

Long-term MAE Course Offering Plan for ME'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		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	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 (ME) – MAE course degree requirements)

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

Complete each of: MAE: 3013, 3113, 3233, 3403, (3223 or **3524**), (3323 or **3324**) and (3723 or **3724**)

Complete one course from **each** of the four old categories:

Category I (MAE 4243⁽¹⁾, 4263, 4703 or 4713)

Category II (MAE 4353, 4363, 4513⁽¹⁾ or 4623)

Category III (MAE 4273, 4333, 4583 or 4733)

Category IV (MAE 4344 or 4354⁽¹⁾)

Complete an **additional** 6 hours of MAE electives (or substitutes) selected from:

MAE 4243⁽¹⁾, 4263, 4703, 4713, 4353, 4363, 4513⁽¹⁾, 4623,

MAE 4273, 4333, 4583, 4733, 3033, 3123, 3253⁽¹⁾, 3293⁽¹⁾, 4053, 4063, 4313

MET 4023, 4203, 4113, PETE 4303, 4313, 4333, 4343, ENSC 3213

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

Complete each of: MAE 3013, 3113, 3233, **3324**, 3403, **3524** and **3724**, IEM 3503

Complete one course from **each** of the two new categories:

Category I (MAE 4243⁽¹⁾, 4263, 4703 4713, 4353, 4363, 4513⁽¹⁾ or 4623)

Category II (MAE 4344 or 4354⁽¹⁾)

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

MAE 4243⁽¹⁾, 4263, 4703 4713, 4353, 4363, 4513⁽¹⁾, 4623, 3033, 3123, 3223, 3253⁽¹⁾,
3293⁽¹⁾, 4053, 4063, 4313, 4273, 4333, 4583, 4733

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.

MAE Course Requirements
for students moving to the new 2018-2019 ME-Petroleum Option degree plan

Complete each of: MAE 3013, 3113, 3233, **3324**, 3403, **3524** and **3724**, GEOL 3413, 4323
PETE 4303, 4313, 4333, 4343

Complete one course from **each** of the two new categories:

Category I (MAE 4243⁽¹⁾, 4263, 4703, 4713, 4353, 4363, 4513⁽¹⁾ or 4623)

Category II (MAE 4344 or 4354⁽¹⁾)

Complete an **additional** 3 hours of MAE electives selected from:

MAE 4243⁽¹⁾, 4263, 4703 4713, 4353, 4363, 4513⁽¹⁾, 4623, 3033, 3123, 3223, 3253⁽¹⁾,
3293⁽¹⁾, 4053, 4063, 4313, 4273, 4333, 4583, 4733

(1) – These courses are required for Aerospace Engineering (AE) majors and may not be available for ME majors.