

## Area Courses VLSI/CAD

### Fundamental Courses

**EE 448L** Communication Electronics

4 units

**EE 457** Computer Systems Organization

4 units

**EE 477L** MOS VLSI Circuit Design

4 units

**CSCI 455x** Introduction to  
Programming Systems Design

4 units

### VLSI/CAD

**EE 552** Asynchronous VLSI Design

4 units  
EE 457

EE 477L

**EE 580** System Verification

4 units  
EE 457, EE 477L

**EE 658** Diagnosis and Design of  
Reliable Digital Systems

3 units

**EE 681** Computer-Aided Design of  
Digital Systems II

3 units

**EE 560L** Digital System Design

4 units

EE 457

**EE 581** Mathematical Foundations for System  
Design: Modeling, Analysis, and Synthesis

4 units

**EE 680** Computer-Aided Design of  
Digital Systems I

3 units

EE 577a

EE 581

### Circuits and Devices

**EE 504L** Solid-State Processing and  
Integrated Circuits Laboratory

4 units

EE 507 or EE 508

**EE 507** Micro- and Nano-Fabrication  
Technology

4 units

**EE 537** Modern Solid-State Devices

4 units

**EE 582** CMOS: Nano Neuromorphic  
Circuits

4 units

EE 477

**EE 505** Analog, Mixed-Signal, and RF  
Integrated-Circuit Tape-Out

4 units

EE 536a

**EE 536ab** Analog Integrated Circuits

a:4 units, b:4 units

b:EE 536a

**EE 576** Integrated Memory Devices and  
Technologies

4 units

**EE 632ab** Integrated Communication  
Systems

a:4 units, b:4 units

b:EE 632a

### Computer Systems

**EE 557** Computer Systems Architecture

4 units

EE 457

**EE 577ab** VLSI System Design

a:4 units, b:4 units

a:EE 477L, b:EE 577a

**EE 659** Advanced Topics in Intercon-  
nection Network Design and Analysis

4 units

EE 450, 451, 452, or 455

EE 557

**CSCI 570** Analysis of Algorithms

4 units

**EE 595** Software Design and  
Optimization

4 units

**EE 677** Accelerated Computing using  
Field Programmable Gate Arrays

2 units

EE 457

EE 451

### Legend

#### Grouping

EE 000 Course Title

Course Units

Recommended Prep.

Prerequisite Courses

Corequisite Courses

This chart shows course relationships

Please check the University Catalogue for specific course details including any recommended preparatory courses and Degree Requirements