BS BIORESOURCE AND AGRICULTURAL ENGINEERING

2007-09 Cal Poly Catalog

BioResource and Agricultural Engineering Dept
Agricultural Engineering Bldg. (08), Room 101
(805) 756-2378, FAX: (805) 756-2626

☐ 60 units upper division ☐ GWR
☐ 2.0 GPA ☐ USCP
* = Satisfies General Education requirement

MAJOR COURSES
BRAE 128 Careers in Bioresource & Ag Engr. ......... 2
BRAE 129 Laboratory Skills and Safety ............... 1
BRAE 133 Engineering Design Graphics ............... 2
BRAE 151 CAD for Agricultural Engineering ....... 1
BRAE 216 Fundamentals of Electricity ............... 4
BRAE 232 Agricultural Structures Planning ......... 4
BRAE 234 Intro Mechanical Systems-Agric .......... 4
BRAE 236 Principles of Irrigation .................... 4
BRAE 239 Engineering Surveying .................... 4
BRAE 312 Hydraulics .................................... 4
BRAE 320 Princ Bioresource Engineering .......... 4
BRAE 328 Measurements/Computer Interfacing ..... 4
BRAE 331 Irrigation Theory ........................... 3
BRAE 403 Agricultural Systems Engineering ....... 2
BRAE 414 Irrigation Engineering ..................... 4
BRAE 421, 422 Equipment Engineering ............... 3,4
BRAE 433 Agricultural Structures Design .......... 4
BRAE 460 Senior Project Organization .............. 1
BRAE 461, 462 Senior Project I, II .................... 2,2
Advisor approved electives ............................. 10

75

SUPPORT COURSES
BIO 213 and ENGR/BRAE 213 or MCRO 221
Microbiology (B2)* ....................................... 4
CE 201 Mechanics of Materials (6) or CE 204 and
   CE 207 Mechanics of Materials I, II (3)(3) .... 6
CHEM 124 General Chemistry for the
   Engineering Disciplines (B3/B4)* ................. 4
CHEM 125 General Chemistry for the
   Engineering Disciplines (Add’l Area B)* ....... 4
CSC 231/CSC 232/CSC 234......................... 2/3
ECON 201 Survey of Economics (D2)* ............... 4
ENGL 149 Technical Writing for Engineers (A3)* 4
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
ME 302 Thermodynamics ................................ 3
PHYS 141 General Physics IA .......................... 4
PHYS 132, 133 General Physics ....................... 4,4
PHYS 206 Instrument/Experimental Physics and
   PHYS 256 Electrical Measurements Lab or
   EE 321 Electronics & EE 361 Electronics Lab 3,1
SS 121 Introductory Soil Science .................... 4
STAT 312 Statistical Methods-Engr. (B6)* ........ 4

81-82

GENERAL EDUCATION (GE)

72 units required; 36 units are in Support.
→See page 56 for complete GE course listing.
→Minimum of 8 units required at the 300-400 level.

Area A Communication (8 units)
A1 Expository Writing ................................. 4
A2 Oral Communication ............................... 4
A3 Reasoning, Argumentation, and Writing * 4 in
   Support ............................................... 0

Area B Science and Mathematics (no additional units
   are required)
B1 Mathematics/Statistics * 8 units in Support .... 0
B2 Life Science * 4 units in Support ............... 0
B3 Physical Science * 4 units in Support ......... 0
B4 One lab taken with either a B2 or B3 course
   B5 (requirement for Liberal Arts students only)
   B6 Upper-division Area B * 4 units in Support ... 0
   Additional Area B units* 8 units in Support .... 0

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 (12 units)
D1 The American Experience (40404) .............. 4
D2 Political Economy * 4 units in Support ........ 0
D3 Comparative Social Institutions ................. 4
D4 Self Development (CSU Area E) ............... 4

36

ELECTIVES .................................................. 0

192