

## COLLEGE OF ENGINEERING AND COMPUTER SCIENCE

## Bachelor of Science in Civil Engineering

The Department of Civil and Environmental Engineering offers programs leading to the Bachelor of Science in Civil Engineering and the Master of Science in Civil Engineering. Civil Engineering, one of the largest engineering branches, is a creative, demanding and rewarding profession. It involves the use of complex technology and a strong scientific, mathematical, and engineering knowledge base to creatively solve society's problems. It concentrates on the conception, planning, design, construction, and operation of facilities essential to modern life, ranging from transit systems to offshore structures to space satellites. Civil engineers are problem solvers, meeting the challenges of pollution, traffic congestion, drinking water, energy needs, urban redevelopment, and community planning.

## Recommended 4-Year Curriculum

## FRESHMAN YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
ENGR	1200	Engineering Methods	2	CENG	1201	Civil Engineering Graphics	2
ENGL	1301	English Composition I	3	ENGL	1302	English Composition II	3
CHEM	1311	General Chemistry I	3	PHYS	2325	University Physics I	3
CHEM	1111	General Chemistry I Lab	1	PHYS	2125	University Physics I Lab	1
MATH	2413	Calculus I	4	MATH	2414	Calculus II	4
UNIV	1300	Freshman Seminar	<u>3</u>	_____	_____	*Fine and Perf. Arts Elective	<u>3</u>
<b>Total Semester Hours</b>			<b>16</b>	<b>Total Semester Hours</b>			<b>16</b>

## SOPHOMORE YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
CENG	2331	Civil & Env. Eng. Comp.	3	CENG	2253	Civil Engr. Measurement	2
CENG	2336	Geomatics	3	ENGR	2302	Engr. Mechanics-Dynamics	3
ENGR	2301	Engr. Mechanics-Statics	3	ECON	2302	Microeconomics	3
MATH	3404	Multivariate Calculus	4	MATH	3305	Differential Equations	3
PHYS	2326	University Physics II	3	PHIL	2306	Introduction to Ethics	3
PHYS	2126	University Physics II Lab	<u>1</u>	MENG	3306	Mechanics of Materials	<u>3</u>
<b>Total Semester Hours</b>			<b>17</b>	<b>Total Semester Hours</b>			<b>17</b>

## JUNIOR YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
CENG	3338	Civil Eng. Materials	3	CENG	3361	Applied Engr. Hydrology	3
MENG	3310	Fluid Mechanics	3	CENG	3351	Transp. Engineering System	3
ENGR	3301	Prob. & Stats for Engineering	3	CENG	3333	Building Codes	3
ENGR	4306	Engineering Economics	3	CENG	3336	Soil Mechanics	3
_____	_____	+Additional Science Elective	<u>3</u>	CENG	3325	Structural Analysis	<u>3</u>
<b>Total Semester Hours</b>			<b>15</b>	<b>Total Semester Hours</b>			<b>15</b>

## SENIOR YEAR

First Semester			Credit Hours	Second Semester			Credit Hours
CENG	4351	Transp. & Reg. w/Lab	3	CENG	_____	+Engr. Design Elective	3
CENG	_____	+Struct. Design Elective	3	CENG	4315	Senior Design II	3
CENG	_____	+Constr.. Design Elective	3	POLS	2306	Texas Politics	3
CENG	4115	Senior Design I	1	HIST	1302	United States History II	3
HIST	1301	United States History I	3	ENGR	4109	Senior Seminar	1
POLS	2305	American Government	<u>3</u>	ENGL	_____	*World/European Literature	<u>3</u>
<b>Total Semester Hours</b>			<b>16</b>	<b>Total Semester Hours</b>			<b>16</b>

**Total hours must equal at least 128 hours**

## NOTES:

\*See UT Tyler Core Curriculum for approved course(s).

+ Consult with your advisor for specific degree requirements and schedule planning.