Pre-Professional Courses

CSE 1310 Intro to Programming (prerequisite: MATH 1302)
CSE 1320 Intermediate Programming (coreq: Math 1421)
CSE 1325 Object-Oriented Programming
CSE 2312 Computer Organization
CSE 2100 Practical Systems
CSE 2441 Digital Logic
CSE 3318 (2320) Algorithms & Data Structures
CSE 3380 Linear Algebra
CSE 3313 Signal Processing
CSE 3318 (2320) Algorithms & Data Structures
CSE 3323 (3220) Quantitative Computer Architecture
CSE 3320 Operating Systems
CSE 3442 Embedded I
CSE 3313 Signal Processing
CSE 4342 Embedded II
CSE 4360 Robotics
CSE 4340 Mobile Systems
CSE 4344 Computer Networks
CSE 4323 Quan. Computer Arch.
CSE 4342 Embedded II
CSE 4360 Robotics
CSE 4340 Mobile Systems
CSE 4344 Computer Networks
CSE 4323 Quan. Computer Arch.

Math and Science Electives

- 3 hours of Math electives
- 4 hours of Science electives

Foreign Language
If required, two semesters of the same language

General Education
- Language/Philosophy/Culture elective
- HIST 1301
- HIST 1302
- POLS 2311
- POLS 2312
- Creative Arts elective
- Social/Behavioral (IE 2308 or ECON 2305)

4000 Level Courses

2 Technical Elective courses out of which at least one must be CSE 4342 Mobile Systems, CSE 4360 Robotics, or CSE 4342 Embedded Systems II.

See list of approved courses in the Computer Engineering Program Guide. Remember to check prerequisites.
CPE 2018-2019 Classes

Mathematics Electives
- MATH 2326 - Calculus III
- CSE 3315 - Theoretical Concepts in CSE
- CSE 4345 - Computational Methods

Science Electives
- BIOL 1441 – Cell and Molecular Biology
- CHEM 1441 – General Chemistry
- CHEM 1465 – Chemistry for Engineers

Technical Electives
- CSE 4303 – Computer Graphics  
  prerequisites: CSE 3318 and CSE 3380 or MATH 3330
- CSE 4305 – Compliers  
  prerequisites: CSE 3302 and CSE 3315
- CSE 4308 – Artificial Intelligence  
  prerequisites: CSE 3318 and IE 3301 or MATH 3313
- CSE 4309 – Fundamentals of Machine Learning  
  prerequisites: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330
- CSE 4310 - Fundamentals of Computer Vision  
  prerequisites: CSE 3318, IE 3301 or MATH 3313, CSE 3380 or MATH 3330 (Spring only)
- CSE 4321 – Software Testing and Maintenance  
  prerequisites: CSE 3310
- CSE 4322 – Software Project Management  
  prerequisites: CSE 3310
- CSE 4340 – Fundamentals of Wireless Networks  
  prerequisites: CSE 4344 or CSE 4352
- CSE 4342 – Embedded Systems II  
  prerequisites: CSE 3442 and coreq CSE 3313
- CSE 4345 – Computational Methods  
  prerequisites: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330
- CSE 4351 – Parallel Processing  
  prerequisites: CSE 3320
- CSE 4352 – IoT and Networking  
  prerequisites: CSE 3442 (Spring only)
- CSE 4354 – Real-time Operating Systems  
  prerequisites: CSE 3320 and CSE 3442 (Fall only)
- CSE 4355 – Electromechanical Systems and Sensors  
  prerequisites: CSE 3323 and CSE 3442 (Fall only)
- CSE 4356 – System on Chip (SoC) Design  
  prerequisites: CSE 3442 (Fall only)
- CSE 4357 – Advanced Digital Logic Design  
  prerequisites: CSE 3442 (Spring only)
- CSE 4358 – Microprocessor Systems  
  prerequisites: CSE 3323 (Spring only)
- CSE 4360 - Autonomous Robot Design and Programming  
  prerequisites: CSE 3318, CSE 3320, and CSE 3380 or MATH 3330 (Fall only)
- CSE 4378 – Intro to Unmanned Vehicles  
  prerequisites: Department consent (Fall only)
- CSE 4380 – Information Security  
  prerequisites: CSE 3320
- CSE 4381 – Information Security 2  
  prerequisites: CSE 3320 and coreq CSE 4344
- CSE 4382 – Secure Programming  
  prerequisites: CSE 3320
- CSE 3315 – Theoretical Concepts in Computer Science & Engineering  
  prerequisites: CSE 2315
- CSE 3330 – Database Systems and File Structures  
  prerequisites: CSE 1325 and CSE 3318

Language, Philosophy & Culture
- ANTHROPOLOGY (ANTH) 2322
- ARABIC (ARAB) 2310, 2314
- ARCHITECTURE (ARCH) 2300
- ART & ART HISTORY (ART) 1317
- CHINESE (CHIN) 2310, 2314
- CLASSICS (CLAS) 1300
- ENGLISH (ENGL) 2303, 2309, 2319, 2329
- FRENCH (FREN) 2310, 2314
- GERMAN (GERM) 2310, 2314
- GLOBAL (GLOBAL) 2301
- GREEK (GREK) 2314
- HISTORY (HIST) 2377
- INTERDISCIPLINARY STUDIES (INTS) 1310
- KOREAN (KORE) 2310, 2314
- LATIN (LATN) 2314
- LINGUISTICS (LING) 2371
- MEXICAN AMERICAN STUDIES (MAS) 2300
- PHILOSOPHY (PHIL) 1304, 2300
- PORTUGUESE (PORT) 2314
- RUSSIAN (RUSS) 2310, 2314
- SOCIOLOGY (SOCI) 1310
- SPANISH (SPAN) 2310, 2314

Creative Arts Electives
- ARCHITECTURE (ARCH) 1301
- ART & ART HISTORY (ART) 1301, 1309, 1310
- DANCE (DNCE) 1300
- MUSIC (MUSI) 1300, 1302, 2300, 2301
- THEATER ARTS (THEA) 1342, 1343