

## 2.0 Programme Curriculum Structure: Bachelor of Science (Hons) in Applied Chemistry

SEMESTER 1				SEMESTER 2				SEMESTER 3			
Code	Courses	Cr	G	Code	Courses	Cr	G	Code	Courses	Cr	G
MPU3122	TITAS (Local)	3	NR	CDB1012	Health, Safety & Environment	2	CS	MPU 2	One (1) U2 Course	3	NR
MPU3142	BM Komunikasi 2 (International)	3	NR	FDM2063	Probability and Statistics	3	CS	LDB1042	Academic Writing	2	UR
MPU3113	Ethnic Relationship (Local)	3	NR	YAB1033	Analytical Chemistry	3	CD	KXXxxx1	Co Curriculum II	1	UR
MPU3173	Malaysian Studies 3 (International)	3	NR	YAB1013	Inorganic Chemistry	3	CD	YAB1043	Physical Chemistry I	3	CD
PDB1012	Introduction to Oil and Gas	2	UR	YAB1022	Chemistry Practical I	2	CD	YAB1053	Organic Chemistry I	3	CD
FDM1023	Ordinary Differential Equations	3	CS					YAB1072	Chemistry Practical II	2	CD
KXXxxx1	Co Curriculum I	1	UR								
Credit Hours		12		Credit Hours		13		Credit Hours		14	
SEMESTER 4				SEMESTER 5				SEMESTER 6			
Code	Courses	Cr	G	Code	Courses	Cr	G	Code	Courses	Cr	G
MPU 3	One (1) U3 course	3	NR	HDB2033	Professional Communication Skills	3	UR	GDB1033	Management and Organisational Behaviour	3	CS
ZAB2072	Philosophy of Science & Technology	2	CS	YAB2032	Separation Process	2	CD	YAB2042	Science Team Project	2	CD
YAB1063	Material and Energy Balance	3	CD	YAB2073	Quantum Chemistry	3	CD	ZAB1053	Modern Physics	3	CD
YAB2013	Organic Chemistry II	3	CD	YAB2063	Analytical Instrumentation	3	CD	YAB4023	Molecular Spectroscopy	3	CD
YAB2023	Physical Chemistry II	3	CD	YAB2052	Chemistry Practical III	2	CD	YAB4033	Organotransition Metal Chemistry	3	CD
Credit Hours		14		Credit Hours		13		Credit Hours		14	

SEMESTER 7			
Code	Courses	Cr	G
MPU 4/ HDB1012	Community Engagement Project	2	NR
YAB3013	Surface Science and Catalysis	3	CD
YAB3023	Petrochemical Processes	3	CD
YAB3033	Hydrocarbon Chemistry	3	CD
YAB3042	Computational Chemistry	2	CD
Credit Hours		13	

SEMESTER 8			
Code	Courses	Cr	G
GDB3013	Small Business & Entrepreneurship	3	CS
YAB4012	Final Year Project I	2	CD
YABxxx3	Core Specialization I	3	CSp
YABxxx3	Core Specialization II	3	CSp
Credit Hours		11	

STUDENT INDUSTRIAL INTERNSHIP PROGRAMME			
Code	Courses	Cr	G
IDB3037	Student Industrial Training (SIT)	7	CI
Credit Hours		7	

SEMESTER 9			
Code	Courses	Cr	G
YAB4044	Final Year Project II	4	CD
YABxxx3	Core Specialization III	3	CSp
YABxxx3	Core Specialization IV	3	CSp
Credit Hours		10	

STUDENT INDUSTRIAL INTERNSHIP PROGRAMME			
Code	Courses	Cr	G
IDB3047	Student Industrial Project (SIP)	7	CI
Credit Hours		7	

Total Credit Hours : 128

## Core Specialisation (CSp) Courses

Choose any of the following sets of Core Specialisation areas (set A, B, or C) for Core Specialisation I, II, III and IV.

### A. Petrochemistry

No	Code	Course Name	Cr	G
1	YAB4113	Catalysis for Petrochemistry	3	CSp
2	YAB4123	Fundamentals of Reactor System	3	CSp
3	YAB4133	Polymers from Petrochemicals	3	CSp
4	YAB4143	Fine and Speciality Chemical	3	CSp

### B. Sustainable Chemistry

No	Code	Courses	Cr	G
1	YAB4213	Green Chemistry	3	CSp
2	ZAB4213	Renewable Energy	3	CSp
3	YAB4233	Green Processes and Products	3	CSp
4	YAB4243	Sustainable Water Management	3	CSp

### C. Nanotechnology

No	Code	Courses	Cr	G
1	ZAB4113	Nanoscience	3	CSp
2	ZAB4123	Fundamental of Nanotechnology	3	CSp
3	YAB4313	Nanoscale Materials: Synthesis and Applications	3	CSp
4	YAB4323	Solid State Chemistry	3	CSp