

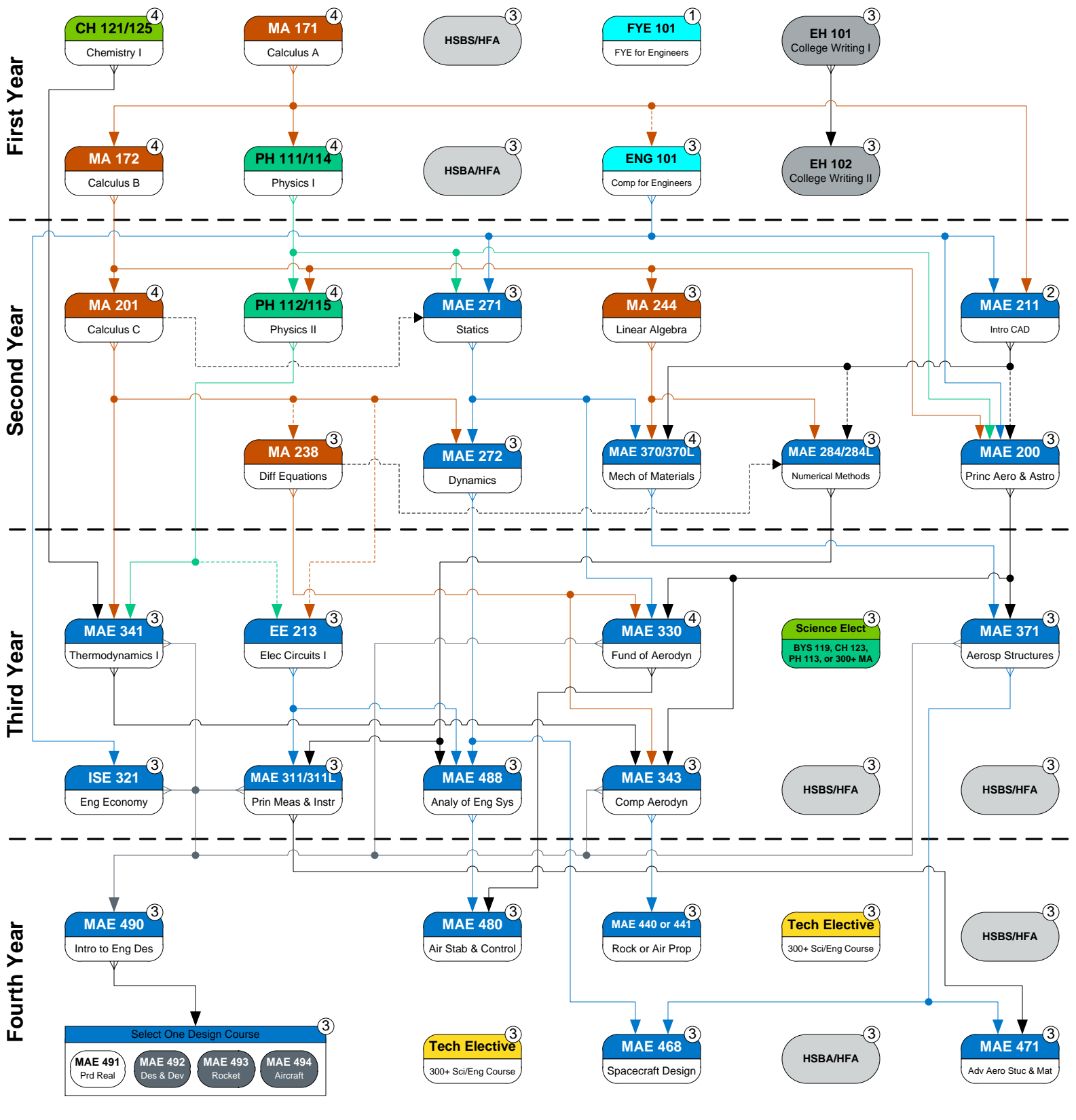
Student A#				Student Name (Last, First MI)		Offered: F=Fall S=Spr M=Sum
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	
<b>English - 6 hours</b>						
		EH 101	3	College Writing I	Placement	FSM
		EH 102	3	College Writing II	EH 101	FSM
<b>Mathematics - 18 hours</b>						
		MA 171	4	Calculus A	MA 113 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	Plcmnt or Prereq w/Con: MA 113	FSM
		CH 125	1	General Chemistry Lab I	Prereq w/Con: 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	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, PH 114; Coreq: 115	FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112	FSM
<b>Science Elective - 3 or 4 hours</b>						
			3		BYS 119, CH 123, PH 113, or 300/400 MA course	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, TH 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</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>Aerospace Engineering - 61 hours</b>		
		MAE 200	3	Principles of Aeronautics & Astronautics	ENG 101, MA 172, PH 111; Prereq w/Con MAE 211	FS
		MAE 211	2	Introduction to Computer Aided Design	ENG 101, MA 171	FSM
		EE 213	3	Electrical Circuit Analysis I	Prereq w/Con: PH 112, MA 201	FSM
		MAE 271	3	Statics	ENG 101, PH 111; Prereq w/Con: MA 201	FSM
		MAE 272	3	Dynamics	MA 201, MAE/CE 271	FSM
**		MAE 284	3	Numerical Methods	MA 244; Prereq w/Con: MAE 211, MA 238; Coreq: MAE 284L	FSM
**		MAE 311	3	Principles of Measurement & Instrumentation	EE 213, MAE 284; Coreq MAE 311L	FSM
		ISE 321	3	Engineering Economy	ENG 101	FSM
**		MAE 330	4	Fundamentals of Aerodynamics	MAE 200, MAE 272, MA 238	FS
		MAE 341	3	Thermodynamics I	CH 121, PH 112, MA 201	FSM
		MAE 343	3	Compressible Aerodynamics	MAE 200, MA 238, MAE 341	SM
**		MAE 370	4	Mechanics of Materials	MAE/CE 271, MA 244, (MAE or CE 211); Coreq: MAE 370L	FSM
		MAE 371	3	Aerospace Structures	MAE 200, MAE/CE 370	FM
Select One		MAE 440	3	Rocket Propulsion I	MAE 343	FM*
		MAE 441	3	Airbreathing Propulsion	MAE 343	FM*
		MAE 468	3	Elements of Spacecraft Design	MAE/CE 272, MAE 371	FS
		MAE 471	3	Advanced Aero Structure & Materials	MAE 311, MAE 371	FS
		MAE 480	3	Aircraft Stability & Control	MAE 330, MAE 488	FS
		MAE 488	3	Analysis of Engineering Systems	EE 213, MAE/CE 272, MAE 284	FSM
		MAE 490	3	Intro to Engineering Design	ISE 321, MAE 311, MAE 341, (MAE 310, 364, & 378) or (MAE 330, 343, & 371)	FSM
Select One		MAE 491	3	Product Realization	MAE 490 & Senior Standing	FS
		MAE 492	3	Mission Design & Development	MAE 490 & Senior Standing	S
		MAE 493	3	Rocket Design	MAE 490 & Senior Standing	S
		MAE 494	3	Aircraft Design	MAE 490 & Senior Standing	S
<b>Technical Elective - 6 hours</b>						
			3		300+ Level Science or Engineering course	
			3		May not take both MA 385 & ISE 390, or MAE 310 for credit	

\* 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.

# Academic Flowchart



# Aerospace Engineering 2017/2018 (128 Hours)



**Legend**  
Updated: 6/1/17

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

**Mechanical and Aerospace Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>MAE 115</b> Machining	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 200</b> Principles of Aero/Astro	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>MAE 211</b> Intro to Comp Tools	Y	5	Y	4	Y	Y	Y	Y	Y	Y
<b>MAE 271</b> Statics	Y	3	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 272</b> Dynamics	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 284 **</b> Numerical Methods	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>MAE 310</b> Fluid Mechanics I	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 311 **</b> Prin of Measurement/Instr	E	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 330</b> Fund of Aerodynamics	Y	1	E	1	Y	N	Y	N	Y	N
<b>MAE 341</b> Thermodynamics I	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 342</b> Thermodynamics II	E	1	Y	2	E	Y	E	Y	E	Y



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<b>MAE 343</b> Compress. Aerodynamics	N	0	Y	1	N	Y	N	Y	N	Y
<b>MAE 364 **</b> Kinematics/Dyn of Mach	E	1	Y	2	E	Y	E	Y	E	Y
<b>MAE 370 **</b> Mechanics of Materials	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 371</b> Aerospace Structures	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 378</b> Materials/Manuf Processes	E	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 440</b> Rocket Propulsion I	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 441</b> Airbreathing Propulsion	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 450 **</b> Intro to Heat/ Mass Transfer	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 455</b> Design of Thermal Systems	Y	1	Y	1	N	Y	N	Y	N	Y
<b>MAE 461</b> Vibrations of Elastic Sys	Y	1	D	0	D	D	D	D	D	D
<b>MAE 463</b> Intermediate Dynamics	N	0	D	0	D	D	D	D	D	D
<b>MAE 466</b> Mech/Design of Mach Elmts	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 468</b> Spacecraft Design	Y	1	Y	1	E	Y	E	Y	E	Y



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<b>MAE 471</b> Adv Aerospace Structures	Y	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 474</b> Appl Mechanics of Solids	N	0	D	0	D	D	D	D	D	D
<b>MAE 476</b> Mech/Fab of Compos Matls	N	0	D	0	D	D	D	D	D	D
<b>MAE 477</b> Exp Tech in Solid Mech	N	0	D	0	D	D	D	D	D	D
<b>MAE 480</b> Aircraft Stability/Control	Y	1	E	1	Y	E	Y	E	Y	E
<b>MAE 488</b> Analysis of Eng Systems	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 489</b> Comp-Aided Eng Analysis	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 490</b> Intro to Eng Design	Y	4	E	2	Y	E	Y	E	Y	E
<b>MAE 491</b> Product Realization	Y	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 492</b> Mission Dev/Design	Y	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 493</b> Rocket Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>MAE 494</b> Aircraft Design	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.

