

Industrial Engineering Curriculum

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
Year 1 – Semester 1							
01006030	Calculus 1	R	√			Year 1, Semester 1	55
01006020	General Physics 1	R	√			Year 1, Semester 1	120
01006021	General Physics Laboratory 1	R	√			Year 1, Semester 1	120
01006024	General Chemistry	R	√			Year 1, Semester 1	120
01006025	General Chemistry Laboratory	R	√			Year 1, Semester 1	120
01216760	Production Engineering Drawing	R		√		Year 1, Semester 1	55
01006010	Engineering Mechanics	R		√		Year 1, Semester 1	55
90595001	Foundation English 1	R			√	Year 1, Semester 1	55
Year 1 – Semester 2							
01006031	Calculus 2	R	√			Year 1, Semester 2	55
01006022	General Physics 2	R	√			Year 1, Semester 2	120
01006023	General Physics Laboratory 2	R	√			Year 1, Semester 2	120
01006012	Computer Programming	R		√		Year 1, Semester 2	55
01006011	Engineering Materials	R		√		Year 1, Semester 2	55
90595002	English for Communication	R			√	Year 1, Semester 2	55
90591019	Charm School	R			√	Year 1, Semester 2	55
90591005	Sports and Recreational Activities	R			√	Year 1, Semester 2	55
01006028	Pre Activities for Engineers	R			√	Year 1, Semester 1	30
90641004	Team Project 1	R			√	Year 1, Semester 2	120
Year 2 – Semester 1							
01216800	Computer Aided Design for Manufacturing	R		√		Year 2, Semester 1	55
01216501	Numerical Method for Engineering	R	√			Year 2, Semester 1	55
01216764	Manufacturing Processes	R		√		Year 2, Semester 1	55

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
01216765	Electrical Engineering	R		√		Year 2, Semester 1	55
90591xxx	General Education Elective in the Value of Life	R			√	Year 2, Semester 1	55
90595003	English for Academic Purposes	R			√	Year 2, Semester 1	55
90592xxx	General Education Elective in the Way of Society	SE			√	Year 2, Semester 1	55
Year 2 – Semester 2							
Industrial Engineering Track							
01216761	Thermodynamics	R		√		Year 2, Semester 2	55
01006032	Elementary Differential Equations and Linear Algebra	R	√			Year 2, Semester 2	55
01216502	Probability and Statistics 1	R	√			Year 2, Semester 2	55
01216767	Industrial Engineering Practice	R		√		Year 2, Semester 2	55
01216770	Industrial Safety Engineering	R		√		Year 2, Semester 2	55
01216951	Computer and Information Technology for Industrial Engineering	R		√		Year 2, Semester 2	55
90595xxx	General Education Elective in Language and Communication	SE			√	Year 2, Semester 2	55
90641005	Team Project 2	R			√	Year 2, Semester 2	120
Production Engineering Track							
01216761	Thermodynamics	R		√		Year 2, Semester 2	55
01006032	Elementary Differential Equations and Linear Algebra	R	√			Year 2, Semester 2	55
01216502	Probability and Statistics 1	R	√			Year 2, Semester 2	55
01216767	Industrial Engineering Practice	R		√		Year 2, Semester 2	55
01216770	Industrial Safety Engineering	R		√		Year 2, Semester 2	55
01216960	Engineering Metallurgy	R		√		Year 2, Semester 2	55
90595xxx	General Education Elective in Language and Communication	SE			√	Year 2, Semester 2	55

