COMPUTER SCIENCE 2018-2019 B.S. Honors Degree Requirements  
Games/EAE emphasis  
Advising: ugrad-help@cs.utah.edu. Schedule appointments online at cs.utah.edu  
Honors Degree requirements: 4 Honors Core, 3 Electives, 1 Thesis

**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, Algorithm/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 FF, HF, FF, IR and DV courses. See Honors advisor for requirements.

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. 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.

NOTE: 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. ____________________ (1)

**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 ____________________ (4)
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 ____________________ (3)
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 15 hours). Two 6000 level courses accepted toward Honors degree:

1. **AI/Analytics:**
   - CS 4300 (AI), CS 5140 (Data Mining), CS 5340 (NLP), CS5530 (Machine Learning)
   - **(3)**

2. **Core/Fundamentals:**
   - CS 5150 (Adv Alg), CS 5460 (OS), CS 4470 (Compilers)
   - **(3)**

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

4. **Infrastructure:**
   - CS 3470 (Scripting), CS 4440 (Security), CS 4480 (Networking), CS 5530 (Database)
   - **(3)**

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:

1. CS 3100, Models of Computation (QI) ____________________ (3)
   - or
2. 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

*Honors options available. See Honors Advisor for requirements.