

List of Required Courses – Curriculum of 2014/2019
Undergraduate Program, Department of Industrial Engineering

No.	Code/Code	Nama Mata Kuliah/ Course Name	Sks/Credits
SEMESTER I			
1	SF141303	Fisika Dasar I – <i>Physics 1</i>	3
2	SM141203	Kalkulus I – <i>Calculus I</i>	3
3	IG141106	Wawasan Kebangsaan - <i>Civics</i>	3
4	TI141201	Pengantar Ilmu Ekonomi - <i>Intro to Economics</i>	2
5	TI141202	Menggambar Teknik – <i>Engineering Drawing</i>	2
6	TI141203	Pengetahuan Bahan Teknik - <i>Metalurgy</i>	3
7	TI141301	Pengantar Teknik & Sistem Industri - <i>Intro to System and Industrial Engineering</i>	2
Jumlah sks/Total credits			18
SEMESTER II			
1	SM141202	Kalkulus II – <i>Calculus II</i>	3
2	IG14110X	Agama – <i>Religion</i>	2
3	IG141108	Bahasa Inggris – <i>English</i>	3
4	TI141204	Algoritma & Pemrograman Komputer <i>Algorithm and Computer Programming</i>	3
5	TI141205	Fisika Dasar II- <i>Physics 2</i>	2
6	TI141206	Mekanika Teknik - <i>Engineering Mechanics</i>	2
7	TI141302	Statistik Industri I – <i>Engineering Statistics 1</i>	3
Jumlah sks/Total credits			18
SEMESTER III			
1	TI141207	Analisis dan Estimasi Biaya - <i>Analysis and Cost Estimation</i>	3
2	TI141208	Matematika Optimasi- <i>Optimization Math</i>	3
3	TI141209	Otomasi Industri - <i>Industrial Automation</i>	3
4	TI141303	Proses Manufaktur- <i>Manufacturing Process</i>	3
5	TI141304	Statistik Industri II - <i>Engineering Statistics 2</i>	3
6	TI141305	Ergonomi Industri - <i>Industrial Ergonomics</i>	3
Jumlah sks/Total credits			18
SEMESTER IV			
1	TI141210	Ekologi Industri – <i>Industrial Ecology</i>	2
2	TI141211	Termodinamika - <i>Thermodynamics</i>	2
3	TI141306	Ekonomi Teknik – <i>Engineering Economic</i>	3
4	TI141307	Penelitian Operasional 1 - <i>Operations Research 1</i>	3
5	TI141308	Teknik Tata Cara dan Pengukuran Kerja <i>Motion and Time Study</i>	3
6	TI141309	Manajemen Proyek – <i>Project Management</i>	2
7	TI141310	Sistem Manufaktur – <i>Manufacturing System</i>	4
Jumlah sks/Total credits			19

No.	Code/Code	Nama Mata Kuliah/ Course Name	Sks/Credits
SEMESTER V			
1	IG141107	Wawasan Teknologi dan Komunikasi Ilmiah <i>Intro to Technology and Academic Communication</i>	3
2	TI141316	Teknik Pengendalian Kualitas - <i>Quality Control</i>	3
3	TI141312	Penelitian Operasional 2 – <i>Operations Research 2</i>	3
4	TI141313	Perencanaan dan Pengendalian Produksi <i>Production Planning and Control</i>	4
5	TI141314	Perancangan Fasilitas – <i>Facility Design</i>	3
6	TI141315	Perancangan dan Pengembangan Produk <i>Product Design and Development</i>	3
Jumlah sks/Total credits			19
SEMESTER VI			
1	TI141212	Manajemen Organisasi dan Sumber Daya Manusia <i>Organization and Human Resource Management</i>	3
2	TI141311	Permodelan Sistem – <i>System Modeling</i>	3
3	TI141317	Simulasi Sistem Industri - <i>Industrial System Simulation</i>	3
4	TI141318	Manajemen Logistik – <i>Logistics Management</i>	3
5	TI141319	Perancangan Industri 1 – <i>Industrial System Design 1</i>	3
6	TI141320	Metodologi Penyelesaian Masalah <i>Problem Solving Methodology</i>	2
Jumlah sks/Total credits			17
SEMESTER VII			
1	IG141109	Technopreneurship - <i>Technopreneurship</i>	3
2	TI1414XX	Pilihan I – <i>Elective Course I</i>	3
3	TI1414XX	Pilihan II – <i>Elective Course II</i>	3
4	TI141321	Pemeliharaan dan Teknik Keandalan <i>Maintenance and Reliability</i>	3
5	TI141322	Perancangan Sistem Informasi Bisnis- <i>Business Information System Management</i>	3
6	TI141323	Perancangan Industri 2 - <i>Industrial System Design 2</i>	3
Jumlah sks/Total credits			18
SEMESTER VIII			
1	TI141324	Kerja Praktek Internship	2
2	TI141325	Tugas Akhir- Final Project	6
3	TI1414XX	Pilihan III – <i>Elective Course III</i>	3
4	TI1414XX	Pilihan IV – <i>Elective Course IV</i>	3
5	TI1414XX	Pilihan V – <i>Elective Course V</i>	3
Jumlah sks/Total credits			17