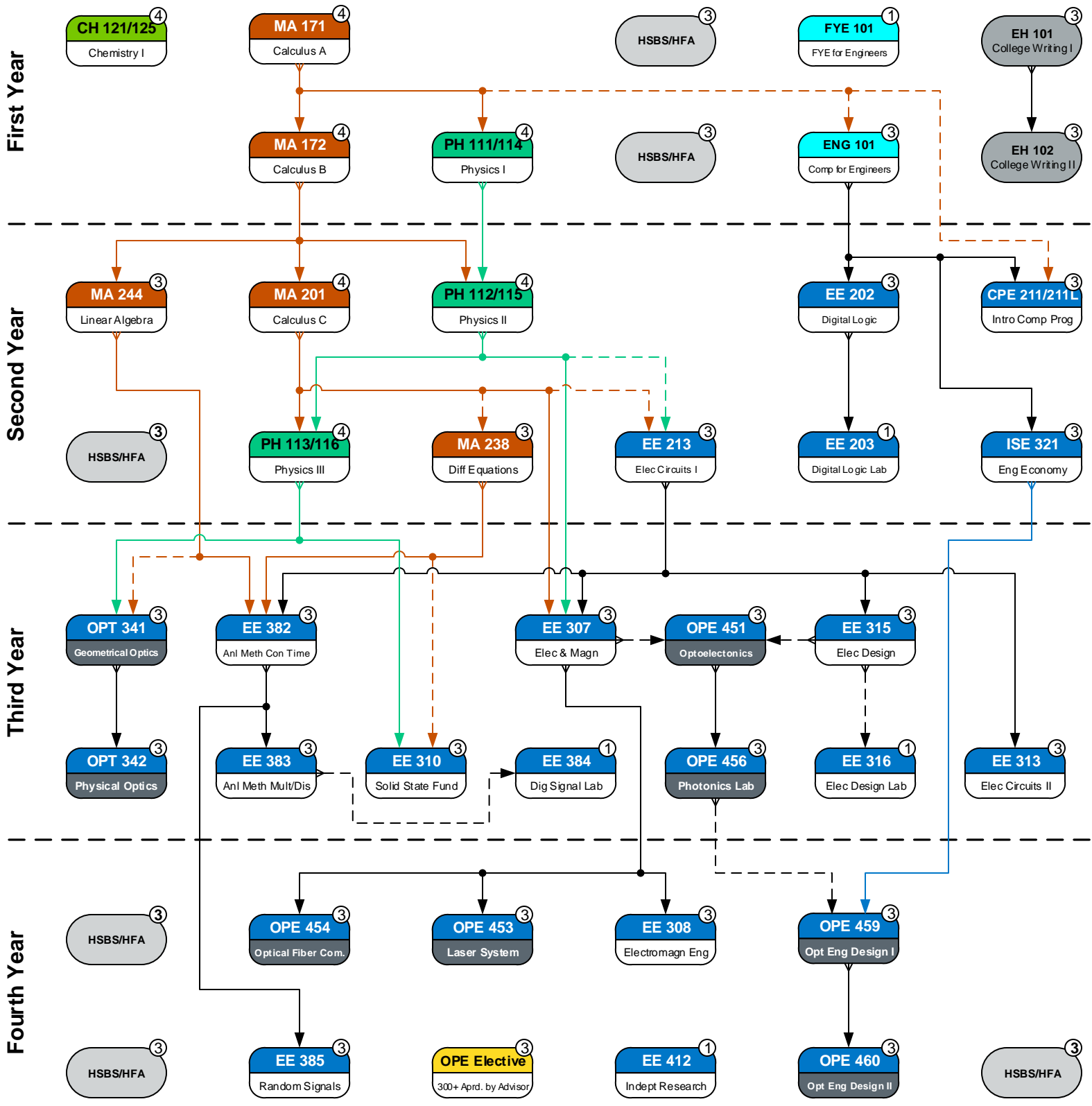
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Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	F=Fall S=Spr M=Sum
<b>English - 6 hours</b>						
		EH 101	3	College Writing I	Placement	FSM
		EH 102	3	College Writing II	EH 101	FSM
<b>Mathematics - 18 hours</b>						
		MA 171	4	Calculus A	MA 113 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 Prereq w/Con: MA 113	FSM
		CH 125	1	General Chemistry Lab I	Prereq w/Con: CH 121	FSM
<b>Physics - 12 hours</b>						
		PH 111	3	General Physics w/Calculus I	MA 171; Coreq: 114	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, PH 114; Coreq: 115	FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112	FSM
		PH 113	3	General Physics w/Calculus III	MA 172, PH 112, PH 115; Coreq: 116	FSM
		PH 116	1	General Physics Lab III	Coreq: PH 113	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, TH 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</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
<b>Optical Engineering - 64 hours</b>						
**		CPE 211	3	Intro to Computer Programming in Engineering	ENG 101, Prereq w/Con: MA 171; Coreq: CPE 211L	FSM
**		EE 202	3	Intro to Digital Logic Design	ENG 101	FSM
		EE 203	1	Digital Logic Design Lab	EE 202	FSM
		EE 213	3	Electrical Circuit Analysis I	Prereq w/Con: PH 112, MA 201	FSM
		EE 307	3	Electricity and Magnetism	PH 112, MA 201, EE 213	FSM
		EE 308	3	Electromagnetic Engineering	EE 307	FS
		EE 310	3	Solid State Fundamentals	PH 113; Prereq w/Con: MA 238	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
		ISE 321	3	Engineering Economy	ENG 101	FSM
		OPT 341	3	Geometrical Optics	PH 113; Prereq w/Con: (PH 305 or MA 244)	F
		OPT 342	3	Physical Optics	OPT 341	S
		EE 382	3	Analytical Meth for Continuous Time Sys	EE 213, MA 238, MA 244	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
		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, EE 382	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
<b>Optical Engineering Elective - 3 hours</b>						
			3		300+ Level course approved by advisor	

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

# Academic Flowchart



# Optical Engineering 2017/2018 (129 Hours)



<b>Legend</b> Updated: 9/5/17	Mathematics	First Year Engineering	Freshman Composition	Credit Hours
	Physics	Optical Engineering Option	History, Social & Behavioral Science	Prerequisite
	Chemistry / Biology	Engineering Elective	Offered only in semester listed	Prereq w/concurrency



**Electrical and Computer Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>CPE 211**</b> Intro to Comp Prog in Eng	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>CPE 212</b> Fund of Software Eng	Y	2	Y	1	Y	Y	Y	Y	Y	Y
<b>CPE 221</b> Computer Organization	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>CPE 322</b> Digital Hardware Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CPE 323</b> Intro Embedded Comp Sys	Y	1	E	1	Y	E	Y	E	Y	E
<b>CPE 324</b> Digital Hardware Des Lab	N	0	Y	4	N	Y	N	Y	N	Y
<b>CPE 325</b> Embedded Comp Sys Lab	Y	8	E	6	Y	E	Y	E	Y	E
<b>CPE 353</b> Software Design/Eng	Y	2	N	0	Y	N	Y	N	Y	N
<b>CPE 381</b> Fund of Signals/Systems	Y	1	Y	1	E	Y	E	Y	E	Y
<b>CPE 412</b> Intro to Parallel Prog	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 423</b> Hardwr/Softwr Co-Design	N	0	D	0	D	D	D	D	D	D



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<b>CPE 426</b> Modeling/Synthesis	N	0	D	0	D	D	D	D	D	D
<b>CPE 427**</b> VLSI Design I	Y	1	N	0	D	D	D	D	D	D
<b>CPE 428**</b> VLSI Design II	N	0	D	0	D	D	D	D	D	D
<b>CPE 431</b> Intro to Comp Architecture	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 434</b> Operating Systems	N	0	Y	1	N	Y	N	Y	N	Y
<b>CPE 435</b> Operating Systems Lab	N	0	Y	2	N	Y	N	Y	N	Y
<b>CPE 436</b> Internals of Mod Oper Sys	N	0	N	0	N	Y	N	N	N	Y
<b>CPE 438</b> Real Time/Embedded Sys	N	0	D	0	D	D	D	D	D	D
<b>CPE 448</b> Intro to Comp Networks	Y	1	Y	1	E	Y	E	Y	E	Y
<b>CPE 449**</b> Intro to Info Assurance Eng	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 453</b> Senior Software Studio	N	0	D	0	D	D	D	D	D	D
<b>CPE 495</b> Comp Eng Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 496</b> Comp Eng Design II	N	0	Y	2	N	Y	N	Y	N	Y



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<b>EE 202</b> Intro to Digital Logic Des	Y	2	Y	1	Y	Y	Y	Y	Y	Y
<b>EE 203</b> Digital Logic Design Lab	Y	3	Y	4	Y	Y	Y	Y	Y	Y
<b>EE 213</b> Electrical Circuit Analysis I	Y	4	Y	4	Y	Y	Y	Y	Y	Y
<b>EE 223</b> Design/Analysis using Comp	Y	2	Y	3	N	Y	Y	Y	Y	Y
<b>EE 307</b> Electricity/Magnetism	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 308</b> Electromagnetic Eng	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 310</b> Solid State Fundamentals	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 315</b> Intro Elec Analysis/Design	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 316</b> Electronic Meas/Devices Design Lab	Y	5	Y	5	E	Y	E	Y	E	Y
<b>EE 382</b> Analytical Meth Contin Time Sys	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 383</b> Analytical Meth Multi/Discr Time Sys	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 384</b> Digital Signal Processing Lab	Y	3	Y	3	E	Y	E	Y	E	Y
<b>EE 385</b> Random Signals/Noise	Y	1	Y	1	E	Y	E	Y	E	Y



