

Student A#

Student Name (Last, First MI)

Offered:
F=Fall
S=Spring
M=Summer

Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	Offered: F=Fall S=Spring M=Summer
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 15 hours						
		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
Chemistry - 4 hours						
		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
Physics - 8 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
Science Elective - 4 hours						
			3		Choose from CH 123/126 or PH 113/116	FSM
			1			FSM
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3		Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3	Fine Arts	Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Engineering Core - 12 hours						
		MAE 271	3	Statics	PH 111, Prereq w/Con: MA 201	FSM
		MAE 341	3	Thermodynamics I	MA 201, CH 121, CH 125, PH 112	FSM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244 or MAE 285)	FSM
		ISE 321	3	Engineering Economy	Sophomore Standing	FSM
**	Class has required lab section Aerospace Engineering Option - 59 hours					
**		MAE 100	2	Introduction to Mechanical & Aerospace Eng	Prereq w/Con: MA 112 or Level II Placement, Coreq: MAE 100L	FS
		MAE 110	3	Intro to Engineering Computer Aided Design	Prereq w/Con: MA 112 or Level II Placement	FSM
		MAE 200	2	Principles of Aeronautics & Astronautics	Prereq w/Con: MA 112 or Level II Placement	FS
		MAE 272	3	Dynamics	MAE/CE 271 & (MAE 285 or CPE 112)	FSM
**		MAE 285	3	Numerical Methods & Computation I	MA 171, Coreq: MAE 285L	FSM
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197)	FSM
**		MAE 311	3	Principles of Measurement & Instrumentation	EE 213, Coreq: MAE 311L	FSM
**		MAE 370	4	Mechanics of Materials	MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197), Coreq: MAE 370L	FSM
		MAE 371	3	Aerospace Structures	MAE 110, MAE 200, MAE/CE 272, MAE/CE 370	FS
		MAE 385	2	Numerical Methods & Computation II	(MAE 285 or CPE 112 or CHE 197), Prereq w/Con: MA 238	FSM
		MAE 420	3	Compressible Aerodynamics	MAE 200, MAE 310, MAE 341	SM
		MAE 430	3	Fundamentals of Aerodynamics	MAE 200, MAE 310, MAE 341	FM
Select One		MAE 440	3	Rocket Propulsion I	(MAE 410 or MAE 420), Prereq w/Con: MAE 450	FM*
		MAE 441	3	Airbreathing Propulsion	(MAE 410 or MAE 420), Prereq w/Con: MAE 450	FM*
**		MAE 450	4	Intro to Heat and Mass Transfer	MAE 310, MAE 341, MAE 385, Coreq: MAE 450L	FS
		MAE 468	3	Elements of Spacecraft Design	MAE/CE 272, MAE 371, MAE 420, MA 238, Prereq w/Con: MAE 450	SM*
		MAE 471	3	Advanced Aero Structure & Materials	MAE 311, MAE 371	FS
		MAE 480	3	Aircraft Stability & Control	MAE 488, Prereq w/Con: MAE 430	FS
		MAE 488	3	Analysis of Engineering Systems	EE 213, MAE/CE 272, MAE 310, MAE 385	FSM
		MAE 490	3	Intro to Engineering Design	EE 213, MAE/CE 272, ISE 321	FSM
Select One		MAE 491	3	Mechanical Engineering Design	MAE 490, Senior Standing, Instructor Permission	FS
		MAE 492	3	Aerospace Design	MAE 490, Senior Standing, Instructor Permission	FS
		MAE 493	3	Rocket Design	MAE 490, Senior Standing, Instructor Permission	S
		MAE 494	3	Aircraft Design	MAE 371, MAE 490, Senior Standing, Instructor Permission	S
Technical Elective - 6 hours						
			3		300 - level or above Science or Engineering course.	
			3			

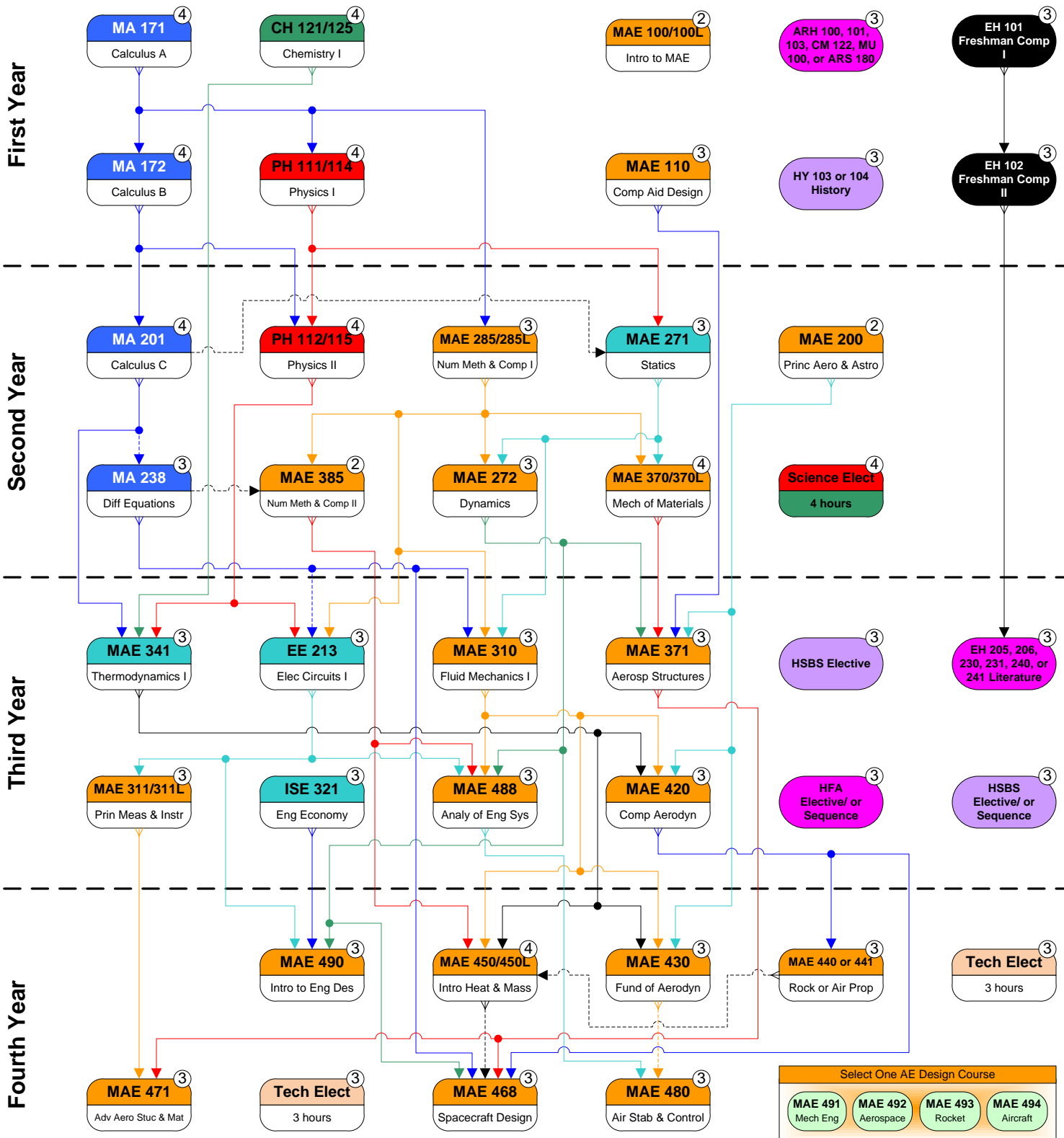
* These courses are offered in alternating summers. Please consult the MAE 5 year plan.
All prerequisite classes must be completed with a "C" or higher grade.
The Catalog is the final authority for all degree requirements.

