

CURRICULUM

INDUSTRIAL ENGINEERING

INTELLIGENT INDUSTRIAL AND SYSTEM ENGINEERING -DOUBLE DEGREE PROGRAM with Fachhochschule Südwestfalen, Germany 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		30

SEMESTER 5	SKS	ECTS	SEMESTER 6	SKS	ECTS
English 4	2	3	Internship 2 (International Internship)	6	30
Internship 1 (Local Internship)	2	10	Elective 3	2	3
Quality Control and Assurance	2	3	Elective 4	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	TOTAL	10	36
SEMESTER 7	SKS	ECTS	SEMESTER 8	SKS	ECTS
English 5 (Academic Writing)	2	3	Professional Competence Assessment (PCA) / Oral Final Study Examination (OFSE)	3	4
System Simulation	3	4	Eco Balance	2	3
Industrial Engineering System Design	3	4	Character and Professional Development Program (CPDP)	2	3
Industrial and Enterprise Information System	3	4	Bachelor Thesis	6	15
Human Capital Management	2	3			
Research Methodology	2	3			
Entrepreneurship and Business Development	2	3			

TOTAL

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

TOTAL

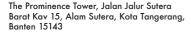
Total Compulsory: 144 SKS
Total ECTS: 245 ECTS
SKS: Satuan Kredit Semester

3K3 : Satuan Krean Semester

ECTS: European Credit Transfer System

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