




Memo

To: COE Undergraduate Affairs Committee

From: Leon T. Thiem, Interim Chair 

Subject: Changes in CVE UG Curriculum

The Civil and Environmental Engineering Department voted to make the following changes in their curriculum:

1. Allow students to choose between the following courses: MCE 341, ELE 220 and CHE 333.
2. Add a professional elective.

The rationale for this change is that the material covered in ELE 220 and MCE 341 is no longer required for the FE exam which all civil engineering students must take to graduate. Each of these courses along with CHE 333 would still benefit our students. By giving the students a choice a student could tailor his foundation courses to better reflect his or her career goals. This action also has the benefit of allowing an additional professional elective. These changes will become effective with the 2014 – 2015 academic year and will not increase or decrease the graduation credit requirements.

## 2018 Civil Engineering Curriculum

Freshman Year - Fall			Freshman Year - Spring		
Course	Description	Cr	Course	Descriptions	Cr
EGR 105	Foundations of Engineering I	1	EGR 106	Foundations of Engineering II	2
CHM 101	General Chem I Lecture	3	MTH 142	Intermed Calculus w/ Analytic Geometry	4
CHM 102	General Chem I Lab	1	PHY 203	Elementary Physics I Lecture	3
MTH 141	Intro Calculus w/ Analytic Geometry	4	PHY 273	Elementary Physics I Lab	1
ECN 201	Principles of Microeconomics	3		General Education Elective	3
	<i>General Education Elective</i>	3		<i>General Education Elective</i>	3
		<b>15</b>			<b>16</b>
Sophomore Year - Fall			Sophomore Year - Spring		
CVE 205	Intro to Civil Engineering Tools	2	CVE 220	Mechanics of Materials	3
MCE 262	Statics	3	CVE 230	Mechanics of Materials Lab	1
MTH 243	Calculus for Functions of Several Variables	3	MCE 263	Dynamics	3
GEO 103	Understanding the Earth	4	MTH 244	Differential Equations	3
PHY 204	Elementary Physics II Lecture	3	CHM 112	General Chem II	3
PHY 274	Elementary Physics II Lab	1		General Education Elective	3
		<b>16</b>			<b>16</b>
Junior Year - Fall			Junior Year - Spring		
CVE 346	Transportation Engineering	3	CVE 347	Highway Engineering	3
CVE 354	Structural Analysis	3	CVE 348	Highway Engineering Lab	1
CVE 355	Structural Analysis Lab	1	CVE 370	Hydraulic Engineering	3
CVE 374	Environmental Engineering	3	CVE 375	Environmental Engineering Lab	1
CVE 381	Geotechnical Engineering	3		Professional Elective**	3
CVE 382	Geotechnical Engineering Lab	1	STA 409	Statistics	3
MCE 354	Fluid Mechanics	3			<b>14</b>
		<b>17</b>			
Senior Year - Fall			Senior Year - Spring		
CVE 400	Civil Engineering Licensure	1	CVE 483	Foundation Engineering	3
CVE 465	Anal & Design of Concrete Structures	3	CVE 498	Civil Engineering Design II	3
CVE 497	Civil Engineering Design I	2	ISE 404	Eng. Economy & Project Planning	3
	Professional Elective**	3		Professional Elective**	3
WRT 333	Scientific and Technical Writing	3		Professional Elective**	3
	Professional Elective**	3			
		<b>15</b>		Take FE Exam	<b>15</b>

### Total Credit Hours 124

\*\*Three of the 15 credits must be one of the following courses: CVE 470, 471, 475, 478, and **three of the 15 credits must be one of the following courses: ELE 220, MCE 341, CHE 333.**

The remaining 9 credits are to be selected from the list in the Civil Engineering Undergraduate Student Handbook.

## 2017 Civil Engineering Curriculum

Freshman Year - Fall			Freshman Year - Spring		
Course	Description	Cr	Course	Descriptions	Cr
EGR 105	Foundations of Engineering I	1	EGR 106	Foundations of Engineering II	2
CHM 101	General Chem I Lecture	3	MTH 142	Intermed Calculus w/ Analytic Geometry	4
CHM 102	General Chem I Lab	1	PHY 203	Elementary Physics I Lecture	3
MTH 141	Intro Calculus w/ Analytic Geometry	4	PHY 273	Elementary Physics I Lab	1
ECN 201	Principles of Microeconomics	3		General Education Elective	3
	General Education Elective	3		General Education Elective	3
		<b>15</b>			<b>16</b>
Sophomore Year - Fall			Sophomore Year - Spring		
CVE 205	Intro to Civil Engineering Tools	2	CVE 220	Mechanics of Materials	3
MCE 262	Statics	3	CVE 230	Mechanics of Materials Lab	1
MTH 243	Calculus for Functions of Several Variables	3	MCE 263	Dynamics	3
GEO 103	Understanding the Earth	4	MTH 244	Differential Equations	3
PHY 204	Elementary Physics II Lecture	3	CHM 112	General Chem II	3
PHY 274	Elementary Physics II Lab	1		General Education Elective	3
		<b>16</b>			<b>16</b>
Junior Year - Fall			Junior Year - Spring		
CVE 346	Transportation Engineering	3	CVE 347	Highway Engineering	3
CVE 354	Structural Analysis	3	CVE 348	Highway Engineering Lab	1
CVE 355	Structural Analysis Lab	1	CVE 370	Hydraulic Engineering	3
CVE 374	Environmental Engineering	3	CVE 375	Environmental Engineering Lab	1
CVE 381	Geotechnical Engineering	3	MCE 341	Fundamentals of Thermodynamics	3
CVE 382	Geotechnical Engineering Lab	1	STA 409	Statistics	3
MCE 354	Fluid Mechanics	3			<b>14</b>
		<b>17</b>			
Senior Year - Fall			Senior Year - Spring		
CVE 400	Civil Engineering Licensure	1	CVE 483	Foundation Engineering	3
CVE 465	Anal & Design of Concrete Structures	3	CVE 498	Civil Engineering Design II	3
CVE 497	Civil Engineering Design I	2	ISE 404	Eng. Economy & Project Planning	3
ELE 220	Passive and Active Circuits	3		Professional Elective**	3
WRT 333	Scientific and Technical Writing	3		Professional Elective**	3
	Professional Elective**	3			
		<b>15</b>		Take FE Exam	<b>15</b>

### Total Credit Hours 124

\*\*Three of the 9 credits must be one of the following courses: CVE 470, 471, 475, 478 .

The remaining 6 credits are to be selected from the list in the Civil Engineering Undergraduate Student Handbook.

