Civil Engineering (CIV)

CIV 111. Soils and Foundations. 4.0 Credits. Class-2.0. Clinical-0.0. Lab-4.0. Work-0.0
This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement, and foundations. Upon completion, students should be able to perform basic soil tests and analyze engineering properties of soil. This course presents an overview of soil as a construction material using both analysis and testing procedures. Topics include index properties, classification, stress analysis, compressibility, compaction, dewatering, excavation, stabilization, settlement and foundations. Upon completion, students should be able to perform basis soil tests and analyze engineering properties of soil.
Prerequisites: Take EGR 250 EGR 251 or MEC 210; Minimum; grade C; Take ENG 111

CIV 125. Civil/Surveying CAD. 3.0 Credits. Class-1.0. Clinical-0.0. Lab-6.0. Work-0.0
This course introduces civil/surveying computer-aided drafting (CAD) software. Topics include drawing, editing, and dimensioning commands; plotting; and other related civil/surveying topics. Upon completion, students should be able to produce civil/surveying drawings using CAD software.
Prerequisites: Take CEG 151

CIV 221. Steel and Timber Design. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the basic elements of steel and timber structures. Topics include strength of materials applications, the analysis and design of steel and timber beams, columns, and connections and concepts of structural detailing. Upon completion, students should be able to analyze, design, and draw simple plans using Computer Aided Drafting and Design software (CADD).
Prerequisites: Take One: EGR 250 or MEC 210

CIV 222. Reinforced Concrete. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course introduces the basic elements of reinforced concrete structures. Topics include analysis and design of reinforced concrete beams, slabs, columns, footings, and retaining walls. Upon completion, students should be able to analyze and design components of a structure using reinforced concrete and draw simple plans using Computer Aided Drafting and Design software (CADD).
Prerequisites: Take One: EGR 250, EGR 251, or MEC 210

CIV 230. Construction Estimating. 3.0 Credits. Class-2.0. Clinical-0.0. Lab-3.0. Work-0.0
This course covers quantity take-offs of labor, materials, and equipment and calculation of direct and overhead costs for a construction project. Topics include the interpretation of working drawings and specifications, types of contracts and estimates, building codes, bidding techniques and procedures, and estimating software. Upon completion, students should be able to prepare a detailed cost estimate and bid documents for a construction project.
Prerequisites: Take One: ARC 111, CIS 110, CIS 111, or EGR 115

CIV 250. Civil Engineering Technology Project. 2.0 Credits. Class-1.0. Clinical-0.0. Lab-3.0. Work-0.0
This course includes an integrated team approach to civil engineering technology projects. Emphasis is placed on project proposal, site selection, analysis/design of structures, construction material selection, time and cost estimating, planning, and management of a project. Upon completion, students should be able to apply team concepts, prepare estimates, submit bid proposals, and manage projects.