Updated: 9/5/2012

Aerospace Engineering Program 2012/2013 (132 Hours)

UAHuntsville

Aerospace Engineering Program 2012/2013 (132 Hours)



Legend		Freshman Comp		Hum. & Fine Arts
		Mathematics		Engineering Core
		Chemistry / Biology		Aerospace Eng. Option
		Physics		Electives
		History, Social & Behavioral Sciences		Credit Hours
		Prerequisite		Prereq w/concurrency



Department Mechanical & Aerospace	Prepared by Jacob Kerstiens	Date 6/8/12
Program Aerospace Engineering Program	Approved by	Date

Student A#

Student Name (Last, First MI)

Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	F=Fall S=Spring M=Summer
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 18 hours						
		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
Chemistry - 8 hours						
		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
		CH 123	3	General Chemistry II	CH 121, Prereq w/Con: CH 126	FSM
		CH 126	1	General Chemistry Lab II	Coreq: CH 123	FSM
Biology - 4 hours						
		BYS 119	4	Principles of Biology	None	FSM
Physics - 8 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3		Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3	Fine Arts	Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Engineering Core - 12 hours						
		CE 271	3	Statics	PH 111, Prereq w/Con: MA 201	FSM
		ISE 321	3	Engineering Economy	Sophomore Standing	FSM
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197)	FSM
		MAE 341	3	Thermodynamics I	MA 201, CH 121, CH 125, PH 112	FSM
**	Class has required lab section					
Civil Engineering Option - 58 hours						
		CE 101	1	Prelude to Civil Engineering	None	F
**		CPE 112	3	Intro to Computer Programming in Engineering	MA 113, MA 115 or Level III Placement, Coreq: CPE 112L	FSM
		CE 111	2	Civil Engineering Graphics	MA 112 or Level II Placement, Freshman CE Standing	FS
		CE 272	3	Dynamics	CPE 112, CE/MAE 271	FSM
		CE 284	2	Surveying	Prereq w/Con: CE 101, CE 111, or Instr/Advsr Approval	F
		CE 321	3	Transportation Engineering & Design	CE 284, MA 171	S
**		CE 370	4	Mechanics of Materials	CPE 112, CE/MAE 271, Coreq: CE 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	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	CH 123, CH 126, MAE 341, Prereq w/Con: MAE 310	F
		CE 483	3	Reinforced Concrete Design	CE 380, CE 381	F
		CE 485	3	Foundation Engineering	CE 372, CE 483	S
		CE 498	1	Civil Engineering Design I	ISE 321, CE 321, Prereq w/Con: CE 372	F
		CE 499	2	Civil Engineering Design II	CE 483, CE 498 Coreq: CE 499L (FE Review)	S
		CE 481	3	Structural Analysis II	CE 381	S
		CE 484	3	Steel Design	CE 381	F
		CE 487	3	Bridge Design	CE 483	S
		CE 473	3	Earth Structures Engineering	CE 372, CE 373	F
		CE 456	3	Water Quality Control Processes	CE 449	S
		CE 457	3	Hydrology	MAE 310	F
		CE 458	3	Environmental Engineering Design	Prereq w/Con: CE 449	S
		CE 411	3	Intro to Geographical Information Systems	Senior Standing or Instructor Approval	F
		CE 412	3	Advanced CE Graphics	CE 111	M
		CE 420	3	Urban Transportation Planning	CE 321	F
		CE	3			
		CE	3	Choose from CE 411, CE 412 CE 420, CE 456, CE 457, CE 458, CE 473, CE 481, CE 484, CE 487		
		CE	3			

All prerequisite classes must be completed with a "C" or higher grade.

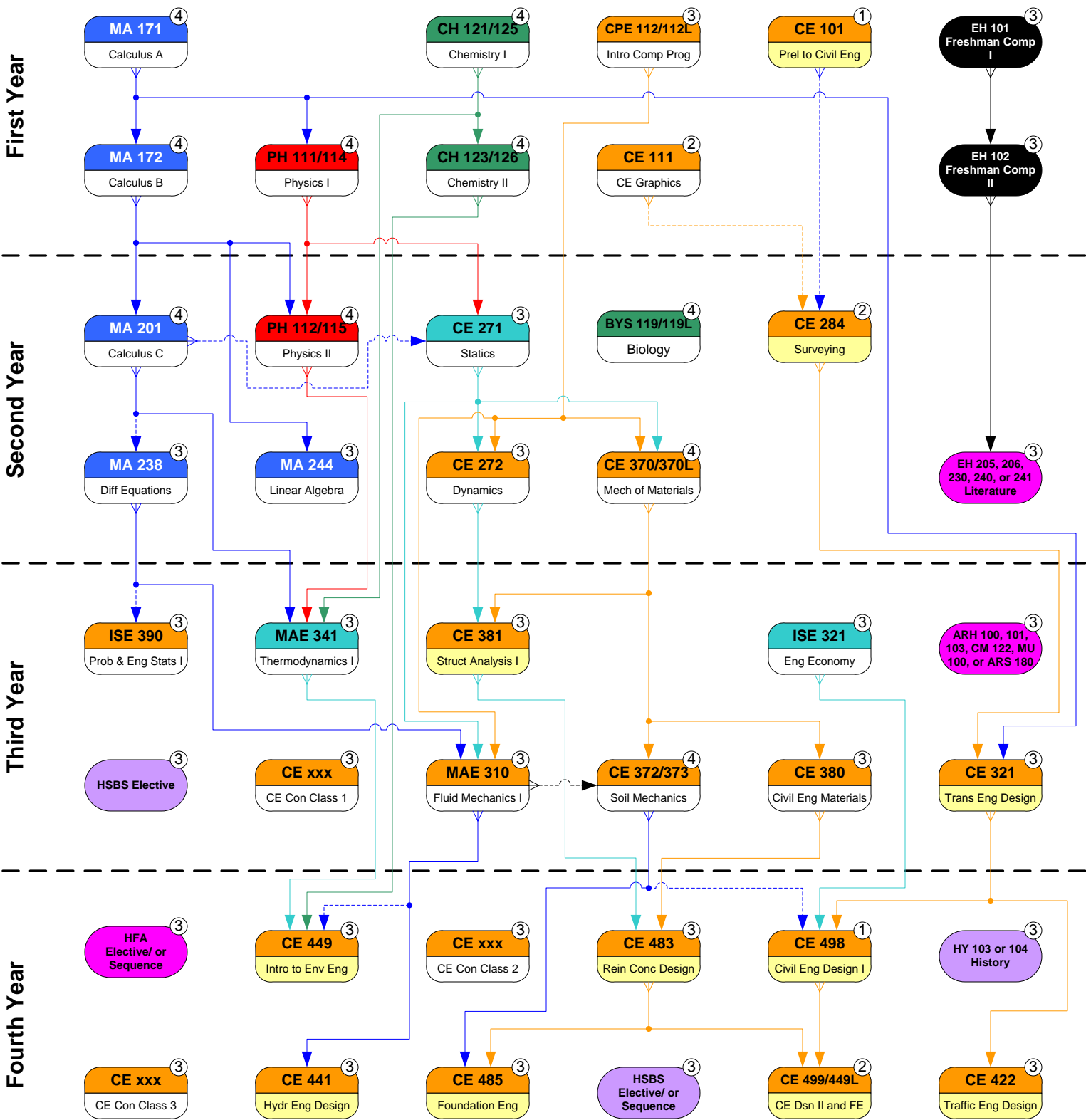
The Catalog is the final authority for all degree requirements.

