

**B.S. Game Design and Development  
2020-21 Catalog Checklist**

**UA GENERAL EDUCATION**

**COMPOSITION (Select ONE pair)**

ENGL 101 & ENGL 102 or  
ENGL 107 & 108 or  
ENGL 109H

**MATH**

MATH 113, MATH 116, MATH 122B, or higher

**TIER ONE (select two courses from each)**

Individuals and Societies (150):

\_\_\_\_\_  
\_\_\_\_\_

Natural Sciences (170):

\_\_\_\_\_  
\_\_\_\_\_

Traditions & Cultures (160):

\_\_\_\_\_  
\_\_\_\_\_

**TIER TWO (select one course from each)**

Arts: \_\_\_\_\_

Humanities: \_\_\_\_\_

Individuals & Societies: \_\_\_\_\_

Diversity (can be fulfilled with GE course):

**2nd Semester of SECOND LANGUAGE:**

**B.S. GAME DESIGN &  
DEVELOPMENT**

**CORE (TAKE ALL NINE):**

ISTA 116: Statistical Foundations of the Info. Age

ISTA 130: Computational Thinking and Doing

ISTA 131: Dealing with Data **OR** ESOC 301: Qualitative Internet Research **OR** ESOC 302: Quantitative Methods for the Digital Marketplace

ISTA 350: Programming for Informatics Applications

**OR**

GAME 351: Intro. to Game Development w/ Unity

ISTA 161: Ethics in a Digital World

ISTA 251: Introduction to Game Design

- ISTA 416: Introduction to Human Computer Interaction **OR** ISTA 424: Virtual Reality

- ISTA 451: Game Development

- ISTA 425: Algorithms for Games **OR** ISTA/GAME 452: Advanced Game Development

*As long as a student abides by the stated pre-requisites, they can be flexible about the order in which they complete the core!*

**GAMES ELECTIVES: (CHOOSE FIVE)**

(See Page 2 for course options)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ENGAGEMENT: (TAKE ONE)**

ISTA 498: Senior Capstone

- 45 Total Units required for major
- 2.0 GPA required overall, in major, and minor

**MINOR OR 2<sup>ND</sup> MAJOR**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**ADDITIONAL ELECTIVES  
(Needed to reach 120/42 UD units)**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

	120 Total Units	42 UD Units	(UD = 300-499)
<b>Completed</b>			
<b>In Progress</b>			
<b>End of _____ Term</b>			
<b>Needed</b>			

Overall GPA:	Major GPA:	Minor GPA:
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## GAME CORE COURSES

Complete all Nine (9) Courses (27 units)

ISTA 116\*: Statistical Foundations of the Information Age

\*Requires MATH 107 or higher or equivalent Math placement

ISTA 130\*: Computational Thinking and Doing

\*CSC 110 approved substitute for ISTA 130

ISTA 131\*: Dealing with Data **OR** ESOC 301: Qualitative Research **OR** ESOC 302: Quantitative Methods

\*ISTA 131 requires CSC 110 or ISTA 130. Computer Science majors/minors may use CSC 120 for this requirement

ISTA 350\*: Programming for Informatics Applications **OR** GAME 351: Intro. to Game Development w/ Unity

\*ISTA 350 requires ISTA 116, 130, 131. GAME 351 requires ISTA 130.

ISTA 161: Ethics in a Digital World

ISTA 451\*: Game Development

ISTA 251: Introduction to Game Design

\*Requires ISTA 350 or CSC 210 or GAME 351

ISTA 424\*: Virtual Reality

\*Requires ISTA 350 or CSC 210 or GAME 351

**OR**

ISTA 416: Human Computer Interaction

ISTA 425\*: Algorithms for Games

\*Requires ISTA 350 or CSC 210 or GAME 351

**OR**

GAME/ISTA 452\*: Advanced Game Development

\*Requires ISTA 451

*As long as students abide by the pre-requisites, they may be flexible about the order in which they complete the core*

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## GAMES ELECTIVES

Choose any Five (5) Courses (15 UD units)

- ESOC 300: Digital Storytelling and Culture
- ESOC 316: Digital Commerce
- ESOC 318: Disruptive Technologies
- ESOC 340: Information, Multimedia Design & the Moving Image
- GAME 310: Gamification in Society
- GAME 311: eSports Industries
- GAME 312: Monetizing Independent Gaming
- GAME/ISTA 452: Advanced Game Development
  - Requires ISTA 451
- ISTA 301: Computing and the Arts
- ISTA 302: Technology of Sound
- ISTA 303: Introduction to Creative Coding
  - Requires ISTA 130 or CSC 110 or ECE 175
- ISTA 421: Introduction to Machine Learning
- ISTA 424: Virtual Reality
  - Requires ISTA 350 or CSC 210 or GAME 351
- ISTA 450: Artificial Intelligence
  - Requires ISTA 350
- ISTA 457: Neural Networks
  - Requires ISTA 350
- LIS 484: Introduction to Copyright