

**Program** : Bachelor of Science in Geodetic Engineering (BSGE)  
**Department** : Engineering Sciences  
**College** : College of Engineering and Information Technology  
**University** : Caraga State University  
**Date of Last Revision** : July 5, 2014  
**Effectivity** : 1st Semester, AY 2015-2016

#### FIRST YEAR

FIRST SEMESTER			Units			Contact Hrs.			Pre-	Co-
COURSE CODE		DESCRIPTIVE TITLE	Total	Lec.	Lab.	Total	Lec.	Lab.	requisite (s)	requisite (s)
MATH	1	College Algebra	3	3	0	3	3	0	None	None
MATH	2.1	Plane and Spherical Trigonometry	3	3	0	3	3	0	None	MATH 1
CS	1	Computer Concepts and Fundamentals	3	2	1	5	2	3	None	None
ES	1	Engineering Drawing	2	1	1	4	1	3	None	MATH 1 and MATH 2.1
FIL	1	Komunikasyon sa Akademikong Filipino	3	3	0	3	3	0	None	None
ENG	1	Study and Thinking Skills	3	3	0	3	3	0	None	None
SOCIO	1	General Sociology with Population Education	3	3	0	3	3	0	None	None
PE	1	Physical Fitness	2	2	0	2	2	0	None	None
NSTP	1	CWTS/LTS/ROTC 1	3	3	0	3	3	0	None	None
<b>Total</b>			<b>25</b>	<b>23</b>	<b>2</b>	<b>29</b>	<b>23</b>	<b>6</b>		

SECOND SEMESTER			Units			Contact Hrs.			Pre-	Co-
COURSE CODE		DESCRIPTIVE TITLE	Total	Lec.	Lab.	Total	Lec.	Lab.	requisite (s)	requisite (s)
MATH	5.1	Analytic Geometry	3	3	0	3	3	0	MATH 1, MATH 2.1	None
MATH	4	Advanced Algebra	3	3	0	3	3	0	MATH 1, MATH 2.1	None
ES	2	Computer Aided Drafting	1	0	1	3	0	3	ES 1, CS 1	None
CHEM	9	General and Inorganic Chemistry	5	3	2	9	3	6	MATH 1	None
FIL	2	Pagbasa at Pagsulat Tungo sa Pananaliksik	3	3	0	3	3	0	FIL 1	None
ENG	2	Writing in the Discipline	3	3	0	3	3	0	ENG 1	None
LIT	1	Philippine Literature	3	3	0	3	3	0	None	None
PE	2	Rhythmic Activities	2	2	0	2	2	0	PE 1	None
NSTP	2	CWTS/LTS/ROTC 2	3	3	0	3	3	0	NSTP 1	None
<b>Total</b>			<b>26</b>	<b>23</b>	<b>3</b>	<b>32</b>	<b>23</b>	<b>9</b>		

#### SECOND YEAR

FIRST SEMESTER			Units			Contact Hrs.			Pre-	Co-
COURSE CODE		DESCRIPTIVE TITLE	Total	Lec.	Lab.	Total	Lec.	Lab.	requisite (s)	requisite (s)
PHYS	21	General Physics I (Mechanics)	4	3	1	6	3	3	MATH 1, MATH 2.1	None
ES	3	Solid Mensuration	2	2	0	2	2	0	MATH 5.1	None
MATH	8	Differential Calculus	4	4	0	4	4	0	MATH 5.1	None
GE	100	General Surveying I	4	2	2	8	2	6	MATH 5.1	None
PHILO	2	Introduction to Logic	3	3	0	3	3	0	None	None
PSYCH	1	General Psychology	3	3	0	3	3	0	None	None
PE	3	Individual and Dual Sports	2	2	0	2	2	0	PE 1	None
<b>Total</b>			<b>22</b>	<b>19</b>	<b>3</b>	<b>28</b>	<b>19</b>	<b>9</b>		

SECOND SEMESTER			Units			Contact Hrs.			Pre-	Co-
COURSE CODE		DESCRIPTIVE TITLE	Total	Lec.	Lab.	Total	Lec.	Lab.	requisite (s)	requisite (s)
PHYS	41	General Physics III (Electricity and Magnetism)	4	3	1	6	3	3	PHYS 21	Math 9
MATH	9	Integral Calculus	4	4	0	4	4	0	MATH 8	None
GE	101	General Surveying II	4	2	2	8	2	6	GE 100	None
CS	3	Fundamentals of Problem Solving and Programming	3	2	1	5	2	3	CS 1, MATH 1	None
HISTORY	1	Philippine History	3	3	0	3	3	0	None	None
ENG	5	Technical Communication	3	3	0	3	3	0	ENG 2	None
PE	4	Major/Team Sports	2	2	0	2	2	0	PE 1	None
<b>Total</b>			<b>23</b>	<b>19</b>	<b>4</b>	<b>31</b>	<b>19</b>	<b>12</b>		

#### THIRD YEAR

FIRST SEMESTER			Units			Contact Hrs.			Pre-	Co-
COURSE CODE		DESCRIPTIVE TITLE	Total	Lec.	Lab.	Total	Lec.	Lab.	requisite (s)	requisite (s)
ES	4	Differential Equations for Scientists and Engineers	3	3	0	3	3	0	MATH 9	None
ES	5	Statics of Rigid Bodies	3	3	0	3	3	0	PHYS 21 and MATH 9	None
ES	6	Probability and Statistics for Scientists and Engineers	3	3	0	3	3	0	MATH 9	None
ES	7	Environmental Engineering	2	2	0	2	2	0	CHEM 9	None
GE	102	Construction and Industrial Surveys	4	2	2	8	2	6	GE 101	None
GE	103	Cartography	3	1	2	7	1	6	GE 101, ES 2, MATH 9	None
GE	104	Property Survey	5	3	2	9	3	6	GE 101	None
POL SCI	1	Philippine Government and Constitution	3	3	0	3	3	0	None	None

			<b>Total</b>						<b>26 20 6 38 20 18</b>		
<b>SECOND SEMESTER</b>											
COURSE CODE		DESCRIPTIVE TITLE	Units			Contact Hrs.			Pre-requisite (s)	Co-requisite (s)	
			Total	Lec.	Lab.	Total	Lec.	Lab.			
ES	8	Dynamics of Rigid Bodies	3	3	0	3	3	0	ES 5	None	
ES	9	Advanced Engineering Mathematics	3	3	0	3	3	0	ES 4	None	
ES	11	Engineering Economy	3	3	0	3	3	0	MATH 9	None	
GE	105	Theory of Errors and Adjustments	3	2	1	5	2	3	ES 4, CS 3	None	
GE	106	Land Registration Laws	2	2	0	2	2	0	GE 104	None	
GE	107	Geometric Geodesy	3	3	0	3	3	0	GE 103	None	
GE	108	Practical Astronomy	3	3	0	3	3	0	GE 104	None	
GEOL	100	Principles of Geology	3	3	0	3	3	0	CHEM 9	None	
ME	101	Thermodynamics	3	3	0	3	3	0	PHYS 41, MATH 9	None	
<b>Total</b>			<b>26</b>	<b>25</b>	<b>1</b>	<b>28</b>	<b>25</b>	<b>3</b>			

<b>FOURTH YEAR</b>										
<b>FIRST SEMESTER</b>										
COURSE CODE		DESCRIPTIVE TITLE	Units			Contact Hrs.			Pre-requisite (s)	Co-requisite (s)
			Total	Lec.	Lab.	Total	Lec.	Lab.		
ES	12	Mechanics of Deformable Bodies	4	4	0	4	4	0	ES 5	None
EE	11	Principles of Electricity and Electronics	3	3	0	3	3	0	PHYS 41	None
ES	28	Engineering Entrepreneurship	3	3	0	3	3	0	ES 11	None
GE	109	Geodetic Astronomy	3	2	1	5	2	3	GE 108	None
GE	110	Physical Geodesy	3	3	0	3	3	0	GE 107	None
Hum	1	Introduction to Humanities	3	3	0	3	3	0	None	None
History	2	Life and Works of Rizal	3	3	0	3	3	0	None	None
<b>Total</b>			<b>22</b>	<b>21</b>	<b>1</b>	<b>24</b>	<b>21</b>	<b>3</b>		

<b>SECOND SEMESTER</b>										
COURSE CODE		DESCRIPTIVE TITLE	Units			Contact Hrs.			Pre-requisite (s)	Co-requisite (s)
			Total	Lec.	Lab.	Total	Lec.	Lab.		
ES	13	Fluid Mechanics	4	3	1	6	3	3	ES 8	None
ES	14	Engineering Management	3	3	0	3	3	0	MATH 9, ES 6	None
GE	111	Photogrammetry I	3	2	1	5	2	3	GE 101	None
GE	112	Laws on Property	1	1	0	1	1	0	GE 104	None
GE	113	Remote Sensing	3	2	1	5	2	3	PHYS 41, GE 103	GE 114
GE	114	Satellite Geodesy	3	3	0	3	3	0	GE 109, GE 107	GE 113
GE	115	Map Projections	3	2	1	5	2	3	GE 109, GE 107	None
GE	193	Safety Management for GE	1	1	0	1	1	0	GE 104, GE 109	None
GE	195	Research Methods for GE	3	3	0	3	3	0	Eng 5, ES 6, GE 109, GE 110	None
<b>Total</b>			<b>24</b>	<b>20</b>	<b>4</b>	<b>32</b>	<b>20</b>	<b>12</b>		

<b>SUMMER</b>											
COURSE NO.		DESCRIPTION	Units			Contact Hrs.			Pre-requisite (s)	Co-requisite (s)	
			Total	Lec.	Lab.	Total	Lec.	Lab.			
GE	197	On the Job Training (360 hours)	3						GE 115, GE 116, GE 195	None	
<b>Total</b>			<b>3</b>								

<b>FIFTH YEAR</b>											
<b>FIRST SEMESTER</b>											
COURSE CODE		DESCRIPTIVE TITLE	Units			Contact Hrs.			Pre-requisite (s)	Co-requisite (s)	
			Total	Lec.	Lab.	Total	Lec.	Lab.			
GE	116	Development Planning	3	2	1	5	2	3	GE 113, GE 111	None	
GE	117	Introduction to Geographic Information System	3	3	0	3	3	0	GE 113, GE 114	GE 116, GE 100	
GE	118	Photogrammetry II	4	2	2	8	2	6	GE 111	None	
GE	119	Public Land Laws and Laws on Natural Resources	3	3	0	3	3	0	GE 112	None	
GE	120	Mining Laws and Mine Surveying	3	2	1	5	2	3	GE 104	None	
GE	199	Special Studies in GE	3	1	2	7	1	6	GE 113, GE 195, GE 197	GE 117	
		GE Elective 1	3								
<b>Total</b>			<b>22</b>	<b>13</b>	<b>6</b>	<b>31</b>	<b>13</b>	<b>18</b>			

<b>SECOND SEMESTER</b>										
COURSE CODE		DESCRIPTIVE TITLE	Units			Contact Hrs.			Pre-requisite (s)	Co-requisite (s)
			Total	Lec.	Lab.	Total	Lec.	Lab.		
GE	121	Geodetic Surveying	4	2	2	8	2	6	GE 110	None
GE	122	Hydrography	3	2	1	5	2	3	GE 101	None
GE	123	Land Administration and Management	3	3	0	3	3	0	GE 106, GE 112, GE 119, GE 120	None

GE	196	Geodetic Engineering Laws, Contracts, Ethics, Field Trips and Seminars	3	3	0	3	3	0	GE 197	GE 123, GE 198
GE	124	Geodetic Computations and Adjustment	4	2	2	8	2	6	GE 107, ES 6	None
GE	198	GE Review	1	0	1	3	0	3	GE 199	GE 196
		GE Elective 2	3							
<b>Total</b>			<b>21</b>	<b>12</b>	<b>6</b>	<b>30</b>	<b>12</b>	<b>18</b>		

**OVER-ALL TOTAL                      240**

<b>ELECTIVES</b>			Units			Contact Hrs.			Pre-	Co-
COURSE	NO.	DESCRIPTION	Total	Lec.	Lab.	Total	Lec.	Lab.	requisite (s)	requisite (s)
GE	131	Advanced Geographic Information System	3	2	1	5	2	3	GE 117	None
GE	132	Aerial Triangulation Adjustment	3	3	0	3	3	0	GE 117	GE 124
GE	133	Photogrammetric Project Design	3	3	0	3	3	0	GE 117, GE 118	None
GE	134	Object-Oriented Programming for GE	3	2	1	5	2	3	CS 3, GE 113	GE 117
GE	135	Web-based GIS	3	2	1	5	2	3	CS 3	GE 117