



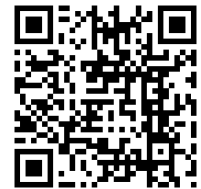
THE UNIVERSITY OF  
ALABAMA IN HUNTSVILLE



## Civil & Environmental Engineering

*Civil Engineering* is considered the oldest and broadest of all the engineering fields and comprises many areas of specialization including: structural, water resources, environmental, construction, transportation, and geotechnical engineering. Civil engineers are involved in a wide spectrum of activities including: design, supervision and construction of roads, buildings, airports, tunnels, dams, and bridges; traffic planning; soil improvement; water and wastewater treatment; air and water

pollution control; environmental remediation; earthquake engineering; wind engineering; hazard mitigation; and advanced construction materials, to name a few. Many civil engineers hold supervisory positions from project manager of a construction site to city engineer designing roads and traffic pathways.



### Highlights

- Four Concentrations: Environmental & Water Resource, Structural Engineering & Mechanics, Transportation, and General.
- Students co-op at Brasfield & Gorrie, Southern Company, U.S. Army, and many more.
- Average median salary in 2012: \$79,340.



"As a Co-Op for International Paper working in the environmental division, I am not only able to work in a field that pertains to my major, I am also gaining knowledge and valuable work experience not obtainable from inside the classroom alone. I am looking forward to my next two semesters here!"

