C E-CIVIL ENGINEERING (C E)

C E 109. Computer Drafting Fundamentals
3 Credits (2+2P)
Introduction to principles and fundamentals of drafting using both manual drawing techniques and computer-aided drafting (CAD) applications. Crosslisted with: DRFT 109 and E T 109. May be repeated up to 3 credits.
Learning Outcomes
1. Describe related career options/pathways.
2. Explain and apply common drafting terms, concepts, and conventions.
3. Utilize various AutoCAD commands and Coordinate Entry methods to produce accurate and precise Two-Dimensional drawings.
4. Setup AutoCAD working environment, drawings, styles, and applicable settings.
5. Navigate the AutoCAD user interface efficiently.
6. Apply different drafting methods, strategies, and processes.
7. Utilize AutoCAD to produce basic 2D CAD working drawings.
8. Measure utilizing scales accurately.
9. Create drawings with different scales and units. 1
10. Plot drawings produced in AutoCAD at various scales and on various sheet sizes. 1
11. Utilize the two Drawing Environments: Paper Space and Model Space. 1
12. Manage AutoCAD drawing files.

C E 151. Introduction to Civil Engineering
3 Credits (3)
Problem solving and use of computer software for civil engineering applications. May be repeated up to 3 credits.
Prerequisite/Corequisite: MATH 1220G.
Learning Outcomes
1. Understand the Civil Engineering profession and curriculum.
2. Develop software skills for use in Civil Engineering education and professional practice.
3. Understand and apply the basics of professional and academic ethics.

C E 198. Special Topics
1-3 Credits
Special topics in civil engineering. May be repeated up to 6 credits.
Prerequisite: consent of department head.
Learning Outcomes
1. Students will develop knowledge related to the specific civil engineering special topic selected for study.

C E 233. Mechanics-Statics
3 Credits (3)
Engineering mechanics using vector methods. May be repeated up to 3 credits.
Prerequisite: C- or better grade in MATH 1521G or MATH 1521H, C- or better grade in PHYS 1310G and cumulative GPA of 2.0.
Learning Outcomes
1. Student will be able to apply concepts of equilibrium.

C E 234. Mechanics-Dynamics
3 Credits (3)
Kinematics and dynamic behavior of solid bodies utilizing vector methods. May be repeated up to 3 credits.
Prerequisite: A grade of C- or better grade in the following: C E 233 and PHYS 1310G and MATH 1521G or MATH 1521H.
Learning Outcomes
1. Student will be able to apply concepts of kinematics and accelerated motion.

C E 256. Environmental Engineering and Science
3 Credits (3)
Principles in environmental engineering and science: physical chemical systems and biological processes as applied to pollution control. Crosslisted with: ENVS 2111.
Prerequisite: (C- or better grade in CHEM 1215G) and (C- or better grade in MATH 1511G or ENGR 190).

C E 256 L. Environmental Science Laboratory
1 Credit (1P)
Laboratory experiments associated with the material presented in C E 256. May be repeated up to 1 credit. Same as ENVS 2111L.
Corequisite: C E 256.
Learning Outcomes
1. An understanding of experimental analyses related to environmental science

C E 298. Special Topics
1-3 Credits
Special topics in civil engineering. May be repeated up to 6 credits.
Prerequisite: consent of department head.
Learning Outcomes
1. Students will develop knowledge related to the specific civil engineering special topic selected for study.