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<b>EE 386</b> Intro to Control/Robotic Systems	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 401</b> Digital Signal Proc Architectures	N	0	D	0	D	D	D	D	D	D
<b>EE 411</b> Electric Power Systems	Y	1	D	0	D	D	D	D	D	D
<b>EE 414</b> Analog and Digital Filter Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 416</b> Electronics II	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 423</b> Communication Sys/Simulation	N	0	D	0	D	D	D	D	D	D
<b>EE 424</b> Intro to Data Comm Networks	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 426</b> Communication Theory	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 427**</b> VLSI Design I <i>Xlisted CPE 427</i>	Y	1	N	0	D	D	D	D	D	D
<b>EE 428**</b> VLSI Design II	N	0	D	0	D	D	D	D	D	D
<b>EE 436</b> Digital Electronics	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 437</b> Electr Manufacturing Processes	N	0	N	0	N	N	N	N	N	N
<b>EE 451</b> Optoelectronics	Y	1	N	0	Y	N	Y	N	Y	N



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<b>EE 453</b> Laser Systems	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 454</b> Optical Fiber Communications	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 486</b> Intro to Modern Control Systems	Y	1	N	0	D	D	D	D	D	D
<b>EE 494</b> EE Design Projects	Y	1	Y	1	E	Y	E	Y	E	Y
<b>OPE 441</b> Optical Systems Design	N	0	D	0	D	D	D	D	D	D
<b>OPE 442</b> Interference and Diffraction	N	0	D	0	D	D	D	D	D	D
<b>OPE 451</b> Optoelectronics	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 453</b> Laser Systems	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 454</b> Optical Fiber Communications	N	0	Y	1	N	Y	N	Y	N	Y
<b>OPE 456</b> Photonics Lab	N	0	Y	1	N	Y	N	Y	N	Y
<b>OPE 459</b> Optical Engineering Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 460</b> Optical Engineering Design II	N	0	Y	1	N	Y	N	Y	N	Y

**Legend**

Y
E

Course will be offered in designated term.

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N	Course will not be offered in designated term.
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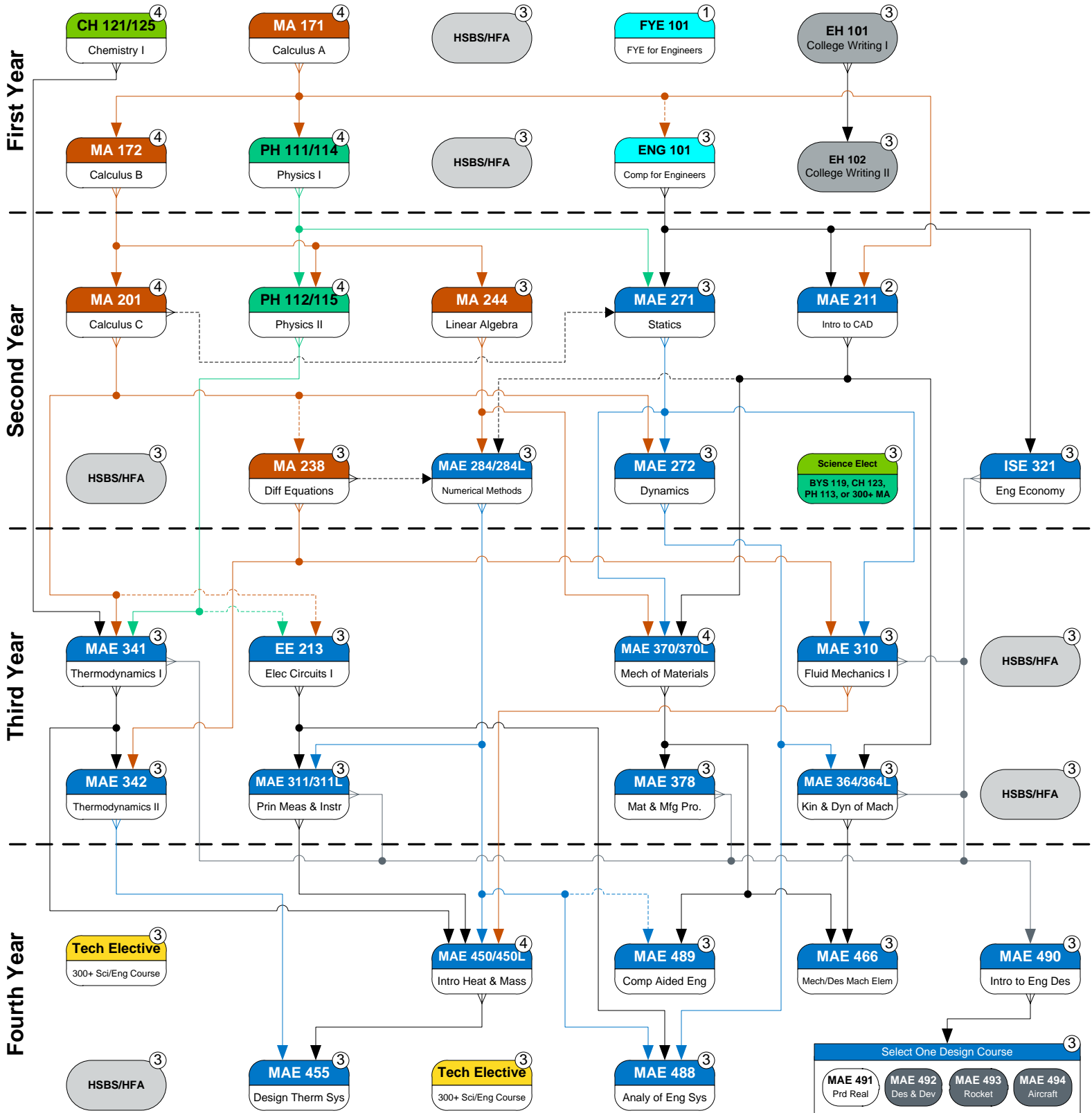
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			3	Sequence Course (HY or EH)		FSM
			3	HSBS/HFA		FSM
<b>First-Year Engineering - 4 hours</b>						
		FYE 101	1	First-Year Experience for Engineers	None	FS
		ENG 101	3	Computing for Engineers	Prereq w/Con: MA 171	SM
**	Class has required lab section			<b>Mechanical Engineering - 61 hours</b>		
		MAE 211	2	Introduction to Computer Aided Design	ENG 101, MA 171	FSM
		EE 213	3	Electrical Circuit Analysis I	Prereq w/Con: PH 112, MA 201	FSM
		MAE 271	3	Statics	ENG 101, PH 111; Prereq w/Con: MA 201	FSM
		MAE 272	3	Dynamics	MA 201, MAE/CE 271	FSM
**		MAE 284	3	Numerical Methods	MA 244; Prereq w/Con: MAE 211, MA 238; Coreq: MAE 284L	FSM
		ISE 321	3	Engineering Economy	ENG 101	FSM
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271	FSM
**		MAE 311	3	Principles of Measurement & Instrumentation	EE 213, MAE 284; Coreq MAE 311L	FSM
		MAE 341	3	Thermodynamics I	CH 121, PH 112, MA 201	FSM
		MAE 342	3	Thermodynamics II	MA 238, MAE 341	FSM
**		MAE 364	3	Kinematics & Dynamics of Machines	MAE 211, MAE 272; Coreq MAE 364L	FS
**		MAE 370	4	Mechanics of Materials	MAE/CE 271, MA 244, (MAE or CE 211); Coreq: MAE 370L	FSM
		MAE 378	3	Materials & Manufacturing Processes	MAE/CE 370	FSM
**		MAE 450	4	Intro to Heat and Mass Transfer	MAE 284, MAE 311, MAE 341, (MAE 310 or MAE 330); Coreq: MAE 450L	FS
		MAE 455	3	Design of Thermal Systems	MAE 342, MAE 450	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 284	FSM
		MAE 489	3	Computer-Aided Engineering Analysis	MAE/CE 370; Prereq w/Con: MAE 284	FS
		MAE 490	3	Intro to Engineering Design	ISE 321, MAE 311, MAE 341, (MAE 310, 364, & 378) or (MAE 330, 343, & 378)	FSM
Select One		MAE 491	3	Product Realization	MAE 490 & Senior Standing	FS
		MAE 492	3	Mission Design & Development	MAE 490 & Senior Standing	S
		MAE 493	3	Rocket Design	MAE 490 & Senior Standing	S
		MAE 494	3	Aircraft Design	MAE 490 & Senior Standing	S
<b>Technical Elective - 6 hours</b>						
			3		300+ Level Science or Engineering course	
			3		May not take both MA 385 & ISE 390, or MAE 343 for credit	

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

The Catalog is the final authority for all degree requirements.

