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

See list of approved courses on second page

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)

Pre-professional Courses
- CSE 1310 Intro to Programming (prerequisite: MATH 1302)
- CSE 1105 Intro to CSE
- CSE 1320 Intermediate Programming (core: Math 1421)
- CSE 2312 Computer Organization
- CSE 2100 Practical Systems
- CSE 2320 Algorithms & Data Structures
- CSE 3302 Programming Languages
- CSE 3300 Databases
- CSE 3315 Theoretical CS
- CSE 3330 Programming Languages
- CSE 3380 Linear Algebra
- CSE 3310 Intro to Software Eng.
- CSE 3320 Operating Systems
- CSE 4344 Computer Networks
- CSE 4316 Senior Design I
- CSE 4317 Senior Design II

4000 Level Courses
- CSE 4305 Compilers
- CSE 4303 Computer Graphics
- CSE 4308 Artificial Intelligence

6 Technical Elective courses out of which at least one must be CSE 4305 Compilers, CSE 4303 Computer Graphics, or CSE 4308 Artificial Intelligence

See list of approved courses on second page
Remember to check prerequisites.

Only students who have completed all pre-professional courses satisfactorily and thus are admitted to the professional program may take 4000 level courses.

The Senior Design courses must be taken in consecutive semesters: (Fall and Spring), (Spring and Summer), or (Summer and Fall). Spring and Fall is NOT an option.
CS 2016-2017 Classes

Mathematics Electives
• MATH 2326 - Calculus III (Fall, Spring, & Summer)
• CSE 4345 - Computational Methods (Fall & Spring)

Science Electives
• BIOL 1441 – Cell and Molecular Biology (Fall, Spring, & Summer)
• CHEM 1441 – General Chemistry (Fall, Spring, & Summer)
• CHEM 1465 – Chemistry for Engineers (Fall, Spring, & Summer)
• PHYS 3313 & PHYS 3183 – Intro to Modern Physics (Fall & Spring)

Technical Electives
• CSE 4303 – Computer Graphics
  prerequisites: CSE 2320 and CSE 3380 or MATH 3330 (Fall & Spring)
• CSE 4305 – Compliers
  prerequisites: CSE 3302 and CSE 3315 (Fall & Spring)
• CSE 4308 – Artificial Intelligence
  prerequisites: CSE 2320 and IE 3301 (Fall, Spring, & Summer)
• CSE 4309 – Fundamentals of Machine Learning
  prerequisites: CSE 2320, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330 (Fall only)
• CSE 4310 – Fundamentals of Computer Vision
  prerequisites: CSE 2320, IE 3301 or MATH 3313, CSE 3380 or MATH 3330 (Spring only)
• CSE 4321 – Software Testing and Maintenance
  prerequisites: CSE 3310 (Fall, Spring, & Summer)
• CSE 4322 – Software Project Management
  prerequisites: CSE 3310 (Fall & Spring)
• CSE 4323 – Quantitative Computer Architecture
  prerequisites: CSE 3320 (Fall & Spring)
• CSE 4331 – Database Implementation and Theory
  prerequisites: CSE 3330 (Fall, Spring, & Summer)
• CSE 4334 – Databases
  prerequisites: IE 3301 or MATH 3313 and coreq: CSE 3330 (Fall & Spring)
• CSE 4340 – Fundamentals of Wireless Networks
  prerequisites: CSE 3344 or CSE 4352 (Fluctuates)
• CSE 4345 – Computer Graphics
  prerequisites: CSE 2320, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330 (Fall & Spring)
• CSE 4351 – Parallel Processing
  prerequisites: CSE 3320 (Fall & Spring)
• CSE 4360 – Autonomous Robot Design and Programming
  prerequisites: CSE 2320, CSE 3320, and CSE 3380 or MATH 3330 (Fall only)
• CSE 4361 – Software Design Patterns
  prerequisites: CSE 3311 (Fall & Spring)

Mathematics Electives
• CSE 4378 – Intro to Unmanned Vehicles
  prerequisites: Department consent (Fall only)
• CSE 4379 – Unmanned Vehicles Development
  prerequisites: B or better in CSE 4378 (Spring only)
• CSE 4380 – Information Security
  prerequisites: CSE 3320 (Fall & Spring)
• CSE 4381 – Information Security 2
  prerequisites: CSE 3320 and coreq CSE 4344 (Fall & Spring)
• CSE 4382 – Secure Programming
  prerequisites: CSE 3320 (Fall & Spring)
• CSE 4383 – Object-orientated Software Engineering
  prerequisites: CSE 1325, CSE 2320, and CSE 3310 (Fall, Spring, & Summer)
• CSE 4384 – Signal Processing
  prerequisites: CSE 2320 and CSE 3380 or MATH 3330 (Fall & Spring)
• IE 3315 – Operations Research I
  prerequisites: coreq MATH 2326 (Fall & Spring)

Language, Philosophy & Culture Electives
• ANTHROPOLOGY (ANTH) 2322
• ARABIC (ARAB) 2310, 2314
• ARCHITECTURE (ARCH) 2300
• ART & ART HISTORY (ART) 1317
• American Sign Lang. (ASL) 2314
• 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, 2314
• RUSSIAN (RUSS) 2310, 2314
• SOCIOLOGY (SOCI) 1310
• SPANISH (SPAN) 2310, 2314, 2315
• WOMEN’S & GENDER STUDIES (WOMS) 2310

Creative Arts Electives
• ARCHITECTURE (ARCH) 1301
• ART & ART HISTORY (ART) 1301, 1309, 1310
• DANCE (DNE) 1300
• ENGLISH (ENGL) 1375
• MUSIC (MUSI) 1300, 1302, 1304, 2300, 2301
• THEATER ARTS (THEA) 1342, 1343

History Electives
• HIST 1301
• HIST 1302
• HIST 1331
• HIST 1332