COMPUTER ENGINEERING
GRADUATE ADMISSIONS DEFICIENCY COURSES

Computer Engineering graduate students should have knowledge in the following topics prior to applying for the program at Arizona State University: Signals and Systems, Signal Analysis, Discrete Math, Computer Architecture & Organization, and Algorithms & Data Structures.

CSE 230   COMPUTER ORGANIZATIONS AND ASSEMBLY LANGUAGE PROGRAMMING (3)

Register-level computer organization. Instruction set architecture. Assembly language. Processor organization and design. Memory organization. IO programming, Exception/interrupt handling.
Prerequisites: CSE 100, CSE 110, CSE 120, or EEE 120.

CSE 310   DATA STRUCTURES AND ALGORITHMS (3)

Advanced data structures and algorithms, including stacks, queues, trees (B, B+, AVL), and graphs. Searching for graphs, hashing and external sorting.
Prerequisite: CSE 220 or CSE 240; and MAT 243.

EEE 203   SIGNALS AND SYSTEMS (3)

Introduces continuous and discrete time signal and system analysis, linear systems, Fourier, and z-transforms.
Pre-requisites: EEE 202; Pre-requisite: MAT 242 with C or better if completed or Pre/Co-requisite: MAT 342 or 343 with C or better if completed

EEE 350   RANDOM SIGNAL ANALYSIS (3)

Probabilistic and statistical analysis as applied to electrical signals and systems
Prerequisite(s): MAE 317 or pre- or co-requisite: EEE 203;

MAT 243   DISCRETE MATH STRUCTURES (3)

Logic, sets, functions, elementary number theory and combinatorics, recursive algorithms, and mathematical reasoning, including induction. Emphasizes connections to computer science.
Prerequisites: MAT 210, MAT 251, MAT 265, or MAT 270.