

All students must consult a First Year Course Adviser to confirm their specialization before enrolling into Level 1.

B.E.(Chemical – Energy & Environment) Academic Plan 2008

Level I - units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	CHEM	1100	Chemistry IA	3.0
Sem 1	CHEM ENG	1008	Engineering Computing	3.0
Sem 1	MATHS	1011	Mathematics IA	3.0
Sem 1	CHEM ENG	1010	Professional Practice 1	3.0
				12.0
Sem 2	CHEM	1200	Chemistry IB	3.0
Sem 2	MATHS	1012	Mathematics IB	3.0
Sem 2	CHEM ENG	1007	Process Engineering 1	3.0
Sem 2	ENV BIOL	1002	Ecological Issues	3.0
				12.0

Level II - 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	CHEM ENG	2001	Chemical Process Principles II	3.0
Sem 1	APP MTH	2000	Differential Equations and Fourier Series	2.0
Sem 1	CHEM	2003	Environmental Chemistry II	4.0
Sem 1	CHEM ENG	2003	Introductory Process Fluid Mechanics	3.0
Sem 1	CHEM ENG	3011	Transport Processes in the Environment	2.0
				14.0
Sem 2	CHEM ENG	2000	Chemical Engineering Thermodynamics	2.0
Sem 2	CHEM ENG	2007	Essay & Seminar (Environmental)*	2.0
Sem 2	GEOLOGY	2005	Geology for Engineers	2.0
Sem 2	APP MTH	2004	Numerical Methods in Engineering (Chemical)	2.0
Sem 2	CHEM ENG	2006	Plant and Process Engineering	2.0
				10.0

* Students whose native language is not English may present ENG 3002 Engineering Communication ESL in lieu of Essay and Seminar (Environmental)

Level III – 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	CHEM ENG	3003A	Chemical Engineering Projects III Part 1	2.0
Sem 1	CHEM ENG	4024	Environmental Engineering	2.0
Sem 1	CHEM ENG	3018	Fluid and Particle Mechanics	3.0
Sem 1	CHEM ENG	3017	Kinetics and Reactor Design	3.0
Sem 1	CHEM ENG	3001	Materials III(CH)	2.0
				12.0
Sem 2	CHEM ENG	3003B	Chemical Engineering Projects III Part 2	2.0
Sem 2	CHEM ENG	3015	Process Control and Instrumentation	2.0
Sem 2	CHEM ENG	3014	Process Design and Plant Engineering	2.0
Sem 2	CHEM ENG	3005	Separation Processes	2.0
Sem 2	CHEM ENG	3006	Transport Phenomena	2.0
Sem 2	C&ENVENG	2035	Water Engineering II S2	2.0
				12.0

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Level IV – 24 units

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	CHEM ENG	4028	Advanced Environmental Design & Cleaner Production	2.0
Sem 1	CHEM ENG	4010	Advanced Separation Techniques & Thermal Processes	2.0
Sem 1	CHEM ENG	4025	Chemical Engineering Projects IV	2.0
Sem 1	CHEM ENG	4021	Combustion Processes	2.0
Sem 1	CHEM ENG	4003	Process Dynamics and Control	2.0
				10.0
Sem 2	CHEM ENG	4027	Chemical Engineering Research Project (N) <i>or</i>	
Sem 2	CHEM ENG	4026	Chemical Engineering Research Project (H)	2.0
Sem 2	CHEM ENG	4018	Industrial Economics and Management	2.0
Sem 2	CHEM ENG	4029	Process Design Project (Environmental)	6.0
				10.0
Elective courses to the value of 4 units				4.0

* *Students accepted into the honours stream will take Chemical Engineering Research Project (H) and other students will take Chemical Engineering Research Project (N).*

ELECTIVES

<i>Term</i>	<i>Subject Area</i>	<i>Catalogue Number</i>	<i>Course Description</i>	<i>Units</i>
Sem 1	CHEM ENG	4009	Advanced Chemical Engineering	2.0
Sem 1	CHEM ENG	4008	Biochemical Engineering	2.0
Sem 1	CHEM ENG	4002A	Chemical Engineering Research Elective II Part 1 *	2.0
Sem 1	CHEM ENG	4004	Minerals Processing	2.0
Sem 1	CHEM ENG	4020A	Chemical Engineering Research Elective Part 1	1.0
Sem 1	C&ENVENG	3013	Water Engineering & Design IIIA	2.0
Sem 2	CHEM ENG	4002B	Chemical Engineering Research Elective II Part 2 *	2.0
Sem 2	CHEM ENG	4020B	Chemical Engineering Research Elective Part 2	1.0
Sem 2	C&ENVENG	3014	Water Engineering & Design IIIB	2.0

* *Approval is needed from the Head of the School of Chemical Engineering to enrol in this course
With the approval of the Head of the School of Chemical Engineering, courses offered by other Schools within the Schools of Engineering may be included in the selection of electives*

Note either pre-requisites, co-requisites or restrictions may be placed on courses (refer to 2008 Calendar or 2008 On-line Course Planner)