BS BIOMEDICAL ENGINEERING

☐ 60 units upper division ☐ GWR
☐ 2.0 GPA ☐ USCP

* = Required in Support; also satisfies GE

MAJOR COURSES

ENGR 110 Engineering Science I......................... 3
BMED 111 Biomedical Engnr Calculations or
ENGR 111 Engineering Science II (12/11/12)..... 3
BMED 212 Intro to Biomedical Engnr Design...... 3
BMED 310 Biomed. Engrg Measurement/Analysis 4
BMED 410 Biomechanics............................... 4
BMED 420 Biomaterials..................................... 4
BMED 425 Biomedical Engineering Transport..... 4
BMED 430 Biomedical Modeling....................... 4
BMED 440 Bioelectronics and Instrumentation..... 4
BMED 450 Special Topics in Biomedical Engnr 4
BMED 455 Biomedical Engineering Design I..... 4
BMED 456 Biomedical Engineering Design II..... 4
BMED 460 Engineering Physiology.................... 4
Advisor approved technical electives (300/400) ... 14
BMED 355, 404 434, 435, 445, 450, 510, 515, 525,
530, 531, 535, 540, 545, 550, 555;
CHEM 444, 446, 447;
CSC 101 Fundamentals of Computer Science or
ENGR 313, 314, 315, 316, 317, 318, 371, 377,
444, 445, 446, 473;
CE 207; CSC 448; EE 251, 321, 361;
KINE 406; MATH 344;
MCRO 221 or 224, MCRO 225, 320, 402;
ME 251; PHYS 417; STAT 312;
ZOO 331, 332, 426, 428 (12/31/14)
CE 204 Mechanics of Materials I.................... 3

2 CSC 101 Fundamentals of Computer Science or
CSC 234 C and Unix or CSC 231 (12/13/13) ...... 3
EE 201 Electric Circuit Theory........................ 3
IME 314 Engineering Economics...................... 3
MATE 210 Materials Engineering...................... 3
ME 211 Engineering Statics............................ 3
ME 212 Engineering Dynamics........................ 3
ME 302 Thermodynamics I............................. 3
ME 341 Fluid Mechanics I............................. 3

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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

units in Support......................................... 0

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

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
Additonal 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 (16 units)

D1 The American Experience (40404).............. 4
D2 Political Economy.................................... 4
D3 Comparative Social Institutions................ 4
D4 Self Development (CSU Area E).................. 4

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

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
Additonal 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 (16 units)

D1 The American Experience (40404).............. 4
D2 Political Economy.................................... 4
D3 Comparative Social Institutions................ 4
D4 Self Development (CSU Area E).................. 4

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FREE ELECTIVES......................................... 0

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1 For a total of 16 units: Select one course from:
- ZOO 331, ZOO 332, BIO 432, BIO 433.
- Select one course from CE 412,
  MATH 344, STAT 312, PHYS 417.
Typical remaining course selections include, but are not limited to:
- BIO 302, 303, 312, 315, 405, 413, 426, 428;
- CHEM 312, CHEM 313, CHEM 411, CHEM 412,
  MCRO 221 or 224, MCRO 225, 320, 402;
- BUS 310, CHEM 216, 217, 218, 219, 312, 313,
  316, 317, 318, 371, 377, 444, 445, 446, 473;
- CE 207; CSC 448; EE 251, 321, 361;
- KINE 406; MATH 344;
- MCRO 221 or 224, MCRO 225, 320, 402;
- ME 251; PHYS 417; STAT 312;
- ZOO 331, 332, 426, 428 (12/31/14)

2 If CSC 231 is taken for 2 units then 1 additional unit of Approved
Support Electives is required. (12/13/13)

3 May substitute an additional 4 units of approved technical electives,
if using BMED 456 to fulfill senior project requirement. (7/31/14)