

# Simulation and Game Development (A25450P) Programming

## A.A.S. Degree (Full-Time) PROGRAM PLANNING GUIDE

**Date Revised: Fall 2024**

Courses taken more than 5 yrs. ago may not receive transfer credit. Consult your advisor for details.

### Curriculum By Semester

|               |     |                          |  | Hours Per Week |     |         |
|---------------|-----|--------------------------|--|----------------|-----|---------|
|               |     |                          |  | Class          | Lab | Credits |
| FALL SEMESTER |     |                          |  | Prerequisites  |     |         |
| ENG           | 111 | Writing and Inquiry      | Take One Set: Set 1: DRE-097; Set 2: ENG-002; Set 3: BSP-4002; Corequisites: ENG-011 | 3              | 0   | 3       |
| SGD           | 111 | Introduction to SGD      | None   | 2              | 3   | 3       |
| SGD           | 113 | SGD Programming I        | MAT-003 and ENG-002 or ENG-111   | 2              | 3   | 3       |
| SGD           | 116 | SGD Graphic Design Tools | ENG-002 or ENG-111   | 2              | 3   | 3       |
|               |     | Social Science Elective  |  | -              | -   | 3       |

|                        |     |                     |   |   |   |   |
|------------------------|-----|---------------------|---|---|---|---|
| <b>SPRING SEMESTER</b> |     |                     |   |   |   |   |
| MAT                    | 171 | Precalculus Algebra | Take One Set: Set 1: DMA-010, DMA-020, DMA-030, MA-040, DMA-050; Set 2: DMA-010, DMA-020, DMA-030, DMA-045<br>Set 3: DMA-025, DMA-045; Set 4: DMA-025, DMA-040, DMA-050; Set 5: MAT 121; Set 6: MAT-003; Set 7: BSP-4003<br>Corequisites- MAT-071 | 3 | 2 | 4 |
| SGD                    | 112 | SGD Design I        | SGD-113   | 2 | 3 | 3 |
| SGD                    | 114 | SGD 3D Modeling I   | SGD-116   | 2 | 3 | 3 |
| SGD                    | 163 | SGD Documentation   | SGD-111 and ENG-002 or ENG-111  | 2 | 3 | 3 |
| SGD                    | 213 | SGD Programming II  | SGD-113; CSC-134 or CSC-151 or CSC-153  | 2 | 3 | 3 |

|                        |     |                 |      |   |   |   |
|------------------------|-----|-----------------|------|---|---|---|
| <b>SUMMER SEMESTER</b> |     |                 |      |   |   |   |
| COM                    | 231 | Public Speaking | None | 3 | 0 | 3 |
|                        |     | Major Elective  |      | - | - | 3 |

| FALL SEMESTER |     |                          |                                 |   |   |   |
|---------------|-----|--------------------------|---------------------------------|---|---|---|
| SGD           | 168 | SGD Mobile Programming I | SGD-113                         | 2 | 3 | 3 |
| SGD           | 174 | SGD Level Design I       | SGD-114                         | 2 | 3 | 3 |
| SGD           | 212 | SGD Design II            | SGD-112 and SGD-113 and SGD-116 | 2 | 3 | 3 |
|               |     | Program Elective         |                                 | 2 | 3 | 3 |
|               |     | Major Elective           |                                 | - | - | 2 |

| SPRING SEMESTER |     |                          |                                 |   |   |   |
|-----------------|-----|--------------------------|---------------------------------|---|---|---|
| PHY             | 151 | College Physics I        | MAT-171 or MAT-271              | 3 | 2 | 4 |
| SGD             | 134 | SGD Quality Assurance    | SGD-112                         | 2 | 2 | 3 |
| SGD             | 158 | SGD Business Management  | ENG-111 and SGD-111 and SGD-112 | 3 | 0 | 3 |
| SGD             | 285 | SGD Software Engineering | SGD-212 and SGD-213             | 2 | 3 | 3 |
|                 |     | Major Elective           |                                 | - | - | 2 |

| SUMMER SEMESTER |     |                                   |   |   |   |   |
|-----------------|-----|-----------------------------------|---|---|---|---|
| SGD             | 289 | SGD Project                       | SGD-212, SGD-213, SGD-214, or SGD-285 and Take one Set: Set 1: Art Track: SGD-212, SGD-163, SGD-174, SGD-134 and SGD-172 or SGD-165; Set 2: Programming Track: SGD-212, SGD-163, SGD-174, SGD-134 and SGD-285 | 2 | 3 | 3 |
|                 |     | Humanities and Fine Arts Elective |   | - | - | 3 |

