Fresno City College

ENGINEERING
2022-2023

Name: _____
ID: _____
Date: _____
Counselor Contact: _____

A grade of "C" or better is required in the following courses

CERTIFICATES OF ACHIEVEMENT	C-ID	Units	Completed	In Progress	Planned
Required Core (26 units)					
ENGR 5, Programming and Problem Solving in MATLAB	ENGR 220	3			
ENGR 10, Introduction to Engineering	ENGR 110	2			
MATH 5A, Mathematical Analysis I	MATH 210	5			
MATH 5B, Mathematical Analysis II	MATH 220	4			
MATH 6, Mathematical Analysis III	MATH 230	4			
PHYS 4A, Physics for Scientists and Engineers	PHYS 205	4			
PHYS 4B, Physics for Scientists and Engineers	PHYS 210	4			
Engineering: Civil AS (F.3011. CA) **Select a minimum of 4 courses (14-18)**					
CHEM 1A, General Chemistry I	CHEM 110	5			
ENGR 1A, Elementary Plane Surveying 1	ENGR 180	4			
ENGR 2, Graphics	ENGR 150	4			
ENGR 4, Engineering Materials	ENGR 140	3			
ENGR 8, Statics	ENGR 130	3			
GEOL 1, Physical Geology	GEOL 101	4			
MATH 7, Introduction to Differential Equations **OR** Math 17, Differential Equations and Linear Algebra	Math 240	4-5			
PHYS 4C, Physics for Scientists and Engineers	PHYS 215	4			
Engineering: Computer (F.3015.CA) **Select a minimum of 4 courses (16-17)**					
CSCI 40, Programming Concepts & Methodology I	COMP 122	4			
CSCI 41, Programming Concepts & Methodology II	COMP 132	4			
ENGR 6, Circuits with Lab	ENGR 260	4			
ENGR 12, Digital Logic Design		4			
MATH 7, Introduction to Differential Equations **OR** MATH 17, Differential Equations and Linear Algebra	Math 240	4-5			

CERTIFICATES OF ACHIEVEMENT	C-ID	Units	Completed	In Progress	Planned
PHYS 4C, Physics for Scientists and Engineers	PHYS 215S	4			
Engineering: Electrical, AS (F.3013.CA) **Select a minimum of 4 courses (16-18)**					
CHEM 1A, General Chemistry I	CHEM 110	5			
CSCI 40, Programming Concepts and Methodology I	COMP 122	4			
ENGR 6, Circuits with Lab	ENGR 260	4			
ENGR 12, Digital Logic Design		4			
MATH 7, Introduction to Differential Equations **OR** MATH 17, Differential Equations and Linear Algebra	MATH 240	4-5			
PHYS 4C, Physics for Scientists and Engineers	PHYS 215	4			
Engineering: Mechanical, Aerospace, and Manufacturing, AS (F.3014.CA) **Select a minimum of 4 courses (13-18)**					
CHEM 1A, General Chemistry I	CHEM 110	5			
ENGR 2, Graphics	ENGR 150	4			
ENGR 4, Engineering Materials	ENGR 140	3			
ENGR 6, Circuits with Lab	ENGR 260	4			
ENGR 8, Statics	ENGR 130	3			
ENGR 11, Manufacturing Processes		3			
MATH 7, Introduction to Differential Equations **OR** MATH 17, Differential Equations and Linear Algebra	Math 240	4-5			
PHYS 4C, Physics for Scientists and Engineers	PHYS 215	4			

Notes:

1. These degree programs are designed as basic coursework necessary for pursuing a career in the field of civil engineering, computer-software engineering, electrical engineering, and mechanical, aerospace, and manufacturing engineering. Students will be prepared for engineering internship opportunities and transferring to four-year engineering programs.
2. Some of the above courses may have prerequisites. See the catalog or schedule of classes.
3. The *Certificates of Achievement* require completion of the major (40-44 units) for Civil Engineering; (40-43 units) for Computer-Software Engineering; (42-43 units) for Electrical Engineering; (39-44 units) for Mechanical, Aerospace, and Manufacturing- with a “C” or better grade in each course.
4. Some courses may not have an associated C-ID, please see catalog or counselor for more information.