Updated: 9/24/2012

Civil Engineering Program 2012/2013 (132 Hours)

UAHuntsville

Civil Engineering Program 2012/2013 (132 Hours)



Legend

- Freshman Comp
- Mathematics
- Chemistry / Biology Core
- Physics
- History, Social & Behavioral Sciences
- Hum. & Fine Arts
- Engineering Core
- Civil Engineering Option
- Offered only in that semester
- 3 Credit Hours
- Prerequisite
- - - - -> Prereq w/concurrency



Department Civil & Environmental	Prepared by Jacob Kerstiens	Date 9/24/12
Program Civil Engineering Program	Approved by	Date

Student A#

Student Name (Last, First MI)

Offered:
F=Fall
S=Spring
M=Summer

Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	Offered:
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 15 hours						
		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
Chemistry - 18 hours						
		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
		CH 123	3	General Chemistry II	CH 121, Prereq w/Con: CH 126	FSM
		CH 126	1	General Chemistry Lab II	Coreq: CH 123	FSM
		CH 331	3	Organic Chemistry I	CH 123, CH 126	FSM
		CH 335	1	Organic Chemistry Lab I	Prereq w/Con: CH 331	FSM
		CH 332	3	Organic Chemistry II	CH 331	FSM
		CH 341	3	Physical Chemistry I	CH 123, MA 201, PH 112	F
Biology - 3 hours						
		BYS 311	3	Intro to Molecular Biological Systems	CH 331	S
Physics - 8 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-form : Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
			3			FSM
Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms Must have six hour sequence in either HSBS or HFA.	FSM
			3	Fine Arts		FSM
			3			FSM
Engineering Core - 12 hours						
		CHE 244	3	Intro to Chemical Engineering Systems	CH 123, PH 111, Prereq w/Con: CHE 198	S
		CHE 294	3	Nature & Properties of Materials	CH 121, PH 111	FM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244 or MAE 285)	FSM
		MAE 271	3	Statics	PH 111, Prereq w/Con: MA 201	FSM
Chemical Engineering Option - 49 hours						
		CHE 197	2	Intro to Chemical Engineering Processes	Level II Math Placement or Coreq: MA 112	F
		CHE 198	2	Computational Tools for Chemical Engineers	CHE 197, Prereq w/Con: MA 113	S
		CHE 295	1	Nature & Properties of Materials Lab	Prereq w/Con: CHE 294	FM
		CHE 342	3	Transport Phenomena	CHE 244, Prereq w/Con: MAE 310	S
		CHE 344	3	Chemical Engineering Thermodynamics	CHE 244, CH 341	SM
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197)	FSM
		CHE 347	3	Quantitative Modeling for Chemical Engrs	CHE 197, CHE 244, MA 238	FM
		CHE 439	3	Unit Operations Lab I	CHE 295, Prereq w/Con: CHE 441, CHE 446	F
		CHE 440	2	Unit Operations Lab II	CHE 439, CHE 441, CHE 443	S
		CHE 441	3	Chemical Kinetics & Reactor Design	CHE 344, CHE 347	F
		CHE 443	3	Mass Transfer Operations	CHE 342, CHE 344, MAE 310	F
		CHE 445	3	Chemical Process Control	CHE 441	S
		CHE 446	3	Analysis & Design of Transport Equipment	CHE 342, Prereq w/Con: CHE 443	F
		CHE 448	3	Chemical Engineering Design	CHE 441, CHE 443, CHE 446, Prereq w/Con: CHE 445	S
		CHE 485	3	Process Safety and Toxicology	Prereq w/Con: CHE 448	S
		CH 361	3	General Biochemistry I	BYS 311, CH 332, CH 335	FSM
		CHE 460	3	Introduction to Bioprocess Engineering	CH 361	F
		CHE 461	3	Bioseparations	CHE 460	S
		CH 440	3	Polymer Synthesis & Characterization	CH 331	F
		CHE 494	3	Applied Materials Engineering	CHE 294, CH 342 or CH 348	S
		CHE 495	3	Polymer Engineering	CH 341, CH 440	F

All prerequisite classes must be completed with a "C" or higher grade.

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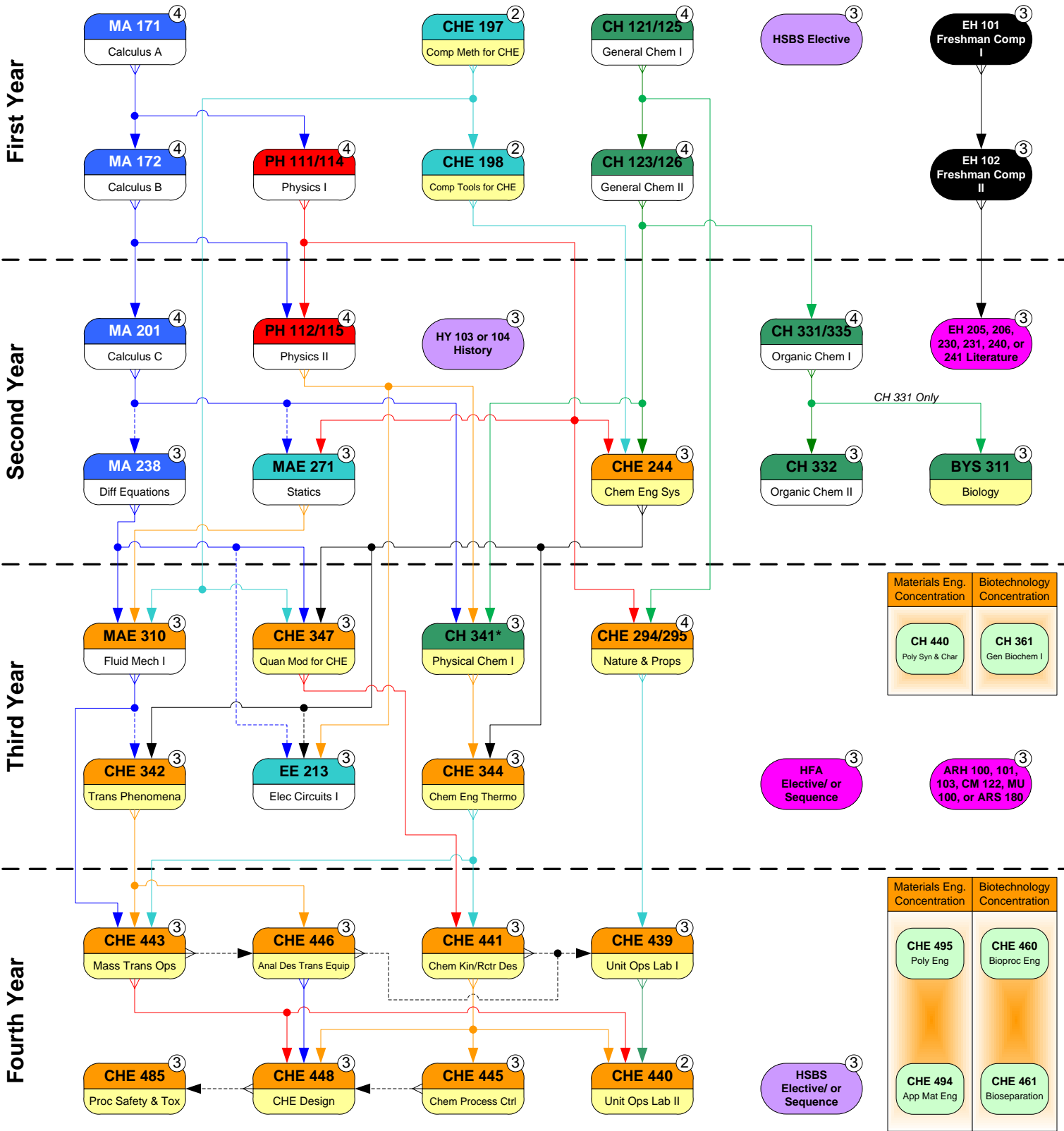
Updated: 9/5/2012

Chemical Engineering Program 2012/2013 (129 Hours)

UAHuntsville

Select One Concentration
Microbiology
Materials Engineering

Chemical Engineering Program 2012/2013 (129 Hours)



* Important for scheduling curriculum completion.

