

Mechanical & Aerospace Engineering		2021 - 2022		2022 - 2023		2023 - 2024		2024 - 2025		2025 - 2026	
Course No. / Hrs. / Name:	Prereq. / (Coreq.)	FA 21	SP 22	FA 22	SP 23	FA 23	SP 24	FA24	SP25	FA25	SP26
<b>BME 5216C</b> Mechanics of Biostructures I	Graduate Standing or C.I.	X		X		X		X		X	
<b>BME 5217C</b> Mechanics of Biostructures II	BME 5216C or C.I.		X		X		X		X		X
<b>BME 5267</b> Biofluid Mechanics	EML 3701 and EGM 3601, or C.I.	X		X		X		X		X	
<b>BME 5742C</b> Modeling Techniques and Methodologies in Bioengineering	EGN 3034, PHY 2048C, or C.I.	X		X		X		X		X	
<b>BME 6215</b> Advanced Biomechanics	BME 5216C or C.I.		X		X		X		X		X
<b>BME 6231</b> Continuum Biomechanics	EGM 3601		X		X		X		X		X
<b>BME 6268C</b> Applied Computation Biofluids	EML 3701, EGM 3601, BME 5267, or C.I.		X		X		X		X		X
<b>BME 6500C</b> Bio-Instrumentation	BME 5587C or C.I.	X		X		X		X		X	
<b>BME 6525</b> Methods in Neural Machine Interface			X		X		X		X		X
<b>BME 6935</b> Topics in BME	EML 3701, EGM 3601, and Graduate Standing, or C.I.	X		X		X		X		X	
<b>EAS 5123</b> Intermediate Aerodynamics	EAS 4134, (EML 5060)		X		X		X		X		X
<b>EAS 5157</b> VSTOL Aerodynamics and Performance	EAS 4105, (EML 5060)			X				X			
<b>EAS 5211</b> Aeroelasticity	EAS 3101 or EML 3701, and EML 4225		X			X			X		
<b>EAS 5302</b> Direct Energy Conversion					X						
<b>EAS 5315</b> Rocket Propulsions	EAS 4134 or EML 4703			X			X			X	
<b>EAS 5407</b> Mechatronic Systems	EGN 3373 or EEL 3307C, EML 3303C, and EGN 3321	X		X		X		X		X	
<b>EAS 5535</b> Engineering Design for Aero. Vehicles	EAS 4700C, EAS 4710C, EML 4501, EML 4502C, or equivalent.		X				X				X
<b>EAS 6138</b> Advanced Gas Dynamics	EML 5713, (EML 5060)	X			X			X			X



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<b>EML 5228</b> Modal Analysis	EML 3303C, EML 4225, and EML 5060				X				X		
<b>EML 5237</b> Intermediate Mechanics of Materials	EML 3500 or EAS 4200	X		X		X		X		X	
<b>EML 5245</b> Tribology											
<b>EML 5271</b> Intermediate Dynamics	EGN 3321		X		X		X		X		X
<b>EML 5290</b> Introduction to MEMS	Graduate Standing or C.I.	X			X			X			X
<b>EML 5291</b> MEMS Materials											
<b>EML 5311</b> Systems Controls	EML 4225, (EML 5060)	X		X		X		X		X	
<b>EML 5402</b> Turbomachinery	EML 3101, EML 4703 or EAS 4134		X				X				X
<b>EML 5403</b> Science and Technology of Fuel Cells											
<b>EML 5456</b> Turbines for Sustainable Power	EGM 3601, EGN 3365 or EMA 3706, EML 3701 or EAS 3101, (EML 4142)	X		X		X		X		X	
<b>EML 5546</b> Engineering Design with Composite	EML 5237			X				X			
<b>EML 5713</b> Intermediate Fluid Mechanics	EML 4703, (EML 5060)	X		X		X		X		X	
<b>EML 5937</b> SP: Advanced Composites Engineering		X				X				X	
<b>EML 5937</b> SP: Advanced Manufacturing				X				X			
<b>EML 6062</b> Boundary Element Method in Engineering											
<b>EML 6067</b> Finite Element I	EML 5237 or EML 5713		X		X		X		X		X
<b>EML 6068</b> Finite Element II	EML 6067 or C.I.	X				X				X	
<b>EML 6085</b> Research Methods	EML 5060		X		X		X		X		X

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<b>EML 6104</b> Classical Thermodynamics	EML 3101 or C.I.		X		X		X		X		X
<b>EML 6124</b> Two-Phase Flow											
<b>EML 6131</b> Combustion Phenomena	EML 5152			X			X			X	
<b>EML 6144</b> Boiling and Condensation Heat Transfer											
<b>EML 6154</b> Conduction Heat Transfer	EML 5152 or C.I.	X			X			X			X
<b>EML 6155</b> Convection Heat Transfer	EML 5152, EML 5713, or C.I.	X			X			X			X
<b>EML 6157</b> Radiation Heat Transfer	EML 5152 or C.I.			X			X			X	
<b>EML 6158</b> Gaseous Radiation Heat Transfer											
<b>EML 6211</b> Continuum Mechanics	EML 5237		X		X		X		X		X
<b>EML 6223</b> Advanced Vibration Systems	EML 4220, EML 5271, or C.I.	X		X		X		X		X	
<b>EML 6226</b> Analytical Dynamics											
<b>EML 6227</b> Nonlinear Dynamics and Vibrations											
<b>EML 6233</b> Fundamentals in Fatigue Analysis	EML 6211 or C.I.	X				X				X	
<b>EML 6238</b> Plates and Shells	EGM 3601, EML 6211, and EML 5060				X				X		
<b>EML 6295</b> Sensor & Actuator Micro. Mech.											
<b>EML 6296</b> MEMS Mechanism and Design											
<b>EML 6297</b> MEMS Characterization											
<b>EML 6299</b> Advanced Topics in Miniaturiation	EML 5060, EML 6211, or C.I.		X			X			X		

