Reviewed and Updated May 2025

AEROSPACE ENGINEERING				MECHANICAL ENGINEERING		
FALL	**WINTER**	**SPRING**		**FALL**	**WINTER**	**SPRING**
Year 1				**Year 1**		
MAE-002. Intro to Aerospace Eng	Math-020E	MAE-030B. Dynamics & Vibrations		MAE-003. Intro to Mechanical Design	Math-20E	MAE-030B. Dynamics & Vibrations
MAE-008. MatLab	MAE-030A. Statics & Intro to Dynamics	MAE-131A. Solid Mechanics I		MAE-008. MatLab	MAE-030A. Statics & Intro to Dynamics	MAE-131A. Solid Mechanics I
*MAE-021. Aerospace Materials Sci	GE (College requirement)	TE (Technical Elective)		MAE-020. Elements of Materials Science	GE (College requirement)	TE (Technical Elective)
	GE	GE			GE	GE
Year 2				**Year 2**		
MAE-011. Thermodynamics	*MAE-101B. Advanced Fluid Mechanics	*MAE-104. Aerodynamics		MAE-011. Thermodynamics	*MAE-101A. Intro Fluid Mechanics	*MAE-101B. Advanced Fluid Mechanics
*MAE-101A. Intro Fluid Mechanics	*MAE-143A. Signals & Systems	*MAE-143B. Linear Control		*MAE-105. Intro to Mathematical Physics	*MAE-143A. Signals & Systems	*MAE-143B. Linear Control
*MAE-105. Intro to Mathematical Physics	*SE-160A. Aerospace Structural Mechanics I	MAE-170. Experimental Techniques		MAE-107. Computational Methods in Eng	TE	MAE-170. Experimental Techniques
MAE-107. Computational Methods in Eng	TE	GE		MAE-040. Linear Circuits	*MAE-160. **or** *MAE-131B.	GE
Year 3				**Year 3**		
*MAE-113. Fundamentals of Propulsion	*MAE-155A. Aerospace Design I	*MAE-155B. Aerospace Design II		*MAE-101C. Heat Transfer	*MAE-156A. Mechanical Design I	*MAE-156B. Mechanical Design II
*MAE-142. Dynamics & Controls	*MAE-175A. Aerospace Eng Lab	TE		*MAE-150. Computational Methods for Design	*MAE-171A. Mechanical Eng Lab	TE
TE	TE	GE		TE	TE	GE
GE	GE	TE		GE	GE	GE

This academic plan assumes that you have completed all of the following courses at your previous college:
Calculus I for Science and Engineering (MATH-020A), Calculus II for Science and Engineering (MATH-020B), Calculus and Analytic Geometry (MATH-020C), Differential Equations (MATH-020D), Linear Algebra (MATH-018), Complete calculus-based physics series (PHYS-002A, B, C), and general chemistry (CHEM-006A for Mech and Aero; CHEM-006A, B, C for Env)
***If you have not completed all the courses listed above, this plan is not suitable for you. Please come and speak to an academic advisor as soon as possible to plan accordingly.**

*ASTERISK DENOTES A COURSE THAT MUST BE TAKEN AT LEAST BY THAT QUARTER TO GRADUATE IN THREE YEARS

Aerospace Engineering Prerequisite Guide - FA23 Catalog

Subject	Course #	Title	Prerequisites	Course is prerequisite for MAE ___:	Quarter/s *Usually* Offered
MAE	**002**	Intro to Aerospace Eng.		155A	F
MAE	**008**	Matlab Programming for Eng. Analysis	Math-020A, Math-020B	107	F, W, S
MAE	**011**	Thermodynamics	Phys-002C, CHEM-006A	101B, 113	F, W
MAE	**021**	Aerospace Materials Science	Phys-002A, Chem-006A, Math-020B	SE-160A, MAE-155A	F
MAE	**030A**	Statics & Intro to Dynamics	Math-020C, Phys-002A	030B, 131A	F, W
MAE	**030B**	Dynamics & Vibrations	MAE-030A	MAE-155A, SE-160A	S
MAE	**101A**	Intro Fluid Mechanics	Phys-002A, Math-020D, Math-020E	101B, 104, 113	F, W
MAE	**101B**	Advanced Fluid Mechanics	MAE-011, MAE-101A	104, 113	W, S
MAE	**104**	Aerodynamics	MAE-101A, MAE-101B	142, 155A	S
MAE	**105**	Intro to Mathematical Physics	Phys-002A, Phys-002B, Math-020D		F, S
MAE	**107**	Computational Methods in Engineering	MAE-008, Math-018		F, S
MAE	**113**	Fundamentals of Propulsion	MAE-011, MAE-101A, MAE-101B	155B	F
MAE	**131A**	Solid Mechanics I	Math-020D, MAE-030A	SE-160A	F, S
MAE	**142**	Dynamics and Control of Aerospace Vehicles	MAE-104, MAE-143B	155B	F
MAE	**143A**	Signals and Systems	Math-020D, Math-020E, Math-018	143B	W
MAE	**143B**	Linear Control	MAE-143A	142, 175A	S
MAE	**155A**	Aerospace Eng. Design I	MAE-002, MAE-021, MAE-030B, MAE-104, SE-160A	155B	W
MAE	**155B**	Aerospace Eng. Design II	MAE-113, MAE-142, MAE-155A, MAE-170		S
MAE	**170**	Experimental Techniques	PHYS-002C & PHYS-002CL (or MAE-040/140)	155B, 175A	F, S
MAE	**175A**	Aerospace Eng. Lab I	MAE-143B, MAE-170		W
SE	**160A**	Aerospace Structural Mechanics I	MAE-021, MAE-030B, MAE-131A	155A	W

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All courses must be taken for a letter grade (no P/NP) For more information, please contact an MAE undergraduate advisor: mae-ugradadm@ucsd.edu