

Curriculum Structure ITS Chemical Engineering Graduate Program 2023-2028

Master (Reguler)			
Semester 1			
No	Course Code	Course Name	SKS
1	TK 235101	Advance Chemical Engineering Thermodynamics	4
2	TK 235102	Advance Chemical Engineering Mathematic	4
3	TK 235103	Elective I (Required): Advance Synthesis Process	3
Number of Credit			11
Semester 2			
No	Course Code	Course Name	SKS
1	TK 235201	Advance Transport Phenomena	4
2	TK 235202	Advance Chemical Reaction Engineering	4
3	TK 235xxx	Elective II	3
4		Thesis	
Number of Credit			11
Semester 3			
No	Course Code	Course Name	SKS
1	TK 235xxx	Elective III	3
2	TK 235xxx	Elective IV	3
3		Thesis	
Number of Credit			6
Semester 4			
No	Course Code	Course Name	SKS
1	TK 235401	Thesis	8
Number of Credit			8
Total credit for thesis			36

Table 1. LIST OF ELECTIVE COURSES			
Elective for Process Technology			
No.	Course Code	Course Name	SKS
1	TK 235104	Advance Separation Process	3
2	TK 235105	Particle Technology	3
3	TK 235106	System Thermal Analysis	3
4	TK 235203	Biochemical Reactor	3
5	TK 235204	Advance Industrial Waste Management	3
6	TK 235205	Computational Fluid Dynamics	3
7	TK 235301	Membrane Technology	3
8	TK 235302	Processing and Coal Utilization	3
9	TK 235303	Electrochemical Reaction Engineering	3
10	TK 235304	Heterogenic Catalyst	3
11	TK 235305	Aerosol Technology	3
12	TK 235306	Natural Gas Processing	3
13	TK 235307	Advance Combustion Engineering	3
14	TK 235308	Polymer Technology	3
15	TK 235309	Research Methodology	3
16	TK 235310	Advanced Multi Variable Control	3
17	TK 235311	Advanced System Process Design	3
18	TK 235312	Supercritical Technology	3

Elective for Food Technology			
No.	Course Code	Course Name	SKS
1	TK 235203	Biochemical Reactor	3
2	TK 235314	Advance Separation Process in Food Processing	3
3	TK 235315	Advanced Food Processing Technologies	3
4	TK 235316	Business Management and Food Security	3
5	TK 235317	Food Biotechnology	3
6	TK 235318	Enzyme Technology for Food Processing	3
7	TK 235319	Halal Product Development	3
8	TK 235320	Halal Industry Management	3

Curriculum of Master by - Research Program

No.	Course Code	Course Name	SKS
SEMESTER I			
1	TK235XXX	Past Learning Recogniton Courses (Past Publications)	3
2	TK235309	Research Methodology	3
3	TK235XXX	(See Table 1)	6
Total Credit			12
SEMESTER II			
1	TK235206	Thesis I	4
2	TK235207	Publication I	6
Total Credit			10
SEMESTER III			
1	TK235313	Thesis II	6
Total Credit			6
SEMESTER IV			
1	TK235402	Publication II	8
Total Credit			8
Total Credit			36

- Required/Elective Course Name–in Regular
- * Advanced Synthesis Process (Required)
- * TK235313 : Tesis II

**Curriculum of Doctoral Program
Reguler Program**

Semester I			
No	Course Code	Course Name	SKS
1	TK 23610x	Capita Selecta	3
2	TK 236104	Scientific Article Writing	2
3	TK 236105	Philosophy	3
4	TK 236xxx	Elective I	3
Number of Credit			11

Semester II			
No	Course Code	Course Name	SKS
1	TK 236xxx	Elective II	3
2	TK 236201	Dissertation 1	4
Number of Credit			7

Semester III			
No	Course Code	Course Name	SKS
1	TK 236301	Dissertation 2	3
2	TK 236302	Publication 1	3
Number of Credit			6

Semester IV			
No	Course Code	Course Name	SKS
1	TK 236401	Dissertation3	3
2	TK 236402	Publication2	3
Number of Credit			6

Semester V			
No	Course Code	Course Name	SKS
1	TK 236501	Dissertation4	3
	TK 236502	Publication3	3
Number of Credit			6

Semester VI			
No	Kode MK	Nama MK	SKS
1	TK 236601	Dissertation5	6
Number of Credit			6

Total of Credit **42**

**TK
23610x:Capita
Selecta**

No.	Course Code	Course Name	Credit
SEMESTER I			
1	TK 236101	Selected Topics in Chemical Engineering	3
2	TK 236102	Environmental Engineering Management	3
3	TK 236103	Methods of Analysis and Instrumentation	3

**Postgraduate Program Chemical Engineering Department
Institut Teknologi Sepuluh Nopember 2023 – 2028**

**Curriculum of Doctoral Program
Research Program**

No.	Course Code	Course Name	Credit
SEMESTER I			
1	(See Table 1: Electives)	Courses (Converted from RPL) (More than 1 course. Course name may change, be taken from core or elective courses)	6
2	TK236111	Research Dissertation I	3
Number of Credit			9
SEMESTER II			
1	TK236211	Publication I	5
2	TK236212	Research Dissertation II	3
Number of Credit			8
SEMESTER III			
1	TK236302	Research Dissertation III	3
Number of Credit			3
SEMESTER IV			
1	TK236403	Research Dissertation IV	3
2	TK236404	Publication II	5
Number of Credit			8
SEMESTER V			
1	TK236503	Research Dissertation V	3
2	TK236504	Publication III	6
Number of Credit			9
SEMESTER VI			
1	TK236601	Research Dissertation VI	5
Number of Credit			5
Total of Credit			42