

CURRICULUM 2021
DEPARTMENT OF INDUSTRIAL ENGINEERING
UNIVERSITAS ISLAM INDONESIA

Semester 1

No	Code	Course	Credits	Prerequisite(s) (D)
1	UNI600	<i>Islamic Religion</i>	2	-
2	STI101	<i>Calculus 1</i>	3	-
3	STI102	<i>Physics</i>	2	-
4	STI103	<i>Introduction to Industrial Engineering</i>	3	-
5	STI104	<i>Programming Logic</i>	3	-
6	STI105	<i>Fundamental of Industrial Engineering Design</i>	3	-
7	STI106	<i>Linear Algebra</i>	2	-
8	STI107	<i>Biology: Anatomy and Physiology</i>	2	-
<i>Total Credits</i>			20	

Semester 2

No	Code	Course	Credits	Prerequisite(s) (D)
1	UNI601	<i>Islam Ulil Albab</i>	3	<i>Islamic Religion</i>
2	UNI603	<i>Pancasila</i>	2	-
3	UNI607	<i>Scientific Writing</i>	2	
4	STI201	<i>Calculus 2</i>	3	<i>Calculus 1</i>
5	STI202	<i>Electromagnetism</i>	2	<i>Physics</i>
6	STI203	<i>Statistics 1</i>	2	-
7	STI204	<i>Mechanics</i>	2	<i>Physics</i>
8	STI205	<i>Introduction to Economics</i>	2	-
9	STI206	<i>Materials Chemistry</i>	2	-
<i>Total Credits</i>			20	

Semester 3

No	Code	Course	Credits	Prerequisite(s) (D)
1	UNI606	<i>English</i>	2	-
2	STI301	<i>Work Method and Measurement</i>	2	<i>Mechanics</i>
3	STI302	<i>Manufacturing Process</i>	3	<i>Introduction to Industrial Engineering</i>
4	STI303	<i>Optimization</i>	3	<i>Linear Algebra</i>
5	STI304	<i>Statistics 2</i>	3	<i>Statistics 1</i>
6	STI305	<i>Cost Analysis and Estimation</i>	2	<i>Introduction to Economics</i>
7	STI306	<i>Production Planning and Control 1</i>	2	<i>Introduction to Industrial Engineering</i>
8	STI307	<i>Physics Laboratory Works</i>	1	<i>Physics</i>
9	STI308	<i>Environmental Chemistry</i>	2	-
<i>Total SKS/ Total Credits</i>			20	

Semester 4

No	Code	Course	Credits	Prerequisite(s) (D)
1	STI401	<i>Stochastic Model</i>	3	
2	STI402	<i>Engineering Economics</i>	2	<i>Cost Analysis and Estimation</i>

3	STI403	<i>Work System Design & Ergonomics</i>	3	Metode dan Pengukuran Kerja/ <i>Work Method and Measurement</i>
4	STI404	<i>Data Base Management System</i>	3	<i>Programming Logic</i>
5	STI405	<i>Quality Control and Assurance</i>	3	Statistika 2/ <i>Statistics 2</i>
6	STI406	<i>System Modeling</i>	2	Optimization
7	STI407	<i>Production Planning and Control 2</i>	2	<i>Production Planning and Control 1</i>
8	STI408	<i>Industrial Psychology</i>	2	-
Total SKS/ <i>Total Credits</i>			20	

Semester 5

No	Code	Course	Credits	Prerequisite(s) (D)
1	UNI605	<i>Sharia Entrepreneurship</i>	2	
2	STI501	<i>Decision Analysis & Data Mining</i>	3	Optimisasi/ <i>Optimization</i>
3	STI502	Occupational Safety and Health (OSH)	2	<i>Environmental Chemistry</i>
4	STI503	<i>Productivity Engineering</i>	2	<i>Quality Control and Assurance</i>
5	STI504	Sistem Cerdas/ <i>Intelligent System</i>	2	Optimisasi/ <i>Optimization</i>
6	STI505	<i>Industrial Organization Design</i>	2	<i>Industrial Psychology</i>
7	STI506	<i>Project Management</i>	2	<i>Engineering Economics</i>
8	STI507	<i>Product Design</i>	3	<i>Work System Design & Ergonomics</i>
9	STI508	<i>Management Information System</i>	2	<i>Data Base Management System</i>
Total SKS/ <i>Total Credits</i>			20	