# Academic Flowchart

# Mechanical Engineering 2017/2018 (128 Hours)



**Legend**  
Updated: 5/31/17

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



**Mechanical and Aerospace Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>MAE 115</b> Machining	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 200</b> Principles of Aero/Astro	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>MAE 211</b> Intro to Comp Tools	Y	5	Y	4	Y	Y	Y	Y	Y	Y
<b>MAE 271</b> Statics	Y	3	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 272</b> Dynamics	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 284 **</b> Numerical Methods	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>MAE 310</b> Fluid Mechanics I	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 311 **</b> Prin of Measurement/Instr	E	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 330</b> Fund of Aerodynamics	Y	1	E	1	Y	N	Y	N	Y	N
<b>MAE 341</b> Thermodynamics I	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 342</b> Thermodynamics II	E	1	Y	2	E	Y	E	Y	E	Y



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<b>MAE 343</b> Compress. Aerodynamics	N	0	Y	1	N	Y	N	Y	N	Y
<b>MAE 364 **</b> Kinematics/Dyn of Mach	E	1	Y	2	E	Y	E	Y	E	Y
<b>MAE 370 **</b> Mechanics of Materials	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 371</b> Aerospace Structures	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 378</b> Materials/Manuf Processes	E	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 440</b> Rocket Propulsion I	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 441</b> Airbreathing Propulsion	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 450 **</b> Intro to Heat/ Mass Transfer	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 455</b> Design of Thermal Systems	Y	1	Y	1	N	Y	N	Y	N	Y
<b>MAE 461</b> Vibrations of Elastic Sys	Y	1	D	0	D	D	D	D	D	D
<b>MAE 463</b> Intermediate Dynamics	N	0	D	0	D	D	D	D	D	D
<b>MAE 466</b> Mech/Design of Mach Elmts	Y	1	N	0	Y	N	Y	N	Y	N
<b>MAE 468</b> Spacecraft Design	Y	1	Y	1	E	Y	E	Y	E	Y



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<b>MAE 471</b> Adv Aerospace Structures	Y	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 474</b> Appl Mechanics of Solids	N	0	D	0	D	D	D	D	D	D
<b>MAE 476</b> Mech/Fab of Compos Matls	N	0	D	0	D	D	D	D	D	D
<b>MAE 477</b> Exp Tech in Solid Mech	N	0	D	0	D	D	D	D	D	D
<b>MAE 480</b> Aircraft Stability/Control	Y	1	E	1	Y	E	Y	E	Y	E
<b>MAE 488</b> Analysis of Eng Systems	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>MAE 489</b> Comp-Aided Eng Analysis	Y	2	E	2	Y	E	Y	E	Y	E
<b>MAE 490</b> Intro to Eng Design	Y	4	E	2	Y	E	Y	E	Y	E
<b>MAE 491</b> Product Realization	Y	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 492</b> Mission Dev/Design	Y	1	Y	1	E	Y	E	Y	E	Y
<b>MAE 493</b> Rocket Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>MAE 494</b> Aircraft Design	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.

# Academic Checksheet

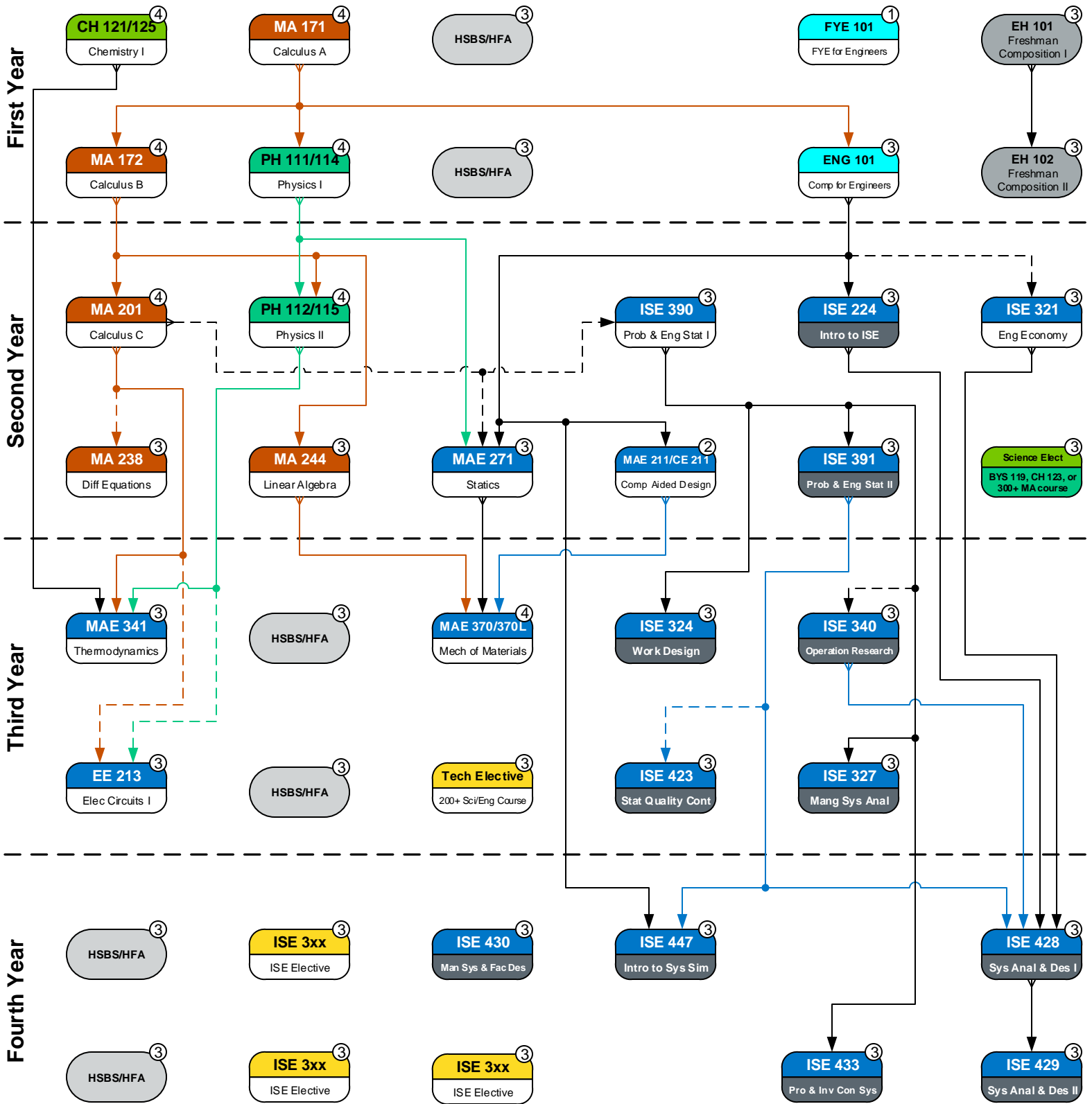


# Industrial & Systems Engineering 2017/2018 (127 Hours)

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	College Writing I	Placement	FSM
		EH 102	3	College Writing II	EH 101	FSM
<b>Mathematics - 18 hours</b>						
		MA 171	4	Calculus A	MA 113 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 Prereq w/Con: MA 113	FSM
		CH 125	1	General Chemistry Lab I	Prereq w/Con: 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	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, PH 114; Coreq: 115	FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112	FSM
<b>Science Elective - 3 hours</b>						
			3		BYS 119, CH 123, PH 113, or 300/400 MA course	
<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, TH 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</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
**	<b>Class has required lab section Industrial &amp; System Engineering - 54 hours</b>					
		ISE 224	3	Intro to Industrial & Systems Engineering	ENG 101	F
Select One		CE 211	2	Civil Engineering Graphics	ENG 101	FS
		MAE 211	2	Introduction to Computer Aided Design	ENG 101, MA 171	FSM
		MAE 271	3	Statics	ENG 101, PH 111; Prereq w/Con: MA 201	FSM
		EE 213	3	Electrical Circuit Analysis I	Prereq w/Con: PH 112, MA 201	FSM
		ISE 321	3	Engineering Economy	ENG 101	FSM
		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 341	3	Thermodynamics I	CH 121, PH 112, MA 201	FSM
**		MAE 370	4	Mechanics of Materials	MAE/CE 271, MA 244, (MAE or CE 211); 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 224, ISE 321, ISE 391, Instructor Approval	F
		ISE 429	3	Systems Analysis & Design II	ISE 428	S
		ISE 430	3	Manufacturing Systems and Facilities Design	ISE 324 or MAE 378	F
		ISE 433	3	Production & Inventory Control Systems	ISE 390	S
		ISE 447	3	Intro to Systems Simulation	ENG 101, ISE 391	F
<b>Industrial &amp; Systems Engineering Electives - 9 hours</b>						
			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, MKT 301, MGT 363, or MGT 462.		
<b>Technical Elective - 3 hours</b>						
			3	200+ Level 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.

# Academic Flowchart



**Legend**  
Updated: 9/5/17

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

**Industrial and Systems Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>ISE 224</b> Intro to ISE	Y	1	N	0	Y	N	Y	N	Y	N
<b>ISE 321</b> Engineering Economy	Y	1	E	1	Y	E	Y	E	Y	E
<b>ISE 324</b> Work Design	Y	2	N	0	Y	N	Y	N	Y	N
<b>ISE 327</b> Management Sys Analysis	N	0	Y	1	N	Y	N	Y	N	Y
<b>ISE 340</b> Operations Research	Y	1	N	0	Y	N	Y	N	Y	N
<b>ISE 390</b> Probability/Eng Statistics I	Y	1	E	1	Y	E	Y	E	Y	E
<b>ISE 391</b> Probability/Eng Statistics II	N	0	Y	1	N	Y	N	Y	N	Y
<b>ISE 402</b> Industrial/Org Psychology	Y	1	N	0	Y	N	Y	N	Y	N
<b>ISE 403</b> Human Factors Psychology	N	0	Y	1	N	Y	N	Y	N	Y
<b>ISE 423</b> Statistical Quality Control	N	0	Y	1	N	Y	N	Y	N	Y
<b>ISE 426</b> Design/Analysis of Exper	N	0	Y	1	N	Y	N	Y	N	Y



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<b>ISE 428</b> Systems Analysis/Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>ISE 429</b> Systems Analysis/Design II	N	0	Y	1	N	Y	N	Y	N	Y
<b>ISE 430</b> Manuf Sys/Facilities Des	Y	1	N	0	Y	N	Y	N	Y	N
<b>ISE 433</b> Prodn/Inventory Cntrl Sys	N	0	Y	1	N	Y	N	Y	N	Y
<b>ISE 437</b> Electronics Manufacturing	N	0	N	0	N	N	N	N	N	N
<b>ISE 447</b> Intro to Sys Simulation	Y	1	N	0	Y	N	Y	N	Y	N

