

**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 .....	4
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
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	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
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	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
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	36

<b>ELECTIVES .....</b>	<b>0</b>
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	192