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

CSE 1320 Intro to CSE

CSE 2315 Discrete Structures

CSE 3318 Algorithms & Data Structures

CSE 3315 Theoretical CS

CSE 3380 Linear Algebra

MATH 1426 Calculus I

MATH 1425 Calculus II

PHYS 1443 Technical Physics I

PHYS 1444 Technical Physics II

CSE 1325 Object-Oriented Programming

CSE 2312 Computer Organization

UNIV 1131 (Freshman students only)

OR

ENGR 1101 (Transfer students)

CSE 1302 Programming Languages

CSE 3302 Databases

CSE 2311 Object-Oriented Software Engineering

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

CSE 1205 Intro to CSE

CSE 3310 Intro to Software Eng.

CSE 3311 Theoretical CS

CSE 3330 Databases

CSE 3302 Programming Languages

CSE 3315 Theoretical CS

CSE 3380 Linear Algebra

CSE 3310 Intro to Software Eng.

CSE 3315 Theoretical CS

IE 3301 Engineering Probability and Stats

CSE 3310 Intro to Software Eng.

CSE 3320 Operating Systems

CSE 3332 Patterns

CSE 4324 Software Testing

CSE 4325 Software Project Management

CSE 4326 Information Security

CSE 4361 Software Design Patterns

CSE 4380 Information Security

CSE 4314 Professional Practices (pre-requisites COMS 2302 and CSE 3318)

COMS 2302 Professional and Technical Communication (PreReq ENGL 1301)

ENGR 1101

ENGL 1301

ENGR 1250 or ENGR 1251 and ENGR 0251

MATH 1425 Calculus II

PHYS 1443 Technical Physics I

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

Foreign Language

If required, two semesters of the same language.

General Education

Language/Philosophy/Culture elective

POLS 2311

POLS 2312

Creative Arts elective

Social/Behavioral (IE 2308 or ECON 2305)

6 hours of HIST electives

Math and Science Electives

3 hour Math elective

4 hour Science elective

See list of approved courses on second page.

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.
Mathematics Electives
- MATH 2326 - Calculus III (Fall, Spring, & Summer) pre-req: MATH 2425
- CSE 4345 - Computational Methods (Fall & Spring) pre-reqs: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330

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 3183 – Intro to Modern Physics (Fall & Spring) pre-req: MATH 2425 and PHYS 1444

Technical Electives
- CSE 4303 – Computer Graphics pre-reqs: CSE 3318 and CSE 3380 or MATH 3330 (Fall & Spring)
- CSE 4305 – Compilers pre-reqs: CSE 3302 and CSE 3315 (Fall & Spring)
- CSE 4308 – Artificial Intelligence pre-reqs: CSE 3318 and IE 3301 (Fall, Spring, & Summer)
- CSE 4309 – Fundamentals of Machine Learning pre-reqs: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330 (Fall only)
- CSE 4310 - Fundamentals of Computer Vision pre-reqs: CSE 3318, IE 3301 or MATH 3313, CSE 3380 or MATH 3330 (Spring only)
- CSE 4323 – Quantitative Computer Architecture pre-reqs: CSE 3320 (Fall & Spring)
- CSE 4331 – Database Implementation and Theory pre-reqs: CSE 3330 (Fall, Spring, & Summer)
- CSE 4334 – Data Mining pre-reqs: IE 3301 or MATH 3313 and co-req: CSE 3330 (Fall & Spring)
- CSE 4340 – Fundamentals of Wireless Networks pre-reqs: CSE 4344 or CSE 4352 (Fluctuates)
- CSE 4344 – Computer Network Organization pre-reqs: CSE 3320 (Fall, Spring, & Summer)
- CSE 4345 – Computational Methods pre-reqs: CSE 3318, IE 3301 or MATH 3313, and CSE 3380 or MATH 3330 (Fall & Spring)
- CSE 4351 – Parallel Processing pre-reqs: CSE 3320 (Fall & Spring)
- CSE 4360 - Autonomous Robot Design and Programming pre-reqs: CSE 3318, CSE 3320, and CSE 3380 or MATH 3330 (Fall only)
- CSE 4378 – Intro to Unmanned Vehicles pre-reqs: Department consent (Fall only)
- CSE 4381 – Information Security 2 pre-reqs: CSE 3320 and co-req CSE 4344 (Fall & Spring)
- CSE 4382 – Secure Programming pre-reqs: CSE 3320 (Fall & Spring)
- CSE 3313 – Signal Processing pre-reqs: CSE 3318 and CSE 3380 or MATH 3330 (Fall & Spring)
- IE 3315 – Operations Research I pre-reqs: co-req 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 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 (SOCI/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 (DNCE) 1300
- ENGLISH (ENGL) 1375
- PHOTOJOURNALISM I (JOUR) 2340
- MUSIC (MUSI) 1300, 1302, 1304, 2300, 2301
- THEATER ARTS (THEA) 1342, 1343

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