**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.

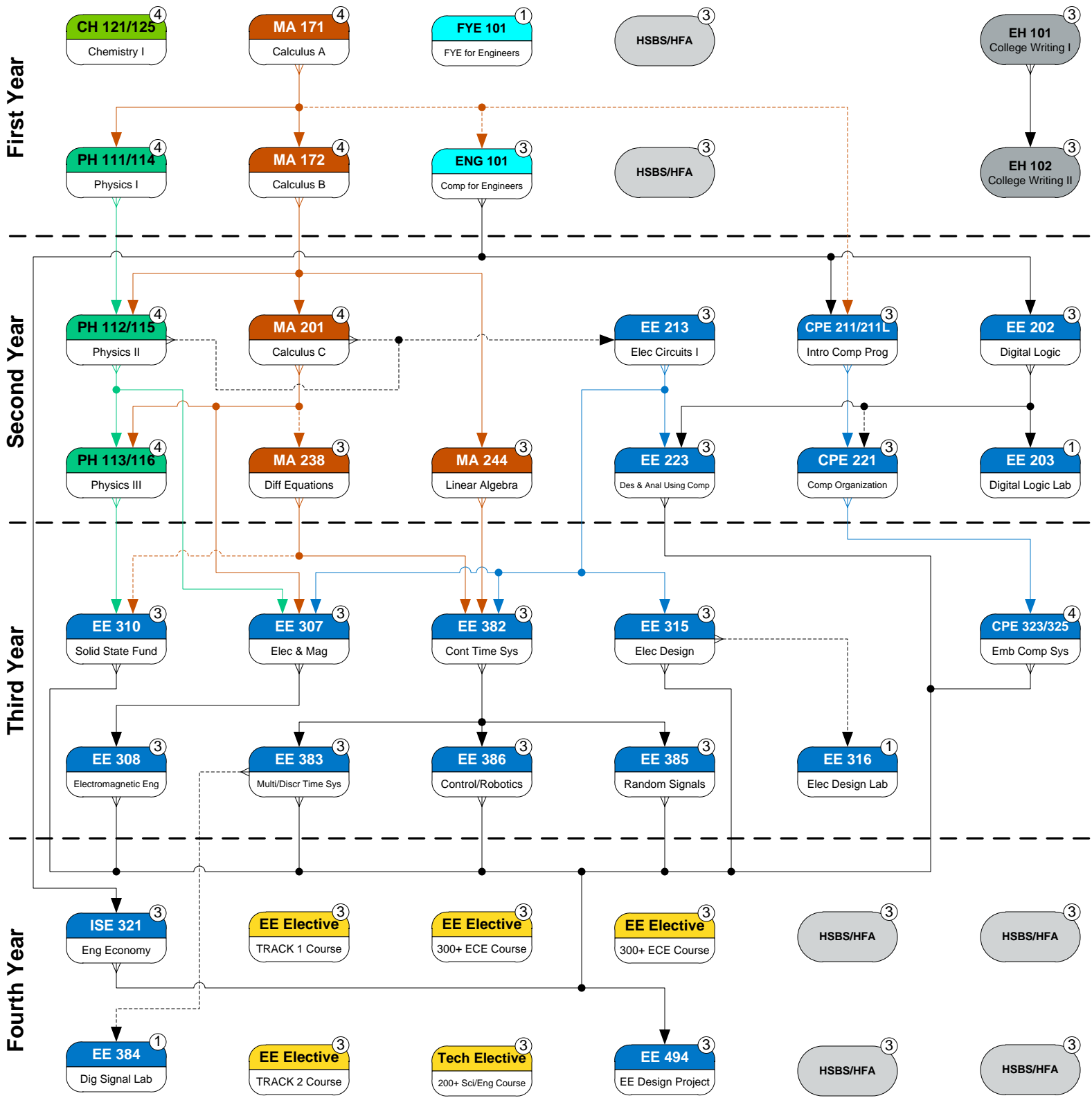


Student A#				Student Name (Last, First MI)		Offered: F=Fall S=Spr M=Sum
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	
<b>English - 6 hours</b>						
		EH 101	3	College Writing I	Placement	FSM
		EH 102	3	College Writing II	EH 101	FSM
<b>Mathematics - 18 hours</b>						
		MA 171	4	Calculus A	MA 113 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 Prereq w/Con: MA 113	FSM
		CH 125	1	General Chemistry Lab I	Prereq w/Con: CH 121	FSM
<b>Physics - 12 hours</b>						
		PH 111	3	General Physics w/Calculus I	MA 171; Coreq: 114	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, PH 114; Coreq: 115	FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112	FSM
		PH 113	3	General Physics w/Calculus III	MA 172, PH 112, PH 115; Coreq: 116	FSM
		PH 116	1	General Physics Lab III	Coreq: PH 113	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, TH 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</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>Electrical Engineering - 52 hours</b>		
		EE 202	3	Intro to Digital Logic Design	ENG 101	FSM
		EE 203	1	Digital Logic Design Lab	EE 202	FSM
**		CPE 211	3	Intro to Computer Programming in Engineering	ENG 101, Prereq w/Con: MA 171; Coreq: CPE 211L	FSM
		EE 213	3	Electrical Circuit Analysis I	Prereq w/Con: PH 112, MA 201	FSM
		CPE 221	3	Computer Organization	CPE 211; Prereq w/Con: EE 202	FSM
		EE 223	3	Design and Analysis using Computing	EE 202, EE 213	FS
		EE 307	3	Electricity and Magnetism	PH 112, MA 201, EE 213	FSM
		EE 308	3	Electromagnetic Engineering	EE 307	FS
		EE 310	3	Solid State Fundamentals	PH 113; Prereq w/Con: MA 238	FS
		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
		ISE 321	3	Engineering Economy	ENG 101	FSM
		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 382	3	Analytical Meth for Continuous Time Sys	EE 213, MA 238, MA 244	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 386	3	Introduction to Control and Robotic Systems	CPE 381 or EE 382	FSM
		EE 494	3	EE Design Projects	EE 223, EE 308, EE 310, EE 315, EE 383, EE 385, EE 386, CPE 323, ISE 321	FS
<b>Electrical Engineering Electives - 12 hours</b>						
			3	T1	Track: _____	
			3	T2	(Must take a 2 course track in one area.)	
			3		300+ Level ECE course	
			3		300+ Level ECE course (May take CPE 212 for credit)	
<b>Technical Elective - 3 hours</b>						
			3		200+ Level 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.

# Academic Flowchart

# Electrical Engineering 2017/2018 (129 Hours)



<b>Legend</b> Updated: 5/31/17	Mathematics	First-Year Engineering	Freshman Composition	Credit Hours
	Physics	Electrical Engineering Option	History, Social & Behavioral Science Humanity & Fine Art	Prerequisite
	Chemistry	Engineering Electives		Prereq w/concurrency

**Electrical and Computer Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>CPE 211**</b> Intro to Comp Prog in Eng	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>CPE 212</b> Fund of Software Eng	Y	2	Y	1	Y	Y	Y	Y	Y	Y
<b>CPE 221</b> Computer Organization	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>CPE 322</b> Digital Hardware Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CPE 323</b> Intro Embedded Comp Sys	Y	1	E	1	Y	E	Y	E	Y	E
<b>CPE 324</b> Digital Hardware Des Lab	N	0	Y	4	N	Y	N	Y	N	Y
<b>CPE 325</b> Embedded Comp Sys Lab	Y	8	E	6	Y	E	Y	E	Y	E
<b>CPE 353</b> Software Design/Eng	Y	2	N	0	Y	N	Y	N	Y	N
<b>CPE 381</b> Fund of Signals/Systems	Y	1	Y	1	E	Y	E	Y	E	Y
<b>CPE 412</b> Intro to Parallel Prog	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 423</b> Hardwr/Softwr Co-Design	N	0	D	0	D	D	D	D	D	D



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<b>CPE 426</b> Modeling/Synthesis	N	0	D	0	D	D	D	D	D	D
<b>CPE 427**</b> VLSI Design I	Y	1	N	0	D	D	D	D	D	D
<b>CPE 428**</b> VLSI Design II	N	0	D	0	D	D	D	D	D	D
<b>CPE 431</b> Intro to Comp Architecture	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 434</b> Operating Systems	N	0	Y	1	N	Y	N	Y	N	Y
<b>CPE 435</b> Operating Systems Lab	N	0	Y	2	N	Y	N	Y	N	Y
<b>CPE 436</b> Internals of Mod Oper Sys	N	0	N	0	N	Y	N	N	N	Y
<b>CPE 438</b> Real Time/Embedded Sys	N	0	D	0	D	D	D	D	D	D
<b>CPE 448</b> Intro to Comp Networks	Y	1	Y	1	E	Y	E	Y	E	Y
<b>CPE 449**</b> Intro to Info Assurance Eng	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 453</b> Senior Software Studio	N	0	D	0	D	D	D	D	D	D
<b>CPE 495</b> Comp Eng Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 496</b> Comp Eng Design II	N	0	Y	2	N	Y	N	Y	N	Y



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<b>EE 202</b> Intro to Digital Logic Des	Y	2	Y	1	Y	Y	Y	Y	Y	Y
<b>EE 203</b> Digital Logic Design Lab	Y	3	Y	4	Y	Y	Y	Y	Y	Y
<b>EE 213</b> Electrical Circuit Analysis I	Y	4	Y	4	Y	Y	Y	Y	Y	Y
<b>EE 223</b> Design/Analysis using Comp	Y	2	Y	3	N	Y	Y	Y	Y	Y
<b>EE 307</b> Electricity/Magnetism	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 308</b> Electromagnetic Eng	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 310</b> Solid State Fundamentals	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 315</b> Intro Elec Analysis/Design	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 316</b> Electronic Meas/Devices Design Lab	Y	5	Y	5	E	Y	E	Y	E	Y
<b>EE 382</b> Analytical Meth Contin Time Sys	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 383</b> Analytical Meth Multi/Discr Time Sys	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 384</b> Digital Signal Processing Lab	Y	3	Y	3	E	Y	E	Y	E	Y
<b>EE 385</b> Random Signals/Noise	Y	1	Y	1	E	Y	E	Y	E	Y



