

COURSE LIST of BACHELOR PROGRAM

No.	Course Code	Course Name	Credit
<b>SEMESTER I</b>			
1	SM234101	Calculus 1	3
2	SF234101	Physics 1	5
3	SK234102	Chemistry	3
4	TK234101	Introduction to Chemical Engineering	3
5	TK234102	Analytical Chemistry	4
Number of Credits			18
<b>SEMESTER II</b>			
1	SM234201	Calculus 2	3
2	SF234203	Physics of Electricity and Magnetic	3
3	TK234201	Introduction to Chemical Industries	2
4	TK234202	Organic Chemistry	4
5	TK234203	Physical Chemistry	4
6	TK234204	Statistics	2
Number of Credits			18
<b>SEMESTER III</b>			
1	TK234301	Chemical Engineering Thermodynamics	3
2	TK234302	Microbiology	3
3	TK234303	Chemical Engineering Principles 1	3
4	TK234304	Construction Materials	2
5	TK234305	Momentum transfer	3
6	TK234306	Chemical Engineering Mathematics	4
7	TK234307	Plant Utility System	2
Number of Credits			20
<b>SEMESTER IV</b>			
1	TK234401	Chemical Engineering Unit Operation 1	4
2	TK234402	Chemical Engineering Thermodynamics 2	3
3	TK234403	Mass and Heat Transfer	4
4	TK234404	Chemical Engineering Principles 2	3
5	TK234405	Chemical Reaction Engineering 1	3
6	TK234406	Chemical Engineering Numerical Computation	3
Number of Credits			20
<b>SEMESTER V</b>			
1	TK234501	Chemical Equipment Design	4
2	TK234502	Chemical Engineering Unit Operations 2	4
3	TK234503	Chemical Engineering Unit Operations 3	4
4	TK234504	Chemical Plant Safety*	3
5	TK234505	Industrial Waste Treatment	3
6	TK234506	Chemical Reaction Engineering 2	3
Number of Credits			21
<b>SEMESTER VI</b>			
1	UG234914	English	2
2	UG234916	Technology application and digital transformation	3
3	UG234912	Indonesian	2
4	UG234913	Civics	2
5	TK234601	Process Control	4
6	TK234602	Engineering Economics	2
7	TK2346XX	Elective 1	3

8	XXXXXX	Enrichment Lecture	3
Number of Credits			21
<b>SEMESTER VII</b>			
1	UG234915	Technopreneurship	2
2	UG23490X	Religion	2
3	UG234911	Pancasila	2
4	TK234701	Practical Field Work	2
5	TK234702	Plant Design	3
6	TK234703	Synthesis and Process Simulation	3
7	TK234704	Research Project	4
8	TK2347XX	Elective 2	3
Number of Credits			21
<b>SEMESTER VIII</b>			
1	TK234801	Plant Design Project	5
Number of Credits			5
<b>Total Credits</b>			<b>144</b>

### LIST of ELECTIVE COURSES

No.	Course Code	Course Name	Credit
<b>Elective I</b>			
1	TK234603	Membrane Technology	3
2	TK234604	Aerosol Technology	3
3	TK234605	Lipids Technology	3
4	TK234606	Project Management	3
5	TK234607	Introduction to Combustion Engineering	3
6	TK234608	Supercritical Technology	3
7	TK234609	Air Pollution Control	3
8	TK234610	Separation Column Design	3
9	TK234611	Energy Technology	3
<b>Elective II</b>			
1	TK234705	Separation Technology	3
2	TK234706	Solid and Toxic and Hazardous Waste Management	3
3	TK234707	Essential Oil Processing	3
4	TK234708	Heterogeneous Catalyst	3
5	TK234709	Polymer Technology	3
6	TK234710	Biorefinery & Bioconversion of Biomass	3
7	TK234711	Natural Gas Processing Technology & HYSYS application	3
8	TK234712	Biochemical and Food Technology	3
9	TK234713	Process Design and Integration	3
10	TK234714	Fluid Mixing Technology	3
11	TK234715	Electrochemical and Nanomaterial Technology	3

Elective III: Enrichment Course.

\*: Enrichment course opened in Chemical Engineering Department.