

UNIVERSITY OF LUZON  
Perez Blvd. Dagupan City

COLLEGE OF ENGINEERING and ARCHITECTURE  
**Bachelor of Science in Chemical Engineering**  
Curriculum Year **2012 - 2013**

**First Year**

**First Semester**

SUBJECT CODE	SUBJECT NAME/DESCRIPTION	HOURS		UNITS		Pre-Requisite
		LEC.	LAB.	LEC.	LAB.	
CHEM 111	GENERAL CHEMISTRY (LEC)	3.0	0.0	3.0	0.0	
CHEM 111L	GENERAL CHEMISTRY (LAB)	0.0	3.0	0.0	1.0	
DRAW 111A	ENGINEERING DRAWING 1	0.0	3.0	0.0	1.0	
ENG 11	COMMUNICATION ARTS 1	3.0	0.0	3.0	0.0	
FIL 11	KOMUNIKASYON SA AKADEMIKONG FILIPINO	3.0	0.0	3.0	0.0	
MTH 111A	COLLEGE ALGEBRA	3.0	0.0	3.0	0.0	
MTH 112	PLANE AND SPHERICAL TRIGONOMETRY	3.0	0.0	3.0	0.0	
PE 11	PHYSICAL FITNESS AND GYMNASTICS	2.0	0.0	2.0	0.0	
SOC 13	CONTEMPORARY SOCIAL PROBLEMS AND CURRENT ISSUES	3.0	0.0	3.0	0.0	
<b>TOTAL</b>		<b>20</b>	<b>6</b>	<b>20.0</b>	<b>2.0</b>	
<b>TOTAL ACADEMIC UNIT(S): 22.0</b>						

**Second Semester**

CHE121	GENERAL CHEMISTRY CALCULATIONS	2.0	3.0	2.0	1.0	CHEM 111, CHEM 111L
CSC 121A	COMPUTER FUNDAMENTALS	2.0	3.0	2.0	1.0	
ENG 12	COMMUNICATION ARTS 2	3.0	0.0	3.0	0.0	ENG 11
FIL 12	PAGBASA AT PAGSULAT TUNGO SA PANANALIKSIK	3.0	0.0	3.0	0.0	FIL 11
HUM 11	ART APPRECIATION	3.0	0.0	3.0	0.0	
MTH 121A	ADVANCED ALGEBRA	2.0	0.0	2.0	0.0	MTH 111A, MTH 112
MTH 122A	ANALYTIC GEOMETRY	3.0	0.0	3.0	0.0	
MTH 123	SOLID MENSURATION	2.0	0.0	2.0	0.0	MTH 112, MTH 111A
PE 12	RHYTHMIC ACTIVITIES	2.0	0.0	2.0	0.0	PE 11
PSC 12	PHILIPPINE GOVERNMENT AND NEW CONSTITUTION	3.0	0.0	3.0	0.0	
<b>TOTAL</b>		<b>25</b>	<b>6</b>	<b>25.0</b>	<b>2.0</b>	
<b>TOTAL ACADEMIC UNIT(S): 27.0</b>						

**Second Year****First Semester**

CHE211	INTRODUCTION TO CHEMICAL	3.0	0.0	3.0	0.0	CHE121
CSC 211A	COMPUTER PROGRAMMING	2.0	3.0	2.0	1.0	
ENG 16	TECHNICAL WRITING	3.0	0.0	3.0	0.0	ENG 12
MTH 211A	DIFFERENTIAL CALCULUS	4.0	0.0	4.0	0.0	MTH 123
NSTP 11	NATIONAL SERVICE TRAINING PROGRAM 1	3.0	0.0	3.0	0.0	
PE 13	INDIVIDUAL AND DUAL SPORTS/GAMES	2.0	0.0	2.0	0.0	PE 12
PHI 13	LOGIC	3.0	0.0	3.0	0.0	
PHY 211	COLLEGE PHYSICS 1	3.0	0.0	3.0	0.0	MTH 112, MTH 123
PHY 211L	COLLEGE PHYSICS 1 (LABORATORY)	0.0	3.0	0.0	1.0	MTH 112
<b>TOTAL</b>		<b>23</b>	<b>6</b>	<b>23.0</b>	<b>2.0</b>	