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<b>EE 386</b> Intro to Control/Robotic Systems	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 401</b> Digital Signal Proc Architectures	N	0	D	0	D	D	D	D	D	D
<b>EE 411</b> Electric Power Systems	Y	1	D	0	D	D	D	D	D	D
<b>EE 414</b> Analog and Digital Filter Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 416</b> Electronics II	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 423</b> Communication Sys/Simulation	N	0	D	0	D	D	D	D	D	D
<b>EE 424</b> Intro to Data Comm Networks	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 426</b> Communication Theory	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 427**</b> VLSI Design I <i>Xlisted CPE 427</i>	Y	1	N	0	D	D	D	D	D	D
<b>EE 428**</b> VLSI Design II	N	0	D	0	D	D	D	D	D	D
<b>EE 436</b> Digital Electronics	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 437</b> Electr Manufacturing Processes	N	0	N	0	N	N	N	N	N	N
<b>EE 451</b> Optoelectronics	Y	1	N	0	Y	N	Y	N	Y	N



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<b>EE 453</b> Laser Systems	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 454</b> Optical Fiber Communications	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 486</b> Intro to Modern Control Systems	Y	1	N	0	D	D	D	D	D	D
<b>EE 494</b> EE Design Projects	Y	1	Y	1	E	Y	E	Y	E	Y
<b>OPE 441</b> Optical Systems Design	N	0	D	0	D	D	D	D	D	D
<b>OPE 442</b> Interference and Diffraction	N	0	D	0	D	D	D	D	D	D
<b>OPE 451</b> Optoelectronics	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 453</b> Laser Systems	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 454</b> Optical Fiber Communications	N	0	Y	1	N	Y	N	Y	N	Y
<b>OPE 456</b> Photonics Lab	N	0	Y	1	N	Y	N	Y	N	Y
<b>OPE 459</b> Optical Engineering Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 460</b> Optical Engineering Design II	N	0	Y	1	N	Y	N	Y	N	Y

**Legend**

Y
E

Course will be offered in designated term.

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.



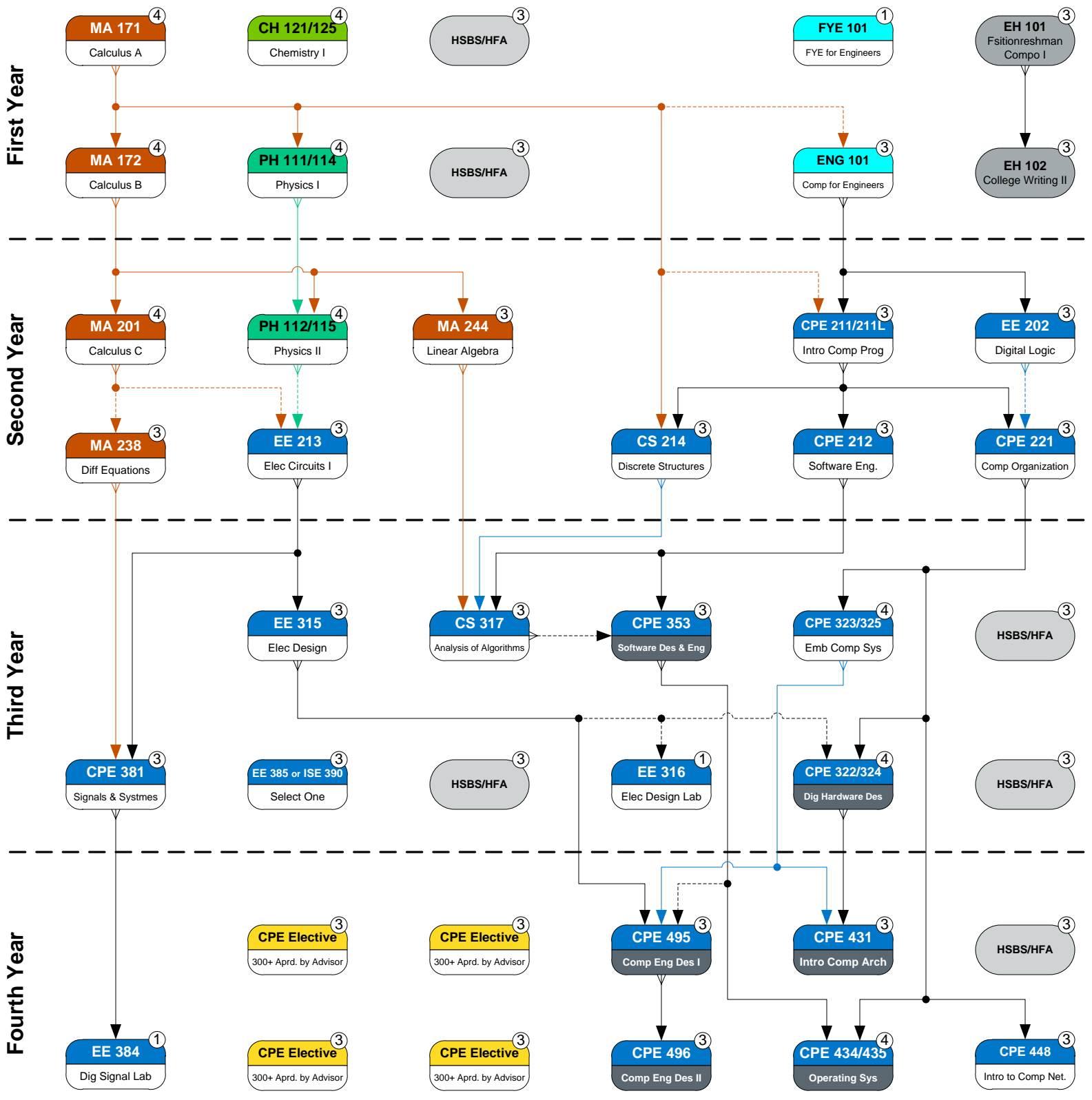
Student A#				Student Name (Last, First MI)		Offered:
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	F=Fall S=Spr M=Sum
<b>English - 6 hours</b>						
		EH 101	3	College Writing I	Placement	FSM
		EH 102	3	College Writing II	EH 101	FSM
<b>Mathematics - 18 hours</b>						
		MA 171	4	Calculus A	MA 113 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 Prereq w/Con: MA 113	FSM
		CH 125	1	General Chemistry Lab I	Prereq w/Con: 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	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, PH 114; Coreq: 115	FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112	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, TH 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</a>	FSM
			3	Sequence Course (HY or EH)		FSM
			3	HSBS/HFA		FSM
			3			FSM
<b>Computer Science - 6 hours</b>						
		CS 214	3	Intro to Discrete Structures	MA 171, CPE 211	FSM
		CS 317	3	Design & Analysis of Algorithms	CS 214, CPE 212, MA 244	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
**	<b>Class has required lab section Computer Engineering - 53 hours</b>					
**		EE 202	3	Intro to Digital Logic Design	ENG 101	FSM
**		CPE 211	3	Intro to Computer Programming in Engineering	ENG 101, Prereq w/Con: MA 171; Coreq: CPE 211L	FSM
		CPE 212	3	Fundamentals of Software Engineering	CPE 211	FS
		EE 213	3	Electrical Circuit Analysis I	Prereq w/Con: PH 112, MA 201	FSM
		CPE 221	3	Computer Organization	CPE 211; Prereq w/Con: 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
		CPE 322	3	Digital Hardware Design Fundamentals	CPE 221; Prereq w/Con: EE 315; Coreq: CPE 324	S
		CPE 324	1	Digital Hardware Design Lab	Coreq: CPE 322	S
		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
		CPE 381	3	Fundamentals of Signals & Sys for Comp Engrs	EE 213, MA 238	FS
		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 323	F
		CPE 434	3	Operating Systems	CPE 221, CPE 353; Coreq: CPE 435	S
		CPE 435	1	Operating Systems Lab	Coreq: CPE 434	S
**		CPE 448	3	Introduction to Computer Networks	CPE 221, Coreq: CPE 448L	FS
		CPE 495	3	Computer Engineering Design I	EE 315, CPE 323; Prereq w/Con: CPE 353	F
		CPE 496	3	Computer Engineering Design II	CPE 495	S
<b>Computer Engineering Electives - 12 hours</b>						
			3		300+ Level course approved by advisor	
			3		List of Approved CPE Electives:	
			3		<a href="http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/CPE-Electives_20150415.pdf">http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/CPE-Electives_20150415.pdf</a>	
			3			

All prerequisite classes must be completed with a "C-" or higher grade.  
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# Academic Flowchart



# Computer Engineering 2017/2018 (129 Hours)



<b>Legend</b> Updated: 5/31/17	Mathematics	First Year Engineering	Freshman Comp	Credit Hours
	Physics	Computer Engineering Option	History, Social & Behavioral Science Humanity & Fine Art	Prerequisite
	Chemistry / Biology	Engineering Electives	Offered only in semester listed	Prereq w/concurrency

**Electrical and Computer Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>CPE 211**</b> Intro to Comp Prog in Eng	Y	2	Y	2	Y	Y	Y	Y	Y	Y
<b>CPE 212</b> Fund of Software Eng	Y	2	Y	1	Y	Y	Y	Y	Y	Y
<b>CPE 221</b> Computer Organization	Y	1	Y	1	Y	Y	Y	Y	Y	Y
<b>CPE 322</b> Digital Hardware Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CPE 323</b> Intro Embedded Comp Sys	Y	1	E	1	Y	E	Y	E	Y	E
<b>CPE 324</b> Digital Hardware Des Lab	N	0	Y	4	N	Y	N	Y	N	Y
<b>CPE 325</b> Embedded Comp Sys Lab	Y	8	E	6	Y	E	Y	E	Y	E
<b>CPE 353</b> Software Design/Eng	Y	2	N	0	Y	N	Y	N	Y	N
<b>CPE 381</b> Fund of Signals/Systems	Y	1	Y	1	E	Y	E	Y	E	Y
<b>CPE 412</b> Intro to Parallel Prog	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 423</b> Hardwr/Softwr Co-Design	N	0	D	0	D	D	D	D	D	D



