

# Long-term MAE Course Offering Plan for AE's

## Starting summer and fall 2018

<i>Course No.</i>	<i>Course Title</i>	<i>Primary Prerequisites</i>	Stillwater			Tulsa	
			<i>Fa</i>	<i>Sp</i>	<i>Su</i>	<i>Fa</i>	<i>Sp</i>
MAE 3013	Engineering Analysis	MATH 2233, PHYS 2014, 2114	X	X	X	X	
MAE 3113	Measurements and Instrumentation	ENSC 2123, 2613, MAE 3013	X	X			X
MAE 3123	Manufacturing Processes	ENSC 2143, ENSC 3313	X			X	
MAE 3223	Thermodynamics II	ENSC 2213			(unknown)		
MAE 3233	Heat Transfer	ENSC 3233	X	X	X	X	
MAE 3253	Applied Aerodynamics & Performance	ENSC 3233, MATH 2233, MAE 3293		X			
MAE 3293	Fundamentals of Aerodynamics	ENSC 2213, 3233 MATH 2233	X				X
MAE 3324	Mechanical Design I	ENSC2113, 2143, 3313	X	X		X	
MAE 3403	Computer Methods in Analysis & Design	MAE 3013, ENGR 1412	X	X			X
MAE 3524	Thermal Fluids Design	ENSC 2213, 3233, pre pr coreq-MAE 3233	X	X		X	
MAE 3724	Systems Analysis and Control	ENSC 2123, 2613, MAE 3013	X	X			X
MAE 4053	Automatic Control Systems	MAE 3423 or ECEN 3723 or MAE 3724	X				
MAE 4063	Mechanical Vibrations	MAE 3723 or MAE 3724	X				
MAE 4213	Spacecraft Design	MAE 3113, MAE 3253	X				
MAE 4223	Aerospace Engineering Laboratory	MAE 3113, MAE 3253, MAE 4283		X			
MAE 4243	Aero Propulsion and Power	ENSC 3233, MAE 3293	X			X	
MAE 4263	Energy Conversion	MAE 3233, MAE 3223 (for now) or 3524	X	X	X		
MAE 4273	Experimental Fluid Dynamics	ENSC 3233, MAE 3113	X	X		X	
MAE 4283	Aerospace Vehicle Stability & Control	ENSC 2123, MAE 3253, MAE 3723/24	X				
MAE 4313	Advanced Processing	ENSC 3313		X			
MAE 4333	Mechanical Metallurgy	ENSC 3313	X	X			X
MAE 4344	Design Projects	MAE 3113, 3233 or 3524, 3323or 3324, 3723/24	X	X		X	X
MAE 4353	Mechanical Design II	MAE 3323 or 3324	X	X		X	
MAE 4354	Aerospace System Design for MEEN	(same as MAE 4344)		X			
MAE 4363	Advanced Methods in Design	MAE 3113, MAE 3323 or 3324		X			
MAE 4374	Aerospace Vehicle Design	MAE 4283, 4513, 4243		X			
MAE 4513	Aerospace Structures I	MAE 3323 or 3324		X			
MAE 4583	Corrosion	ENSC 3313	X	X			
MAE 4623	Biomechanics	MATH2163, ENSC 2123, 2143, MAE 3323/3324	X				
MAE 4703	Design Indoor Environmental Systems	MAE 3233, 3223 (for now) or 3524	X				
MAE 4713	Thermal Systems Realization	ENSC 2213, 3233, MAE 3223 (for now) OR 3524	X				
MAE 4733	Mechatronics Design	MAE 3113, MAE 3403		X			

**Course required for Petroleum Engineering option (Note MAE does not control the schedule for non-MAE classes. Check Banner - Browse Class Schedule for most accurate course schedules.)**

<i>Course No.</i>	<i>Course Title</i>	<i>Primary Prerequisites</i>	<i>Fa</i>	<i>Sp</i>	<i>Su</i>	<i>Fa</i>	<i>Sp</i>
GEOL 3413	Petroleum Geology for Engineers	CHEM 1414, PHYS 2114	X				
GEOL 4323	Applied Well Log Analysis for Engineers	GEOL 3413		X			
PETE 4303	Petroleum Rock and Fluids	MAE PRE-EN & GEOL 3413	X				
PETE 4313	Drilling and Well Completions	GEOL 3413, ENSC 3233			X		
PETE 4333	Production Operations	PETE 4303, ENSC 3233			X		
PETE 4343	Reservoir Engineering and Well Testing	PETE 4303	X				

*(see the other side of this page for Mechanical Engineering (AE) – MAE course degree requirements)*

***MAE Course Requirements  
for students staying on the old (pre-2018) AE degree plan***

Complete each of: MAE: 3013, 3113, 3253, 3293, (3323 or **3324**), 3403, (3723 or **3724**), 4223, 4243, 4283, 4374, 4513

Complete an ***additional*** 6 hours of MAE electives selected from:

MAE 3123, 3223, 3233, 4053, 4063, 4273, 4333, 4363, 4583, 4733, 4213,  
MET 4023, 4203, 4113

(At least 3 hours must be selected from the 4000 level courses)

Note: - to complete a double degree in ME on the old plan:

choose MAE 3233 as one of the MAE electives  
and take MAE (3223 or **3524**) as an extra course.

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***MAE Course Requirements  
for students moving to the new 2018-2019 AE degree plan***

Complete each of: MAE 3013, 3113, 3253, 3293, **3324**, **3724**, 3403, 4223, 4243, 4283, 4374, 4513, IEM 3503.

Complete an ***additional*** 3 hours of Technical elective selected from:

***3000-level or above:*** BAE/CHE/CIVE/ECEN/IEM/MAE/PETE engineering, BCOM 3223, Biological Science, Biochemistry, Chemistry, Computer Science, Legal Studies in Business, MATH 3303, MGMT 3133, Geology, PHIL 3803, 3833, Physics

***4000-level or above courses:*** ECON 4113, Math, Mechanical Engineering Technology, MGMT 4073, 4533 or Statistics. Consultation with adviser recommended.

Note: ***to complete a double degree in ME on the new plan:***

Choose MAE 3233 as the Technical electives  
and take MAE 3524 as an extra course.

Note: ***to complete a double degree in ME-Petroleum Option on the new plan:***

Choose GEOL 3413 as the BasicScience Elective (or take it as an extra course)

Choose MAE 3233 as the Technical electives

and take MAE 3524, GEOL 4323, PETE 4303, 4313, 4333 and 4343 as extra courses.