**GRADUATION REQUIREMENT:**

**Credit Hours 72**

| General Education Electives                      |     |                    |  |                |     |         |
|--|-----|--------------------|--|----------------|-----|---------|
|  |     |                    |  | Hours Per Week |     |         |
|  |     |                    |  | Class          | Lab | Credits |
| Humanities and Fine Arts Electives               |     |                    |  |                |     |         |
| (choose 3 credit hrs from the following courses) |     |                    |  |                |     |         |
| ART  | 111 | Art Appreciation   |  | 3              | 0   | 3       |
| ENG  | 125 | Creative Writing I |  | 3              | 0   | 3       |

|     |     |                        |  |   |   |   |
|-----|-----|------------------------|--|---|---|---|
| HUM | 110 | Technology and Society |  | 3 | 0 | 3 |
| HUM | 160 | Introduction to Film   |  | 3 | 0 | 3 |
| HUM | 130 | Myth in Human Culture  |  | 3 | 0 | 3 |
| REL | 110 | World Religions        |  | 3 | 0 | 3 |

### **Social Science Electives**

(choose 3 credit hrs from the following courses)

|     |     |                           |  |   |   |   |
|-----|-----|---------------------------|--|---|---|---|
| ECO | 151 | Survey of Economics       |  | 3 | 0 | 3 |
| HIS | 111 | World Civilizations I     |  | 3 | 0 | 3 |
| PSY | 150 | General Psychology        |  | 3 | 0 | 3 |
| SOC | 210 | Introduction to Sociology |  | 3 | 0 | 3 |

### **Program Electives**

(choose a minimum of 3 credit hrs from the following courses)

|     |     |                              |                                    |   |   |   |
|-----|-----|------------------------------|------------------------------------|---|---|---|
| SGD | 180 | SGD HTML Programming I       | SGD-113                            | 2 | 3 | 3 |
| SGD | 235 | SGD Game Console Programming | SGD-113 and co- or pre-req SGD-174 | 2 | 3 | 3 |

### **Required Major Electives**

(choose a minimum of 7 credit hrs from the following courses)

|     |     |                           |                                 |   |   |   |
|-----|-----|---------------------------|---------------------------------|---|---|---|
| SGD | 135 | Serious Games             | ENG-111 and SGD-112 and SGD-116 | 3 | 0 | 3 |
| SGD | 159 | SGD Production Management | SGD-111                         | 3 | 0 | 3 |
| SGD | 162 | SGD 3D Animation I        | SGD-114                         | 2 | 3 | 3 |
| SGD | 167 | SGD Ethics                | ENG-111 and SGD-111             | 3 | 0 | 3 |
| SGD | 172 | SGD Virtual Environments  | SGD-113 and SGD-114             | 2 | 3 | 3 |
| SGD | 210 | 3D Data Capture           | SGD-114 and SGD-162             | 2 | 3 | 3 |
| SGD | 237 | Rigging 3D Models         | SGD-114 and SGD-162             | 2 | 3 | 3 |
| SGD | 239 | SGD Tech Art              | SGD-113 and SGD-114             | 2 | 3 | 3 |
| SGD | 242 | SGD Photogrammetry        | SGD-114                         | 2 | 3 | 3 |
| SGD | 262 | SGD 3D Animation II       | SGD-162                         | 2 | 3 | 3 |
| SGD | 268 | SGD Mobile Programming II | SGD-168                         | 2 | 3 | 3 |
| SGD | 274 | SGD Level Design II       | SGD-174                         | 2 | 3 | 3 |

|     |        |                        |  |   |    |   |
|-----|--------|------------------------|--|---|----|---|
| SGD | 288    | SGD Portfolio Design   | State Co-Reqs - SGD-212 or SGD-213 or SGD-214; Prereq - SGD-162 or SGD-285 | 1 | 2  | 2 |
| WBL | 111MG* | Work Based Learning I  |  | 0 | 10 | 1 |
| WBL | 112MG* | Work Based Learning II |  | 0 | 20 | 2 |

\*WBL courses completed for one program may not count toward the completion of another program. For verification of WBL course work, please contact your academic advisor and/or your departmental Work-Based Learning faculty coordinator. The Work-Based Learning period may be taken over two semesters as WBL-112MG and WBL-121MG or over three semesters as WBL-111MG, WBL-121MG, and WBL-131MG.