List of Elective Courses

Kode – Mata Kuliah Pilihan <i>Code – Elective Course</i>	SKS <i>Credits</i>
TI141477 - Akuntansi Manajerial/ <i>Managerial Accounting</i>	3
TI141451 - Analisa Keputusan/ <i>Decision Analysis</i>	3
TI141421 - Analisa Produktivitas/ <i>Productivity Analysis</i>	3
TI141401 - Aplikasi Ergonomi Industri <i>Industrial Ergonomics Application</i>	3
TI141422 - Computer Integrated Manufacturing	3
TI141443 - Data Mining	3
TI141423 - Concurrent Engineering	3
TI141481 - e-Business and e-Commerce	3
TI141482 - Ekonomi Industri/ <i>Industrial Economic</i>	3
TI141402 - Ergo Safety	3
TI141409 - Ergonomi Kognitif/ <i>Cognitive Ergonomic</i>	3
TI141405 - Faal dan Biomekanika Kerja <i>Work Physiology and Biomechanic</i>	3
TI141406 - Faktor Manusia dalam Perancangan Produk <i>Human Factor in Product Design</i>	3
TI141407 - Ergonomi Visual/ <i>Visual Ergonomic</i>	3
TI141408 - Human Reliability	3
TI141441 - Keputusan Multikriteria/ <i>Multicriteria Decision</i>	3
TI141492 - Magang Industri I/ <i>Internship I</i>	3
TI141493 - Magang Industri II/ <i>Internship II</i>	3
TI141403 - Makro Ergonomi/ <i>Macro Ergonomic</i>	3
TI141465 - Manajemen Distribusi/ <i>Distribution Management</i>	3
TI141472 - Manajemen Jasa/ <i>Service Management</i>	3
TI141473 - Manajemen Kinerja/ <i>Performance Management</i>	3
TI141428 - Manajemen Kualitas/ <i>Quality Management</i>	3
TI141427 - Manajemen Lingkungan Industri	3
TI141474 - Manajemen Pengetahuan/ <i>Knowledge Man.</i>	3
TI141463 - Manajemen Persediaan dan Pengadaan <i>Procurement and Inventory Management</i>	3
TI141424 - Manajemen Teknologi/ <i>Technology Management</i>	3
TI141446 - Metodologi Sistem Dinamik/	3

Kode – Mata Kuliah Pilihan <i>Code – Elective Course</i>	SKS <i>Credits</i>
<i>System Dynamic Methodology</i>	
TI141410 - Office Ergonomics	3
TI141444 - Optimasi Metaheuristik <i>Metaheuristics Optimization</i>	3
TI141445 - Penjadwalan Produksi/ <i>Production Scheduling</i>	3
TI141478 - Perilaku Organisasi/ <i>Organization Behaviour</i>	3
TI141430 - Rekayasa Kualitas/ <i>Quality Engineering</i>	3
TI141431 - Rekayasa Nilai/ <i>Value Engineering</i>	3
TI141471 - Rekayasa Proses Bisnis <i>Business Process Engineering</i>	3
TI141425 - Six Sigma	3
TI141475 - Strategi Korporasi/ <i>Corporate Strategy</i>	3
TI141461 - Supply Chain Management	3
TI141426 - Sustainable Manufacturing	3
TI141448 - Teori Konstrain/ <i>Constraint Theory</i>	3
TI141449 - Teori Permainan/ <i>Game Theory</i>	3
TI141464 - Manajemen Transportasi Udara <i>Airlines Management</i>	3
TI141442 - Optimasi Skala Besar/ <i>Large Scale Optimization</i>	3
TI141447 - Permodelan Tata Letak Fasilitas <i>Facility Layout Modeling</i>	3
TI141404 - Perancangan Metode dan Stasiun Kerja <i>Work Station and Method Design</i>	3
TI141462 - Enterprise Resource Planning	3
TI141480 - Klaster Industri/ <i>Industrial Cluster</i>	3
TI141476 - Manajemen Keuangan/ <i>Financial Management</i>	3
TI141479 - Manajemen Risiko Korporat <i>Corporate Risk Management</i>	3
TI141491 - Topik Khusus/ <i>Special Issue</i>	3