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

**UA GENERAL EDUCATION**

**COMPOSITION (Select ONE pair)**  
ENGL 101 & ENGL 102 &  
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 251: Introduction to Game Design  
ISTA 116: Statistical Foundations of the Information Age*  
*Requires MATH 107 or higher or equivalent  
Math placement  
ISTA 161: Ethics in a Digital World  
ISTA 130*: Computational Thinking and Doing  
* CSC 110 approved substitute for ISTA 130  
ISTA 131: Dealing with Data  
*Ghosted (not advertised to students): CSC 120  
*Requires CSC 110 or ISTA 130  
ISTA 350: Programming for Informatics Applications  
*Ghosted (not advertised to students): CSC 210  
*Requires ISTA 116, 130, 131

ISTA 416: Introduction to Human Computer Interaction  
*Requires ISTA 130 or CSC 110  
ISTA 425: Algorithms for Games  
*Requires ISTA 350 or CSC 210  
ISTA 451: Game Development  
*Requires ISTA 350 or ISTA 303 or CSC 210

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

**ENGAGEMENT: (TAKE ONE)**  
ISTA 498: Senior Capstone

**GAMES ELECTIVES: (CHOOSE FIVE)**  
Choose from:  
GAME 310: Gamification in Society  
GAME 311: eSports Industries  
GAME 312: Monetizing Independent Games  
GAME 452: Advanced Game Development  
*Requires ISTA 451  
ESOC 300 Digital Storytelling  
ESOC 316: Digital Commerce  
ESOC 318: Disruptive Technologies  
ESOC 340: Information, Multimedia Design and the Moving Image  
ISTA 301: Computing and the Arts  
ISTA 302: Technology of Sounds  
ISTA 303: Creative Coding  
*Requires ISTA 130  
ISTA 350

ISTE 350: Artificial Intelligence  
*Requires ISTA 350 or CSC 245  
ISTA 457: Neural Networks  
*Requires ISTA 350  
LIS 484: Introduction to Copyright.

- 45 Total Units required for major *48 with ISTA 130, 131, and 350 but I find keeping it at 45 makes it easier in
case of transfer credit or other unique situations (that’s how it’s set up for ISTA)
- 18 UD Units required for major
- 18 minimum units in Residence
- 2.0 GPA required overall, in major, and minor

**MINOR OR 2ND MAJOR**

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<tr>
<th></th>
<th>Completed</th>
<th>120 Total Units</th>
<th>42 UD Units</th>
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<tbody>
<tr>
<td></td>
<td>In Progress</td>
<td></td>
<td></td>
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<tr>
<td>End of _____ Term</td>
<td>Needed</td>
<td></td>
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<td>Overall GPA:</td>
<td>Major GPA:</td>
<td>Minor GPA:</td>
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**ADDITIONAL ELECTIVES**
(Needed to reach 120/42 UD units)

**GAMES ELECTIVES**
Choose any Five Courses

**INTENSIVE GAME PROGRAMMING**
- ISTA 424: Virtual Reality
- GAME 452: Advanced Game Development

**GAME FUTURES**
- GAME 310: Gamification in Society
- GAME 311: eSports Industries
- GAME 312: Monetizing Independent Gaming
- LIS 484: Introduction to Copyright
- ESOC 316: Digital Commerce
- ESOC 318: Disruptive Technologies

**ARTIFICIAL INTELLIGENCE AND GAMES**
- ISTA 450: Artificial Intelligence
- ISTA 421: Introduction to Machine Learning
- ISTA 457: Neural Networks

**ART OF GAMES**
- ISTA 301: Computing and the Arts
- ISTA 302: Technology of Sound
- ISTA 303: Introduction to Creative Coding
- ESOC 300: Digital Storytelling and Culture
- ESOC 340: Information, Multimedia Design & the Moving Image