



**2023 – 2024**  
**Game Software Design**  
**Bachelor of Science Degree**  
**Academic Plan**

| <b>Fall Year 1</b>   |  | <b>Courses</b>                                | <b>Prerequisite(s)</b> | <b>Credits</b> |           |
|----------------------|--|---|------------------------|----------------|-----------|
| CIS 1110A            | Computer Operating Systems and Maintenance |   |                        | 3              | <b>15</b> |
| COM 1010             | Composition and Critical Thinking I        |   |                        | 3              |           |
| CS 1110A             | Programming in Python                      | Co-requisite(s): MTH 1010                     |                        | 3              |           |
| ELECTIVE             | General Education Elective                 | As needed per choice                          |                        | 3              |           |
| MTH 1010             | Quantitative Literacy                      |   |                        | 3              |           |
| <b>Spring Year 1</b> |  | <b>Courses</b>                                | <b>Prerequisite(s)</b> | <b>Credits</b> |           |
| CIS 2210             | Database Management and Design             | CS 1110A or CIS 1110A                         |                        | 3              | <b>15</b> |
| COM 1020             | Composition and Critical Thinking II       | COM 1010, MTH 1010                            |                        | 3              |           |
| CS 2150              | C++ Programming                            | EGR2710 or CS 1110A, MTH 1110                 |                        | 3              |           |
| ELECTIVE             | General Education Elective                 | As needed per choice                          |                        | 3              |           |
| WEB 1110             | Introduction to HTML                       |   |                        | 3              |           |
| <b>Fall Year 2</b>   |  | <b>Courses</b>                                | <b>Prerequisite(s)</b> | <b>Credits</b> |           |
| CS 2410              | Java Programming                           | CS 1110A                                      |                        | 3              | <b>15</b> |
| CS 3110              | C# Programming                             | CS 2150                                       |                        | 3              |           |
| ELECTIVE             | Program Elective                           | As needed per choice                          |                        | 3              |           |
| MTH 1210             | Trigonometry                               | MTH 1120                                      |                        | 3              |           |
| PSY 2050             | Self and Society                           | COM 1010, MTH 1010;<br>Co-requisite: COM 1020 |                        | 3              |           |
| <b>Spring Year 2</b> |  | <b>Courses</b>                                | <b>Prerequisite(s)</b> | <b>Credits</b> |           |
| CS 2420              | Advanced Java Programming                  | CS 2410                                       |                        | 3              | <b>15</b> |
| GSD 3010             | Game Design and Analysis                   | CS 1110A                                      |                        | 3              |           |
| GSD 3850             | Game Development                           | CS 3110                                       |                        | 3              |           |
| ELECTIVE             | Program Elective                           | As needed per choice                          |                        | 3              |           |
| MTH 2410             | Discrete Mathematics                       | MTH 1120 or MTH 1310                          |                        | 3              |           |
| <b>Fall Year 3</b>   |  | <b>Courses</b>                                | <b>Prerequisite(s)</b> | <b>Credits</b> |           |
| CS 3210              | Data Structures and Algorithms I           | CS 2150                                       |                        | 3              | <b>15</b> |
| GSD 4310             | Unity Game Programming I                   | GSD 3850                                      |                        | 3              |           |
| ELECTIVE             | Program Elective                           | As needed per choice                          |                        | 3              |           |
| PPM 3010             | Project Management                         | COM 1020                                      |                        | 3              |           |
| SOC 3050             | Personal, Civic, and Global Perspectives   | COM 1020, MTH 1010, PSY 2050                  |                        | 3              |           |

| Spring Year 3        |  | Courses                                | Prerequisite(s) | Credits    |  |
|----------------------|--|--|-----------------|------------|--|
| CS 3220              | Data Structures and Algorithms II                  | CS 3210                                | 3               | 15         |  |
| CS 4110              | Artificial Intelligence                            | CS 3110, CS 3210                       | 3               |            |  |
| GSD 3510             | Android Mobile Application Development             | GSD 3010                               | 3               |            |  |
| GSD 4320             | Unity Game Programming II                          | GSD 4310                               | 3               |            |  |
| HUM 3910             | Integrated Seminar                                 | COM 1010, MTH 1010, PSY 2050, SOC 3050 | 3               |            |  |
| Fall Year 4          |  | Courses                                | Prerequisite(s) | Credits    |  |
| CS 3310              | Application Security Practices                     | CS 2150                                | 3               | 15         |  |
| ELECTIVE             | Program Elective                                   | As needed per choice                   | 3               |            |  |
| GSD 3520             | Advanced Android Mobile Application Development    | GSD 3510                               | 3               |            |  |
| GSD 3810             | Unreal Game Programming I                          | GSD 4320                               | 3               |            |  |
| ITS 3210             | Legal and Ethical Issues in Information Technology | CIS 1110A or NET 1010                  | 3               |            |  |
| Spring Year 4        |  | Courses                                | Prerequisite(s) | Credits    |  |
| GSD 3820             | Unreal Game Programming II                         | GSD 3810                               | 3               | 15         |  |
| GSD 4990             | Senior Project in Game Software Development        | GSD 4320                               | 3               |            |  |
| ELECTIVE             | Program Elective                                   | As needed per choice                   | 3               |            |  |
| ELECTIVE             | Scientific Inquiry Elective                        | As needed per choice                   | 3               |            |  |
| WRK 4850             | CoIT Work Experience                               | Senior status                          | 3               |            |  |
| <b>Program Total</b> |  |  |                 | <b>120</b> |  |

### Program Electives:

Select any 5 courses, with any of the following prefixes, to fulfill 15 Program Electives hours: CIS, CS, CSC, GSD, ITS, MNP, NET, PPM, WEB. Prerequisites need to be fulfilled for any elective courses.