

| 2000 CE PRE AND CO REQUISITES | | | | |
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| COURSE # | UNITS | COURSE NAME | PREREQUISITES | CO-REQUISITES |
| MATH 122A & 122B/124/125 | 5, 3 | Calculus I | MATH 120R or MATH 110 & MATH 111 or MATH Read. Test | |
| ENGL 101 | 3 | First Year Composition | ENGL placement 101 | |
| CHEM 103a or 151 | 3 | Chemistry I | MATH 110, MATH Read. Test Scores | CHEM 104A (encouraged) |
| CHEM 104a | 1 | Chem. Lab. I | | CHEM 103A |
| ENGR 102A and B | 3 | Intro. To Engineering | | MATH 122B, 124, or 125 |
| MATH 129 | 3 | Calculus II | MATH 122B, 124 or 125 with a C or better | |
| ENGL 102 | 3 | First Year Composition II | ENGL 101 or 101A | |
| PHYS 141 | 4 | Introductory Mechanics | MATH 122b, 124, or 125 or appropriate Math Placement Level | MATH 129 |
| MCB 181 R, L or | 4 | Introductory Biology I | Math 109C, 110, 112, 113, 120, 120R, 124, 125, 129, 233 | |
| GEOS 251 | 4 | Physical Geology | | |
| MATH 223 | 4 | Calculus III | MATH 129, 223, or 250A with a C or better | |
| PHYS 241 or | 4 | Electricity & Magnetism | PHYS 141 | MATH 223 (encouraged) |
| CHEM 152 | 4 | Chemistry II | CHEM 103A & 104B, CHEM 105A & 106A, or CHEM 151 | |
| MATH 254 | 3 | Ordinary Differential Equations | MATH 129, 223, or 250A with a C or better | |
| ENGR 211 P and I | 3 | ENGR. Science Electives | 211P=Math 129 and ENGR 102 / 211I=Math 254, ENGR 211C | |
| AME 105 (CE 260) | 1 | Introduction to MATLAB I | MATH 122B or 125 | |
| CE 210 | 3 | Engineering Graphics | | |
| CE 214 | 3 | Statics | PHYS 141, or 161H, and MATH 129 or 250B | |
| CE 215 | 3 | Mechanics of Solids | CE 214 | |
| CE 218 | 3 | Mechanics of Fluids | CE 214 | |
| CE 251 | 3 | Surveying | MATH 111 | |
| ALL COURSES 300 LEVEL OR HIGHER REQUIRE ADVANCED STANDING (GPA \geq 2.25) | | | | |
| CE 301 | 3 | Engineering Communications | | |
| CE 303 | 3 | Numerical Analysis for Civil Engineers | MATH 254 & AME 105 | |
| CE 310 | 3 | Probability and Statistics in CE | MATH 129 | |
| CE 323 | 4 | Hydraulic Engineering & Design | CE 218 | |
| CE 329 | 1 | Fluid Mechanics Lab | | CE 218 |
| CE 333 | 3 | Elementary Structure Analysis | CE 215 | |
| CE 334 | 3 | Structural Design In Steel | CE 333 | |
| CE 335 | 3 | Structural Design In Concrete | CE 333 | |
| CE 343 | 3 | Soil Mechanics | CE 215 | |
| CE 349 | 1 | Soils Laboratory | | CE 343 |
| CE 363 | 4 | Transportation Engr & Pavement Design | | |
| CE 370R,L (CHEE) | 4 | Environmental & Water Engineering/Lab | CHEE 203 for chemical engineering majors only | |
| CE 389 | 1 | Materials Testing Lab | CE 215 | |
| CE 408A | 3 | Issues in Civil Engineering Practice | At least 2 of CE 323, 334 or 335, 343, 363, 370R,L | CE 301 |
| CE 408B | 3 | Civil Engineering Senior Capstone Design | CE 301, 408A and at least 4 of CE 323, 334 or 335, 343, 363, (CE 370R and CE 370L). | |
| CE 440 | 3 | Foundation Engineering | CE 343 | |
| DESIGN - BASED | | | | |
