COMPUTER SCIENCE 2018-2019  B.S. Degree Requirements
Games/ EAE emphasis

Advising: ugrad-help@cs.utah.edu. Schedule appointments online at cs.utah.edu

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 1210, Calculus I (QR) ______________________ (4)
5. Math 1220, Calculus II (QR) _____________________ (4)

GENERAL EDU. REQUIREMENTS:
Honors options also accepted for WR2, CW, and AI requirements. See minimum grade requirements in handbook.

1. Wrtg 2010, Intermediate Writing (WR2) ________________ (3)
2. FA 3600 or WRTG 4030 (CW) ____________________________ (3)
3. American Institutions (AI) ____________________________ (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. Humanities (HF): ______________________________ (3)
7. Humanities (HF): ______________________________ (3)
8. 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

Not Accepted: Math, science or engineering courses with Math 1220 as a pre- or co-requisite (See DARS). Biol 1210, Chem 1210 also accepted.

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 ________________________ (3)
4. CS 3810, Computer Organization (QI) ________________ (4)
5. CS 4150, Algorithms (QI) ___________________________ (4)
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:
   CS 4300 (AI), CS 5140 (Data Mining), CS 5340 (NLP), CS5350 (Machine Learning)

2. Core/Fundamentals:
   CS 5150 (Adv Alg), CS 5460 (OS), CS 5470 (Compilers)

3. Human Centered Computing:
   CS 3540 (HCI), CS 4530 (Mobile Apps), CS 4600 (Graphics), CS/EAE 4xxx (Game AI), CS 5650 (Visual Perception)

4. Infrastructure:
   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)

See the CS Undergraduate Handbook online for complete details 12/11/17