PRE-MAJOR REQUIREMENTS:

C- or better required and a minimum 3.0 average GPA (overall and within pre-major courses) required to apply for full major status.

1. CS 1030, Foundations of CS__________________________________________ (3)
2. CS 1410, Object-Orient. Prog.________________________________________ (4)
3. CS 2420, Algorithms/Data Struct.____________________________________ (4)
4. Math 1250 (HON, QR) or 1311 (HON, QR), Calc I______________________ (4)
5. Math 1260 (HON, QR) or 1321 (HON, QR), Calc II______________________ (4)

GENERAL EDU. REQUIREMENTS:

Honors options also accepted for FF, HF, FF, IR and DV courses. See Honors advisor for requirements.

1. HONOR 2211, Writing in Honors (WR2, HON)_________________________ (3)
2. HONOR 3200, Research University (CW, HON)_________________________ (3)
3. HONOR 2212, American Institutions (AI, HON)_________________________ (3)

Six Intellectual Exploration (IE) courses required. TWO must be upper division (3000-level or above), ONE must satisfy the Diversity requirement and ONE must satisfy the International requirement.

4. ART 1020, Basic Drawing (FF):______________________________________ (3)
5. DES 2615, Intro to Design Thinking (FF):____________________________ (3)
6. Honors Intellectual Traditions (HF, HON):______________________________ (3)
7. Honors Intellectual Traditions (HF, HON):______________________________ (3)
8. Social/Behavioral Science (BF):______________________________________ (3)
9. Social/Behavioral Science (BF):______________________________________ (3)
  • Upper Division (3000+ level IE)______________________________________
  • Upper Division (3000+ level IE)______________________________________
  • Diversity (DV)_____________________________________________________ 
  • International (IR)___________________________________________________

MATH / SCIENCE ELECTIVES:

C- or better required in all math/ science courses.

Elective must be 3+ credits
Accepted: Math, science or engineering courses with Math 1220 as a pre- or co-requisite (See DARS). Biol 1210, Chem 1210 also accepted.

NOT Accepted: CS courses (except CS 3130). Math 2200, Math 3010.
Math 2250 not accepted if Math 2270 and/ or Math 2280 are taken.
Math 5010 and/or 3070 not accepted if CS 3130/ ECE 3530 is taken

1. Physics 2210, Physics I____________________________________________ (4)
2. Math 2270, Linear Algebra____________________________________________ (4)
3. CS 3130, Eng Prob & Stats (QI)______________________________________ (3)
4. ________________________________________________________________

EAE CORE REQUIREMENTS:

C- or better required in all EAE courses.

1. EAE 1050, Digital Content Creation___________________________________ (3)
2. EAE 2100, Intro to Game Design_______________________________________ (3)
3. EAE 3010, Assets Pipeline____________________________________________ (3)

The following requirements are restricted to FULL Majors:
C- or better required in all CS & EAE courses. CR/NC grades not allowed for any major requirement. 2.5 GPA (overall & within CS) required to graduate.

MAJOR REQUIREMENTS:

1. CS 2100, Discrete Structures__________________________________________ (3)
2. CS 3500, Software Practice I__________________________________________ (4)
3. CS 3505, Software Practice II__________________________________________ (4)
4. CS 3810, Computer Organization (QI)_________________________________ (4)
5. CS 4150, Algorithms (QI)____________________________________________ (3)
6. CS 4400, Computer Systems (QI)______________________________________ (4)

EAE REQUIREMENTS:

1. EAE 3660, Machinima_______________________________________________ (3)
2. EAE 3710, Traditional Game Development____________________________ (3)
3. EAE 3720, Serious Game Development__________________________________ (3)

AREA FOCUS ELECTIVES

Choose ONE class from each of the FOUR FOCUS AREAS  
(4 classes total – 12 to 13 hours):

1. AI/Analytics:________________________________________________________ (3)
   CS 4300 (AI), CS 5140 (Data Mining), CS 5340 (NLP), CS5350 (Machine Learning)
2. Core/Fundamentals:__________________________________________________ (3-4)
   CS 5150 (Adv Alg), CS 5460 (OS), CS 4470 (Compilers)
3. Human Centered Computing:_________________________________________ (3)
   CS 3540 (HCI), CS 4530 (Mobile Apps), CS 4600 (Graphics), CS/EAE 4xxx (Game AI), CS 5650 (Visual Perception)
4. Infrastructure:_______________________________________________________ (3)
   CS 3470 (Scripting), CS 4440 (Security), CS 4480 (Networking), CS 5530 (Database)

Choose 2 more classes from ANY of the FOCUS AREAS ABOVE (6 to 7 hours):
5. Area Focus Elective___________________________________________________ (3-4)
6. Area Focus Elective___________________________________________________ (3-4)

THEORY RESTRICTED ELECTIVE

Choose ONE:

CS 3100, Models of Computation (QI)____________________________________ (3)
or
CS 3200, Scientific Computing____________________________________________ (3)

CAPSTONE REQUIREMENT

1. EAE 4500, Senior Project I____________________________________________ (3)
2. EAE 4510, Senior Project II____________________________________________ (3)
3. CS 4998, Honors Project Thesis (HON)__________________________________ (1)

See the CS Undergraduate Handbook online for complete details.