Semester 6

No	Code	Course	Credits	Prerequisite(s) (D)
1	STI601	<i>Facility Layout Design</i>	3	<i>Production Planning and Control 1</i>
2	STI602	<i>Enterprise Resource Planning</i>	3	<i>Production Planning and Control 1</i>
3	STI603	<i>Enterprise Analysis and Design</i>	3	<i>Engineering Economics</i>
4	STI604	<i>Integrated Industrial System Design</i>	3	<i>Production Planning and Control 2</i>
5	STI605	<i>Computer Simulation</i>	3	<i>System Modeling</i>
6	STI606	<i>Basic Research Methodology</i>	2	Tata Tulis Ilmiah/ <i>Scientific Writing</i>
7	STI607	<i>Supply Chain Management</i>	3	<i>Production Planning and Control 1</i>
Total SKS/ <i>Total Credits</i>			20	

Semester 7

No	Code	Course	Credits	Prerequisite(s) (D)
1	UNI602	<i>Islam Rahmatan lil Alamin</i>	3	
2	UNI604	<i>Civic Education</i>	2	-
3	UNI608	<i>Community Service</i>	2	>100 Credits, GPA>2,25
4	STI9XX	<i>Elective Course 1</i>	3	
5	STI9XX	<i>Elective Course 2</i>	3	-

6	STI9XX	<i>Elective Course 3</i>	3	
		Total SKS/ Total Credits	16	

Semester 8

No	Code	Course	Credits	Prerequisite(s) (D)
1	STI801	<i>Undergraduate Thesis</i>	5	Basic Research Methodology, 1 Elective Course, > 120 credits, Internship.
2	STI802	<i>Internship</i>	3	> 100 credits, Student Soft Skills Development
		Total SKS/ Total Credits	8	

Mata Kuliah Pilihan/ *Elective Course*

Bidang Minat/ *Field of Interest* : Manajemen Industri/ *Industrial Management*

Code	Course	Credits	Prerequisite(s) (D)
STI901	<i>Human Capital Management</i>	3	<i>Industrial Psychology</i>
STI902	<i>Strategic Management</i>	3	<i>Industrial Organization Design</i>
STI903	<i>Knowledge Management</i>	3	<i>Management Information System</i>
STI904	<i>Technology Management</i>	3	<i>Production Planning and Control 1</i>
STI905	<i>Risk Management</i>	3	<i>Engineering Economics</i>
STI906	<i>Financial Engineering</i>	3	<i>Engineering Economics</i>
STI907	<i>Asset Management</i>	3	<i>Production Planning and Control 1</i>
STI908	<i>Service Management</i>	3	<i>Control and Assurance</i>
STI909	<i>Decision Support System</i>	3	<i>Management Information System</i>
STI910	<i>Industrial Marketing</i>	3	<i>Cost Analysis and Estimation</i>
STI911	<i>Analysis and Design in MIS</i>	3	<i>Data Base Management System</i>
STI912	<i>Business Process Management</i>	3	<i>Enterprise Resource Planning</i>
STI913	<i>Business Process Integration</i>	3	<i>Enterprise Resource Planning</i>

