Engineering General Courses

EGC 101  Engineering Drawing and Graphics – 3 hrs (2 hours lecture and 4 hours lab). A study of principles of design drafting, and graphics as applied to engineering, geometric constructions, multi-view drawing and sketching, and graphical algebra and calculus. The student is introduced to computer graphics package. Prerequisites: None.

EGC 104  Computer Programming – 3 hrs. An introduction to the use of the computer as a tool in engineering. Systems and utility programs, programming techniques, recent developments in computing, and practice in solving engineering problems are included. Prerequisites: None. Co-requisites: MTH 125.

EGC 204  Engineering Analysis – 3 hrs. An introduction to statistics and data analysis, probability and sampling distributions, quality control, estimation and statistical intervals, testing statistical hypotheses, the analysis of variance, experimental data, regression and correlation, and computer applications in Civil Engineering. Prerequisites: MTH 126.

EGC 205  Statics – 3 hrs. Fundamental definitions and the concepts of static equilibrium, systems of forces and couples, application to solution of trusses and frames, friction, centroids and moments of inertia are covered in this course. Prerequisites: MTH 125, PHY 105. Co-requisites: EGC 101 or consent of instructor

EGC 206  Dynamics – 3 hrs. A study of kinematics of a particle; moment of inertia of masses; translation, rotation and plane motion of rigid bodies; principles of work and energy, impulse, and momentum, as applied to engineering problems. Prerequisites: EGC 205, MTH 126.


EGC 207L  Strength of Materials Lab – 1 hr. The purpose of this course is to present a selection of experiments that will demonstrate the principles of Mechanics of Materials. A Laboratory Manual for this course will be used for performing these experiments. Co-requisites: EGC 207.

EGC 305  Fluid Mechanics – 3 hrs. A study of the properties of fluids and fundamental principles governing fluid motion, including fluid statics; conservation of mass momentum and energy with application to pipe and channel flow of incompressible fluids. Prerequisites: EGC 206, MTH 227, 238. Co-requisites: EGC 305L.

EGC 305L  Fluid Mechanics Lab – 1 hr. The purpose of this course is to present a selection of experiments that will demonstrate the principles of Fluid Mechanics. A Laboratory Manual for this course will be used for performing these experiments. Co-requisites: EGC 305.

Elementary Education

ELE 300  Elementary School Organization – 3 hrs. A survey of all aspects of elementary education as a professional career. Candidates will become familiar with dynamics affecting research-based best teaching practices in the elementary school. Special emphasis will be given to integrating the elementary school curriculum to meet the needs of diverse populations, including students from various cultural backgrounds, students with special learning needs, and students who are English language learners. Prerequisites: Admission to Teacher Education.

ELE 495  Internship – 12 hrs. Fourteen weeks of full-time teaching under the immediate direction of supervising teachers in off-campus public schools. Upon return to the campus, students share their experiences, discuss problems, and develop new techniques in a professional seminar. Prerequisites: Senior classification; official admission to Teacher Education Program; minimum cumulative average of 2.5. “C” in all coursework completed, with no grade less than a “C” for professional courses; completion of all coursework in the program. Weekly seminar is required.

English

ENG 100  Developmental English – 3 hrs. A course presenting functional aid in preparing freshmen to enter ENG 101. Placement is determined by the student’s score on the English/Writing component of the COMPASS assessment. It presents fundamentals of the language with practical usage in writing. Those who do not complete the course must continue it during the next semester they are enrolled at the University. Credit hours for this course may not be counted toward any degree requirement. However, the grade for this course is calculated in the cumulative GPA. Prerequisites: None. Co-requisites: ENG 100L.