Legend		Freshman Comp		Hum. & Fine Arts
		Mathematics		Engineering Core
		Chemistry / Biology Core		Chemical Eng. Option
		Physics		Offered only in that semester
		History, Social & Behavioral Sciences		Credit Hours
		Prerequisite		Prereq w/concurrency



Department	Prepared by	Date
Chemical & Materials	Jacob Kerstiens	9/5/12
Program	Approved by	Date
Chemical Engineering Program		

Student A#

Student Name (Last, First MI)

Offered:
F=Fall
S=Spring
M=Summer

Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	Offered:
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 18 hours						
		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
Chemistry - 4 hours						
		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
Physics - 12 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
		PH 113	3	General Physics w/Calculus III	MA 201, PH 112	FSM
		PH 116	1	General Physics Lab III	Prereq w/Con: PH 113	FSM
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3		Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3	Fine Arts	Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
**	Class has required lab section					
Engineering Core - 12 hours						
**		CPE 112	3	Intro to Computer Programming in Engineering	MA 113, MA 115 or Level III Placement, Coreq: CPE 112L	FSM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244 or MAE 285)	FSM
		EE 310	3	Solid State Fundamentals	PH 113, Prereq w/Con: MA 238	FS
		ISE 321	3	Engineering Economy	Sophomore Standing	FSM
Optical Engineering Option - 33 hours						
		EE 307	3	Electricity and Magnetism	EE 213	FSM
		EE 308	3	Electromagnetic Engineering	EE 307	FS
		EE 313	3	Electrical Circuit Analysis II	EE 213	FSM
		OPE 451	3	Optoelectronics	Prereq w/Con: EE 307, EE 315	F
		OPE 453	3	Laser Systems	EE 307	F
		OPE 454	3	Optical Fiber Communications	EE 307 or PH 432	F
		OPE 456	3	Photonics Lab	OPE 451	S
		OPE 459	3	Optical Engineering Design I	ISE 321, Prereq w/Con: OPE 456	F
		OPE 460	3	Optical Engineering Design II	OPE 459	S
		OPT 341	3	Geometrical Optics	PH 113, Prereq w/Con: (PH 305 or MA 244)	F
		OPT 342	3	Physical Optics	OPT 341	S
Electrical Engineering Requirements - 22 hours						
**		EE 100	3	Fund of Computer, Electrical & Optical Eng	Prereq w/Con: MA 112, Coreq: EE 100L	FSM
		EE 202	3	Intro to Digital Logic: Design	CPE 112, EE 100	FSM
		EE 203	1	Digital Logic Design Lab	EE 202	FSM
		EE 315	3	Introduction to Electronic Analysis and Design	EE 213	FSM
		EE 316	1	Electronic Measurements & Devices Design Lab	Prereq w/Con: EE 315	FS
		EE 382	3	Analytical Meth for Continuous Time Sys	EE 213, MA 238	FSM
		EE 383	3	Analytical Meth for Mult and Discr Time Sys	EE 382	FSM
		EE 384	1	Digital Signal Processing Laboratory	CPE 381 or Prereq w/Con:EE 383	FS
		EE 385	3	Random Signals and Noise	CPE 381 or EE 382	FSM
		EE 412	1	Independent Research	Senior Standing	FSM
Optical Engineering Elective - 3 hours						
			3		300 - level or above approved by advisor.	

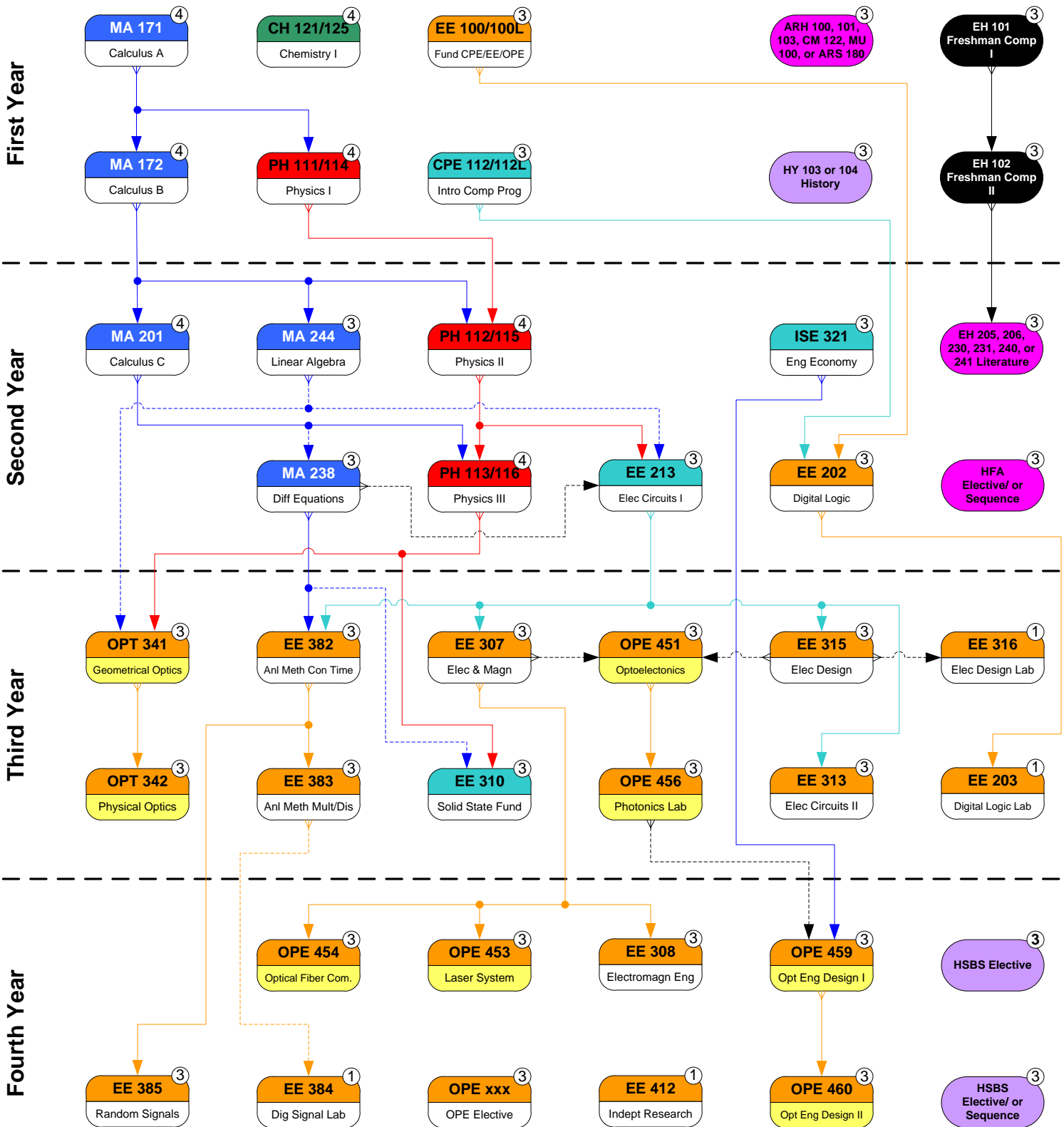
*All prerequisite classes must be completed with a "C" or higher grade.
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Updated: 9/5/2012

Optical Engineering Program 2012/2013 (128 Hours)

UAHuntsville

Optical Engineering Program 2012/2013 (128 Hours)



Legend	Freshman Comp	Hum. & Fine Arts
	Mathematics	Engineering Core
	Chemistry	Optical Engineering Option
	Physics	Offered that semester only
	History, Social & Behavioral Sciences	Credit Hours
	Prerequisite	Prereq w/concurrency



