

CURRICULUM STANDARD

Effective Term
Fall 2009
[2009*03]

Curriculum Program Title

Simulation and Game Development

Code

A25450

Concentration

(not applicable)

Curriculum Description

The Simulation and Game Development curriculum provides a broad background in simulation and game development with practical applications in creative arts, visual arts, audio/video technology, creative writing, modeling, design, programming and management.

Students will receive hands-on training in design, 3D modeling, and programming for the purpose of creating simulations and games.

Graduates should qualify for employment as designers, artists, animators, programmers, testers, quality assurance analysts, engineers and administrators in the entertainment industry, health care, education, corporate training, and government organizations.

Curriculum Requirements*

[for associate degree, diploma, and certificate programs in accordance with 23 NCAC 02E.0204 (3)]

- I. General Education.** Degree programs must contain a minimum of 15 semester hours including at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural sciences/mathematics. Degree programs must contain a minimum of 6 semester hours of communications. Diploma programs must contain a minimum of 6 semester hours of general education; 3 semester hours must be in communications. General education is optional in certificate programs.
- II. Major Hours.** AAS, diploma, and certificate programs must include courses which offer specific job knowledge and skills. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit. *(See second page for additional information.)*
- III. Other Required Hours.** A college may include courses to meet graduation or local employer requirements in a certificate, diploma, or associate in applied science program. These curriculum courses shall be selected from the Combined Course Library and must be approved by the System Office prior to implementation. Restricted, unique, or free elective courses may not be included as other required hours.

| | AAS | Diploma | Certificate |
|---|--------------|----------------|--------------------|
| Minimum General Education Hours | 15 | 6 | 0 |
| Minimum Major Hours | 49 | 30 | 12 |
| Other Required Hours | 0-7 | 0-4 | 0-1 |
| Total Semester Hours Credit in Program | 64-76 | 36-48 | 12-18 |

**Within the degree program, the institution shall include opportunities for the achievement of competence in reading, writing, oral communication, fundamental mathematical skills, and basic use of computers.*

Major Hours

[ref. 23 NCAC 02E.0204 (3)]

- A. Core.** The subject/course core is comprised of subject areas and/or specific courses which are required for each curriculum program. A diploma program offered under an approved AAS program standard or a certificate which is the highest credential level awarded under an approved AAS program standard must include a minimum of 12 semester hours credit derived from the subject/course core of the AAS program.
- B. Concentration** *(if applicable)*. A concentration of study must include a minimum of 12 semester hours credit from required subjects and/or courses. The majority of the course credit hours are unique to the concentration. The required subjects and/or courses that make up the concentration of study are in addition to the required subject/course core.
- C. Other Major Hours.** Other major hours must be selected from prefixes listed on the curriculum standard. A maximum of 9 semester hours of credit may be selected from any prefix listed, with the exception of prefixes listed in the core or concentration. Work experience, including cooperative education, practicums, and internships, may be included in associate in applied science degrees up to a maximum of 8 semester hours of credit; in diploma programs up to a maximum of 4 semester hours of credit; and in certificate programs up to a maximum of 2 semester hours of credit.

Simulation and Game Development A25450

| | AAS | Diploma | Certificate | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------|---------------------|--------------------|---------|------------|-------|---------|-------------|-------|---------|---------------|-------|---------|-------------|-------|---------|------------------|-------|---------|------------------|-------|---------|----------------|-------|---------|-----------------|-------|---------------|--|--|
| Minimum Major Hours Required | 49 SHC | 30 SHC | 12 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>A. CORE</p> <p>Required Courses:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">SGD 111</td> <td style="padding-left: 20px;">Introduction to SGD</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td style="padding-left: 20px;">SGD 112</td> <td style="padding-left: 20px;">SGD Design</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td style="padding-left: 20px;">SGD 114</td> <td style="padding-left: 20px;">3D Modeling</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td style="padding-left: 20px;">SGD 212</td> <td style="padding-left: 20px;">SGD Design II</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td style="padding-left: 20px;">SGD 289</td> <td style="padding-left: 20px;">SGD Project</td> <td style="text-align: right;">3 SHC</td> </tr> </table> <p>Required Subject Area: Programming. Select one:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding-left: 20px;">CSC 134</td> <td style="padding-left: 20px;">C+ + Programming</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td style="padding-left: 20px;">CSC 151</td> <td style="padding-left: 20px;">JAVA Programming</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td style="padding-left: 20px;">CSC 153</td> <td style="padding-left: 20px;">C# Programming</td> <td style="text-align: right;">3 SHC</td> </tr> <tr> <td style="padding-left: 20px;">SGD 113</td> <td style="padding-left: 20px;">SGD Programming</td> <td style="text-align: right;">3 SHC</td> </tr> </table> <p>Select Additional 12 SHC from SGD courses 12 SHC</p> | SGD 111 | Introduction to SGD | 3 SHC | SGD 112 | SGD Design | 3 SHC | SGD 114 | 3D Modeling | 3 SHC | SGD 212 | SGD Design II | 3 SHC | SGD 289 | SGD Project | 3 SHC | CSC 134 | C+ + Programming | 3 SHC | CSC 151 | JAVA Programming | 3 SHC | CSC 153 | C# Programming | 3 SHC | SGD 113 | SGD Programming | 3 SHC | 30 SHC | | |
| SGD 111 | Introduction to SGD | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SGD 112 | SGD Design | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SGD 114 | 3D Modeling | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SGD 212 | SGD Design II | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SGD 289 | SGD Project | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSC 134 | C+ + Programming | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSC 151 | JAVA Programming | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSC 153 | C# Programming | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SGD 113 | SGD Programming | 3 SHC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B. CONCENTRATION <i>(Not applicable)</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>C. OTHER MAJOR HOURS <i>To be selected from the following prefixes:</i></p> <p>ARC, ART, BUS, CIS, COE, CSC, CTS, DAN, DBA, DDF, DEA, DES, DFT, DME, DRA, ECO, ENT, FVP, GAM, GRA, GRD, GIS, MUS, NET, NOS, PHO, SGD, SGR, and WEB</p> <p><i>Foreign language courses (including ASL) that are not designated as approved other major hours may be included in all programs up to a maximum of 3 semester hours of credit.</i></p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |