2012-2013 Geology-Engineering and Environmental Geosciences Concentration

NAME _____**ID#**_____

CORE CURRICULUM – 43-44 Semester Hours (SH)

UNIVERSITY CORE

A. Core Foundations

CORE 101	_____	**3**
CORE 102	_____	**3**
CORE 103*	_____	**3**
CORE 201	_____	**3**
CORE 202	_____	**3**

NOTE: Courses listed in multiple areas can only be used to fulfill a single area requirement.

Students can use only one course with their major prefix to fulfill core requirements.

*** Honors course – will replace CORE 101 & 102 for those students in the RU honors program**

B. Core Skills & Knowledge

Courses must be from different disciplines:

MATHEMATICAL SCIENCES (3SH)
MATH 151 **3**

NATURAL SCIENCES (4 SH)
GEOL 100 **4**

HUMANITIES (3 SH)
_____ _____ _____ **3**
One of the following: **ENGL** 200 **HIST** 101, 102 **PHIL** 111, 112, 114 **RELN** 111, 112, 203, 206

VISUAL & PERFORMING ARTS (3 SH)
_____ _____ _____ **3**
One of the following: **ART** 111, 215, 216 **CVPA** 266, **DNCE** 111 **MUSC** 100, 121, 123 **THEA** 100, 180

SOCIAL/BEHAV. SCIENCES (3 SH)
_____ _____ _____ **3**
One of the following: **ANSC** 101, **APST** 200 **ECON** 105, 106 **GEOG** 101, 102, 103 **HIST** 111, 112 **POSC** 110, 120 **PSYC** 121 **RELN** 205 **SOCY** 110, 121

COLLEGE CORE

A. National & International Perspectives

Courses must be from different disciplines:

U. S. PERSPECTIVES (3 SH)
_____ _____ _____ **3**
One of the following: **APST** 200 **ECON** 101, 105, 106, **ENGL** 203 **GEOG** 201, 202, 203 **HIST** 111, 112 **POSC** 120, **SOCY** 110

GLOBAL PERSPECTIVES (3SH)
_____ _____ _____ **3**
One of the following: **ENGL** 201 **CVPA** 266, **GEOG** 101, 102, 140, 280 **HIST** 101, 102 **INST** 101 **ITEC** 112 **PEAC** 200 **RELN** 112, 205, **SOCY** 121,**THEA** 180 **WMST** 101

B. Supporting Skills & Knowledge

NATURAL SCI. OR MATHEMATICAL SCIENCES (3-4 SH)
CHEM 101 **4**

HUMANITIES, VISUAL & PERFORMING ARTS, OR FOREIGN LANGUAGES (3-4 SH)
_____ _____ _____ **3-4**
One of the following: **ENGL** 200 **HIST** 101, 102 **PHIL** 111, 112, 114 **RELN** 111, 112, 203, 206 **Or ART** 111, 215, 216 **DNCE** 111 **MUSC** 100, 121, 123 **THEA** 100, 180 **Or CHNS** 101: 102, 201: 202 **FORL** 100, 109, 209, 309, 409, 200: 210 **FREN** 100, 200:210, 300, 320 **GRMN** 100, 200: 210, 300 **LATN** 101: 102, 201, 350 **SPAN** 101: 102, 201

SOCIAL/ BEHAV. SCI. OR HEALTH & WELLNESS (3SH)
_____ _____ _____ **3**
One of the following: **ANSC** 101**, APST** 200 **ECON** 105, 106 **GEOG** 101, 102, 103 **HIST** 111, 112 **POSC** 110, 120 **PSYC** 121 **RELN** 205 **SOCY** 110**,** 121 **HLTH** 111,200 **NURS** 111 **NUTR** 214 **RCPT** 200

Engineering and Environmental Geosciences CONCENTRATION

					Prerequisites
GEOL	100	_____ (4)	Earth Resources and Natural Hazards	F/S/SU	
GEOL	105	_____ (4)	Exploring Earth	F/S/SU	
GEOL	106	_____ (4)	The Earth Through Time	F/S/SU	GEOL 105
GEOL	310	_____ (4)	Mineralogy	F	Geol 105 and CHEM 101(co-requisite)
GEOL	312	_____ (4)	Igneous and Metamorphic Petrology	S	GEOL 310
GEOL	440	_____ (4)	Structural Geology	F	GEOL 310
GEOL	441	_____ (4)	Geologic Field Methods	S	GEOL 440

Additional courses required for the Engineering and Environmental Geosciences Concentration:

GEOG	250	_____ (3)	Introduction to GIS	F/S	Basic knowledge of internet usage
GEOG	315	_____ (3)	Intermediate GIS Concepts	S	GEOG 250
GEOL	320	_____ (4)	Sedimentary Petrology and Strat.	F	GEOL 310
GEOL	455	_____ (4)	Principles of Engineering	F	GEOL 105; & GEOL 100 or 106; MATH 140 or higher; 4 hrs PHYS recommended
GEOL	406	_____ (4)	Geophysics	S'11 every other S	GEOL 105 or ASTR 111; & PHYS 111:112 or PHYS 221:222 & MATH 152
GEOL	460	_____ (3)	Senior Seminar	F	Senior Standing
GEOL	474	_____ (4)	Hydrogeology	S	GEOL 105; & GEOL 100 or 106; MATH 140 or higher; 4 hrs PHYS recommended
CHEM	101	_____ (4)	General Chemistry	F/SU	
CHEM	102	_____ (4)	General Chemistry	S/SU	CHEM 101
MATH	151	_____ (3)	Calculus and Analytic Geometry I	F/S	Math SAT ≥ 550,or college pre-calc ≥ "C" or ALEKS exam
MATH	152	_____ (3)	Calculus and Analytic Geometry II	F/S	MATH 151

B.S. requirements: 8 hours of Physics courses

PHYS	111	_____ (4)	General Physics I	F/S	MATH 137 or equivalent
PHYS	112	_____ (4)	General Physics II	F/S	PHYS 111
OR					
PHYS	221	_____ (4)	Physics I	F	MATH 151
PHYS	222	_____ (4)	Physics II	S	PHYS 221

Sample Schedule B.S. Geology-Engineering and Environmental Geosciences Concentration 12/13

Fall Semester		**Spring Semester**	
Freshman Year	**Cr.**	**Freshman Year**	**Cr.**
University Core A: Core 101	3	University Core A: Core 102	3
GEOL 100	4	GEOL 105	4
CHEM 101 (F ONLY)	4	CHEM 102 (S ONLY) CHEM 101	4
MATH 151 Math SAT ≥ 550,or college pre-calc ≥ "C" or ALEKS exam	3	MATH 152 MATH 151	3
UNIV 100	1	CORE	3
	15		**17**
Students who have successfully completed GEOL 103 may not take Geol 100 for credit. Students who have successfully completed GEOL 101 may not take GEOL 105 for credit. Any two of these three courses (GEOL 100, GEOL 105, AND GEOL 106) have been approved for Core Curriculum credit in Natural Sciences. Students that do not wish to take 3 lab sciences their sophomore year may elect to take Phys 111 & 112 during the summer.			
Sophomore Year	**Cr.**	**Sophomore Year**	**Cr.**
University Core A: Core 201	3	University Core A: Core 202	3
GEOL 310 (F ONLY) Geol 105 and CHEM 101(co-requisite)	4	GEOL 312 (S ONLY) GEOL 310	4
PHYS 221 (F ONLY) MATH 151 **OR** PHYS 111 MATH 137 OR DEPT. CHAIR PERMISSION	4	PHYS 222 (S ONLY) PHYS 221 **OR** PHYS 112 (F ONLY) PHYS 111	4
GEOL 106 GEOL 105	4	CORE	3
		CORE	3
	15		**17**
CORE 101, 102, 201, and 202 must be completed in succession. Students should complete CORE 202 prior to their junior year.			
Junior Year	**Cr.**	**Junior Year**	**Cr.**
GEOL 320 (F ONLY) GEOL 310	4	GEOL 406 (Every Other S) GEOL 105 or ASTR 111; & PHYS 111:112 or PHYS 221:222 & MATH 152	4
GEOG 250	3	GEOG 315 (S ONLY)	3
CORE	3	CORE	3
FREE ELECTIVE to reach 120 credit hours	3	FREE ELECTIVE to reach 120 credit hours	3
	14		**13**
Senior Year	**Cr.**	**Senior Year**	**Cr.**
GEOL 440 (F ONLY) GEOL 310	4	GEOL 441 (S ONLY) GEOL 440	4
GEOL 455 (F ONLY) GEOL 105; & GEOL 100 or 106; MATH 140 or higher; 4 hrs PHYS recommended	4	GEOL 474 (S ONLY) GEOL 105; & GEOL 100 or 106; MATH 140 or higher; 4 hrs PHYS recommended	4
GEOL 460 (F ONLY) Senior Standing	3	CORE	3
CORE	3	FREE ELECTIVE to reach 120 credit hours	3
FREE ELECTIVE to reach 120 credit hours	3	FREE ELECTIVE to reach 120 credit hours	3
	14		**14**