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<b>CPE 426</b> Modeling/Synthesis	N	0	D	0	D	D	D	D	D	D
<b>CPE 427**</b> VLSI Design I	Y	1	N	0	D	D	D	D	D	D
<b>CPE 428**</b> VLSI Design II	N	0	D	0	D	D	D	D	D	D
<b>CPE 431</b> Intro to Comp Architecture	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 434</b> Operating Systems	N	0	Y	1	N	Y	N	Y	N	Y
<b>CPE 435</b> Operating Systems Lab	N	0	Y	2	N	Y	N	Y	N	Y
<b>CPE 436</b> Internals of Mod Oper Sys	N	0	N	0	N	Y	N	N	N	Y
<b>CPE 438</b> Real Time/Embedded Sys	N	0	D	0	D	D	D	D	D	D
<b>CPE 448</b> Intro to Comp Networks	Y	1	Y	1	E	Y	E	Y	E	Y
<b>CPE 449**</b> Intro to Info Assurance Eng	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 453</b> Senior Software Studio	N	0	D	0	D	D	D	D	D	D
<b>CPE 495</b> Comp Eng Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>CPE 496</b> Comp Eng Design II	N	0	Y	2	N	Y	N	Y	N	Y



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<b>EE 202</b> Intro to Digital Logic Des	Y	2	Y	1	Y	Y	Y	Y	Y	Y
<b>EE 203</b> Digital Logic Design Lab	Y	3	Y	4	Y	Y	Y	Y	Y	Y
<b>EE 213</b> Electrical Circuit Analysis I	Y	4	Y	4	Y	Y	Y	Y	Y	Y
<b>EE 223</b> Design/Analysis using Comp	Y	2	Y	3	N	Y	Y	Y	Y	Y
<b>EE 307</b> Electricity/Magnetism	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 308</b> Electromagnetic Eng	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 310</b> Solid State Fundamentals	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 315</b> Intro Elec Analysis/Design	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 316</b> Electronic Meas/Devices Design Lab	Y	5	Y	5	E	Y	E	Y	E	Y
<b>EE 382</b> Analytical Meth Contin Time Sys	Y	1	E	1	Y	E	Y	E	Y	E
<b>EE 383</b> Analytical Meth Multi/Discr Time Sys	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 384</b> Digital Signal Processing Lab	Y	3	Y	3	E	Y	E	Y	E	Y
<b>EE 385</b> Random Signals/Noise	Y	1	Y	1	E	Y	E	Y	E	Y



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<b>EE 386</b> Intro to Control/Robotic Systems	Y	1	Y	1	E	Y	E	Y	E	Y
<b>EE 401</b> Digital Signal Proc Architectures	N	0	D	0	D	D	D	D	D	D
<b>EE 411</b> Electric Power Systems	Y	1	D	0	D	D	D	D	D	D
<b>EE 414</b> Analog and Digital Filter Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 416</b> Electronics II	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 423</b> Communication Sys/Simulation	N	0	D	0	D	D	D	D	D	D
<b>EE 424</b> Intro to Data Comm Networks	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 426</b> Communication Theory	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 427**</b> VLSI Design I <i>Xlisted CPE 427</i>	Y	1	N	0	D	D	D	D	D	D
<b>EE 428**</b> VLSI Design II	N	0	D	0	D	D	D	D	D	D
<b>EE 436</b> Digital Electronics	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 437</b> Electr Manufacturing Processes	N	0	N	0	N	N	N	N	N	N
<b>EE 451</b> Optoelectronics	Y	1	N	0	Y	N	Y	N	Y	N



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<b>EE 453</b> Laser Systems	Y	1	N	0	Y	N	Y	N	Y	N
<b>EE 454</b> Optical Fiber Communications	N	0	Y	1	N	Y	N	Y	N	Y
<b>EE 486</b> Intro to Modern Control Systems	Y	1	N	0	D	D	D	D	D	D
<b>EE 494</b> EE Design Projects	Y	1	Y	1	E	Y	E	Y	E	Y
<b>OPE 441</b> Optical Systems Design	N	0	D	0	D	D	D	D	D	D
<b>OPE 442</b> Interference and Diffraction	N	0	D	0	D	D	D	D	D	D
<b>OPE 451</b> Optoelectronics	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 453</b> Laser Systems	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 454</b> Optical Fiber Communications	N	0	Y	1	N	Y	N	Y	N	Y
<b>OPE 456</b> Photonics Lab	N	0	Y	1	N	Y	N	Y	N	Y
<b>OPE 459</b> Optical Engineering Design I	Y	1	N	0	Y	N	Y	N	Y	N
<b>OPE 460</b> Optical 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.



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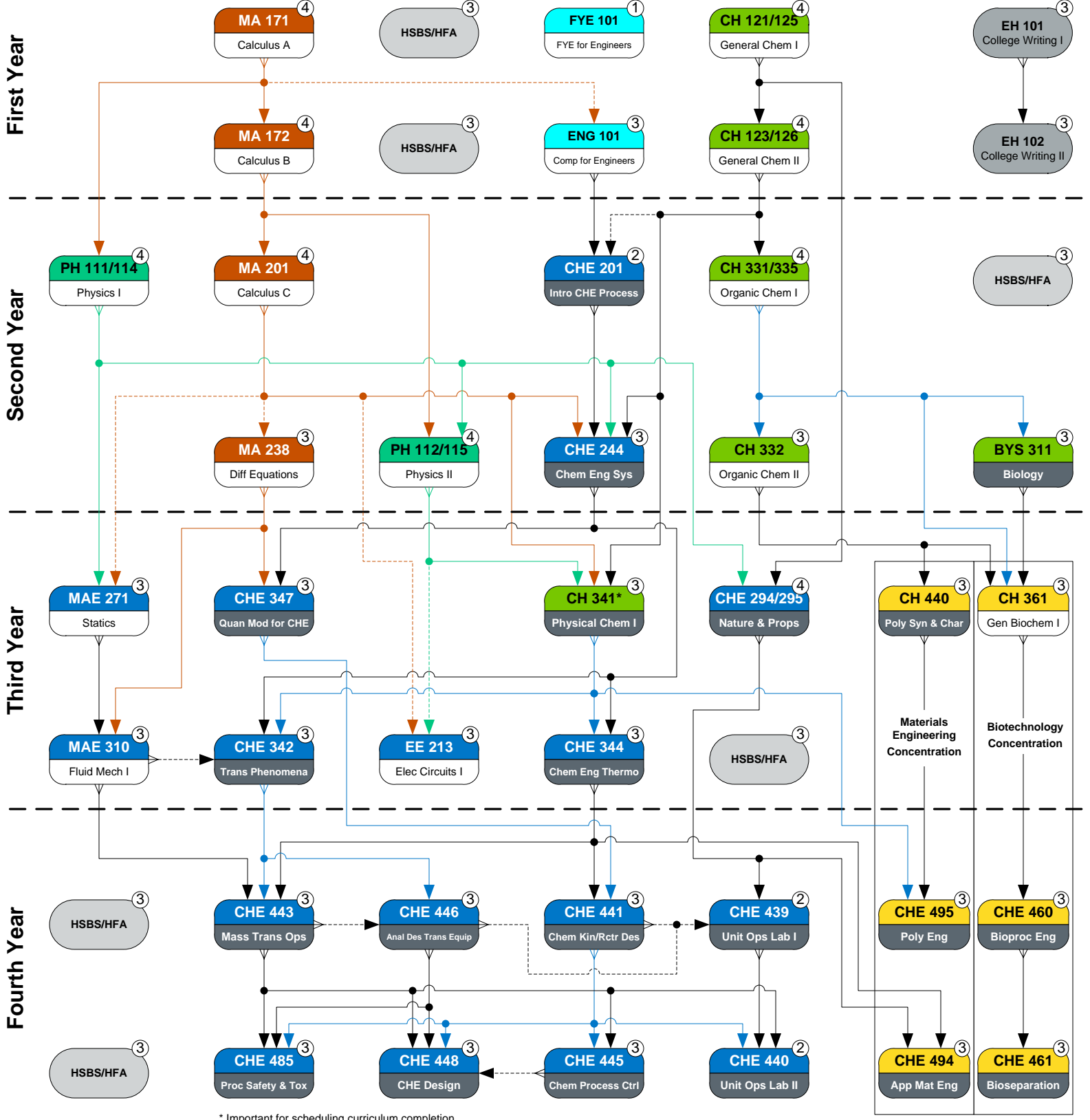
\*\* Course has a required lab section.



