

3.1.5 Sample Plan of Study

Sample Plan of Study Industrial Engineering (IE)

Freshmen Year

Semester 1				Semester 2			
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
ENGL 100	English for Academic Studies (English Lan. & Com.)	3		ENGL 106	First-Year Composition (English Lan. & Com.)	4	ENGL 100
ENGR 131	Transforming Ideas to Innovation I (Engineering)	2		ENGR 132	Transforming Ideas to Innovation II (Engineering)	2	ENGR 131
MA 165	Analytic Geometry and Calculus I (Mathematics & Science)	4	MAT 110 or MA 158 or ENG Math Placement Test	CS 159	Programming Applications for Engineers (Mathematics & Science)	3	ENGR 131
CHM 115	General Chemistry I (Mathematics & Science)	4	ConP: MA 165	MA 166	Analytic Geometry and Calculus II (Mathematics & Science)	4	MA 165
GEE	General Education Elective (refer to course catalogue)	3		PHYS 172	Modern Mechanics (Mathematics & Science)	4	ConP: MA 165
Semester Credits = 16				Semester Credits = 17			

Sophomore Year

Semester 3				Semester 4			
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
IE 230	Probability and Statistics in Engineering I (Engineering/Math & Basic Sciences)	3	ConP: MA 261	IE 330	Probability and Statistics in Engineering II (Engineering/Math & Basic Sciences)	3	IE 230
MA 261	Multivariate Calculus (Mathematics & Science)	4	MA 166	MA 265	Linear Algebra (Mathematics & Science)	3	MA 166
ME 270	Basic Mechanics (Engineering)	3	PHYS 172	NUCL 273	Mechanics of Materials (Engineering)	3	ME 270
PHYS 241	Electricity and Optics (Mathematics & Science)	3	PHYS 172	EE 201	Linear Circuit Analysis I (Engineering)	3	ENGR 131, MA 166 (min C-), PHYS 172, ConP: MA 261
COM 114	Fund. of Speech Communication (English Lan. & Com.)	3	ENGL 100	ME 200	Thermodynamics I (Engineering)	3	CHM 115; ConP: MA 261, ENGR 132
Semester Credits = 16				Semester Credits = 15			

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				<u>Junior Year</u>			
Semester 5				Semester 6			
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
IE 332	Computing in Industrial Engineering (Engineering)	3	ENGR 131, CS 159, ConP: IE 330	IE 336	Operations Research - Stochastic Models (Engineering)	3	MA 265, IE 230, ConP: EE 302 or CE 302 or IE 332, MA 266
IE 335	Operations Research - Optimization (Engineering)	3	MA 265, ConP: EE 302 or CE 302 or IE 332	IE 383	Integrated Production Systems I (Engineering)	3	IE 335
IE 370	Manufacturing Processes I (Engineering)	3	NUCL 273	IE 386	Work Analysis and Design I (Engineering)	3	IE 330
MA 266	Ordinary Differential Equations (Mathematics & Science)	3	MA 261	TE1	Technical Elective (for example: IE 530*)	3	for IE 530: IE 330
GEE	General Education Elective (refer to course catalogue)	3		GEE	General Education Elective (refer to course catalogue)	3	
Semester Credits = 15				Semester Credits = 15			
				<u>Senior Year</u>			
Semester 7				Semester 8			
Course	Title	Cr.	Pre/ConP	Course	Title	Cr.	Pre/ConP
IE 300	Industrial Engineering Seminar (Engineering)	1	Senior	IE 486	Work Analysis and Design II (Engineering)	3	IE 386
IE 474	Industrial Control Systems (Engineering)	3	CS 159, EE 201, MA 265, MA 266, ME 270	IE 431	Industrial Engineering Design (Engineering)	3	IE 300, all 300 level IE courses, Senior
IE 343	Engineering Economics (Engineering)	3	ENGR 131, MA 166	TE4	Technical Elective (for example: IE 558)	3	for IE 558: IE 386
TE2	Technical Elective (for example: IE 580*)	3	for IE 580: IE 336	TE5	Technical Elective (for example: MGMT 405*)	3	for MGMT 405: IE 330
TE3	Technical Elective (for example: IE 484*)	3	for IE 484: IE 383	GEE	General Education Elective (refer to course catalogue)	3	
GEE	General Education Elective (refer to course catalogue)	3					
Semester Credits = 16				Semester Credits = 15			
Total Minimum Credits Required for Graduation = 125							
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