Pre-Professional Courses

- UNIV 1131 (freshman students only)
- OR
- ENGR 1101 (transfer students)

CSE 1310 Intro to Programming (pre-requisite: MATH 1302)

CSE 1320 Intermediate Programming (corequisite: Math 1421)

CSE 1325 Object-Oriented Programming

CSE 2012 Computer Organization

CSE 2100 Practical Systems

CSE 2441 Digital Logic

CSE 3318 (2320) Algorithms & Data Structures

CSE 3315 Discrete Structures

MATH 1425 Calculus I

MATH 2425 Calculus II

PHYS 1443 Technical Physics I

PHYS 1444 Technical Physics II

ENGL 1301

CSE 3310 Intro to Software Eng.

CSE 3314 Professional Practices (pre-requisites: COMS 2302 and CSE 3318)

CSE 3313 Signal Processing

CSE 3316 Senior Design I

CSE 3317 Senior Design II

CSE 3320 Operating Systems

CSE 3323 Electronics

CSE 3330 Linear Algebra

CSE 3380 Engineering Probability and Stats

IE 3301 Intro to Software Eng.

COMS 2302 Professional and Tech. Communication (pre-requisite: ENGL 1301)

CSE 3442 Embedded II

CSE 3434 Computer Networks

CSE 4316 Senior Design I

CSE 4317 Senior Design II

CSE 4342 Computer Networks

CSE 4344 Computer Networks

CSE 4343 Quan. Computer Arch.

CSE 4344 Embedded II

CSE 4345 Mobile Systems

CSE 4346 Mobile Systems

CSE 4360 Robotics

CSE 4360 Robotics

CSE 4323 Quan. Computer Arch.

CSE 4323 Quan. Computer Arch.

2 Technical Elective courses out of which at least one must be CSE 4340 Mobile Systems, CSE 4360 Robotics, or CSE 4342 Embedded Systems II.

See list of approved courses on second page.

Remember to check pre-requisites.

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)

Math and Science Electives
- 3 hour Math elective
- 4 hour Science elective

See list of approved courses on second page.
Mathematics Electives
- **MATH 2326** - Calculus III (Fall, Spring, & Summer) pre-req: MATH 2425
- **CSE 4345** - Computational Methods (Fall & Spring) pre-req: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330
- **CSE 3315** - Theoretical Concepts in CSE (Fall & Spring) pre-req: CSE 2315

Science Electives
- **BIOL 1441** - Biology I for Science Majors (Fall, Spring, & Summer) pre-req: None
- **CHEM 1441** - General Chemistry (Fall, Spring, & Summer) pre-req: MATH 1302
- **CHEM 1465** - Chemistry for Engineers (Fall, Spring, & Summer) co-req: MATH 1421
- **PHYS 3313 & PHYS 3181** - Intro to Modern Physics (Fall & Spring) pre-req: MATH 2425 and PHYS 1444

Technical Electives
- **CSE 4303** - Computer Graphics pre-req: CSE 3318 and CSE 3380 or MATH 3330 (Fall & Spring)
- **CSE 4305** - Compilers pre-req: CSE 3302 and CSE 3315 (Fall & Spring)
- **CSE 4308** - Artificial Intelligence pre-req: CSE 3318 and IE 3301 (Fall, Spring, & Summer)
- **CSE 4309** - Fundamentals of Machine Learning pre-req: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330 (Fall only)
- **CSE 4310** - Fundamentals of Computer Vision pre-req: CSE 3318, IE 3301 or MATH 3313, CSE 3380 or MATH 3330 (Spring only)
- **CSE 4321** - Software Testing and Maintenance pre-req: CSE 3310 (Fall, Spring, & Summer)
- **CSE 4322** - Software Project Management pre-req: CSE 3310 (Fall & Spring)
- **CSE 4340** - Fundamentals of Wireless Networks pre-req: CSE 4344 or CSE 4352 (Fluctuates)
- **CSE 4342** - Embedded Systems II pre-req: CSE 3442 and co-req CSE 3313 (Fall & Spring)
- **CSE 4345** - Computational Methods pre-req: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330 (Fall & Spring)
- **CSE 4351** - Parallel Processing pre-req: CSE 3320 (Fall & Spring)
- **CSE 4352** - IoT and Networking pre-req: CSE 3442 (Spring only)
- **CSE 4354** - Real-time Operating Systems pre-req: CSE 3320 and CSE 3442 (Fall only)
- **CSE 4355** - Electromechanical Systems and Sensors pre-req: CSE 3323 and CSE 3442 (Fall only)
- **CSE 4356** - System on Chip (SoC) Design pre-req: CSE 3442 (Fall only)
- **CSE 4357** - Advanced Digital Logic Design pre-req: CSE 3442 (Spring only)
- **CSE 4358** - Microprocessor Systems pre-req: CSE 3442 (Spring only)

- **CSE 4360** - Autonomous Robot Design and Programming pre-req: CSE 2320, CSE 3320, and CSE 3380 or MATH 3330 (Fall only)
- **CSE 4372** - RISC Processor Design pre-req: CSE 3442 (Spring only)
- **CSE 4373** - General Purpose GPU Programming pre-req: CSE 3320 (Fall only)
- **CSE 4376** - Digital Communication Systems pre-req: CSE 3313 (Fall only)
- **CSE 4377** - Wireless Communication Systems pre-req: CSE 3313 (Spring only)
- **CSE 4378** - Intro to Unmanned Vehicles pre-req: Department consent (Fall only)
- **CSE 4380** - Information Security pre-req: CSE 3320 (Fall & Spring)
- **CSE 4381** - Information Security 2 pre-req: CSE 3320 and co-req CSE 4344 (Fall & Spring)
- **CSE 4382** - Secure Programming pre-req: CSE 3320 (Fall & Spring)
- **CSE 3315** - Theoretical Concepts in CSE pre-req: CSE 2315 (Fall & Spring)
- **CSE 3330** - Database Systems and File Structures pre-req: CSE 1325 and CSE 2320 (Fall, Spring, & Summer)

Language, Philosophy & Culture Electives
- **ANTHROPOLOGY (ANTH) 2322**
- **ARABIC (ARAB) 2310, 2314**
- **ARCHITECTURE (ARCH) 2300**
- **ART & ART HISTORY (ART) 1317**
- **AMERICAN SIGN LANGUAGE (ASL) 2314**
- **CHINESE (CHIN) 2310, 2314**
- **CLASSICS (CLAS) 1300**
- **INTRO TO LGBTQ+ STUDIES (DIVR) 2315**
- **ENGLISH (ENGL) 1350, 2303, 2309, 2319, 2329**
- **FRENCH (FREN) 2310, 2314**
- **GERMAN (GERM) 2310, 2314**
- **GLOBAL (GLOBAL) 2301**
- **GREEK (GREK) 2314**
- **HISTORY (HIST) 2377**
- **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**
- **INTRO TO POPULAR CULTURE (SOC/INTS) 1310**
- **SPANISH (SPAN) 2310, 2314, 2315**
- **WOMEN'S STUDIES (WOMS) 2310, 2315**

Creative Arts Electives
- **ARCHITECTURE (ARCH) 1301**
- **ART & ART HISTORY (ART) 1301, 1309, 1310**
- **DANCE (DANCE) 1300**
- **ENGLISH (ENGL) 1375**
- **PHOTOJOURNALISM (JOUR) 2340**
- **MUSIC (MUSI) 1300, 1302, 1304, 2300, 2301**
- **THEATER ARTS (THEA) 1342, 1343**

History Electives
- **HIST 1301**
- **HIST 1302**
- **HIST 1331**
- **HIST 1332**