



CURRICULUM

INDUSTRIAL ENGINEERING

INTELLIGENT INDUSTRIAL AND SYSTEM ENGINEERING -
SINGLE DEGREE
 Academic Year 2020/2021

SEMESTER 1	SKS	ECTS	SEMESTER 2	SKS	ECTS
English 1	2	3	English 2	2	3
Calculus and Linear Algebra 1	3	4	Calculus and Linear Algebra 2	3	4
Physics 1	2	3	Physics 2	2	3
Physics Laboratory 1	1	1	Static and Strength of Materials	2	3
Algorithm, Programming and Data Structure	3	4	Manufacturing Process	3	4
Chemistry	3	4	Chemical Process Industry	3	4
Material Science	2	3	Operation Research 1	3	4
Technical Drawing	3	4	Introduction to Economic	2	3
Introduction To Industrial Engineering	2	3	Ethics and Religious Philosophy	2	3
Total mandatory	21	29	Total mandatory	22	31
Extracurricular Courses			Extracurricular Courses		
German Language and Culture 1	2	0	German Language and Culture 2	2	0
Mandarin Language and Culture 1	2	0	Mandarin Language and Culture 2	2	0
TOTAL	23	0	TOTAL	24	31

SEMESTER 3	SKS	ECTS	SEMESTER 4	SKS	ECTS
Engineering Statistics	3	4	English 3	2	3
Production Planning and Control	2	3	Cost Estimation	2	3
Laboratory of Production Planning and Control	1	1	Project and Enterprise Management	2	3
Operation Research 2	3	4	Logistics and Supply Chain	3	4
Ergonomics and Work System Design 1	2	3	System Modeling	2	3
Product Design and Development	3	4	Ergonomics and Work System Design 2	2	3
Engineering Economy	2	3	Laboratory of Ergonomics and Work System Design	1	1
Facilities Planning and Analysis	3	4	Lean Operations	2	3
Practical Training	2	10	Pancasila and Civic	3	4
			Integrated Industrial Engineering Project	2	3
			Total mandatory	21	30
			Extracurricular Courses		
			German Language and Culture 3	4	0
			Mandarin Language and Culture 3	4	0
TOTAL	21	36	TOTAL	25	30

SEMESTER 5	SKS	ECTS
English 4	2	3
Internship 1 (Local Internship)	2	10
Quality Control and Assurance	2	3
Indonesian Language	2	3
Industrial Automation	3	4
Optimization	2	3
Elective 1	3	4
Elective 2	3	4
TOTAL MANDATORY	19	34
Extracurricular Courses		
German Language and Culture 4	4	0
Mandarin Language and Culture 4	4	0
TOTAL	21	34

SEMESTER 7	SKS	ECTS
English 5 (Academic Writing)	2	3
System Simulation	3	4
Industrial Engineering System Design	3	4
Enterprise Information System	3	4
Human Capital Management	2	3
Research Methodology	2	3
Entrepreneurship and Business Development	2	3
TOTAL	17	24

ELECTIVE SUBJECTS		
System Engineering Concentration		
Subject Name	SKS	ECTS
Business Intelligence and Analytics	3	4
Strategic Management	3	4
Service System Engineering and Management	3	4
Industrial Systems Maintenance	3	4
Risk Management	2	3
Finance Engineering	2	3
Enterprise Resource Planning	2	3
ERP and Lab	2	3
Challenges in Int. Management (Globalization and CSR)	2	3

SEMESTER 6	SKS	ECTS
Internship 2 (International Internship)	6	30
Elective 3	2	3
Elective 4	2	3
TOTAL	10	36

SEMESTER 8	SKS	ECTS
Professional Competence Assessment (PCA) / Oral Final Study Examination (OFSE)	3	4
Eco Balance	2	3
Character and Professional Development Program (CPDP)	2	3
Bachelor Thesis	6	15
TOTAL	13	25

Total Compulsory: 144 SKS
Total ECTS: 245 ECTS
SKS: Satuan Kredit Semester
ECTS: European Credit Transfer System

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