	3			
ECE 1574	Engr Problem Solving with C++ <i>Pre: (ENGE 1024 or ENGE 1215 or ENGE 1414), (MATH 1205 or MATH 1205H or MATH 1225)</i>	3	MATH 2214	Differential Equations (C-) <i>Pre: (1114 or 2114 or 2114H or 2405H), 1226</i>	3
MATH 2204	Multivariable Calculus <i>Pre: MATH 1226</i>	3			
ISE 2214	Manufacturing Process Lab (C-) ROTC	1 [F,S,SI] Varies		ROTC	Varies
Total Credit Hours		11/12 - 15/16	Total Credit Hours		11 - 15
Third Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
STAT 4706	Statistics for Engineering (C-) <i>Pre: ISE 2024</i>	3 [F,SII]	ISE 2034	Data Management for ISE (C-) <i>Pre: CS 1044 or CS 1064 or CS 1114 or ECE 1574</i>	3 [S, SII]
ISE 3214	Facilities Planning and Logis. (C-) <i>Pre: 2014, 2404; Co: 3414</i>	3 [F,S]	ISE 3424	Discrete Event Comp. Simulation (C-) <i>Pre: 3414</i>	3 [S,SII]
ISE 3414	Probabilistic Operations (C-) <i>Pre: 2004, 2024, (MATH 2204, 2204H or 2406H), (MATH 2214 or 2214H), (CS 1044 or CS 1064 or CS 1114 or ECE 1574)</i>	3 [F,S]	ISE 4204	Production Planning (C-) <i>Pre: 2404, 3414, STAT 4706</i>	3 [S,SII]
ISE 3034	Technical Communication (C-) <i>Pre: ENGL 1106</i>	3 [F,S]	ISE 3614	Human Factors Engineering (C-) <i>Pre: 2004; Co: 2024</i>	3 [F,S]
	ROTC	Varies		ROTC	Varies
Total Credit Hours		12 - 18	Total Credit Hours		12 - 18
Fourth Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
ESM 2104	Statics <i>Pre: MATH 1226; Co: MATH 2204 or MATH 2204H or MATH 2224 or MATH 2406H</i>	3	ISE 3624	Industrial Ergonomics (C-) <i>Pre: 3614, ESM 2104</i>	3 [S,SII]
PHYS 2306	Foundations of PHYS w/lab <i>Pre: (MATH 1206 or MATH 1206H or MATH 1226), PHYS 2305</i>	4		Engineering Science Elective	3
	ISE Technical Elective	3		ISE Technical Elective	3
	Pathways 2/7	3		Pathways 6a	3
	ROTC	Varies		ROTC	Varies
Total Credit Hours		13 - 19	Total Credit Hours		12 - 18
Fifth Year					
FALL			SPRING		
Course	Course Title	Credits	Course	Course Title	Credits
ISE 4005	Proj Mgmt & System Design (C-) <i>Pre: 2034, 2214, 3034, 3214, 3424, 3624, 4204; Co: 4404</i>	2 [F]	ISE 4006	Proj Mgmt & System Design <i>Pre: 4005</i>	2 [S]
ISE 4404	Statistical Quality Control <i>Pre: 3414,, STAT 4706</i>	3 [F]		Technical Elective	3
	Technical Elective	3		ISE Technical Elective	3
	Pathways 3	3		Pathways 3	3
	Pathways 2	3		Free Elective	3
	ROTC	Varies		ROTC	Varies
Total Credit Hours		14 - 16	Total Credit Hours		14 - 16