2009-11 Cal Poly Catalog

Aerospace Engineering Department

Flowchart

BS AEROSPACE ENGINEERING

60 units upper division

2.0 GPA

GENERIC COURSES

AERO 121 Aerospace Fundamentals 2
AERO 215 Introduction to Aerospace Design 2
AERO 300 Aerospace Engineering Analysis 5
AERO 301, 302, 303 Aerothermodynamics 4,4
AERO 304 Experimental Aerothermodynamics 2
AERO 306 Aerodynamics and Flight Performance 4
AERO 307 Experimental Aerodynamics 2
AERO 320 Fundamentals of Guidance and Control 4
AERO 331 Aerospace Structural Analysis I 4
AERO 401 Propulsion Systems 4
AERO 420 Stability/Cruise of Aerospace Vehicles 4
AERO 431 Aerospace Structural Analysis II 4
AERO 433 Experimental Stress Analysis 1
AERO 446 Introduction to Space Systems 4
AERO 461, 462 Senior Project I, II 2,3
AERO 463, 464 Senior Project Laboratory I, II 2,3
CE 204 Mechanics of Materials I 3
CE 207 Mechanics of Materials II 3
EE 201, 251 Electric Circuit Theory and Lab 3,1
Concentration courses (see below) 22
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SUPPORT COURSES

BIO 213 and ENGR/BRAE 213 (B2)* 2,2
CHEM 124 Gen Chem for Engineering (B3/B4)* 4
EE 321, 361 Electronics and Lab 3,1
ENGL 149 Technical Writing for Engineers (A3)* 4
IME 144 Intro Design and Manufacturing 4
MATE 210 Materials Engineering 3
MATH 141, 142 Calculus I, II (B1)* 4,4
MATH 143 Calculus III (Add’l Area B)* 4
MATH 241 Calculus IV 4
MATH 244 Linear Analysis I 4
ME 211 Engineering Statics 3
ME 212 Engineering Dynamics 3
PHYS 131 General Physics I or PHYS 141 General

Physics IA (Add’l Area B)* (5/23/12) 4

PHYS 132, 133 General Physics II, III 4,4
STAT 312 Statistical Methods for Engineers (B6)* 4

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GENERAL EDUCATION (GE)

72 units required, 32 of which are specified in Support.

Area A Communication (8 units)

A1 Expository Writing 4
A2 Oral Communication 4
A3 Reasoning, Argumentation, and Writing 4

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

B1 Mathematics/Statistics 8
B2 Life Science 4
B3 Physical Science 4
B4 One lab taken with either a B2 or B3 course
B5 (requirement for Liberal Arts students only)
B6 Upper-division Area B 4
Additional Area B units 8

Area C Arts and Humanities (16 units)

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

Area D/E Society and the Individual (16 units)

D1 The American Experience 4
D2 Political Economy 4
D3 Comparative Social Institutions 4
D4 Self Development (CSU Area E) 4

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FREE ELECTIVES 0

CONCENTRATIONS (select one)

Aeronautics Concentration

AERO 405 Supersonic/Hypersonic Aerodynamics 4
AERO 443, 444, 445 Aircraft Design I, II, III 4,3,3

Select 8 units from the following:

AERO 407, 409, 416, 419, 425, 432, 435, 450,
452, 470, 510, 511, 512, 515, 517, 519, 520,
521, 522, 523, 524, 525, 526, 530, 532, 533,
534, 535, 540, 541, 550, 551, 552, 553, 555,
557, 560, 561, 562, 565, 566, 567.
AERO 360, 570, 571 require a petition.

(5/2/11)

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Astronautics Concentration

AERO 451 Spaceflight Dynamics I 4
AERO 447, 448, 449 Spacecraft Design I, II, III 4,3,3

Select 8 units from the Aeronautics approved electives list, above.

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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.