Department Electrical & Computer	Prepared by Jacob Kerstiens	Date 6/8/12
Program Optical Engineering Program	Approved by	Date

Student A#

Student Name (Last, First MI)

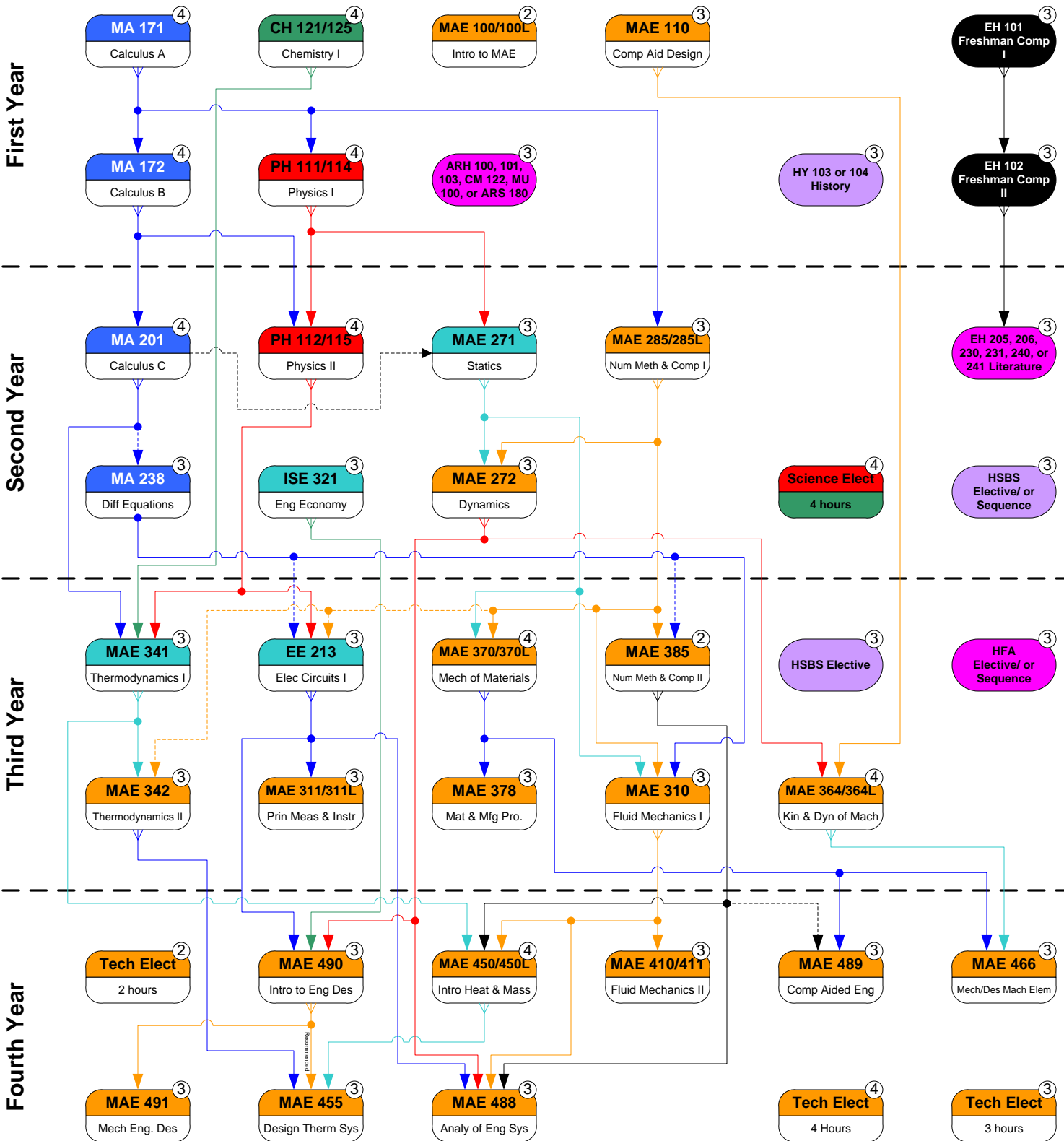
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English - 6 hours						
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		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 15 hours						
		MA 171	4	Calculus A	MA 113 or MA 115 or Level III Placement	FSM
		MA 172	4	Calculus B	MA 171	FSM
		MA 201	4	Calculus C	MA 172	FSM
		MA 238	3	Applied Differential Equations	Prereq w/Con: MA 201	FSM
Chemistry - 4 hours						
		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
Physics - 8 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
Science Elective - 4 hours						
			3		Choose from BYS 119, CH 123/126, or PH 113/116	FSM
			1			FSM
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms Must have six hour sequence in either HSBS or HFA.	FSM
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Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms Must have six hour sequence in either HSBS or HFA.	FSM
			3	Fine Arts		FSM
			3			FSM
Engineering Core - 12 hours						
		MAE 271	3	Statics	PH 111, Prereq w/Con: MA 201	FSM
		MAE 341	3	Thermodynamics I	MA 201, CH 121, CH 125, PH 112	FSM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244 or MAE 285)	FSM
		ISE 321	3	Engineering Economy	Sophomore Standing	FSM
**	Class has required lab section			Mechanical Engineering Option - 58 hours		
**		MAE 100	2	Introduction to Mechanical & Aerospace Eng	Prereq w/Con: MA 112 or Level II Placement, Coreq: MAE 100L	FS
		MAE 110	3	Intro to Engineering Computer Aided Design	Prereq w/Con: MA 112 or Level II Placement	FSM
		MAE 272	3	Dynamics	MAE/CE 271 & (MAE 285 or CPE 112)	FSM
**		MAE 285	3	Numerical Methods & Computation I	MA 171, Coreq: MAE 285L	FSM
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197)	FSM
**		MAE 311	3	Principles of Measurement & Instrumentation	EE 213, Coreq: MAE 311L	FSM
		MAE 342	3	Thermodynamics II	MAE 341, Prereq w/Con: MAE 285	FSM
**		MAE 364	4	Kinematics & Dynamics of Machines	MAE 110, MAE/CE 272, Coreq: MAE 364L	FS
**		MAE 370	4	Mechanics of Materials	MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197), Coreq: MAE 370L	FSM
		MAE 378	3	Materials & Manufacturing Processes	MAE/CE 370	FSM
		MAE 385	2	Numerical Methods & Computation II	(MAE 285 or CPE 112 or CHE 197), Prereq w/Con: MA 238	FSM
		MAE 410	2	Fluid Mechanics II	MAE 310, Prereq w/Con: MAE 311	FM
		MAE 411	1	Fluid Mechanics Lab	MAE 310	FS
**		MAE 450	4	Intro to Heat and Mass Transfer	MAE 310, MAE 341, MAE 385, Coreq: MAE 450L	FS
		MAE 455	3	Design of Thermal Systems	MAE 342, MAE 450, Recommended: MAE 490	SM
		MAE 466	3	Mechanics & Design of Machine Elements	MAE 364, MAE/CE 370	FM
		MAE 488	3	Analysis of Engineering Systems	EE 213, MAE/CE 272, MAE 310, MAE 385	FSM
		MAE 489	3	Computer-Aided Engineering Analysis	MAE/CE 370, Prereq w/Con: MAE 385	FS
		MAE 490	3	Intro to Engineering Design	EE 213, MAE/CE 272, ISE 321	FSM
		MAE 491	3	Mechanical Engineering Design	MAE 490, Senior Standing, Instructor Permission	FS
Technical Elective - 7 hours						
					300 - level or above Science or Engineering course	

All prerequisite classes must be completed with a "C" or higher grade.

The Catalog is the final authority for all degree requirements.