| CE 334 | 3 | Structural Design in Steel | CE 333 | |
| CE 335 | 3 | Structural Design In Concrete | CE 333 | |
| CE 422 | 3 | Open-Channel Flow | CE 323 or consent of instructor | |
| CE 427 | 3 | Computer Applications in Hydraulic | CE 323 or consent of instructor | |
| CE 429 | 3 | Special Topics in Hydraulics & Water | Approval of instructor | |
| CE 432 | 3 | Advanced Structural Design in Steel | CE 334 | |
| CE 434 | 3 | Design of Wood and Masonry | CE 333 | CE 333 |
| CE 435 | 3 | Prestressed Concrete Structures | CE 333 and CE 335 | |
| CE 437 | 3 | Advanced Structural Design in Concrete | CE 333 and CE 335 | |
| CE 438 | 3 | Behavior & Design of Structural Systems | CE 333 and CE 334 (CE 335 not required but strongly | |
| CE 439 | 3 | Develop. Next Generation Li-ion | Phys 141 and Chem 151 | |
| CE 441 | 3 | Earth Structures in Geotech Engineering | CE 343 | |
| CE 442 | 3 | Ground Improvement | CE 343 | |
| CE 445 | 3 | Environmental Engineering | CE 343 | |
| CE 446 | 3 | Geotechnical Earthquake Engineering | CE 343 | |
| CE 448 | 3 | Numerical Methods in Geotechnical Engr. | CE 402 and CE 343 | |
| CE 463 | 3 | Traffic Flow & Capacity Analysis | CE 363 | |
| CE 464A | 3 | Integrated Hwy Bridge Dsgn-LRFD Metho | CE 310, CE 323, CE 343, CE 363 | CE 335 |
| CE 466 | 3 | Highway and Geometric Design | CE 363 | |
| CE 482 | 3 | Construction Proj. Plan, Sched. & Control | | |
| CE 426 (ABE) | 3 | Watershed Engineering | CE 218 or AME 331 | |
| CE 455 (ABE) | 3 | Soil & Water Resources Engineering | CE 218 or AME 331 | |
| CE 456 (ABE) | 3 | Irrigation Systems Design | CE 218 | |
| CE 476A (CHEE) | 3 | Water Treatment System and Design | CE/CHEE 370R,L | |
| GEN 427 (MNE) | 3 | Geomechanics | | |
| ANALYSIS - BASED | | | | |
| CE 381 | 3 | Construction Engineering Management | | |
| CE 402 | 3 | Introduction To Finite Element Meth | CE 303 | |
| CE 410 | 3 | Probability in Civil Engineering | MATH 129, CE 310 | |
| CE 423 | 3 | Hydrology | CE 218 | |
| CE 433 | 3 | Advanced Structural Analysis | CE 333 | |
| CE 444 | 3 | Special Topics in Geomechanics | CE 343 | |
| CE 460 | 3 | Special Topics in Transportation | CE 363 or consent of instructor | |
| CE 462A | 3 | Public Transit Planning & Operations | | |
| CE 465 | 3 | Transp. Data Management & Analysis | CE 310, CE 363 | |
| CE 469 | 3 | Travel Demand Modeling | CE 363 | |
| CE 483 | 3 | Construction Cost Estimating | Math 129, CE 381 | |
| CE 468 (PLN) | 3 | Urban Transportation Planning | | |
| CE 449 (HWR) | 3 | Statistical Hydrology | CE 310, SIE 305 OR MATH 461 | |
| CE 458 (ABE) | 3 | Soils, Wetlands & Wastewater Reuse | CE 218 or AME 331 | |
| CHEE 469a | 3 | Air Pollution I: Gases | MATH 223 | |
| CE 476B (CHEE) | 3 | Wastewater Treatment Design System | | |
| CE 478 (CHEE) | 3 | Into. To Hazardous Waste Management | Consult deparatment before enrolling | |
| HWR 431 | 4 | Hydrogeology | GEOS 251, MATH 129 | |
| CHEE 400R | 3 | Water Chemistryfor Engineer | | |