California State Polytechnic University, Pomona
Degree Curriculum Sheet

Plan (Major)  CIVIL ENGINEERING
Subplan/Option  General Civil Engineering
Catalog Year  2016 - 2017
Minimum Units Required  194

Required Core Courses
- CE 127/127L - Civil Engineering CAD I/Laboratory (1/1)
- CE 129L - Civil Engineering CAD II Laboratory (1)
- CE 134/134L - Elementary Surveying/Laboratory (2/2)
- CE 221/221L - Civil Engineering Materials/Laboratory (2/1)
- CE 304 - Structural Analysis I (4)
- CE 305 - Structural Analysis II (4)
- CE 305L - Structural Design Laboratory (1)
- CE 306L - Structural Testing Laboratory (1)
- CE 325 - Geotechnical Engineering I (2)
- CE 326 - Geotechnical Engineering II (3)
- CE 327L - Geotechnical Engineering Laboratory (1)
- CE 332/332L - Hydraulic Engineering/Laboratory (3/1)
- CE 362/362A - Technical Communications and Documentation/Activity (2/1)
- CE 421 - Structural Design-Reinforced Concrete (4)
- CE 451 - Engineering Hydrology (4)
- MAT 114 - Analytic Geometry and Calculus I (4)
- MAT 115 - Analytic Geometry and Calculus II (4)
- MAT 116 - Analytic Geometry and Calculus III (4)
- MAT 214 - Calculus of Several Variables I (3)
- MAT 224 - Elementary Linear Algebra and Differential Equations (4)
- ME 214 - Calculus of Several Variables I (3)
- ME 215 - Vector Statics (3)
- ME 216 - Vector Dynamics (4)
- ME 218 - Strength of Materials I (3)
- ME 311 - Fluid Mechanics I (3)

Required Support Courses
- The following major support courses should be used to satisfy the indicated GE requirements. If these courses are not used to satisfy GE, the total units to degree may be more than 194 units.
- CHM 121 - General Chemistry (3)
- CHM 121L - General Chemistry Laboratory (1) (B3)
- CHM 122 - General Chemistry (3)
- CHM 122L - General Chemistry Laboratory (1)
- EGR 445 - Role of Design Professionals in Society (4) (D4)
- GSC 321/321L - Engineering Geology I (3/1) (B5)
- IME 402 - Ethical Considerations in Technology and Applied Science (4) (C4)
- IME 301 - Application of Statistics in Engineering (3) or STS 305 - Statistical Methods in Engineering and the Physical Sciences (3)
- MAT 114 - Analytic Geometry and Calculus I (4) (B4)
- PHY 131 - General Physics (3) and PHY 131L - General Physics Laboratory (1) (B3)
- PHY 132 - General Physics (3) and PHY 132L - General Physics Laboratory (1)

Required Sub/Option Core Courses
- CE 122 - Introduction to Civil Engineering (1)
- CE 220/220L - Advanced Surveying/Laboratory (3/1)
- CE 223/223L - Highway Engineering/Laboratory (2/2)
- CE 224/224L - Transportation Engineering/Laboratory (3/1)
- CE 301 - Engineering Economics (4)
- CE 303/303A - Computer Programming and Numerical Methods/Activity (2/1)
- CE 406 - Structural Design-Steel (4)
- CE 431/431L - Water Treatment Engineering/Laboratory (3/1)
- CE 491 - Comprehensive Civil Engineering Design I (1)
- CE 492 - Comprehensive Civil Engineering Design II (2)
- CE 493 - Comprehensive Civil Engineering Design III (1)

Elective Sub/Option Support Courses
- Technical Electives in Civil Engineering CE XXX (11)**
- **Upper Division Civil Engineering Courses approved in advance by advisor.

Total Units 35

Interdisciplinary General Education
- An alternate pattern for partial fulfillment of GE Areas A, C, D, and E available for students is the Interdisciplinary General Education (IGE) program. Students should see an advisor for specific GE coursework required by their major.
- Students must be exempt from or score at least 147 on the EPT to qualify for IGE.
- Students must meet at least 147 on the EPT to qualify for IGE.
- Please refer to the University Catalog General Education Program section for additional information.

How IGE fulfills General Education Requirements:
- Year  Completion of IGE Courses  Satisfies GE Requirements
- Freshman  IGE 120, IGE 121, IGE 122  A2 as well as any 2 courses from C1-C3
- Sophomore  IGE 220, IGE 221, IGE 222  D1 (8 units) and D3
- Junior  IGE 223, IGE 224  D2 and Area E

Total Units 32

General Education Requirements

Area A Communication & Critical Thinking (12 units)
- 1. Oral Communication
- 2. Written Communication
- 3. Critical Thinking

Area B Mathematics & Natural Sciences (16 units)
- 1. Physical Science
- 2. Biological Science
- 3. Laboratory Activity
- 4. Math/Quantitative Reasoning
- 5. Science & Technology Synthesis

Area C Humanities (16 units)
- 1. Visual and Performing Arts
- 2. Philosophy and Civilization
- 3. Literature and Foreign Language
- 4. Humanities Synthesis

Area D Social Sciences (20 units)
- 1. U.S. History, Constitution, American Ideals
- a. United States History
- b. Introduction to American Government
- 2. History, Economics and Political Science
- 3. Sociology, Anthropology, Ethnic & Gender Studies
- 4. Social Science Synthesis

Area E Lifelong Understanding & Self Development (4 units)

Total Units 68

American Institutions
- Courses that satisfy this requirement may also satisfy GE Area D1

Total Units 8

American Cultural Perspectives Requirement
- Refer to the University Catalog General Education Program section for a list of courses that satisfy this requirement. Course may also satisfy major, minor, GE, or unrestricted elective requirements.

Total Units 4

*All persons who receive undergraduate degrees from Cal Poly Pomona must pass the Graduation Writing Test (GWT). The test must be taken by the quarter following completion of 120 units for undergraduates.*