Mechanical Engineering Program 2012/2013 (132 Hours)



Legend

- Freshman Comp
- Mathematics
- Chemistry / Biology
- Physics
- History, Social & Behavioral Sciences
- Hum. & Fine Arts
- Engineering Core
- Mechanical Eng. Option
- Prerequisite
- Prereq w/concurrency
- 3 Credit Hours



Department Mechanical & Aerospace	Prepared by Jacob Kerstiens	Date 6/8/12
Program Mechanical Engineering Program	Approved by	Date

Student A#

Student Name (Last, First MI)

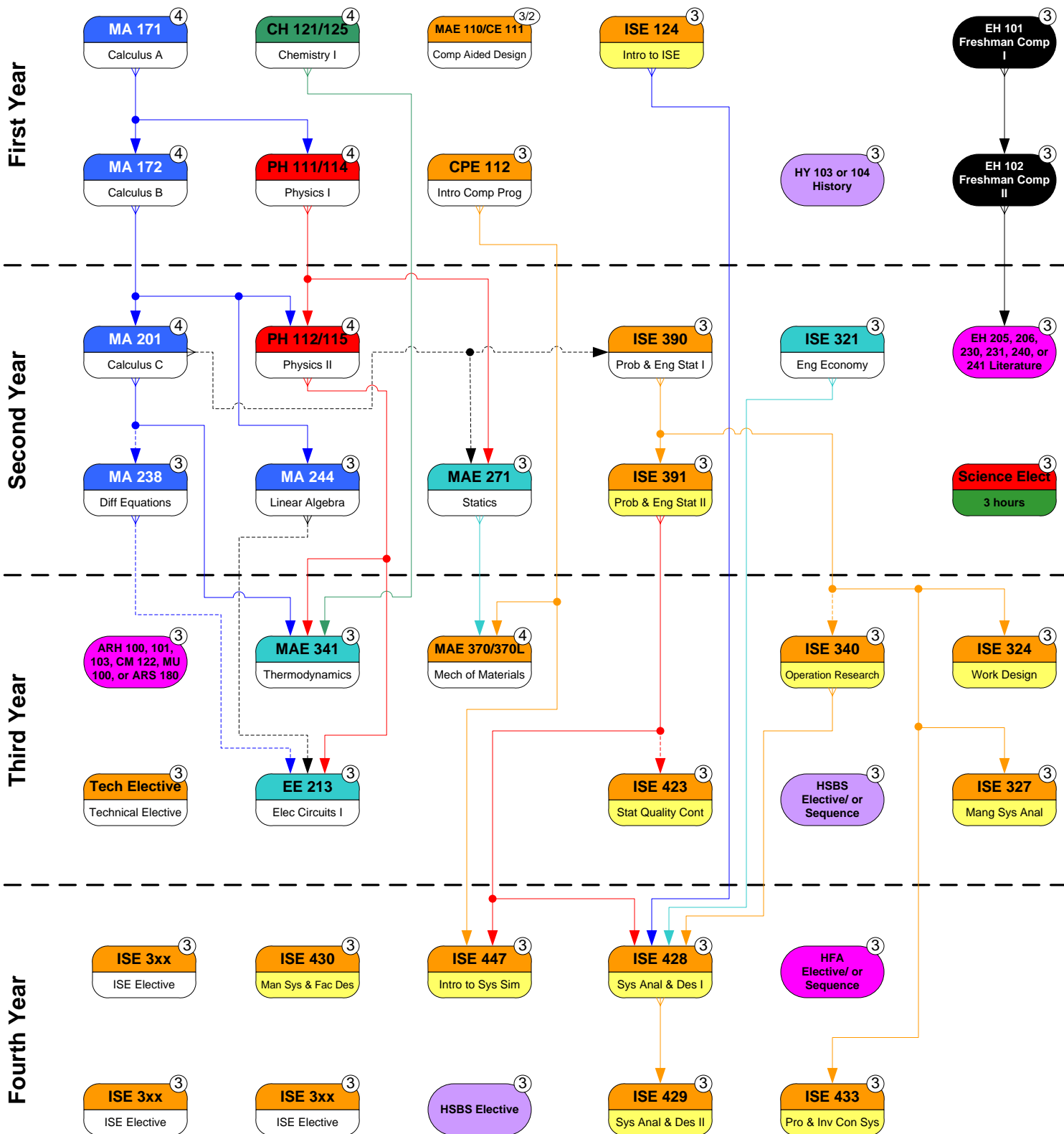
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	Offered: F=Fall S=Spring M=Summer
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 18 hours						
		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
Chemistry - 4 hours						
		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
Physics - 8 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
Science Elective - 3 hours						
			3		BYS 119 or CH 123 or 300/400 level MA course	
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3		Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3	Fine Arts	Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Engineering Core - 12 hours						
		MAE 271	3	Statics	PH 111, Prereq w/Con: MA 201	FSM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244 or MAE 285)	FSM
		ISE 321	3	Engineering Economy	Sophomore Standing	FSM
		MAE 341	3	Thermodynamics I	MA 201, CH 121, CH 125, PH 112	FSM
**	Class has required lab section					
Industrial & System Engineering Option - 46 hours						
**		CPE 112	3	Intro to Computer Programming in Engineering	MA 113, MA 115 or Level III Placement, Coreq: CPE 112L	FSM
Select One		MAE 110	3	Intro to Engineering Computer Aided Design	Prereq w/Con: MA 112 or Level II Placement	FSM
		CE 111	2	Civil Engineering Graphics	MA 112 or Level II Placement, Freshman CE Standing	FS
		ISE 124	3	Intro to Industrial & Systems Engineering	Prereq w/Con: MA 113	F
		ISE 324	3	Work Design	ISE 390	F
		ISE 327	3	Management Systems Analysis	ISE 390	S
		ISE 340	3	Operations Research	Prereq w/Con: ISE 390	F
**		MAE 370	4	Mechanics of Materials	MAE/CE 271 & (MAE 285 or CPE 112 or CHE 197), Coreq: MAE 370L	FSM
		ISE 390	3	Probability & Engineering Statistics I	Prereq w/Con: MA 201	FSM
		ISE 391	3	Probability & Engineering Statistics II	ISE 390	S
		ISE 423	3	Statistical Quality Control	Prereq w/Con: ISE 391	S
		ISE 428	3	Systems Analysis & Design I	ISE 124, ISE 321, ISE 340, ISE 391, Senior Standing	F
		ISE 429	3	Systems Analysis & Design II	ISE 428	S
		ISE 430	3	Manufacturing Systems and Facilities Design	Senior Standing	F
		ISE 433	3	Production & Inventory Control Systems	ISE 390	S
		ISE 447	3	Intro to Systems Simulation	CPE 112, ISE 391	F
Industrial & Systems Engineering Electives - 9 hours						
			3	Choose from MA 385, ISE 402, ISE 403, ISE 426, ISE 437, or other upper-level courses approved by the Department.		
			3	May select a maximum of 6 hours from the following: EH 301, ACC 211, MTK 301, MGT 363, or MGT 462.		
			3			
Technical Elective - 3 hours						
			3	200-level or above Engineering or Science course		

All prerequisite classes must be completed with a "C" or higher grade.

The Catalog is the final authority for all degree requirements.