Erica McDonald // New Hope, Alabama  
Junior, **CIVIL ENGINEERING**

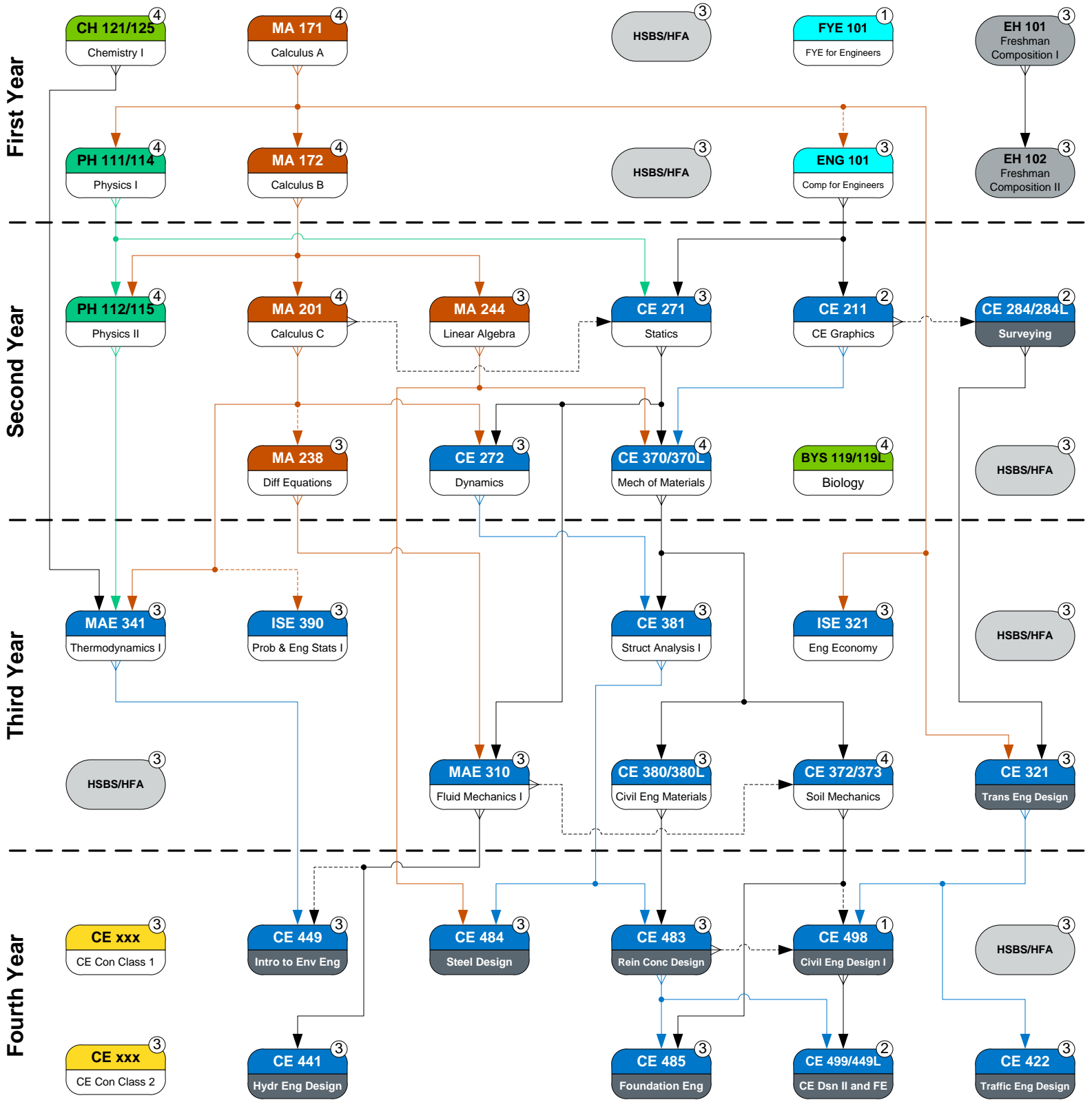
**GO.  
LEARN.  
BE.**

Student A#				Student Name (Last, First MI)		Offered:
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	F=Fall S=Spr M=Sum
<b>English - 6 hours</b>						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
<b>Mathematics - 18 hours</b>						
		MA 171	4	Calculus A	MA 113 or MA 115 or Level III Placement	FSM
		MA 172	4	Calculus B	MA 171	FSM
		MA 201	4	Calculus C	MA 172	FSM
		MA 238	3	Applied Differential Equations	Prereq w/Con: MA 201	FSM
		MA 244	3	Introduction to Linear Algebra	MA 172	FSM
<b>Chemistry - 4 hours</b>						
		CH 121	3	General Chemistry I	Plcmt or CH 101, MA 113 or 115, Prereq w/Con: MA 171, Coreq: CH 125	FSM
		CH 125	1	General Chemistry Lab I	Coreq: CH 121	FSM
<b>Physics - 8 hours</b>						
		PH 111	3	General Physics w/Calculus I	MA 171, Coreq: 114	FSM
		PH 114	1	General Physics Lab I	Coreq: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, Coreq: 115	FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112	FSM
<b>Biology - 4 hours</b>						
		BYS 119	4	Principles of Biology	None	FSM
<b>History, Social &amp; Behavioral Sciences, Humanities &amp; Fine Arts - 18 hours</b>						
			3	History	HY 103, HY 104, HY 221, or HY 222	FSM
			3	Literature	EH 207 or EH 208	FSM
			3	Fine Art	ARH 100, ARH 101, ARH 103, CM 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/HSBS_HFA_Requirements_05202014.pdf">http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/HSBS_HFA_Requirements_05202014.pdf</a>	FSM
			3	Sequence Course (HY or EH)		FSM
			3	HSBS/HFA		FSM
<b>First-Year Engineering - 4 hours</b>						
		FYE 101	1	First-Year Experience for Engineers	None	FS
		ENG 101	3	Computing for Engineers	Prereq w/Con: MA 171	SM
**	Class has required lab section			<b>Civil Engineering Option - 60 hours</b>		
		CE 211	2	Civil Engineering Graphics	ENG 101	FS
		CE 271	3	Statics	ENG 101, PH 111, Prereq w/Con: MA 201	FSM
		CE 272	3	Dynamics	MA 201, MAE/CE 271	FSM
**		CE 284	2	Surveying	Prereq w/Con: CE 211, or Instr/Advsr Approval	F
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271	FSM
		CE 321	3	Transportation Engineering & Design	CE 284, MA 171	S
		ISE 321	3	Engineering Economy	MA 171	FSM
		MAE 341	3	Thermodynamics I	MA 201, CH 121, CH 125, PH 112	FSM
**		CE 370	4	Mechanics of Materials	MAE/CE 271, MA 244 & (MAE 211 or CE 211), Coreq: MAE 370L	FSM
		CE 372	3	Soil Mechanics	CE/MAE 370, Prereq w/Con: MAE 310	FS
		CE 373	1	Soil Mechanics Lab	Coreq: CE 372	FS
		CE 380	3	Civil Engineering Materials	CE/MAE 370, Coreq: CE 380L	FS
		CE 381	3	Structural Analysis I	CE/MAE 272, CE/MAE 370	FM
		ISE 390	3	Probability & Engineering Statistics I	Prereq w/Con: MA 201	FSM
		CE 422	3	Traffic Engineering Design	CE 321	S
		CE 441	3	Hydraulic Engineering Design	MAE 310	S
		CE 449	3	Intro to Environmental Engineering	MAE 341, Prereq w/Con: MAE 310	F
		CE 483	3	Reinforced Concrete Design	CE 380, CE 381	F
		CE 484	3	Steel Design	CE 381, MA 244	F
		CE 485	3	Foundation Engineering	CE 372, CE 483	S
		CE 498	1	Civil Engineering Design I	CE 321, Prereq w/Con: CE 372 and CE 483, Senior Standing	F
**		CE 499	2	Civil Engineering Design II	CE 483, CE 498 Coreq: CE 499L (FE Review)	S
<b>Civil Engineering Electives - 6 hours</b>						
		CE 481	3	Structural Analysis II	CE 381	S
		CE 487	3	Bridge Design	CE 483	S
		CE 456	3	Water Quality Control Processes	CE 449	S
		CE 457	3	Hydrology	MAE 310	F
		CE 411	3	Intro to Geographical Information Systems	Senior Standing or Instructor Approval	F
		CE 420	3	Urban Transportation Planning	CE 321	F
		CE	3	Choose from CE 411, CE 412, CE 420, CE 456, CE 457, CE 458, CE 473, CE 481, CE 487		

