

Xavier University
BACHELOR OF SCIENCE IN CIVIL ENGINEERING
 2008-2009 Curriculum, 3rd Edition

FIRST YEAR

First Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.
ENG 014.1	English Plus: Introduction to Study and Thinking Skills	(3)	0	(3)	
CE 01	Orientation to Civil Engineering	1	0	1	
CHEM 81	General Chemistry (Lecture)	3	0	3	
CHEM 81L	General Chemistry (Laboratory)	0	1	1	
ES 01	Engineering Drawing	0	1	1	
FIL 22	Komunikasyon sa Akademikong Filipino	3	0	3	
FFP 10	Freshmen Formation Program	3	0	3	
MA 81	College Algebra	3	0	3	
MA 82	Plane and Spherical Trigonometry	3	0	3	
PE 1	Physical Fitness	2	0	2	
Total		(21)	2	(23)	
		18		20	

Second Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.
ECON 20.1	Principles of Economics with Taxation, Agrarian Reform and Consumer Education	3	0	3	
ENG 16.1	Study, Thinking and Language Skills in English	3	0	3	
ES 02	Computer-Aided Drafting	0	1	1	ES 01
FIL 33	Pagbasa at Pagsulat Tungo sa Pananaliksik	3	0	3	FIL 22
MA 83	Advanced Algebra	2	0	2	MA 81
MA 84	Analytic Geometry	2	0	2	MA 81, MA 82
MA 85	Solid Mensuration	2	0	2	MA 81, MA 82
PSYC 1	General Psychology	3	0	3	
RS 15	The Old Testament	3	0	3	
PE 2	Rhythmic Activities	2	0	2	PE 1
Total		23	1	24	

SECOND YEAR

First Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.
ENG 17	Effective Speech Communication	3	0	3	ENG 16.1
ENG 34.1	The Literatures of the World	3	0	3	ENG 16.1
ES 03	Computer Fundamentals and Programming	0	2	2	2 ND YEAR LEVEL
HIST 11.1	Rizal's Life, Works and Writings	3	0	3	
MA 86	Differential Calculus	4	0	4	MA 83, MA 84, MA 85
PHYS 21	General Physics 1	3	0	3	MA 81, MA 82
PHYS 21L	General Physics 1 Laboratory	0	1	1	MA 81, MA 82
PHILO 01	Logic	3	0	3	
NSTP 1	National Service Training Program 1	3	0	3	
PE 3	Individual/Dual Sports	2	0	2	PE 2
Total		24	3	27	

Second Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.
ENG 41	Humanities: Arts, Aesthetics and Society	3	0	3	ENG 16.1
MA 87	Integral Calculus	4	0	4	MA 86
MA 89	Probability and Statistics	3	0	3	MA 81
PHYS 22	General Physics 2	3	0	3	PHYS 21 & 21L
PHYS 22L	General Physics 2 Laboratory	0	1	1	PHYS 21 & 21L
RS 20	Christology	3	0	3	RS 15
PHILO 15.1	Philosophy of Man and the Human Person	3	0	3	PHILO 01
NSTP 2	National Service Training Program 2	3	0	3	NSTP 1
PE 4	Team Sports/Games	2	0	2	PE 3
Total		24	1	25	

THIRD YEAR

First Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.
ACE 01	Basic Mechanical Engineering	3	0	3	MA 81, MA 82, PHYS 22,22L
CE 30	Elementary and Higher Surveying	3	1	4	MA 82, MA 83, ES 01
ENG 27	Writing Term Paper in the Discipline and Business Correspondence	3	0	3	ENG. 16.1
ES 04	Statics of Rigid Bodies	3	0	3	PHYS 21, 21L, MA 87
ES 07	Engineering Economy and Accounting	3	0	3	3 RD YEAR LEVEL
MA 88	Differential Equations	3	0	3	MA 87
PHILO 30.1	Generic Ethics with PERSON (Philosophical Enrichment and Regeneration for Social Orientation and Networking Program)	3	0	3	PHILO 15.1
Total		21	1	22	

Note 1: Students who do not qualify are required by the English Department to take ENG 014.1, a non-credit subject.

Note 2: FFP10 must be taken within the first year of entry to the University.

Note 3: Subjects taken without completing the required pre-requisite will not be credited.

Note 4: Year Level is determined based on completion of at least 75% of the required number of units of the preceding year level prescribed by the curriculum.

