

SAN JOSÉ STATE UNIVERSITY

Bachelor of Science Degree in AEROSPACE ENGINEERING

FRESHMAN YEAR

<u>Fall</u>	<u>Units</u>	<u>Spring</u>	<u>Units</u>
Math 30, Calculus I	3	Math 31, Calculus II	4
Chem 1A, General Chemistry	5	Physics 70(50), Mechanics	4
Engr 10, Introduction To Engineering	3	ME 20, Design & Graphics	2
English 1A, Composition I (GE Area A2)	3	English 1B, Composition II (GE Area C3)	3
Communications (GE Area A1)	3	GE (Area C1)	(3)
Kinesiology (PE)	<u>1</u>	Kinesiology (PE)	<u>1</u>
Total:	18	Total:	14(17)

SOPHOMORE YEAR

<u>Fall</u>	<u>Units</u>	<u>Spring</u>	<u>Units</u>
Math 32, Calculus III	3	Math 133A, Differential Equations	3
MatE 25, Intro. to Materials	3	CE 99, Statics	2
ME 30, Computer Applications	2	EE 98, Intro. Circuit Analysis	3
Phys 71(51), Elect. & Magnetism	4	Phys 72(52), Atomic (Heat & Light)	4
GE (Area C2 & D1) / Am Studies 1A	<u>6</u>	GE (Area D2 & D3) / Am Studies 1B	<u>6</u>
Total:	18	Total:	18

JUNIOR YEAR

<u>Fall</u>	<u>Units</u>	<u>Spring</u>	<u>Units</u>
CE 112, Mech. of Materials	3	AE 114, Aerospace Structures	3
ME 101, Dynamics	3	AE 140, Rigid Body Dynamics	3
ME 111, Fluid Mechanics	3	AE 162, Aerodynamics	3
ME 113, Thermodynamics	4	AE 165, Aerospace Flight Mechanics	3
GE (Area E)	3	ME 130, Applied Engineering Analysis	3
Phys 53, Atomic Physics	<u>(2)</u>	Engr. 100W, Engineering Reports	<u>3</u>
Total:	16(18)	Total:	18

SENIOR YEAR

<u>Fall</u>	<u>Units</u>	<u>Spring</u>	<u>Units</u>
AE 164, Compressive Flow	3	AE169, Computational Fluid Dynamics	3
AE 167, Aerospace Propulsion	3	AE 171B, Aircraft Design II or	3
AE 168, Aero. Vehicle Dynamics & Control	3	AE 172B, Spacecraft Design II	3
AE 171A, Aircraft Design I or	3	AE 198, Tech & Civilization (GE Area V)	3
AE 172A, Spacecraft Design I	3	Technical Elective	3
ME 120, Experimental Methods	2	Upper Division GE (Area S)	<u>3</u>
Technical Elective	<u>3</u>		
Total:	17	Total:	15

TOTAL UNITS FOR GRADUATION: 134 (139)

- *Students must pass the placement tests to enroll in Math 30, English 1A and Physics 70.*
- *Four courses Physics 50 series (14 units) may be substituted for three courses Physics 70 series (12 units). Physics 50 does not require a placement test.*
- *Students transferring from a community college requiring 4 physics courses must enroll in the Physics 50 series to complete the sequence.*
- *General Education course requirements in Area A3 and all of Area B are satisfied by completing the requirements for the major.*
- *American Studies 1A & 1B will cover Lower Division GE in Areas C1, C2, D1, D2, & D3.*

AEROSPACE ENGINEERING PROGRAM

The mission of the Mechanical & Aerospace Engineering Department at San José State University is: to enrich the lives of its students, to transmit knowledge to its students along with the necessary skill for applying it in service to the mechanical engineering profession and the industry, and to expand the base of knowledge through research and scholarship.

The curriculum provides students with an education in aerospace engineering theory and practice. It is designed to prepare students for professional careers in the several fields of aerospace engineering involving aircraft and space systems research, design, development, testing, and systems integration. The curriculum is based on a strong core of engineering science courses common to all engineering programs. It also provides excellent preparation for graduate study. By choosing electives under the guidance of a program Advisor, the student may specialize in one or more of the following fields: Aircraft or Spacecraft Design, Structures, Dynamics and Control, Propulsion, and/or Aerodynamics.

The advanced engineering and high-technology applications generic to the modern aerospace industry are reflected in the curriculum. Laboratories equipped with modern electro-optical, electromechanical, and computer systems instrumentation support experimental work in each area of specialization.

Opportunities are available for students to participate in advanced elective courses and projects in a field of special interest and on problems of interest to industry and government. Students have the opportunity to join the student chapter of the American Institute of Aeronautics and Astronautics (AIAA), the national professional society of the advancement of aerospace technology.



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SJSU Website: www.sjsu.edu

College of Engineering Website: www.engr.sjsu.edu

Mechanical & Aerospace Engineering Website: www.engr.sjsu.edu/mae

Department Telephone: (408) 924-3850

Department Fax: (408) 924-3995