**TOTAL ACADEMIC UNIT(S): 25.0****Second Semester**

CHE221	ANALYTIC CHEMISTRY	3.0	6.0	3.0	2.0	CHE211
CSC 221A	COMPUTER AIDED-DRAFTING	1.0	3.0	1.0	1.0	
HST 11	PHILIPPINE HISTORY	3.0	0.0	3.0	0.0	
MTH 221A	INTEGRAL CALCULUS	4.0	0.0	4.0	0.0	
MTH 222A	PROBABILITY AND STATISTICS	3.0	0.0	3.0	0.0	2nd Yr
NSTP 12	NATIONAL SERVICE TRAINING PROGRAM 2	3.0	0.0	3.0	0.0	NSTP 11
PE 14	TEAM SPORTS	2.0	0.0	2.0	0.0	PE 13
PHY 221	COLLEGE PHYSICS 2	3.0	0.0	3.0	0.0	PHY 211
PHY 221L	COLLEGE PHYSICS 2 (LABORATORY)	0.0	3.0	0.0	1.0	PHY 211L
<b>TOTAL</b>		<b>22</b>	<b>12</b>	<b>22.0</b>	<b>4.0</b>	

**TOTAL ACADEMIC UNIT(S): 26.0****Third Year****First Semester**

CHE311	PHYSICAL CHEMISTRY 1	3.0	0.0	3.0	0.0	CHE221
CHE311L	PHYSICAL CHEMISTRY 1 LABORATORY	0.0	3.0	0.0	1.0	CHE221
CHE312	ORGANIC CHEMISTRY	4.0	0.0	4.0	0.0	CHE221
CHE312L	ORGANIC CHEMISTRY LABORATORY	0.0	3.0	0.0	1.0	CHE221
CHE313	CHEMICAL CALCULATIONS 1	2.0	0.0	2.0	0.0	CHE221
CHE313L	CHEMICAL CALCULATIONS 1 LABORATORY	0.0	3.0	0.0	1.0	CHE221
ENG 15	PHILIPPINE LITERATURE	3.0	0.0	3.0	0.0	
MECH311	STATICS OF RIGID BODIES	3.0	0.0	3.0	0.0	PHY 221
MTH 311	DIFFERENTIAL EQUATIONS	3.0	0.0	3.0	0.0	MTH 221A

PSY 11	GENERAL PSYCHOLOGY WITH DRUG EDUCATION	3.0	0.0	3.0	0.0	
<b>TOTAL</b>		<b>21</b>	<b>9</b>	<b>21.0</b>	<b>3.0</b>	

**TOTAL ACADEMIC UNIT(S): 24.0****Second Semester**

CHE321	PRINCIPLES OF TRANSPORT PROCESSES	3.0	0.0	3.0	0.0	MTH 311, CHE313
CHE322	CHEMICAL THERMODYNAMICS 1	3.0	0.0	3.0	0.0	CHE311
CHE323	PHYSICAL CHEMISTRY 2	3.0	0.0	3.0	0.0	CHE311
CHE323L	PHYSICAL CHEMISTRY 2 LABORATORY	0.0	3.0	0.0	1.0	CHE311L
CHE324	INDUSTRIAL CHEMISTRY	2.0	0.0	2.0	0.0	CHE312
CHE324L	INDUSTRIAL CHEMISTRY LABORATORY	0.0	3.0	0.0	1.0	CHE312L
MECH321	DYNAMICS OF RIGID BODIES	2.0	0.0	2.0	0.0	MECH311
MECH322	MECHANICS OF DEFORMABLE BODIES	3.0	0.0	3.0	0.0	MECH311
MTH411	ADVANCED ENGINEERING MATHEMATICS	3.0	0.0	3.0	0.0	MTH 311
SOC 14	LIFE AND WORKS OF RIZAL	3.0	0.0	3.0	0.0	
<b>TOTAL</b>		<b>22</b>	<b>6</b>	<b>22.0</b>	<b>2.0</b>	

**TOTAL ACADEMIC UNIT(S): 24.0****Fourth Year****First Semester**

CHE411	CHEMICAL THERMODYNAMICS 2	3.0	0.0	3.0	0.0	CHE322
CHE412	MOMENTUM OF TRANSFER	3.0	0.0	3.0	0.0	CHE321
CHE413	INTRODUCTION TO BIOTECHNOLOGY	3.0	0.0	3.0	0.0	CHE312
CHE414	ENVIRONMENTAL ENGINEERING	2.0	0.0	2.0	0.0	4th Yr
CHE415	HEAT AND MASS TRANSFER	3.0	0.0	3.0	0.0	CHE321
CHE416	MATERIAL SCIENCE	3.0	0.0	3.0	0.0	CHE312
CHE417	BASIC ELECTRICAL AND ELECTRONICS ENGINEERING	2.0	3.0	2.0	1.0	PHY 221
CHE418	ENGINEERING ECONOMY	3.0	0.0	3.0	0.0	4th Yr
ENG 22	SPEECH AND ORAL COMMUNICATION	3.0	0.0	3.0	0.0	ENG 16
<b>TOTAL</b>		<b>25</b>	<b>3</b>	<b>25.0</b>	<b>1.0</b>	

