Civil Engr Tech (CET)

Courses

CET 0110 Applied Mathematics I: 3 semester hours.
Algebra, equations and word problems, functions and graphs, geometry, right triangle trigonometry and vectors, factoring and fractional equations. Emphasis on using scientific calculator. Math will be applied to practical lab and field work when possible. F

CET 0111 Drawing with CAD: 3 semester hours.
A basic study of mechanical drawing with computer-aided-drafting emphasis. Instructional units include icon uses with layers, linetypes and colors, editing drawings, coordinate usage, polylines, text; hatching, dimensioning, multiview, and layout. Equivalent to GEMT 1111. F

CET 0112 Beginning Survey: 3 semester hours.
Introduction to surveying, measurements and computations, basic mathematics for surveying, measuring horizontal distances, principles and procedures of leveling, measuring angles and direction. F

CET 0115A Materials Testing I: 4 semester hours.
This course will introduce students to testing procedures for testing aggregate, soils, embankment and base, and nuclear densometer. Students will prepare for three Level I certifications through Western Alliance for Quality Transportation Construction (WAQTC). F

CET 0120 Applied Mathematics II: 3 semester hours.
A continuation of CET 0110 Applied Mathematics I studying oblique triangle trigonometry and vectors; radians, arc length, and rotations; exponents and radicals; quadratics equations; ratio and proportion, with emphasis on areas relating to Civil Engineering Technology. PREREQ: CET 0110. S

CET 0121 Civil Engineering Technology Drafting: 3 semester hours.
Civil Engineering Technology drafting, municipal and rural maps and drawing, drainage applications, plan and profile drawings, cross-sections, earthwork plats, legal descriptions, contour, quantity calculations, and other details relating to civil engineering technology drawings. Computer-aided-drafting (CAD) is used for drawings. Equivalent to GEMT 1121. PREREQ: CET 0111/GEMT 1111. S

CET 0122 Intermediate Surveying and Spatial Analysis: 3 semester hours.
Introduction to horizontal control surveys, topographic surveys and maps, horizontal and vertical curves, construction surveying, and basic photogrammetry. PREREQ: CET 0112. S

CET 0125A Materials Testing II: 4 semester hours.
This course will introduce students to testing procedures for Portland Cement Concrete and nuclear densometer. Students will prepare for two Level II certifications through Western Alliance for Quality Transportation Construction (WAQTC) and one Level I certification through American Concrete Institute (ACI). PREREQ: CET 0115A. S

CET 0216 Route Survey and GPS Fundamentals: 3 semester hours.
Study of route surveying and route locations; circular, spiral, and parabolic curves as applied to highway design. Field data will be collected using GPS equipment. Plans will be drawn using CAD and survey/engineering software. PREREQ: CET 0122. F

CET 0226 Construction Surveying: 3 semester hours.
Operations in construction surveying. Construction staking procedures and use of data collection software. PREREQ: CET 0216. S

CET 0228 Principles of GIS: 3 semester hours.
Study of GIS fundamentals, introduction to GPS, databases, and metadata. Practical application of ESRI ArcView. Build, edit, and query a GIS; basic spatial analysis. Requires competence in computer operating systems. PREREQ: CET 0120. S