Note 5: The regular load of a student per semester is as prescribed in this curriculum indicated as TOTAL number of units, which is the MAXIMUM number of units that a student can take in the semester.

Second Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.	Co-Req.
ACE 03	Basic Electrical Engineering	2	1	3	PHYS 22,22L	
CE 31	Engineering Surveys	3	1	4	CE 30	
CE 32	Advanced Engineering Mathematics for CE	3	0	3	MA 88	
CE 33	Building Design 1	1	1	2	ES 01	
ES 05	Dynamics of Rigid Bodies	2	0	2	ES 04	
ES 06	Mechanics of Deformable Bodies	3	0	3	ES 04	
ES 09	Environmental Engineering	2	0	2	CHEM 81,81L	
ES 10.1	Safety Management/Engineering	1	0	1	3 RD YEAR LEVEL	
RS 35	Church and Sacraments	3	0	3	RS 20	
Total		21	2	23		

FOURTH YEAR**First Semester**

Code	Description	Lect.	Lab.	Unit	Pre-Req.
CE 40	Structural Theory 1	3	1	4	ES 06
CE 41	Soil Mechanics	3	1	4	ES 06
CE 34	Mechanics of Fluids	2	0	2	ES 05, MA 88
CE 34L	Mechanics of Fluids Laboratory	0	1	1	ES 05, MA 88
CE 42	Building Design 2	1	1	2	CE 33
CE 43	Construction Materials and Testing	3	1	4	ES 06
CE 44	Highway Engineering	3	0	3	CE 31
PHILO 25	Philosophy of Religion	3	0	3	PHILO 30.1
Total		18	5	23	

Second Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.
ACE 08	Methods of Research	3	0	3	MA 89,4 TH YEAR LEVEL
CE 45	Structural Theory 2	3	1	4	CE 40, CE 32
CE 46	Foundation Engineering	3	1	4	CE 41
CE 47	Hydraulics	2	1	3	CE 34& CE 34L
CE 48	Engineering Hydrology	3	0	3	CE 34& CE 34L
CE 49	Construction Methods and Project Management	3	1	4	4 TH YEAR LEVEL
RS 55	Christian Morality with Social Teachings of the Church	3	0	3	RS 35
Total		20	4	24	

Summer

Code	Description	Hours	Lect.	Lab.	Unit	Pre-Req.
CE 80	On-the-Job Training Program	300	0	2	2	CE 45, CE 43, CE 49
Total					2	

FIFTH YEAR**First Semester**

Code	Description	Lect.	Lab.	Unit	Pre-Req.
CE 50	Structural Design 1 (RC 1)	3	1	4	CE 45
CE 51	Structural Design 2 (Steel and Timber)	4	1	5	CE 45
ES 08	Engineering Management	3	0	3	5 TH YEAR LEVEL
CE 52	Transportation Engineering	3	0	3	CE 44
CETE 10	Technical Elective 1	3	0	3	5 TH YEAR LEVEL
FYPS 10	Final Year Project Study 01	1	0	1	5 TH YEAR LEVEL, ACE 08, and applicable courses
FYPS 20	Final Year Project Study 1	0	1	1	
SOC 01.1	Principles of Sociology w/ Population, Family Planning and HIV/AIDS Education	3	0	3	
Total		20	3	23	

Second Semester

Code	Description	Lect.	Lab.	Unit	Pre-Req.
CE 53	Water Resources Engineering	3	0	3	CE 47
CE 54	CE Laws, Contracts, Specifications and Ethics	3	0	3	5 TH YEAR LEVEL
CETE 20	Technical Elective 2	3	0	3	5 TH YEAR LEVEL
CETE 30	Technical Elective 3	3	0	3	5 TH YEAR LEVEL
CETE 40	Technical Elective 4	3	0	3	5 TH YEAR LEVEL
FYPS 30	Final Year Project Study 2	1	1	2	FYPS 20
PSC 10.1	Politics and Governance with Philippine Constitution	3	0	3	
Total		18	1	19	

CETE 10	Earthquake Engineering	(Structural Engineering)
CETE 20	Prestressed Concrete Design	(Structural Engineering)
CETE 30	Special Topics in Construction Engineering	(Construction Engineering and Management)
CETE 40	Special Topics in Structural Engineering	(Structural Engineering)

Other Suggested Topics for Technical Elective:

Special Topics in Geotechnical and Geoenvironmental Engineering	(Geotechnical and Geoenvironmental Engineering)
Special Topics in Transportation Engineering	(Transportation Engineering)