

YEAR 2: SEMESTER 2			
Code	Course	Credit	Pre-requisite
SSCK 1203	Analytical Chemistry for Engineering	3	
SSCK 1891	Analytical Chemistry Practical	1	
SETK 2253	Chemical Engineering Thermodynamics	3	SETK 1223
SETK 2313	Transport Processes*	3	SETK 2133#
SETK 2721	Fluid Mechanics Laboratory	1	
SETK 2543	Numerical Method & Optimization*	3	SETK 1533
UHMS 1182	Appreciation of Ethics and Civilizations (for Local Students Only)	2	
UHS 1022 OR UHMS1182	Philosophy and Current Issues (for International Students) OR Appreciation Ethics and Civilizations (for International Students)		
UKQ* ***2	Co-Curriculum & Service Learning	2	
	TOTAL CREDIT	18	
	CUMULATIVE CREDITS	68	

YEAR 3: SEMESTER 1			
Code	Course	Credit	Pre-requisite
SETK 3263	Chemical Reaction Engineering	3	
SETK 3323	Separation Processes*	3	SETK 2313#
SETK 3413	Pollution Control Engineering	3	
SETK 3731	Pollution Control and Reaction Laboratory	1	
SETK 3552	Occupational Safety and Health in Industry	2	
SEEU 2003	Electrical Technology	3	
UHIT 2302	The Thought of Science and Technology	2	
	TOTAL CREDIT	17	
	CUMULATIVE CREDITS	85	

YEAR 3: SEMESTER 2			
Code	Course	Credit	Pre-requisite
SETK 3564	Process Control & Instrumentation*	4	SSCE 1793# SETK 3323 SETK 3263
SETK 3334	Unit Operation & Industrial Processes	4	SETK 2313#
SETK 3741	Separation Processes Laboratory I	1	SETK 3323
SETK 3812	Undergraduate Project I**	2	
SETK 3343	Engineering Economics and Project Management	3	
UHLB 3132	Professional Communication Skills	2	UHLB 2122
UHL* 1112	Foreign Language Elective	2	
	TOTAL CREDIT	18	
	CUMULATIVE CREDITS	103	

YEAR 3: SEMESTER 3			
Code	Course	Credit	Pre-requisite
SETK 3915	Industrial Training	5	
	TOTAL CREDIT	5	
	CUMULATIVE CREDITS	108	

YEAR 4: SEMESTER 1			
Code	Course	Credit	Pre-requisite
SETK 4143	Chemical Product Design	3	
SETK 4751	Process Control Laboratory	1	SETK 3564
SETK 4761	Separation Processes Laboratory II	1	SETK 3334
SETK 4153	Plant Design*	3	SETK 3564
SETK 4824	Undergraduate Project II**	4	SETK 3812#
SETK 4**3	Elective 1	3	
SET* 5**3	PRISMS Elective 1		

UKQT 3001	Extracurricular Experiential Learning (ExCEL)	1	
	TOTAL CREDIT	16	
	CUMULATIVE CREDITS	124	

YEAR 4: SEMESTER 2			
Code	Course	Credit	Pre-requisite
SETK 4573	Process Safety & Operability	3	
SETK 4834	Plant Design Project**	4	SETK 4153
SETK 4**3	Elective 2	3	
SET* 5**3	PRISMS Elective 2		
SETK 4**3	Elective 3	3	
SET* 5**3	PRISMS Elective 3		
U*** 2**2	Soft Skills Elective	2	
	TOTAL CREDIT	15	
	CUMULATIVE CREDITS	139	

Note: * - cornerstone course; ** - capstone course; @ - with tutorial

- must pass (at least with grade D+) for prerequisite course

English prerequisite is shown below:

ENGLISH LANGUAGE TESTS	UHLB 1112	UHLB 2122	UHLB 3132
a) MUET : \geq Band 4	Exemption*	Compulsory	Compulsory
b) IELTS : \geq Band 5.5			
c) TOEFL : \geq 525			
d) TOEFL iBT : \geq 60			
e) CEFR : \geq B2			

*Eligible students are required to apply for UHLB 1112 course credit exemption. The credit exemption form (UTM.E/3.8) is provided at the academic office.

Elective Courses-Streaming (Choose ONE Stream only)

Apart from the core course, students must also take 9 credits of elective course. Students are advised to choose one stream and take 3 courses from the same stream.

1. Energy Management

- SETK 4113 Sustainable Energy Management
- SETK 4123 Thermal Energy Management
- SETK 4133 Energy Planning for Sustainable Development

2. Advanced Materials

- SETK 4213 Polymer Composites
- SETK 4223 Smart Materials
- SETK 4233 Biomaterials

3. Oil and Gas

- SETK 4313 Introduction to Oil & Gas Industry
- SETK 4323 Refinery & Petrochemical Technology
- SETK 4333 Gas Transportation and Storage

4. Environment

- SETK 4413 Waste Management
- SETK 4423 Environmental Management
- SETK 4433 Environmental Sustainability

5. Occupational Safety and Health

- SETK 4513 OSH Legislations and Management
- SETK 4523 Industrial Hygiene
- SETK 4533 Human Factors in Process Industry

6. Polymer Science and Technology

- SETK 4613 Fundamentals of Polymer
- SETK 4623 Polymer Physics and Properties
- SETK 4633 Polymer Rheology and Processing

7. Bioprocess Engineering

- SETK 4643 Downstream Bioprocessing
- SETK 4653 Pharma and Nutraceutical Engineering
- SETK 4663 Food Process Engineering

PRISMS ELECTIVE COURSES

For students who intend to enrol in PRISMS, refer to the PRISMS Section for a list of related elective courses associated with the Postgraduate Programme.