All prerequisite classes must be completed with a "C-" or higher grade.  
The Catalog is the final authority for all degree requirements.

# Academic Flowchart

# Civil Engineering 2015/2016 (129 Hours)



**Legend**  
Updated: 5/7/15

Mathematics	First-Year Engineering	Freshman Composition	Credit Hours
Physics	Civil Engineering Option	History, Social & Behavioral Science Humanity & Fine Art	Prerequisite
Chemistry / Biology	Engineering Electives	Offered only in semester listed	Prereq w/concurrency

**Civil Engineering Department: 4-Year Rolling Class Schedule, Fall 2015 - Spring 2019\***

	Fall 2015	Anticipated Sections	Spring 2016	Anticipated Sections	Fall 2016	Spring 2017	Fall 2017	Spring 2018	Fall 2018	Spring 2019
<b>CE 101</b> Prelude to Civil Eng	N	0	N	0	N	N	N	N	N	N
<b>CE 111</b> Civil Engineering Graphics	Y	1	Y	1	N	N	N	N	N	N
<b>CE 211</b> Civil Engineering Graphics	N	0	N	0	Y	Y	Y	Y	Y	Y
<b>CE 271</b> Statics	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>CE 272</b> Dynamics	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>CE 284**</b> Surveying	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 321</b> Transportation Eng/Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CE 370**</b> Mechanics of Materials	Y	2	Y	2	E	Y	E	Y	E	Y
<b>CE 372</b> Soil Mechanics	E	1	Y	1	E	Y	E	Y	E	Y
<b>CE 373</b> Soil Mechanics Lab	E	2	Y	2	E	Y	E	Y	E	Y
<b>CE 380**</b> Civil Engineering Materials	E	1	Y	1	E	Y	E	Y	E	Y



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<b>CE 381</b> Structural Analysis I	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 411</b> Intro to Geo Info Systems	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 412</b> Advanced CE Graphics	N	0	D	0	D	D	D	D	D	D
<b>CE 420</b> Urban Trans Planning	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 422</b> Traffic Engineering Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CE 441</b> Hydraulic Engineering Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CE 449</b> Intro to Environmental Eng	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 456</b> Water Quality Ctrl Proc	N	0	Y	1	N	Y	N	Y	N	Y
<b>CE 457</b> Hydrology	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 458</b> Environmental Eng Design	N	0	D	0	D	D	D	D	D	D
<b>CE 471</b> Advanced Soil Mechanics	N	0	D	0	D	D	D	D	D	D
<b>CE 472</b> Soil Dynamics	N	0	D	0	D	D	D	D	D	D
<b>CE 473</b> Earth Structures Eng	N	0	D	0	D	D	D	D	D	D



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<b>CE 474</b> Applied Mechanics of Solids	N	0	D	0	D	D	D	D	D	D
<b>CE 481</b> Structural Analysis II	N	0	Y	1	N	Y	N	Y	N	Y
<b>CE 483</b> Reinforced Concrete Design	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 484</b> Steel Design	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 485</b> Foundation Engineering	N	0	Y	1	N	Y	N	Y	N	Y
<b>CE 487</b> Bridge Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CE 498</b> Civil Engineering Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>CE 499**</b> Civil Engineering Design II	N	0	Y	1	N	Y	N	Y	N	Y

**Legend**

Y	Course will be offered in designated term.
E	Course will likely be offered in designated term, but availability will be determined by faculty availability and budget.
N	Course will not be offered in designated term.
D	Course may be made available given appropriate demand or interest.

\* UAH College of Engineering will make every effort to adhere to the class plan schedule, but it reserves the right to make necessary adjustments based on budget and faculty availability.

\*\* Course has a required lab section.





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