MAJOR COURSES

- CE 111 Introduction to Civil Engineering .............. 1
- CE 112 Design Principles in Civil Engineering ....... 2
- CE 113 Computer-Aided Drafting in Civ Engr ...... 2
- CE 201 Mechanics of Materials (6) or CE 204, CE 207 Mechanics of Materials I, II (3)(3) .......... 6
- CE 321, 322 Fund Transportation Engr and Lab ...... 3,2
- CE 251 Numerical Methods in Civil Engineering ... 4
- CE 259 Civil Engineering Materials ................... 2
- CE 336 Water Resources Engineering ................. 4
- CE 337 Hydraulics Laboratory .......................... 1
- CE 351 Structural Analysis .............................. 4
- CE 355 Reinforced Concrete Design .................... 4
- CE 356 Structural Steel Design ........................ 4
- CE 381, 382 Geotechnical Engineering and Lab .... 4,1
- CE 461, 462 or CE 466, 467 or CE 468, 469 ............ 3,3
- Select one of the following: ................................
- CE 422, 440, 454, 481, 492 ............................. 4
- Technical electives ........................................ 20
- 24 In consultation with faculty advisor, select 24 units from: CE 371 or CM 371, any 400-500 level CE and ENVE courses not required in the major, ENVE 325, and a maximum of 4 units from the following list: (5/21/13)
- ARCE 305, 372, 403;
- BRAE 345, 446, 447, 532;
- CE/ME 404;
- CHEM 318, 341;
- CM 333, 341, 342, 343, 364, 432, 435, 454;
- CRP 404, 408, 420, 435;
- GEOL 401, 402, 415;
- IME 314;
- MATE 425, 450;
- MATH 344;
- LA/NR 318;
- SS 421, 423, 442 (Updated 1/15/10); (9/6/11)

SUPPORT COURSES

- BIO 213 and ENGR/BRAE 213 (B2) ..................... 2,2
- BRAE 239 Engineering Surveying ..................... 4
- CHEM 124 Gen Chem for Engineering (B3/B4) .... 4
- CHEM 125 Gen Chem for Engineering ............... 4
- ENGL 149 Technical Writing for Engineers (A3) .. 4
- ENVE 331 Intro to Environmental Engineering ..... 4
- GEOL 201 Physical Geology ........................... 3
- MATE 210 Materials Engineering ..................... 3
- MATE 215 Materials Laboratory I ..................... 1
- 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 I ............................ 3
- ME 341 Fluid Mechanics I ............................. 3
- PHYS 141 General Physics IA (Add’l Area B) ....... 4
- PHYS 132, 133 General Physics II, III .................. 4,4
- STAT 312 Statistical Methods for Engineers (B6)* 4
- 2 Select 3 units from:
- CSC 231, 234, 270, 341, 342;
- EE 201;
- IME 314;
- MATH 206, 211, 304, 344

GENERAL EDUCATION (GE)

- 72 units required, 32 of which are specified in Support.
- → See page 50 for complete GE course listing.
- → Minimum of 8 units required at the 300 level.

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 addl 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
- Additional Area B units * 8 units in Support ..... 0

Area C Arts and Humanities (16 units)

- C1 Literature ............................................. 4
- C2 Philosophy ........................................... 4

1 CE 114 substitutes for CE 112 and CE 113. (7/24/09)
2 Consultation with advisor is recommended prior to selecting technical electives or approved electives; bear in mind your selections may impact pursuit of post-baccalaureate studies and/or goals.
3 Additional guidelines for technical electives:
   a) More than 4 units of coursework outside CE/ENVE is only allowed permitted in special/unusual cases and requires written justification by the student, and approval by the Department Chair.
   b) CE 400, 500 and ENVE 400, 500 require a course substitution form and no more than 4 total units are allowed.
   c) No more than 8 combined units of CE/ENVE is only permitted in special/unusual cases and requires written justification by the student, and approval by the Department Chair.
   d) More than 4 units of coursework outside CE/ENVE is only permitted in special/unusual cases and requires written justification by the student, and approval by the Department Chair.
   e) Only one course can be credited.
4 The courses selected to satisfy this requirement may not be used to satisfy other major, support, or general education requirements (no double counting of coursework).
5 If CE 251 is taken for 2 units then an additional 2 units of Technical Electives is required. (6/7/13)
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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