MAE Transfer Students Three Year Plans-Reviewed and Updated May 2025

FA19 Catalog The following is a recommended sequence of required courses for transfer students.Updated January 2024

AEROSPACE ENGINEERING

FALL	WINTER	SPRING
Year 1		
MAE 2- Intro to Aerospace	Math 20E	MAE 131A- Solid Mechanics
MAE 8- Intro. To MatLab	MAE 30A- Statics and Intro to Dynamics	MAE 30B- Dynamics & Vibrations
*MAE 21-Aerospace Materials Science	GE (College requirement)	GE
	GE	GE
Year 2		
MAE 11-Thermodynamics	*MAE 101A- Intro to Fluids	*MAE 101B- Advance Fluids
*MAE 105- Mathematical Physics	*MAE 143A- Signals and Systems	*MAE 143B- Linear Control
MAE 107- Computational Methods	TE (Technical Elective)	MAE 170- Experimental Technique
MAE 180 - Orbital Mechanics	*SE 160A- Aerospace Structural Mechanics I	*SE 160B- Aerospace Structural Mechanics II
Year 3		
*MAE 101C- Heat Transfer	*MAE 155A- Aerospace Design	*MAE 155B- Aeronautics Design
*MAE 104- Aerodynamics	*MAE 175A- Engineering Lab	GE
GE	*MAE 142- Dynamics and Controls	GE
GE	*MAE 113- Propulsion	TE

MECHANICAL ENGINEERING

FALL	WINTER	SPRING
Year 1		
MAE 3- Graphics and Design	Math 20E	MAE 131A- Solid Mechanics
MAE 8- Intro. To MatLab	MAE 30A- Statics and Intro to Dynamics	MAE 30B- Dynamics & Vibrations
MAE 20- Materials Science	GE (College requirement)	TE (Technical Elective)
	GE	GE
Year 2		
MAE 11-Thermodynamics *(formerly MAE 110A)*	*MAE 101A- Intro to Fluids	*MAE 101B- Advance Fluids
*MAE 105-Mathematical Physics	*MAE 143A- Signals and Systems	*MAE 143B- Linear Control
MAE 107- Computational Methods	TE	MAE 170- Experimental Technique
MAE 40- Linear Circuits	*MAE 160 **or** *MAE 131B	GE
Year 3		
*MAE 101C- Heat Transfer	*MAE 156A- Design Lab I	*MAE 156B- Design Lab II
*MAE 150- Computer-Aid Design	*MAE 171A- Engineering Lab I	TE
TE (Technical Elective)	TE	GE
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 20A), Calculus II for Science and Engineering (MATH 20B), Calculus and Analytic Geometry (MATH 20C), Differential Equations (MATH 20D), Linear Algebra (MATH 18), Complete calculus-based physics series (PHYS 2A, B, C), and general chemistry (CHEM 6A for Mech and Aero; CHEM 6A, 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

Subject	Course #	Title	Prerequisites	Course is prerequisite for MAE ___:	Quarter/s *Usually* Offered
MAE	**2**	Intro to Aerospace Eng.		155A	F
MAE	**8**	Matlab Programming for Eng. Analysis	Math 20A, Math 20B	107	F, W, S
MAE	**11** (prev. 110A)	Thermodynamics	Phys 2C, CHEM 6A	101B, 113	F, W
MAE	**21**	Aerospace Materials Science	Phys 2A (or 4A), Chem 6A, Math 20B	SE 160A, MAE 155A	F
MAE	**30A** (prev. 130A)	Statics & Intro to Dynamics	Math 20C, Phys 2A	30B (130B), 131A	F, W
MAE	**30B** (prev. 130B)	Dynamics & Vibrations	MAE 30A (130A)	SE 160A	S
MAE	**101A**	Intro Fluid Mechanics	Phys 2A, Math 20D, Math 20E	101B, 101C, 104, 113	F, W
MAE	**101B**	Advanced Fluid Mechanics	MAE 11 (or 110A), MAE 101A	101C, 104, 113	W, S
MAE	**101C**	Heat Transfer	MAE 101A, MAE 101B, MAE 105	175A	F
MAE	**104**	Aerodynamics	MAE 101A, MAE 101B	142, 155A	F
MAE	**105**	Intro to Mathematical Physics	Phys 2A, Phys 2B, Math 20D	101C	F, S
MAE	**107**	Computational Methods in Engineering	MAE 8, Math 18 (or 20F)		F, S
MAE	**113**	Fundamentals of Propulsion	MAE 11 (or 110A), MAE 101A, MAE 101B	155B	W
MAE	**131A**	Solid Mechanics I	Math 20D, MAE 30A (130A)	SE 160A	F, S
MAE	**142**	Dynamics and Control of Aerospace Vehicles	MAE 104, MAE 143B	155B	W
MAE	**143A**	Signals and Systems	Math 20D, Math 20E, Math 18 (or 20F)	143B	W
MAE	**143B**	Linear Control	MAE 143A	142, 175A	S
MAE	**155A**	Aerospace Eng. Design I	MAE 2, MAE 21 (or SE 2 or SE 104), MAE 104, MAE 30B (or 130C), SE 160A	155B	W
MAE	**155B**	Aerospace Eng. Design II	MAE 113, MAE 142, MAE 155A, MAE 170		S
MAE	**170**	Experimental Techniques	PHYS 2C & PHYS 2CL (or MAE 40/140)	155B, 175A	F, S
MAE	**175A**	Aerospace Eng. Lab I	MAE 101C, MAE 143B, MAE 170		W
MAE	**180**	Orbital Mechanics			F
SE	**160A**	Aerospace Structural Mechanics I	MAE 21 (or SE 2/L), MAE 30B (130B), MAE 131A	155A, SE 160B	W
SE	**160B**	Aerospace Structural Mechanics II	SE 160A		S

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