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
90641005	Team Project 2	R			√	Year 2, Semester 2	120
Food Production System Engineering Track							
01216762	Thermofluids	R		√		Year 2, Semester 2	55
01006032	Elementary Differential Equations and Linear Algebra	R	√			Year 2, Semester 2	55
01216502	Probability and Statistics 1	R	√			Year 2, Semester 2	55
01216767	Industrial Engineering Practice	R		√		Year 2, Semester 2	55
01216770	Industrial Safety Engineering	R		√		Year 2, Semester 2	55
01216840	Food Science and Technology	R		√		Year 2, Semester 2	55
90595xxx	General Education Elective in Language and Communication	SE			√	Year 2, Semester 2	55
01216841	Food Engineering Laboratory 1	R		√		Year 2, Semester 2	55
90641005	Team Project 2	R			√	Year 2, Semester 2	120
Year 3 – Semester 1							
Industrial Engineering Track							
01216774	Industrial Work Study	R		√		Year 3, Semester 1	55
01216775	Operations Research	R		√		Year 3, Semester 1	55
01216776	Engineering Economy	R		√		Year 3, Semester 1	55
01216777	Maintenance Engineering	R		√		Year 3, Semester 1	55
01216768	Industrial Engineering Laboratory	R		√		Year 3, Semester 1	55
01216769	Mechanical Engineering Laboratory	R		√		Year 3, Semester 1	55
01216955	Pollution Control and Waste Treatment	R		√		Year 3, Semester 1	55
90593xxx	General Education Elective in the Science of Thought	SE			√	Year 3, Semester 1	55
Production Engineering Track							
01216774	Industrial Work Study	R		√		Year 3, Semester 1	55

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
01216961	Control Systems and Electronics for Production Engineering	R		√		Year 3, Semester 1	55
01216776	Engineering Economy	R		√		Year 3, Semester 1	55
01216778	Tools Engineering & Press Die Design	R		√		Year 3, Semester 1	55
01216768	Industrial Engineering Laboratory	R		√		Year 3, Semester 1	55
01216769	Mechanical Engineering Laboratory	R		√		Year 3, Semester 1	55
01216963	Production Engineering Workshop	R		√		Year 3, Semester 1	55
90593xxx	General Education Elective in the Science of Thought	SE			√	Year 3, Semester 1	55
Food Production System Engineering Track							
01216774	Industrial Work Study	R		√		Year 3, Semester 1	55
01216776	Engineering Economy	R		√		Year 3, Semester 1	55
01216768	Industrial Engineering Laboratory	R		√		Year 3, Semester 1	55
01216769	Mechanical Engineering Laboratory	R		√		Year 3, Semester 1	55
01216775	Operations Research	R		√		Year 3, Semester 1	55
01216777	Maintenance Engineering	R		√		Year 3, Semester 1	55
01216843	Food Engineering	R		√		Year 3, Semester 1	55
90593xxx	General Education Elective in the Science of Thought	SE			√	Year 3, Semester 1	55
01216842	Food Engineering Laboratory 2	R		√		Year 3, Semester 1	55
Year 3 – Semester 2							
Industrial Engineering Track							
01216503	Probability and Statistics 2	R	√			Year 3, Semester 2	55
01216771	Industrial Plant Design	R		√		Year 3, Semester 2	55

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
01216772	Production Planning and Control	R		√		Year 3, Semester 2	55
01216773	Quality Control	R		√		Year 3, Semester 2	55
01216953	Industrial Simulation	R		√		Year 3, Semester 2	55
01216956	Automation System	R		√		Year 3, Semester 2	55
90594xxx	General Education Elective in the Art of Management	SE			√	Year 3, Semester 2	55
90641006	Team Project 3	R			√	Year 3, Semester 2	120
Production Engineering Track							
01216503	Probability and Statistics 2	R	√			Year 3, Semester 2	55
01216771	Industrial Plant Design	R		√		Year 3, Semester 2	55
01216772	Production Planning and Control	R		√		Year 3, Semester 2	55
01216773	Quality Control	R		√		Year 3, Semester 2	55
01216780	Metal Forming Process	R		√		Year 3, Semester 2	55
01216956	Automation System	R		√		Year 3, Semester 2	55
90594xxx	General Education Elective in the Art of Management	SE			√	Year 3, Semester 2	55
90641006	Team Project 3	R			√	Year 3, Semester 2	120
Food Production System Engineering Track							
01216503	Probability and Statistics 2	R	√			Year 3, Semester 2	55
01216771	Industrial Plant Design	R		√		Year 3, Semester 2	55
01216772	Production Planning and Control	R		√		Year 3, Semester 2	55
01216773	Quality Control	R		√		Year 3, Semester 2	55
01216844	Instrumentation and Control in Food Industry	R		√		Year 3, Semester 2	55
01216847	Design of Utility System	R		√		Year 3, Semester 2	55
90594xxx	General Education Elective in the Art of Management	SE			√	Year 3, Semester 2	55

