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

Advising: [ugrad-help@cs.utah.edu.](mailto: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, Algrthm/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.*

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_____(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 13 hours). Two 6000 level courses accepted toward Honors degree:

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

*Honors options available. See Honors Advisor for requirements.