

### Computer Engineering Area electives

- Students are required to satisfy 2 depth tracks. Satisfying a track requires completing at least 2 courses from the track's list (see below). Consequently, four of the area elective electives are occupied by depth requirements.
- #A few courses are in multiple tracks—each course can only be used in one place on your degree plan. You cannot use the course in two places.
- The fifth course can be from the sequence list or any approved 300/400 level course in CSCE or ECEN. Consult your advising office to determine if a course is approved.
- Depth tracks are subject to change. Consult your advising office for the current list.

### Depth Tracks

- Communications and Networks
  - CSCE 463 (3), Computer Networks
  - CSCE 464 (3), Wireless and Mobile Systems
  - #CSCE 465 (3), Computer and Network Security
  - ECEN 424 (3), Fundamentals of Networking
  - #ECEN 434 (3), Optimization for Electrical and Computer Engineering
  - #ECEN 455 (4), Digital Communications
  - ECEN 478 (3), Wireless Communications
  - MATH 470 (3), Comm. & Cryptography
- VLSI
  - ECEN 468 (4), Advanced Logic Design
  - ECEN 474 (4), VLSI Circuit Design
  - ECEN 475 (4), Intro. to VLSI Sys. Design
  - ECEN 326 (4), Electronic Circuits
- Software Systems
  - CSCE 314 (3), Programming Languages
  - CSCE 410 (3), Advanced OS
  - CSCE 411 (3), Design and Analysis of Algorithms
  - CSCE 431 (3), Software Engineering
  - CSCE 434 (3), Compiler Design
  - CSCE 435 (3), Parallel Computing
  - CSCE 442 (3), Scientific Programming
  - #CSCE 465 (3), Computer and Network Security
  - #ECEN 434 (3), Optimization for Electrical and Computer Engineering
- Signal/Image Processing & Graphics
  - CSCE 441 (3), Computer Graphics
  - CSCE 443 (3), Game Development
  - ECEN 444 (3), Digital Signal Processing
  - ECEN 447 (4), Digital Image Processing
  - ECEN 448 (3), Real time DSP
- Robotics/Embedded Systems
  - CSCE 420 (3), Artificial Intelligence
  - CSCE 452 (3), Robotics
  - CSCE 456 (4), Real-time Computing
  - ECEN 420 (3), Linear Control systems
  - ECEN 421 (3), Digital Control Systems
- Information
  - CSCE 310 (3), Database systems
  - CSCE 436 (3), Computer Human Interaction
  - CSCE 444 (3), Structures of Interactive Info.
  - CSCE 470 (3), Information Storage & Retrieval
  - CSCE 438 (3), Distributed Objects
  - #ECEN 455 (3), Digital Communications