

COMPUTER ENGINEERING (CENG) SCREENING EXAM

The Computer Engineering Division's Screening Exam is as follows:

1. **Fundamental courses:** Students will have one 30-minute oral exam in front of one faculty for each of four fundamental courses that they will select from the following list:

EE 450 Introduction to Computer Networks
EE 451 Parallel and Distributed Computation
EE 457 Computer Systems Organization
EE 467 Introduction to Communication Systems
EE 477 MOS VLSI Circuit Design
EE 503 Probability for Electrical and Computer Engineers
CSCI 402 Operating Systems
CSCI 570 Analysis of Algorithms

2. **Depth courses:** Students will have one 30-minute oral exam in front of one faculty for each of two depth courses that they will select from the following list: (The questions in these exams may go beyond the standard curriculum of the selected courses to test research capability in the selected areas.)

In the area of Computer Architecture:

EE 532 Wireless Internet and Pervasive Computing
EE 542 Internet and Cloud Computing
EE 554 Real Time Computer Systems
EE 557 Computer Systems Architecture
EE 653 Advanced Topics in Microarchitectures
EE 657 Parallel Processing
EE 659 Interconnection Networks
EE 677 VLSI Architectures and Algorithms
CSCI 503 Parallel Programming

In the area of Digital Systems Design (VLSI/CAD)

EE 552 Logic Design and Switching Theory
EE 536a Mixed-signal integrated system design
EE 577a VLSI System Design
EE 658 Diagnosis and Design of Reliable Digital Systems
EE 680 Computer Aided Design of Digital Systems I
EE 681 Computer Aided Design of Digital Systems II

In the area of Computer Networks

EE 512 Stochastic Processes
EE 549 Queuing Theory for Performance Modeling
EE 550 Design and Analysis of Computer Communications
EE 555 Broadband Network Architectures
EE 597 Wireless Networks
EE 649 Stochastic Network Optimization
CSCI 551 Computer Communications