Industrial & Systems Engineering Program 2012/2013 (127 Hours) UAHuntsville

Industrial & Systems Engineering Program 2012/2013 (127 Hours)



Legend

- Freshman Comp
- Mathematics
- Chemistry
- Physics
- History, Social & Behavioral Sciences
- Engineering Core
- Electrical Eng Option
- Offered that Semester Only
- 3 Credit Hours
- Prerequisite
- Prereq w/concurrency



Department Industrial & Systems	Prepared by Jacob Kerstiens	Date 6/8/12
Program Industrial & Systems Engineering Program	Approved by	Date

Student A#

Student Name (Last, First MI)

Offered:
F=Fall
S=Spring
M=Summer

Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	Offered:
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 18 hours						
		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
Chemistry - 4 hours						
		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
Physics - 12 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
		PH 113	3	General Physics w/Calculus III	MA 201, PH 112	FSM
		PH 116	1	General Physics Lab III	Prereq w/Con: PH 113	FSM
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3		Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List; http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3	Fine Arts	Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Engineering Core - 12 hours						
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244 or MAE 285)	FSM
		ISE 321	3	Engineering Economy	Sophomore Standing	FSM
		EE 310	3	Solid State Fundamentals	PH 113, Prereq w/Con: MA 238	FS
		EE 382	3	Analytical Meth for Continuous Time Sys	EE 213, MA 238	FSM
**	Class has required lab section					
Electrical Engineering Option - 43 hours						
**		EE 100	3	Fund of Computer, Electrical & Optical Eng	Prereq w/Con: MA 112, Coreq: EE 100L	FSM
**		CPE 112	3	Intro to Computer Programming in Engineering	MA 113, MA 115 or Level III Placement, Coreq: CPE 112L	FSM
		EE 202	3	Intro to Digital Logic Design	CPE 112, EE 100	FSM
		EE 203	1	Digital Logic Design Lab	EE 202	FSM
		CPE 221	3	Computer Organization	EE 202	FSM
		EE 307	3	Electricity and Magnetism	EE 213	FSM
		EE 308	3	Electromagnetic Engineering	EE 307	FS
		EE 313	3	Electrical Circuit Analysis II	EE 213	FSM
		EE 315	3	Introduction to Electronic Analysis and Design	EE 213	FSM
		EE 316	1	Electronic Measurements & Devices Design Lab	Prereq w/Con: EE 315	FS
		CPE 323	3	Intro to Embedded Computer Systems	CPE 221, Coreq: CPE 325	FS
		CPE 325	1	Lab Component of Intro of CE 323	Coreq: CPE 323	FS
		EE 383	3	Analytical Meth for Mult and Discr Time Sys	EE 382	FSM
		EE 384	1	Digital Signal Processing Laboratory	CPE 381 or Prereq w/Con:EE 383	FS
		EE 385	3	Random Signals and Noise	CPE 381 or EE 382	FSM
		EE 386	3	Introduction to Control and Robotic Systems	CPE 381 or EE 382	FSM
		EE 494	3	EE Design Projects	EE 308, EE 310, EE 313, EE 315, EE 383, EE 385, EE 386, CPE 323, ISE 321	FS
Electrical Engineering Electives - 12 hours						
			3	T1	Track: _____	
			3	T2	(Must take a 2 course track in one area.)	
			3		300 - level or above ECE course only	
			3		300 - level or above ECE course only	
Technical Elective - 3 hours						
			3		200 - level or above Science or Engineering course	

All prerequisite classes must be completed with a "C" or higher grade.

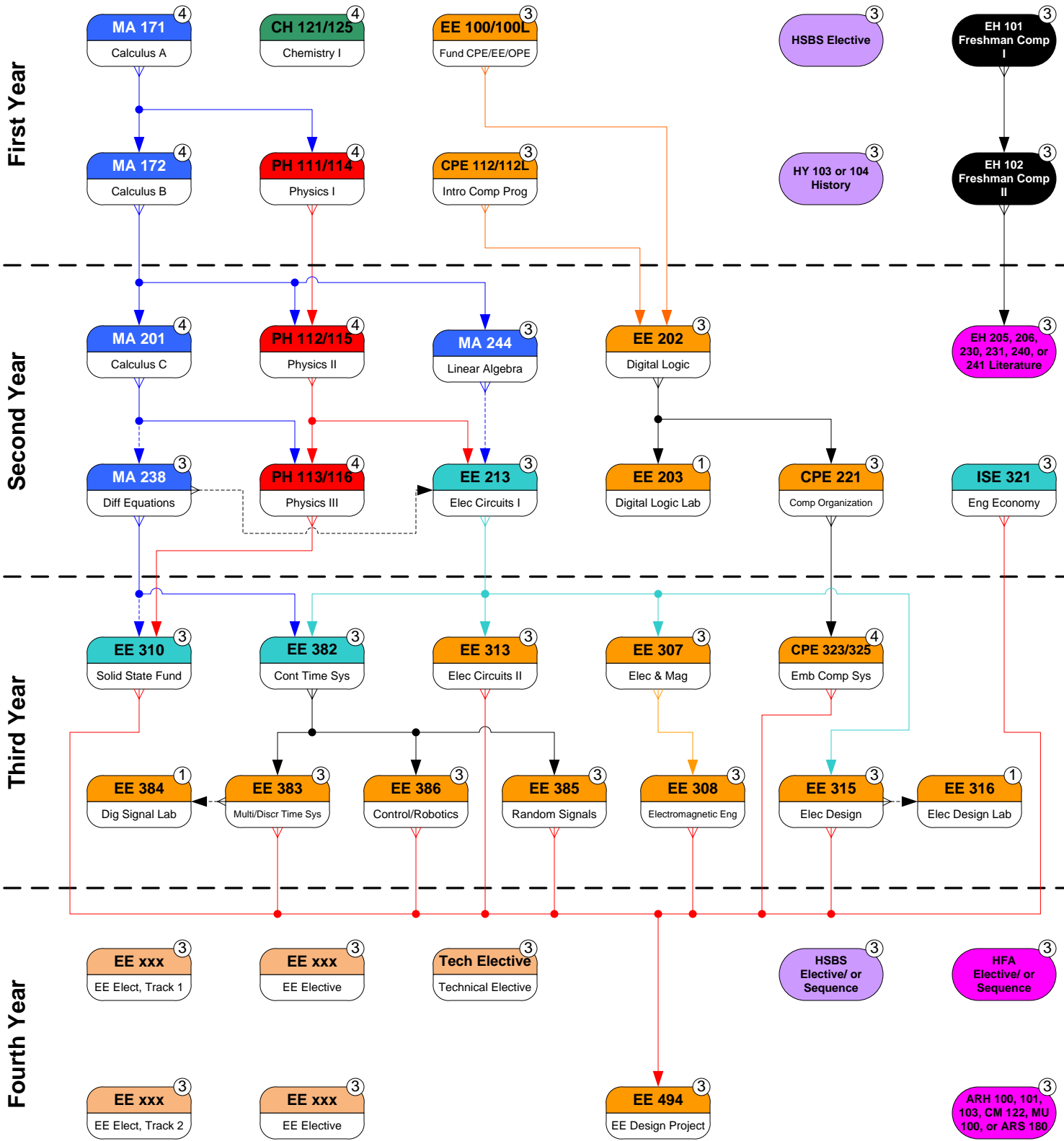
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Updated: 9/5/2012

Electrical Engineering Program 2012/2013 (128 Hours)

UAHuntsville

Electrical Engineering Program 2012/2013 (128 Hours)



Legend

- Freshman Comp
- Mathematics
- Chemistry
- Physics
- History, Social & Behavioral Sciences
- Hum. & Fine Arts
- Engineering Core
- Electrical Eng Option
- Electives
- ③ Credit Hours
- Prerequisite
- - - - - → Prereq w/concurrency



Department Electrical & Computer	Prepared by Jacob Kerstiens	Date 6/4/12
Program Electrical Engineering Program	Approved by	Date

Student A#

Student Name (Last, First MI)

