Academic Checksheet

COLLEGE OF ENGINEERING
THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

Mechanical Engineering
2017/2018 (128 Hours)

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	
				English - 6 hours		
		EH 101	3	College Writing I	Placement	FSM
		EH 102	3	College Writing II	EH 101	FSM
				Mathematics - 18 hours		
		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
				Chemistry - 4 hours		
		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
				Physics - 8 hours		
		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
				Science Elective - 3 or 4 hours		
			3		BYS 119, CH 123, PH 113, or 300/400 MA course	FSM
				History, Social & Behavioral Sciences, Humaities & Fine Arts - 18 hours		
			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: http://www.uah.edu/eng/departments/undergraduate-engineering/student-forms	FSM
			3	Sequence Course (HY or EH)		FSM
			3	HSBS/HFA		FSM
				First-Year Engineering - 4 hours		
		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			**Mechanical Engineering - 61 hours**		
		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, & 37	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
				Technical Elective - 6 hours		
			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

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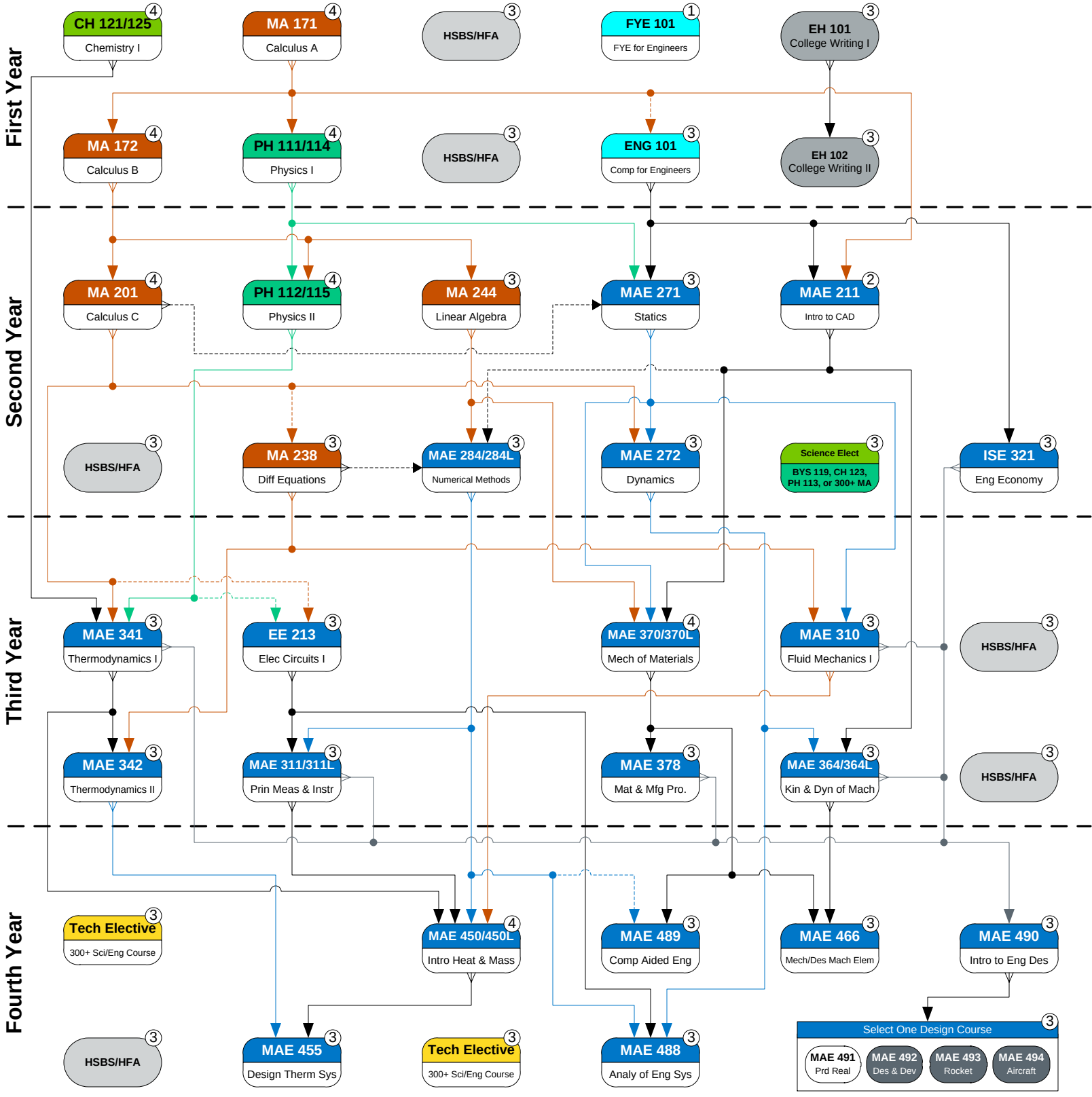
Mechanical Engineering
2017/2018 (128 Hours)



Legend Updated: 5/31/17

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

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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
MAE 115 Machining	Y	2	Y	2	Y	Y	Y	Y	Y	Y
MAE 200 Principles of Aero/Astro	Y	1	Y	1	Y	Y	Y	Y	Y	Y
MAE 211 Intro to Comp Tools	Y	5	Y	4	Y	Y	Y	Y	Y	Y
MAE 271 Statics	Y	3	Y	2	Y	Y	Y	Y	Y	Y
MAE 272 Dynamics	Y	2	Y	2	Y	Y	Y	Y	Y	Y
MAE 284 ** Numerical Methods	Y	1	Y	1	Y	Y	Y	Y	Y	Y
MAE 310 Fluid Mechanics I	Y	2	E	2	Y	E	Y	E	Y	E
MAE 311 ** Prin of Measurement/Instr	E	1	Y	1	E	Y	E	Y	E	Y
MAE 330 Fund of Aerodynamics	Y	1	E	1	Y	N	Y	N	Y	N
MAE 341 Thermodynamics I	Y	2	E	2	Y	E	Y	E	Y	E
MAE 342 Thermodynamics II	E	1	Y	2	E	Y	E	Y	E	Y

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

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

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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.