

BS AEROSPACE ENGINEERING**2015-2017***updated
10.04.16***Units Required 189**

NOTE: This document can be used as a compact display of courses and other curricular requirements at the time of publication of the 2015-2017 catalog. The Degree Progress Report must be used to track students' progress in all degree requirements, throughout their Cal Poly career.

Note: No major or support courses may be selected as credit/no credit.

MAJOR COURSES (88)	<i>Units</i>
AERO 121 Aerospace Fundamentals	2
AERO 215 Intro to Aerospace Design	2
AERO 300 Aerospace Engineering Analysis	5
AERO 301 Aerothermodynamics I	4
AERO 302 Aerothermodynamics II	4
AERO 303 Aerothermodynamics III	4
AERO 304 Experimental Aerothermodynamics	2
AERO 320 Fundamentals of Dynamics & Control	4
AERO 331 Aerospace Structural Analysis I	4
AERO 431 Aerospace Structural Analysis II	4
AERO 433 Experimental Stress Analysis	1
AERO 460 Aerospace Engineering Professional Prep	1
AERO 465 Aerospace Systems Senior Laboratory	1
CE 204 Mechanics of Materials I	3
CE 207 Mechanics of Materials II	2
EE 201 Electric Circuit Theory	3
EE 251 Electric Circuits Laboratory	1
Concentration Courses ² (<i>see reverse</i>)	41

SUPPORT COURSES (61)

BIO 213 <i>and</i>	2
BMED/BRAE 213 (B2) ¹	2
CHEM 124 General Chem for Engineering I (B3/B4) ¹	4
ENGL 149 Technical Writing for Engineers (A3) ¹	4
IME 144 Introduction to Design and Manufacturing	4
MATE 210 Materials Engineering	3
MATH 141 Calculus I (B1) ¹	4
MATH 142 Calculus II (B1) ¹	4
MATH 143 Calculus III (Add'l Area B) ¹	4
MATH 241 Calculus IV	4
MATH 244 Linear Analysis I	4
ME 211 Engineering Statics	3
ME 212 Engineering Dynamics	3
PHYS 131 or PHYS 141 (Add'l Area B) ¹	4
PHYS 132 General Physics II	4
PHYS 133 General Physics III	4
STAT 312 Statistical Methods for Engineers (B6) ¹	4

GENERAL EDUCATION (GE)**40**

72 units required, 32 of which are specified in Support

Refer to [current schedule](#) or <http://www.ge.calpoly.edu> to choose GE courses. You will not receive credit for courses not on the approved lists.

Minimum of 8 units required at the 300 level.

Area A Communication**8**

A1 Expository Writing	4
A2 Oral Communication	4
A3 Reasoning, Argu & Writing (<i>4 units in Support</i>) ¹	

Area B Science and Mathematics (no add'l units req'd)

28 units are listed in Support

Area C Arts and Humanities**16**

C1 Literature	4
C2 Philosophy	4
C3 Fine/Performing Arts	4
C4 Upper-division elective	4

Area D/E Society and the Individual**16**

D1 The American Exp (40404)	4
D2 Political Economy	4
D3 Comp Social Institutions	4
D4 Self Dev (CSU Area E)	4

FREE ELECTIVES **0****OTHER DEGREE REQUIREMENTS:**

- Cal Poly, Higher Ed, and Major GPA must all be at least 2.00
- For students admitted Fall 2016 and after, a grade of C- or higher is required in GE A1, A2, A3, and one GE B1 course

All students must complete:

- United States Cultural Pluralism Requirement
- Graduation Writing Requirement
- 60 units Upper Division (any 300-400 level classes)
- Upper Division units in the Major: 27
- Residency Requirements: See Degree Progress Report for details

¹ Required in Support; also satisfies GE² Requires a petition.

CONCENTRATIONS (select one)**Aeronautics (41)**

AERO 306 Aerodynamics and Flight Performance	4
AERO 307 Experimental Aerodynamics	2
AERO 401 Propulsion Systems	5
AERO 405 Supersonic and Hypersonic Aerodynamics	4
AERO 420 Aircraft Dynamics and Control	4
AERO 443 Aircraft Design I	4
AERO 444 Aircraft Design II	3
AERO 445 Aircraft Design III	3
Aeronautics Approved Electives ¹ <i>Select 12 units from the following:</i> AERO 311, 351, 353, 360 ² , 406, 407, 409, 421, 425, 432, 434, 435, 450, 452, 446, 470, 510, 511, 512, 515, 517, 519, 522, 523, 525, 526, 532, 533, 534, 535, 540, 541, 550, 551, 553, 557, 560, 561, 562, 565, 566, 567, 570 ² , 571 ² AERO 360, 570, 571 require a petition.	12

Astronautics (41)

AERO 351 Introduction to Orbital Mechanics	4
AERO 353 Spacecraft Environment	4
AERO 354 Space Environment Laboratory	2
AERO 402 Spacecraft Propulsion Systems	5
AERO 421 Spacecraft Attitude Dynamics and Control	4
AERO 446 Introduction to Space Systems	4
AERO 447 Spacecraft Design I	4
AERO 448 Spacecraft Design II	3
AERO 449 Spacecraft Design III	3
Astronautics Approved Electives ¹ <i>Select 8 units from the following:</i> AERO 306, 311, 360 ² , 405, 406, 407, 409, 420, 425, 432, 434, 435, 446, 450, 452, 470, 510, 511, 512, 515, 517, 519, 522, 523, 525, 526, 532, 533, 534, 535, 540, 541, 550, 551, 553, 557, 560, 561, 562, 565, 566, 567, 570 ² , 571 ² AERO 360, 570, 571 require a petition.	8

¹ Consultation with advisor is recommended prior to selecting approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.

² Requires a petition.