Offered:
F=Fall
S=Spring
M=Summer

Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	Offered:
English - 6 hours						
		EH 101	3	Freshman Composition I	Placement	FSM
		EH 102	3	Freshman Composition II	EH 101	FSM
Mathematics - 18 hours						
		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
Chemistry - 4 hours						
		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
Physics - 8 hours						
		PH 111	3	General Physics w/Calculus I	MA 171	FSM
		PH 114	1	General Physics Lab I	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111	FSM
		PH 115	1	General Physics Lab II	Prereq w/Con: PH 112	FSM
History, Social & Behavioral Sciences - 9 hours						
		HY	3	History	See History, Social & Behavioral Science (HSBS) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3		Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
Humanities & Fine Arts - 9 hours						
		EH	3	Literature	See Humanities & Fine Art (HFA) List: http://www.uah.edu/eng/center-for-undergrad-eng-edu/student-forms	FSM
			3	Fine Arts	Must have six hour sequence in either HSBS or HFA.	FSM
			3			FSM
**	Class has required lab section Engineering Core - 12 hours					
**		CPE 112	3	Intro to Computer Programming in Engineering	MA 113, MA 115 or Level III Placement, Coreq: CPE 112L	FSM
		EE 202	3	Intro to Digital Logic Design	CPE 112, EE 100	FSM
		EE 213	3	Electrical Circuit Analysis I	PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244 or MAE 285)	FSM
		CPE 381	3	Fundamentals of Signals & Sys for Comp Engrs	EE 213, MA 238	FS
Computer Science - 6 hours						
		CS 214	3	Intro to Discrete Structures	CPE 112, MA 171	FSM
		CS 317	3	Design & Analysis of Algorithms	CS 214, CPE 212, MA 244	FSM
**	Class has required lab section Computer Engineering Option - 47 hours					
**		EE 100	3	Fund of Computer, Electrical & Optical Eng	Prereq w/Con: MA 112, Coreq: EE 100L	FSM
		CPE 212	3	Fundamentals of Software Engineering	CPE 112	FS
		CPE 221	3	Computer Organization	EE 202	FSM
		CPE 322	3	Digital Hardware Design Fundamentals	CPE 221, Coreq: CPE 324	S
		CPE 324	1	Digital Hardware Design Lab	Coreq: CPE 322	S
		EE 315	3	Introduction to Electronic Analysis and Design	EE 213	FSM
		EE 316	1	Electronic Measurements & Devices Design Lab	Prereq w/Con: EE 315	FS
		CPE 323	3	Intro to Embedded Computer Systems	CPE 221, Coreq: CPE 325	FS
		CPE 325	1	Lab Component of Intro of CE 323	Coreq: CPE 323	FS
		CPE 353	3	Software Design & Engineering	CPE 212, Prereq w/Con: CS 317	F
		EE 384	1	Digital Signal Processing Laboratory	CPE 381 or Prereq w/Con:EE 383	FS
Select One		EE 385	3	Random Signals and Noise	CPE 381 or EE 382	FSM
		ISE 390	3	Probability & Engineering Statistics I	Prereq w/Con: MA 201	FSM
		CPE 431	3	Intro to Computer Architecture	CPE 322, CPE 324	F
		CPE 434	3	Operating Systems	CPE/EE 221, CPE 353, Coreq: CPE 435	F
		CPE 435	1	Operating Systems Lab	Coreq: CPE 434	F
		CPE 448	3	Introduction to Computer Networks	CPE 112, CPE 221	FS
		CPE 453	3	Senior Software Studio	CS 317, CPE 353	S
		CPE 495	3	Computer Engineering Design I	CPE 323, CPE 353, EE 315	F
		CPE 496	3	Computer Engineering Design II	CPE 495	S
Computer Engineering Electives - 9 hours						
			3		300 - level or above approved by advisor.	
			3			
			3			

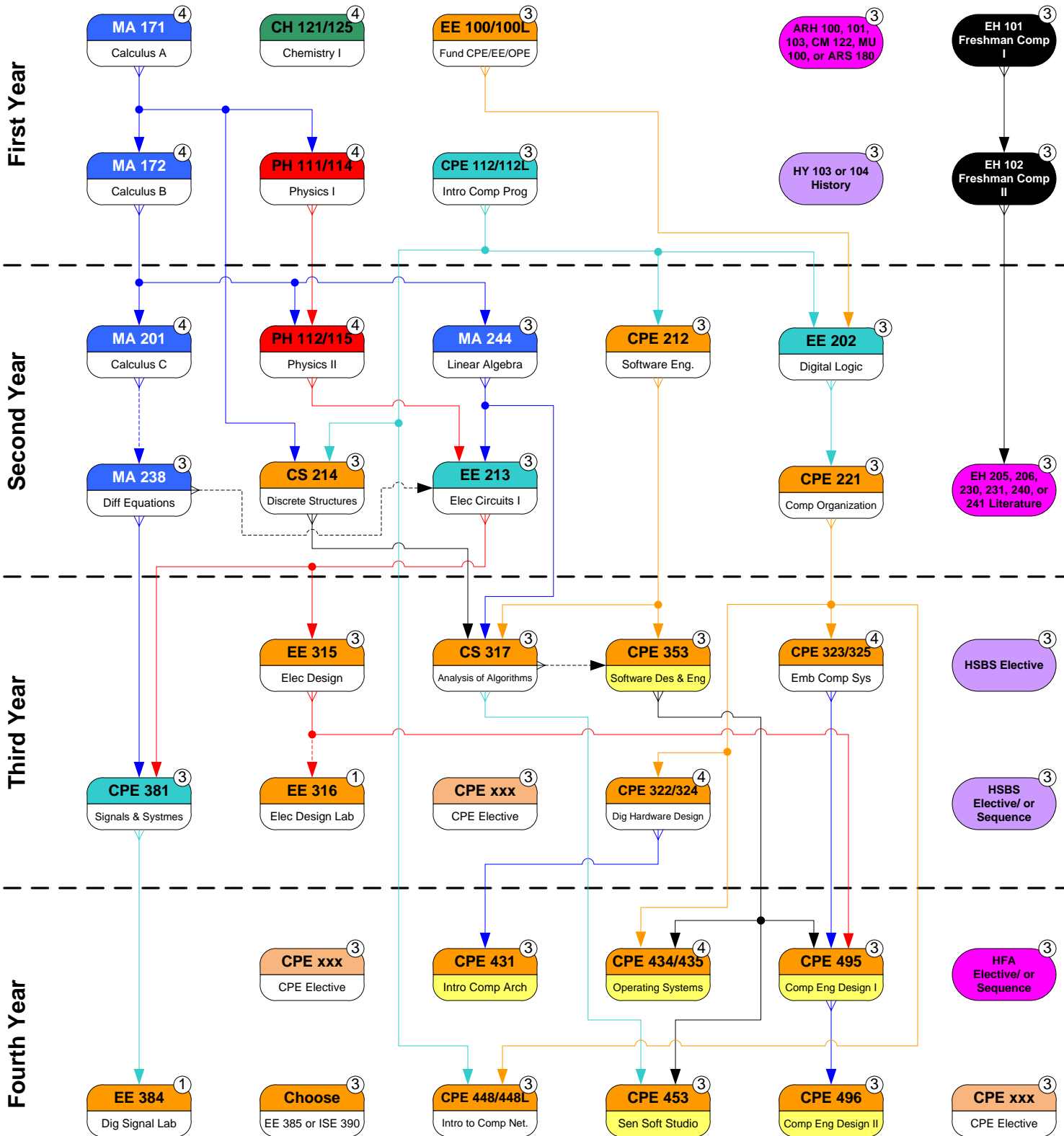
All prerequisite classes must be completed with a "C" or higher grade.
The Catalog is the final authority for all degree requirements.

Updated: 9/5/2012

Computer Engineering Program 2012/2013 (128 Hours)

UAHuntsville

Computer Engineering Program 2012/2013 (128 Hours)



Legend	Freshman Comp	Hum. & Fine Arts
	Mathematics	Engineering Core
	Chemistry	Computer Eng Option
	Physics	Offered that Semester Only
	History, Social & Behavioral Sciences	Electives
	Prerequisite	Prereq w/concurrency



Department Electrical & Computer	Prepared by Jacob Kerstiens	Date 6/8/12
Program Computer Engineering Program	Approved by	Date