

NAME: \_\_\_\_\_

1/09

ADVISOR: \_\_\_\_\_

**CIVIL ENGINEERING CURRICULUM**

FIRST YEAR

FALL SEMESTER				SPRING SEMESTER			
			Hours				Hours
CIE	110	Materials	3 ____	CIE	115	Computing in CE	3 ____
CIE	111	Materials Lab	1 ____	CIE	101	Civil Eng. Graphics	3 ____
MAT	126	Calculus I	4 ____	MAT	127	Calculus II	4 ____
CHY	121	Intro to Chemistry	3 ____	PHY	121	Engr. Physics I	4 ____
CHY	123	Chemistry Lab	1 ____	_____		HVSC Elective <sup>1</sup>	3 ____
ENG	101	College Comp	3 ____				17
CIE	100	Intro to Civil & Env Eng	1 ____				
			16				

SECOND YEAR

CET	101	Plane Surveying	3 ____	CIE	225	Transportation Engr <sup>2</sup>	3 ____
MEE	150	Statics	3 ____	ECP	225	CE Tech Writing I	1 ____
MAT	228	Calculus III	4 ____	MEE	251	Str of Materials	3 ____
PHY	122	Engr. Physics II	4 ____	MAT	258	Diff Eq & Lin Alg	4 ____
_____		HVSC Elective <sup>1</sup>	3 ____	_____		Approved Sci. Elective <sup>7</sup>	4 ____
			17				15

THIRD YEAR

CIE	331	Fund Env. Engr.	3 ____	CIE	365	Soil Mechanics	3 ____
CIE	340	Intro to Structural Anal	4 ____	CIE	366	Soil Mechanics Lab <sup>2</sup>	1 ____
CIE	350	Hydraulics	3 ____	MAT	332	Statistics for Engr	3 ____
CIE	351	Hydraulics Lab	1 ____	_____		CIE Elective <sup>3,4</sup>	3 ____
CMJ	103	Fund. of Public Comm	3 ____	_____		CIE Elective <sup>3,4</sup>	3 ____
_____		HVSC Elective <sup>1</sup>	3 ____	_____		Engr. Sci. Elect. <sup>5</sup>	3 ____
			17				16

FOURTH YEAR

CIE	412	Engr Decisions <sup>6</sup>	2 ____	CIE	411	Engr Project Design	3 ____
CIE	413	Project Management <sup>6</sup>	2 ____	_____		CIE Elective <sup>3,4</sup>	3 ____
_____		CIE Elective <sup>3,4</sup>	3 ____	_____		CIE/Tech Elective <sup>3,4</sup>	3 ____
_____		CIE Elective <sup>3,4</sup>	3 ____	_____		HVSC Elective <sup>1</sup>	3 ____
_____		CIE/Tech Elective <sup>3,4</sup>	3 ____	CIE	410	Engineering Ethics	1 ____
_____		HVSC Elective	3 ____	ECP	411	Tech Writing Workshop	1 ____
ECP	413	CE Tech Writing II	1 ____				14
			17				

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**Total Credit Hours = 129**

## EXPLANATION OF REQUIREMENTS

1. Students are assisted by faculty advisors in developing an elective program to meet their individual needs within the University's general education requirements. While most of the general education requirements are automatically met with a civil engineering degree, a student is required to select an additional 15 credit hours of electives to help meet the 18 credit hour "Human Values and Social Context" requirement (the required CMJ 103 satisfies the other three credit hours),
2. General education requirements mandate two writing intensive courses. CIE 225 and CIE 413 are designated as writing intensive courses within the CIE major, while ECP 411 meets the outside the major writing intensive course.  
NOTE: CIE 225 must be taken concurrently with ECP 225 and CIE 413 must be taken concurrently with ECP 413 for CIE 225 and CIE 413 to count as writing intensive courses.
3. Civil Engineering and technical electives must be a minimum of 21 credit hours with no more than two technical elective courses. Civil engineering electives are advanced (400 or 500 level) civil engineering courses. The technical elective is an advanced Civil Engineering course or CIE 394 Civil Engineering Practice or other advanced level engineering, science, or mathematics course relevant to Civil Engineering. In addition, either ERS 101 Intro. to Geology or BIO 100 Basic Biology can be taken as the technical elective.
4. An additional requirement of the CIE Electives is that students take a CIE elective course in three of the five civil engineering subdisciplines: Transportation (CIE 42X), Environmental (CIE 43X), Structural (CIE44X), Water Resources (CIE 45X), and Geotechnical (CIE 46X).
5. Three credits of approved engineering science electives, usually in mechanical or electrical engineering, are required. Civil Engineering courses cannot be used for these three specific credit hours. Typical courses taken are:  
MEE 230 Thermodynamics I  
MEE 270 Dynamics ECE 209 Electrical Networks I
6. CIE 412 and CIE 413 must be taken in the Fall semester immediately preceding CIE 411.
7. Courses that will satisfy the Approved Science Elective are: BIO 100 Basic Biology or BIO 222/223 Biology: The Living Science, ERS 101 Introduction to Geology and CHY 122/124 The Molecular Basis of Chemical Change.

### SPECIAL NOTE:

Sixteen credit hours of engineering design courses are required. Eleven hours are earned in the required courses. At least five additional design hours must be included in the electives selected by the student. The College of Engineering only allows seniors whose "advancement in the field will permit their taking a graduate level course among graduate students without disadvantage to themselves" to take 500-level courses. The design content of CIE electives are as follows:

### Engineering Science & Design Content of Departmental Electives

Course No.	*	Engr. Design	Engr. Science	Course No.	*	Engr. Design	Engr. Science
CIE 394		1-3	0	CIE 533	E	0	3
CIE 424	T	2	1	CIE 534	E	0	3
CIE 425	T	1	2	CIE 537	E	0	3
CIE 426	T	3	0	CIE 540	S	0	3
CIE 427	T	1	0	CIE 543	S	2	1
CIE 430	E	3	1	CIE 544	S	4	0
CIE 431	E	3	0	CIE 545	S	0	3
CIE 432	E	3	0	CIE 547	S	3	0
CIE 434	E	4	0	CIE 548	S	3	0
CIE 439	E	0	3	CIE 549	S	0	3
CIE 440	S	0	4	CIE 556	W	1	2
CIE 442	S	4	0	CIE 562	G	3	0
CIE 443	S	4	0	CIE 563	G	1	1
CIE 450	W	1	2	CIE 564	G	3	0
CIE 455	W	1	2	CIE 565	G	3	0
CIE 456	W	1	2	CIE 566	G	3	0
CIE 460	G	3	0	CIE 567	G	3	0

- T = transportation; E = environmental; W = water resources; S = structures; G = geotechnical

(Revised 1/09)