

**‘The Ability to Think, Analyze and Evaluate’**

# **FACULTY OF ENGINEERING**

**BACHELOR OF ENGINEERING WITH HONOURS**

BPKP CODE PROGRAMMES CODE  
**HK03      Chemical Engineering**

**For further inquiries, please contact :-**

**General Office**  
Faculty Of Engineering

Tel : 6088 - 320 000 / 320 347  
Ext : 3000 / 3131 / 3991 / 3114  
FaX : 6088 - 320 348 / 320 192  
E-mail : [pejfkj@ums.edu.my](mailto:pejfkj@ums.edu.my)

**HK03 Chemical Engineering**

	Year 1		Year 2		Year 3		Year 4	
	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
<b>UNIVERSITY CORE (PROMOTION OF KNOWLEDGE) (8 CREDIT HOURS)</b>	<b>UW00202</b> Islam and Asian Civilisation  (2 credit hours)	<b>UW00102</b> Ethnic Relations <b>UCxxx02</b> (Choose 1 uc Only)  (4 credit hours)	<b>UW00302</b> Fundamentals of Entrepreneurial Acculturation  (2 credit hours)					
<b>UNIVERSITY CORE LANGUAGE (8 CREDIT HOURS)</b>	<b>UB00202</b> Oral Communication in English (For Student MUET Band 1 and 2)  (2 credit hours)	<b>UB00102</b> Communicative English Grammar (For Student MUET Band 1 and 2)  (2 credit hours)	<b>UB00702</b> English For Occupational Purposes (For Student MUET Band 1 and 2)  (2 credit hours)	<b>UB00302</b> Reading And Writing In English (For Student MUET Band 1 and 2)  (2 credit hours)				
	<b>UB00602</b> Grammar In Context (For Student MUET Band 3,4,5 & 6)  (2 credit hours)	<b>UB00402</b> Academic Reading and Writing (For Student MUET Band 3,4,5 & 6)  (2 credit hours)	<b>UB02002</b> English For Employment (For Student MUET Band 3,4,5 & 6)  (2 credit hours)	<b>UB00502</b> English For Research Purposes (For Student MUET Band 3,4,5 & 6)  (2 credit hours)				
<b>UNIVERSITY CORE CO-CURRICULUM (3 CREDIT HOURS)</b>	<b>EXXXX3</b> Co-Curriculum  (3 credit hours)							

HK03 Chemical Engineering								
	Year 1		Year 2		Year 3		Year 4	
	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
PROGRAMME CORE (107 CREDIT HOURS)	<b>KC04403</b> Calculus I <b>KC06603</b> Engineering Programming <b>KC11101</b> Laboratory 1 <b>KC11302</b> Engineering Chemistry I <b>KC11501</b> Engineering Drawing Principles	<b>KC05503</b> Calculus II <b>KC11201</b> Laboratory 2 <b>KC11403</b> Engineering Chemistry II <b>KC11603</b> Bioprocess Technology	<b>KC21101</b> Laboratory 3 <b>KC21102</b> Applied Mechanics <b>KC21302</b> Differential Equations <b>KC21503</b> Chemical Process Principles <b>KC21702</b> Chemical Engineering Thermodynamics I <b>KC21903</b> Fluid Mechanics	<b>KC21002</b> Electrical Technology <b>KC21001</b> Laboratory 4 <b>KC21201</b> Design Project I <b>KC21202</b> Safety and Loss Prevention <b>KC21203</b> Material Technology <b>KC21402</b> Heat Transfer <b>KC21602</b> Chemical Engineering Thermodynamics II <b>KC21802</b> Engineering Statistics	<b>KC31101</b> Laboratory 5 <b>KC31103</b> Project Management and Process Economic <b>KC31302</b> Numerical Methods for Chemical Engineers <b>KC31503</b> Mass Transfer <b>KC31703</b> Measurement and Instrumentation <b>KC31903</b> Environmental Engineering	<b>KC32405 (LI)</b> Industrial Training <b>KC31001</b> Laboratory 6 <b>KC31201</b> Design Project II <b>KC31403</b> Process Control <b>KC31603</b> Process Simulation <b>KC31503</b> Optimisation and CAD <b>KC31803</b> Separation Processes <b>KC32003</b> Bioprocess Principles <b>KC32203</b> Chemical Reaction Engineering	<b>KC08803</b> Ethics and Law for Engineers <b>KC01102</b> Research Project I <b>KC43302</b> Research Methodology for Engineers <b>KC43104</b> Plant Design Project I	<b>KC09903</b> Management and Accounting for Engineers <b>KC01204</b> Research Project II <b>KC43204</b> Plant Design Project II
	(10 credit hours)	(10 credit hours)	(13 credit hours)	(15 credit hours)	(15 credit hours)	(22 credit hours)	(11 credit hours)	(11 credit hours)
PROGRAMME CORE (ELECTIVE) (9 CREDIT HOURS)							<b>KC4xx03</b> Elective I  (3 credit hours)	<b>KC4xx03</b> Elective II <b>KC4xx03</b> Elective III  (6 credit hours)
TOTAL (135 CREDIT HOURS)	17	16	17	17	15	22	14	17

## STUDENT CREDIT HOURS

: Core University (Upgrade Knowledge) + Core University (Language) + Core University (Co-Curriculum) + Core Program + Core Program (Elective)

: 8 Credit Hours + 8 Credit Hours + 3 Credit Hours + 107 Credit Hours + 9 Credit Hours

: **135 Credit Hours**

ELECTIVE		
I	II	III
<b>KC44503</b> Chemical Product Design	<b>KC44203</b> Food Process Engineering	<b>KC45403</b> Advanced Process Control
<b>KC44103</b> Biochemical Engineering	<b>KC44403</b> Waste Treatment and Processing	<b>KC45803</b> Advanced Process Simulation
<b>KC44303</b> Air Pollution		<b>KC46203</b> Phytochemical Processing
<b>KC44903</b> Sustainable and Renewable Energy		<b>KC46603</b> Enzyme Engineering
<b>KC45103</b> Particle Technology		<b>KC47003</b> Water Pollution and Wastewater Treatment
<b>KC44703</b> Oil and Gas		<b>KC47203</b> Petroleum Downstream Processing
		<b>KC45603</b> Advanced Heat Transfer
		<b>KC46003</b> Membrane Engineering
		<b>KC46403</b> Bioengineering
		<b>KC46803</b> Nuclear Technology