Student A#				Student Name (Last, First MI)		Offered: F=Fall S=Spr M=Sum
Semester, Transfer or AP	Grade	Course Number	Cr Hrs	Course Title	Prerequisites, Corequisites and/or Prerequisites with Concurrency	
<b>English - 6 hours</b>						
		EH 101	3	College Writing I	Placement	FSM
		EH 102	3	College Writing II	EH 101	FSM
<b>Mathematics - 15 hours</b>						
		MA 171	4	Calculus A	MA 113 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
<b>Chemistry - 18 hours</b>						
		CH 121	3	General Chemistry I	Plcmt or Prereq w/Con: MA 113	FSM
		CH 125	1	General Chemistry Lab I	Prereq w/Con: CH 121	FSM
		CH 123	3	General Chemistry II	CH 121; Prereq w/Con: CH 126	FSM
		CH 126	1	General Chemistry Lab II	CH 125, Prereq w/Con: CH 123	FSM
		CH 331	3	Organic Chemistry I	CH 123	FSM
		CH 335	1	Organic Chemistry Lab I	CH 126, 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, PH 115	F
<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	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, PH 114; Coreq: 115	FSM
		PH 115	1	General Physics Lab II	Coreq: PH 112	FSM
<b>Biology - 3 hours</b>						
		BYS 311	3	Intro to Molecular Biological Systems	CH 331	S
<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, TH 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</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
<b>Chemical Engineering - 49 hours</b>						
		CHE 201	2	Intro to Chemical Engineering Processes	ENG 101; Prereq w/Con: CH 123	F
		EE 213	3	Electrical Circuit Analysis I	Prereq w/Con: PH 112, MA 201	FSM
		CHE 244	3	Intro to Chemical Engineering Systems	PH 111, CH 123, CHE 201, MA 201	S
		MAE 271	3	Statics	ENG 101, PH 111; Prereq w/Con: MA 201	FSM
		CHE 294	3	Nature & Properties of Materials	CH 121, PH 111	F
		CHE 295	1	Nature & Properties of Materials Lab	Coreq: CHE 294	F
		CHE 342	3	Transport Phenomena	CHE 341, CHE 244; Prereq w/Con: MAE 310	S
		CHE 344	3	Chemical Engineering Thermodynamics	CH 341, CHE 244	S
		MAE 310	3	Fluid Mechanics I	MA 238, MAE/CE 271	FSM
		CHE 347	3	Quantitative Modeling for Chemical Engrs	CHE 244, MA 238	F
		CHE 439	2	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, CHE 446	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	CHE 441, CHE 443, CHE 446	S
<b>Chemical Engineering Electives - 9 hours</b>						
Select One Con Biotech Materials		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 332	F
		CHE 494	3	Applied Materials Engineering	CHE 294, CHE 344	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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# Academic Flowchart



\* Important for scheduling curriculum completion.

<b>Legend</b> Updated: 6/1/17	Mathematics	First Year Engineering	Freshman Comp	Credit Hours
	Physics	Chemical Engineering Option	History, Social & Behavioral Science Humanity & Fine Art	Prerequisite
	Chemistry / Biology	Concentration Electives	Offered only in semester listed	Prereq w/concurrency

**Chemical Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>CHE 201</b> Intro to Chem Eng Pro	N	0	N	0	Y	Y	Y	Y	Y	Y
<b>CHE 244</b> Intro to CHE Systems	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 294</b> Nature/Prop of Materials	Y	1	N	0	Y	N	Y	N	Y	N
<b>CHE 295</b> Nature/Prop of Matrls Lab	Y	3	N	0	Y	N	Y	N	Y	N
<b>CHE 342</b> Transport Phenomena	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 344</b> Chem Eng Thermo	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 347</b> Quantitative Modeling	Y	1	N	0	Y	N	Y	N	Y	N
<b>CHE 439</b> Unit Operations I	Y	2	N	0	Y	N	Y	N	Y	N
<b>CHE 440</b> Unit Operations II	N	0	Y	3	N	Y	N	Y	N	Y
<b>CHE 441</b> Chem Kinetics/Reactor Des	Y	1	N	0	Y	N	Y	N	Y	N
<b>CHE 443</b> Mass Transfer Operations	Y	1	N	0	Y	N	Y	N	Y	N



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<b>CHE 445</b> Chemical Process Control	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 446</b> Analy/Des of Trans Equip	Y	1	N	0	Y	N	Y	N	Y	N
<b>CHE 448</b> Chemical Eng Design	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 460</b> Intro to Bioprocess Eng	Y	1	N	0	Y	N	Y	N	Y	N
<b>CHE 461</b> Bioprocess Eng	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 485</b> Process Safety/Toxicology	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 494</b> Applied Materials Engineering	N	0	Y	1	N	Y	N	Y	N	Y
<b>CHE 495</b> Polymer Engineering	Y	1	N	0	Y	N	Y	N	Y	N

**Legend**

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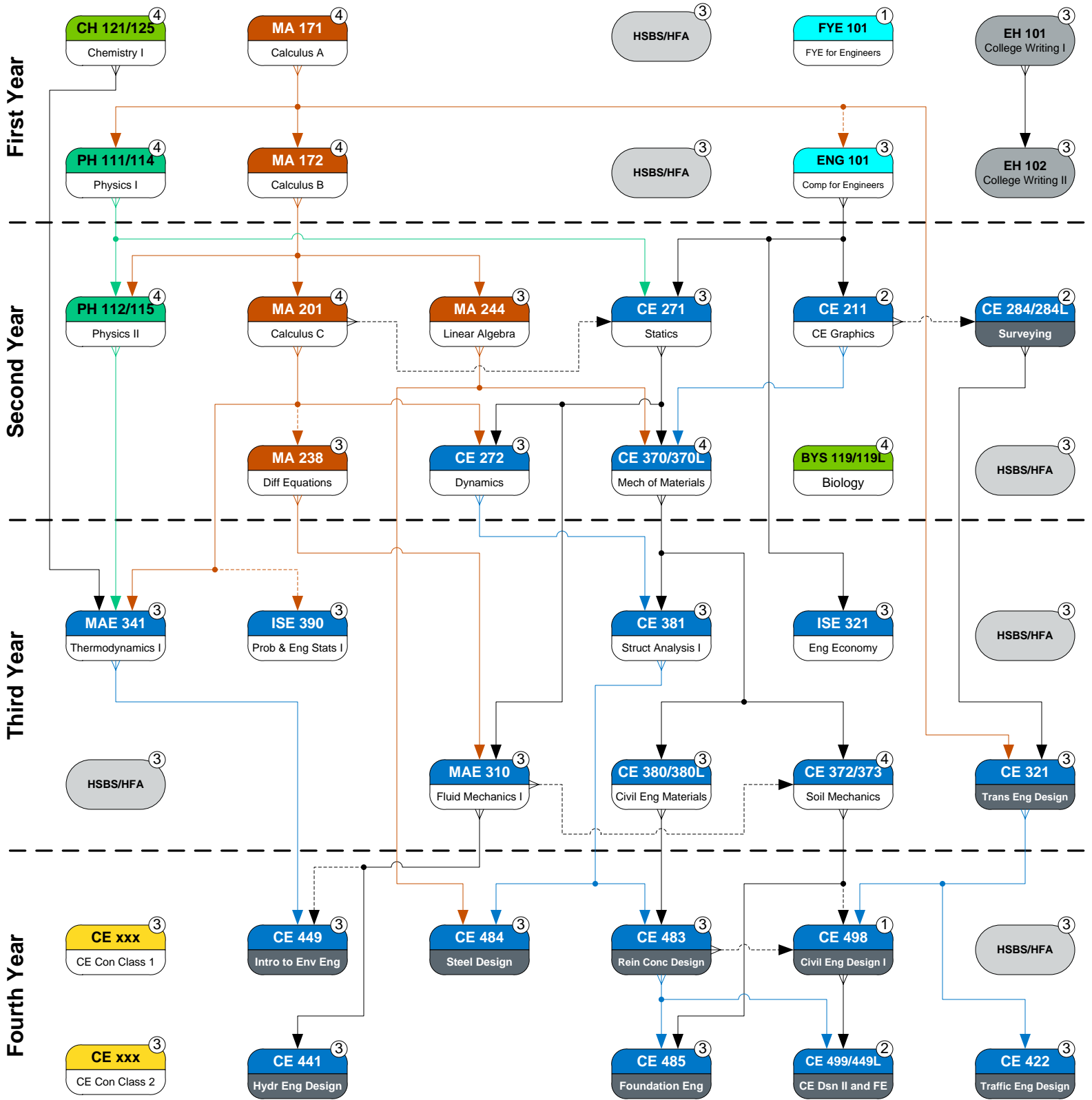
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<b>Mathematics - 18 hours</b>						
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<b>Chemistry - 4 hours</b>						
		CH 121	3	General Chemistry I	Plcmt or Prereq w/Con: MA 113	FSM
		CH 125	1	General Chemistry Lab I	Prereq w/Con: CH 121	FSM
<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	Prereq w/Con: PH 111	FSM
		PH 112	3	General Physics w/Calculus II	MA 172, PH 111, PH 114; 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, TH 122, MU 100, or ARS 160	FSM
			3	Social & Behavioral Science	For more information on HSBS/HFA Requirements: <a href="http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms">http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms</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 - 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; Coreq CE 284L	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	ENG 101	FSM
		MAE 341	3	Thermodynamics I	CH 121, PH 112, MA 201	FSM
**		CE 370	4	Mechanics of Materials	MAE/CE 271, MA 244, (MAE or CE 211); Coreq: MAE 370L	FSM
		CE 372	3	Soil Mechanics	CE/MAE 370; Prereq w/Con: MAE 310; Coreq: CE 373	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, 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 452, 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 2017/2018 (129 Hours)



<b>Legend</b> Updated: 5/31/17	<span style="color: orange;">■</span> Mathematics	<span style="color: cyan;">■</span> First-Year Engineering	<span style="background-color: lightgrey; border: 1px solid grey; border-radius: 50%; padding: 2px;"> </span> Freshman Composition	③ Credit Hours
	<span style="color: green;">■</span> Physics	<span style="color: blue;">■</span> Civil Engineering Option	<span style="background-color: lightgrey; border: 1px solid grey; border-radius: 50%; padding: 2px;"> </span> History, Social & Behavioral Science Humanity & Fine Art	→ Prerequisite
	<span style="color: lightgreen;">■</span> Chemistry / Biology	<span style="color: yellow;">■</span> Engineering Electives	<span style="background-color: grey; border: 1px solid grey; border-radius: 50%; padding: 2px;"> </span> Offered only in semester listed	- - - - - Prereq w/concurrency

**Civil Engineering Department: 4-Year Rolling Class Schedule, Fall 2017 - Spring 2021\***

	Fall 2017	Anticipated Sections	Spring 2018	Anticipated Sections	Fall 2018	Spring 2019	Fall 2019	Spring 2020	Fall 2020	Spring 2021
<b>CE 211</b> Civil Engineering Graphics	Y	1	Y	1	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
<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



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<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
<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





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<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.