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
90641006	Team Project 3	R		√		Year 3, Semester 2	120
Year 3 -Semester 3							
01006004	Industrial Training	R			√	Year 3, Semester 3	120
Year 4 -Semester 1							
Project Option							
01216905	Project 1	R			√	Year 4, Semester 1	120
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 1	55
9059xxx	General Education Elective	SE			√	Year 4, Semester 1	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 1	55
Cooperative Education/Oversea training Option							
01006029 Or 01006005	Cooperative Education Oversea Training	R			√	Year 4, Semester 1	120
Year 4 -Semester 2							
Industrial Engineering Track							
Project Option							
01216952	Quality Management	R		√		Year 4, Semester 2	55
01216954	Industrial Cost Analysis and Budgeting	R		√		Year 4, Semester 2	55
01216906	Capstone Design Project	R		√		Year 4, Semester 2	120
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
Cooperative Education/Oversea training Option							
01216952	Quality Management	R		√		Year 4, Semester 2	55
01216954	Industrial Cost Analysis and Budgeting	R		√		Year 4, Semester 2	55
01216906	Capstone Design Project	R		√		Year 4, Semester 2	120
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 2	55
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 2	55
9059xxx	General Education Elective	SE			√	Year 4, Semester 2	55

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
Production Engineering Track							
Project Option							
01216779	Machine Tools and Computer Numerical Control	R		√		Year 4, Semester 2	55
01216962	Polymer: Design and Production	R		√		Year 4, Semester 2	55
01216965	Industrial Seminar	R		√		Year 4, Semester 2	55
01216906	Capstone Design Project	R		√		Year 4, Semester 2	120
01216775	Operations Research	R		√		Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
Cooperative Education/Oversea training Option							
01216779	Machine Tools and Computer Numerical Control	R		√		Year 4, Semester 2	55
01216962	Polymer: Design and Production	R		√		Year 4, Semester 2	55
01216965	Industrial Seminar	R		√		Year 4, Semester 2	55
01216906	Capstone Design Project	R		√		Year 4, Semester 2	120
01216775	Operations Research	R		√		Year 4, Semester 2	55
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 2	55
9059xxx	General Education Elective	SE			√	Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
Food Production System Engineering Track							
Project Option							
01216906	Capstone Design Project	R		√		Year 4, Semester 2	120
01216845	Hygienic Design in Food Process Systems	R		√		Year 4, Semester 2	55

			Subject Area (Credit Hours)				
Course (Department, Number, Title) List all courses in the program by term starting with first term of the first year and ending with the last term of the final year.		Indicate whether course is Required, Elective or a Selected Elective by an R, an E or an SE. ¹	Math & Basic Sciences	Engineering Topics; Check if Contains Significant Design (√)	Other	Last Two Terms the Course was Offered: Year and Semester (or Quarter)	Maximum Section Enrollment for the Last Two Terms the Course was Offered ²
01216846	Power Systems and Energy Management in Food Industry	R		√		Year 4, Semester 2	55
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
Cooperative Education/Oversea training Option							
01216906	Capstone Design Project	R		√		Year 4, Semester 2	120
01216845	Hygienic Design in Food Process Systems	R		√		Year 4, Semester 2	55
01216846	Power Systems and Energy Management in Food Industry	R		√		Year 4, Semester 2	55
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 2	55
01216xxx	Industrial Engineering Elective	SE		√		Year 4, Semester 2	55
9059xxx	General Education Elective	SE			√	Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
xxxxxxx	Free Elective	E			√	Year 4, Semester 2	55
Totals (in terms of semester credit hours)			30 hours	83 hours			
Minimum Semester Credit Hours			30 hours	45 hours			

¹ **Required** courses are required of all students in the program, **Elective** courses (often referred to as open or free electives) are optional for students, and **Selected Elective** courses are those for which students must take one or more courses from a specified group.

¹ For courses that include multiple elements (lecture, laboratory, recitation, etc.), indicate the maximum enrollment in each element. For Selected Elective courses, indicate the maximum enrollment for each option.