

GAME SYSTEMS CONCENTRATION, COMPUTER SCIENCE (BS)

Major Requirements

First Year

| Course | Title | Quarter Hours |
|---------|--|---------------|
| CSC 241 | INTRODUCTION TO COMPUTER SCIENCE I ¹ | 4 |
| CSC 242 | INTRODUCTION TO COMPUTER SCIENCE II ¹ | 4 |
| CSC 300 | DATA STRUCTURES I | 4 |
| MAT 140 | DISCRETE MATHEMATICS I | 4 |
| MAT 141 | DISCRETE MATHEMATICS II | 4 |

¹ Students with one (1) semester programming experience may take CSC 243 and one (1) additional Major Elective.

Second Year

| Course | Title | Quarter Hours |
|---------|-----------------------------------|---------------|
| CSC 301 | DATA STRUCTURES II | 4 |
| CSC 321 | DESIGN AND ANALYSIS OF ALGORITHMS | 4 |
| CSC 347 | CONCEPTS OF PROGRAMMING LANGUAGES | 4 |
| CSC 361 | OPTIMIZED C++ | 4 |
| CSC 373 | COMPUTER SYSTEMS I | 4 |
| CSC 374 | COMPUTER SYSTEMS II | 4 |
| WRD 204 | TECHNICAL WRITING | 4 |

Third Year

| Course | Title | Quarter Hours |
|------------------------|---|---------------|
| CSC 386 | REAL-TIME NETWORKING (FORMERLY GAM 390) | 4 |
| GAM 325 | APPLIED 3D GEOMETRY | 4 |
| GAM 370 | RENDERING AND GRAPHICS PROGRAMMING | 4 |
| GAM 372 | OBJECT-ORIENTED GAME DEVELOPMENT | 4 |
| GAM 374 | GAME ENGINE PROGRAMMING I | 4 |
| GAM 377 | GAME ENGINE PROGRAMMING II | 4 |
| One (1) Major Elective | | 4 |

Fourth Year

| Course | Title | Quarter Hours |
|---------------------------|--|---------------|
| GAM 394 & GAM 395 | GAME DEVELOPMENT CAPSTONE I and GAME DEVELOPMENT CAPSTONE II | 8 |
| or | | |
| CSC 394 | SOFTWARE PROJECTS (and one (1) Major Elective) | |
| Three (3) Major Electives | | 12 |

Major Electives

Major Electives may be selected from 300-level CSC, CSE, SE, or GAM courses or from the list of courses below:

| Course | Title | Quarter Hours |
|---------|--|---------------|
| ANI 230 | 3D DESIGN & MODELING | |
| CSE 314 | NETWORKING FOR CYBER-PHYSICAL SYSTEMS | |
| CSE 316 | CYBER-PHYSICAL SYSTEM SECURITY | |
| CSE 331 | CYBER-PHYSICAL SYSTEM ENGINEERING I | |
| CSE 332 | ANALOG AND DIGITAL CIRCUITS | |
| CSE 333 | DIGITAL SIGNAL PROCESSING | |
| CSE 351 | EMBEDDED SYSTEMS I | |
| CSE 352 | EMBEDDED SYSTEMS II | |
| CSE 361 | MATHEMATICAL FOUNDATIONS OF AUTONOMOUS SYSTEMS | |
| CSE 362 | FOUNDATIONS OF CYBER-PHYSICAL COMPUTING | |
| GAM 226 | FUNDAMENTALS OF GAME DESIGN | |

Open Electives

Open Elective Credit Hours are required to meet the minimum graduation requirements of 192 hours. Open Electives may be taken from any unit at DePaul.