**TOTAL ACADEMIC UNIT(S): 26.0****Second Semester**

CHE421	CHEMICAL REACTION ENGINEERING	4.0	0.0	4.0	0.0	CHE411
CHE422	CHEMICAL ENGINEERING CALCULATIONS 2	2.0	0.0	2.0	0.0	CHE313
CHE422L	CHEMICAL ENGINEERING CALCULATIONS 2 LABORATORY	0.0	3.0	0.0	1.0	CHE313L
CHE423	CHEMICAL PROCESS INDUSTRIES	3.0	0.0	3.0	0.0	CHE312
CHE423L	CHEMICAL PROCESS INDUSTRIES LABORATORY	0.0	3.0	0.0	1.0	CHE312L
CHE424	SEPARATION PROCESSES	3.0	0.0	3.0	0.0	CHE411, CHE415

CHE425	COMPUTER APPLICATIONS IN CHEMICAL	0.0	3.0	0.0	1.0	4th Yr
CHE426	BIOCHEMICAL ENGINEERING	3.0	0.0	3.0	0.0	CHE413
CHE427	CHEMICAL LABORATORY 1	0.0	3.0	0.0	1.0	CHE412, CHE415
CHE428	ENGINEERING MANAGEMENT	3.0	0.0	3.0	0.0	4th Yr
CHE429	SAFETY MANAGEMENT	1.0	0.0	1.0	0.0	
<b>TOTAL</b>		<b>19</b>	<b>12</b>	<b>19.0</b>	<b>4.0</b>	

**TOTAL ACADEMIC UNIT(S): 23.0**

**Fifth Year**

**First Semester**

CHE EL 1	RENEWABLE ENERGY TECHNOLOGIES	3.0	0.0	3.0	0.0	5th Yr
CHE500	INTEGRATED CHEMICAL ENGINEERING COURSE	5.0	0.0	5.0	0.0	
CHE511	CHEMICAL LABORATORY 2	0.0	3.0	0.0	1.0	CHE427
CHE512	QUANTITATIVE METHODS IN MANAGEMENT	3.0	0.0	3.0	0.0	CHE428
CHE513	METHODS OF RESEARCH	0.0	3.0	0.0	1.0	5th Yr
CHE514	INDUSTRIAL WASTE MANAGEMENT AND CONTROL	3.0	0.0	3.0	0.0	CHE426
CHE515	INTRODUCTION OF PARTICLE TECHNOLOGY	2.0	0.0	2.0	0.0	CHE412
CHE516	EQUIPMENT DESIGN	2.0	0.0	2.0	0.0	CHE424
CHE517	INDUSTRY IMMERSION (240 HOURS) SUMMER	0.0	6.0	0.0	2.0	5th Yr
<b>TOTAL</b>		<b>18</b>	<b>12</b>	<b>18.0</b>	<b>4.0</b>	

**TOTAL ACADEMIC UNIT(S): 22.0**

**Second Semester**

CHE EL 2	ENERGY MANAGEMENT	3.0	0.0	3.0	0.0	CHE EL 1
CHE EL 3	NUCLEAR ENGINEERING	3.0	0.0	3.0	0.0	5th Yr
CHE521	CHEMICAL PLANT DESIGN	2.0	0.0	2.0	0.0	CHE513
CHE521L	CHEMICAL PLANT DESIGN LABORATORY	0.0	3.0	0.0	1.0	CHE513
CHE523	PROCESS DYNAMICS AND CONTROL	3.0	0.0	3.0	0.0	5th Yr
CHE524	CHEMICAL LAWS, CONTRACTS AND ETHICS	2.0	0.0	2.0	0.0	5th Yr
CHE525	FIELD TRIPS AND SEMINARS	0.0	3.0	0.0	1.0	5th Yr
CHE526	SAFETY IN PROCESS INDUSTRY	3.0	0.0	3.0	0.0	5th Yr
<b>TOTAL</b>		<b>16</b>	<b>6</b>	<b>16.0</b>	<b>2.0</b>	

**TOTAL ACADEMIC UNIT(S): 18.0**

**Total academic units for course Bachelor of Science in Chemical Engineering: 237.0, Lecture Unit = 211.0, Lab Unit=26.0**