

## B.S. Degree in Applied Chemical Engineering

COURSE	TITLE	LT LB CR	COURSE	TITLE	LT LB CR
<b>First Year (Preparatory)</b>					
ENGL 001	Preparatory English I	15 5 8	ENGL 002	Preparatory English II	15 5 8
MATH 001	Preparatory Mathematics I	3 1 4	MATH 002	Preparatory Math II	3 1 4
PYP 001	Prep. Physical Sciences	2 0 2	PYP 002	Prep. Computer Sciences	0 2 1
PYP 003	University Study Skills	0 2 1	ME 003	Prep. Eng. Technology	0 2 1
PE 001	Preparatory Physical Educ I	0 2 1	PE 002	Preparatory Phys Educ II	0 2 1
		<b>20 10 16</b>			<b>18 12 15</b>

**Total credits required in Preparatory Program: 31**

### Second Year (Freshman)

MATH 101	Calculus I	4 0 4	MATH 102	Calculus II	4 0 4
CHEM 101	General Chemistry I	3 4 4	CHEM 102	General Chemistry II	3 4 4
PHYS 101	General Physics I	3 3 4	PHYS 102	General Physics II	3 3 4
ENGL 101	An Intro to Academic Disc	3 0 3	ENGL 102	Introduction to Report Wr	3 0 3
ICS 103	Computer Programming in C	2 3 3	IAS 101	Practical Grammar	2 0 2
PE 101	Physical Education I	0 2 1	PE 102	Physical Education II	0 2 1
		<b>15 12 19</b>			<b>15 9 18</b>

### Third Year (Sophomore)

CHE 201	Principles of Chem. Engg. I	3 2 3	CHE 202	Principles of Chem. Engg. II	2 2 2
CHEM 201	Organic Chemistry I	3 4 4	CHE 204	Transport Phenomena I	3 0 3
MATH 201	Calculus III	3 0 3	BIOL 233	Principles of Biology	2 3 3
ENGL 214	Academic & Professional C	3 0 3	MATH 202	Elementary Diff. Eq.	3 0 3
IAS 111	Belief and its Consequences	2 0 2	ME 205	Materials Science	2 3 3
		<b>14 6 15</b>	IAS 201	Writing For Prof. Needs	2 0 2
					<b>14 8 16</b>

### Fourth Year (Junior)

CHE 300	Transport Phenomena II	3 0 3	CHE 306	Stagewise Separations	3 0 3
CHE 303	Chem. Engg. Thermo.	3 0 3	CHE 309	Chem. Engg Lab I	0 6 2
CHE 304	Transport Phenomena III	3 0 3	CHEM 321	Instrumental Anal. for Engrs.	2 4 3
CHEM 311	Physical Chemistry I	3 4 4	STAT 319	Probability & Stats. for Engrs.	2 3 3
MATH 371	Intr. to Numerical Computing	3 0 3	IAS 301	Oral Communication Skills	2 0 2
IAS 212	Professional Ethics	2 0 2	GS XXX	General Studies Elective	3 0 3
		<b>17 4 18</b>	CHE 401	Process Dynamics and Cont.	3 0 3
					<b>15 13 19</b>

### Summer Session

CHE 350 Cooperative Work 0 0 0

### Fifth Year (Senior)

CHE 352	Cont. of Cooperative Work	0 0 9	CHE 402	Kinetics & Reactor Design	3 0 3
		<b>0 0 9</b>	CHE 409	Chem. Engg. Lab II	0 6 2
			CHE 425	Process Design and Econ.	3 0 3
			CHE 495	Integrated Design Course	1 6 3
			CHE 4XX	Chem Engg Elective	3 0 3
			XE XXX	Technical Elective	3 0 3
			IAS 322	Human Rights in Islam	2 0 2
					<b>15 12 19</b>

**Total credits required for degree program: 133**