Bidang Minat/ *Field of Interest* : Operational Research/ *Operational Research*

Code	Course	Credits	Prerequisite(s) (D)
STI914	<i>Six Sigma</i>	3	<i>Quality Control and Assurance</i>
STI915	<i>Multivariate Analysis</i>	3	<i>Statistics 2</i>
STI916	<i>Advanced Simulation</i>	3	<i>Computer Simulation</i>
STI917	<i>Data Science</i>	3	<i>Decision Analysis & Data Mining</i>
STI918	<i>Quality Engineering</i>	3	<i>Quality Control and Assurance</i>
STI919	<i>Business Intelligence</i>	3	<i>Decision Analysis & Data Mining</i>
STI920	<i>Analysis and Design in MIS</i>	3	<i>Data Base Management System</i>
STI950	<i>Metaheuristic</i>	3	<i>Stochastic Model</i>

Bidang Minat/ *Field of Interest* : Sistem Produksi/ *Production System*

Code	Course	Credits	Prerequisite(s) (D)
STI921	<i>Advanced Automation</i>	3	<i>Programming Logic</i> , <i>Perencanaan dan Pengendalian Produksi 2/ Production Planning and Control 2</i>
STI922	<i>Lean and Green Manufacturing</i>	3	<i>Production Planning and Control 2</i>

STI923	<i>Halal Supply Chain Management</i>	3	<i>Supply Chain Management</i>
STI924	<i>Intelligent Manufacturing Sytem</i>	3	<i>Production Planning and Control 2</i>
STI925	<i>Maintenance Management</i>	3	<i>Production Planning and Control 2</i>
STI926	<i>Humanatarian Logistics</i>	3	<i>Supply Chain Management</i>
STI927	<i>TRIZ for Product Design</i>	3	<i>Product Design</i>
STI928	<i>Logistics Management</i>	3	<i>Production Planning and Control 2</i>
STI929	<i>SCM Performance Management</i>	3	<i>Supply Chain Management</i>

Bidang Minat/ Field of Interest :Ergonomi/ Ergonomics

Code	Course	Credits	Prerequisite(s) (D)
STI930	<i>Human Computer Interaction</i>	3	<i>Work System Design & Ergonomics</i>
STI931	<i>Human-Machine System</i>	3	<i>Work System Design & Ergonomics</i>
STI932	<i>Industrial Ergonomics</i>	3	<i>Work System Design & Ergonomics</i>
STI933	<i>Enviromental Ergonomics</i>	3	<i>Environmental Chemistry , Work System Design & Ergonomics</i>
STI934	<i>Ergonomic Design for Special Purpose</i>	3	<i>Work System Design & Ergonomics , Desain Produk/ Product Design</i>
STI935	<i>Cognitive Ergonomic</i>	3	<i>Work System Design & Ergonomics</i>
STI936	<i>Macro Ergonomic</i>	3	<i>Work System Design & Ergonomics</i>
STI937	<i>Environmental Occupational Health and Safety</i>	3	Occupational Safety and Health (OSH)
STI938	<i>Transport safety</i>	3	Occupational Safety and Health (OSH)

ata Kuliah Pilihan Topik Khusus/ Elective Course for Special Topi

Code	Course	Credits	Prerequisite(s) (D)
STI939	<i>Special Topics in Industrial Management</i>	3	
STI940	<i>Special Topics in Operational Research</i>	3	
STI941	<i>Special Topics in Production System</i>	3	
STI942	<i>Special Topics in Ergonomics</i>	3	

n WAJIB FAST TRACK/ Mandatory Elective Courses for FAST 1

Code	Course	Credits	Prerequisite(s) (D)
STI943	<i>Operations Research</i>	3	
STI944	<i>Production System</i>	3	
STI945	<i>Advanced System Modelling</i>	3	

STI946	<i>The Philosophy of Industrial Engineering</i>	3	
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Mata Kuliah Pilihan Magang/ *Elective Course for Internship*

Code	Course	Credits	Prerequisite(s) (D)
STI947	<i>Capita Selecta</i>	3	
STI948	<i>Industrial System Analysis</i>	9	

Mata Kuliah Pilihan Perintisan Bisnis/ *Elective Course for Business S*

Code	Course	Credits	Prerequisite(s) (D)
STI949	<i>Technopreneurship</i>	9	