



Department of Civil Engineering
Bachelor of Science in Civil Engineering
2005-2006 Curriculum Version 2 (change Spring 2007)

Freshman Year

Freshman—First Semester (Fall)			Second Semester (Spring)				
___	___	() Institutional Core Option	3	___	___	CENG 1201 Civil Engineering Graphics	2
___	___	ENGL 1301 Grammar & Composition I	3	___	___	ENGL 1302 Grammar & Composition II	3
___	___	MATH 2413 Calculus I	4	___	___	MATH 2414 Calculus II	4
___	___	CHEM 1311 General Chemistry I	3	___	___	PHYS 2325 University Physics I	3
___	___	CHEM 1111 General Chemistry I Laboratory	1	___	___	PHYS 2125 University Physics I Laboratory	1
___	___	ENGR 1200 Engineering Methods	2	___	___	() Visual & Performing Arts	3
Semester Credit Hours			16	Semester Credit Hours			16

Sophomore Year

Sophomore—First Semester (Fall)			Second Semester (Spring)				
___	___	CENG 2336 Geomatics	3	___	___	CENG 2253 Civil Engineering Measurement	2
___	___	CENG 2331 Civil & Environ. Engr. Computing	3	___	___	MENG 3306 Mechanics of Materials	3
___	___	ENGR 2301 Engineering Mechanics – Statics	3	___	___	MATH 3305 Differential Equations	3
___	___	MATH 3404 Multivariate Calculus	4	___	___	ENGR 2302 Engineering Mechanics – Dynamics	3
___	___	PHYS 2326 University Physics II	3	___	___	ECON 2302 Microeconomics	3
___	___	PHYS 2126 University Physics II Laboratory	1	___	___	PHIL 2306 Introduction to Ethics	3
Semester Credit Hours			17	Semester Credit Hours			17

Junior Year

Junior—First Semester (Fall)			Second Semester (Spring)				
___	___	CENG 3338 Civil Engr. Materials	3	___	___	CENG 3361 Applied Engineering Hydrology	3
___	___	MENG 3310 Fluid Mechanics	3	___	___	CENG 3351 Transportation Engr. Systems	3
___	___	ENGR 3301 Probability & Statistics for Engineers	3	___	___	CENG 3333 Building Codes, Contracts & Specs	3
___	___	ENGR 4306 Engineering Economics	3	___	___	CENG 3336 Soil Mechanics	3
___	___	() Additional Science Elective	3	___	___	CENG 3325 Structural Analysis	3
Semester Credit Hours			15	Semester Credit Hours			15

Senior Year

Senior—First Semester (Fall)			Second Semester (Spring)				
___	___	CENG 4351 Traffic Eng. Opns & Ctrl (w Lab)	3	___	___	CENG 4371 Environmental Engineering Design	3
___	___	CENG 4317 Structural Steel Design	3	___	___	CENG 4315 Senior Design II	3
___	___	CENG 4341 Ldrship, Business, Public Policy	3	___	___	HIST 1302 United States History II	3
___	___	CENG 4115 Senior Design I	1	___	___	POLS 2306 Intro. Texas Politics	3
___	___	HIST 1301 United States History I	3	___	___	() World/European Literature	3
___	___	POLS 2305 Intro to American Government	3	___	___		
___	___	ENGR 4109 Senior Seminar	1	___	___		
Semester Credit Hours			17	Semester Credit Hours			15

Total Program Credit Hours: 128



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Construction Engineering

Course	Hrs
CENG 4399 CE Independent Study	3

Structural Engineering

Course	Hrs
CENG 4311 Reinforced Concrete Design	3
CENG 4314 Adv. Structural Analysis	3
CENG 4318 Design Timber Structures	3
CENG 4322 Structural Masonry Design	3
CENG 4328 Structural Fire Behavior	3

Geotechnical Engineering

Course	Hrs
CENG 4381 Foundation Design	3

Transportation Engineering

Course	Hrs
CENG 4354 Urban Transportation Planning	3
CENG 4355 Transportation Systems Management and Operations	3

Hydrology and Environmental Engineering

Course	Hrs
CENG 4330 Water Resources Planning and Management	3

Additional Science Elective Options

Course	Hrs
GEOL 3310 Physical Geology and Astronomy	3
GEOL 3314 Oceanography and Meteorology	3
BIOL 1306/1106 General Biology I	4
BIOL 2320/2121 Introduction to Microbiology	4

The faculty strongly recommends that all students complete an independent study as their elective. The areas for independent study are: research, competition, or community service.

Students are advised to take two courses in five sub-disciplines: Construction Management, Environmental, Hydrology, Structural, and Transportation as well as one course in Surveying and Geotechnical Engineering to gain the breath our constituencies are asking for in new Engineers-In-Training.

However, students may gain one additional elective by completing two courses in three of the four CE sub-disciplines: Environmental (CENG 3371 and 4371), Hydrology (MENG 3310 and CENG 3361), Structural (CENG 3325 and 4317), and Transportation (CENG 3351 and 4351) and one in the other. All students will take two courses in construction management (CENG 3434 and CENG 4339).