# Computer Science (Games)

## First Year

### Fall Semester
- **CSCI 109**
- **CSCI 103L**
- **MATH 125 (GE F)**
- **CTIN 190**
- **ENGR 102**

### Spring Semester
- **GE B**
- **CSCI 104L**
- **MATH 126 or MATH 129**
- **CSCI 170**
- **OPTIONAL ELECTIVE**

## Second Year

### Fall Semester
- **CSCI 201L**
- **PHYS 151L (GE E)**
- **ITP 380**
- **WRIT 150**

### Spring Semester
- **EE 352L**
- **CSCI 270**
- **MATH 225 or EE 241**
- **CSCI 281**

## Third Year

### Fall Semester
- **CSCI 353**
- **CSCI 420**
- **CTIN 484L**
- **CTIN 489**

### Spring Semester
- **CSCI 423**
- **CSCI 350L**
- **GE C**
- **WRIT 340**

## Fourth Year

### Fall Semester
- **CSCI 360**
- **GE A**
- **GED**
- **CSCI 491aL**

### Spring Semester
- **GE B**
- **GE C**
- **GAMES ELECTIVE**
- **CSCI 491bL**

### Mathematics (11-12 Units)
- **MATH 125**: Calculus I
- **MATH 126 or 129**: Calculus II
- **MATH 225**: Linear Algebra & Diff. Equations
- **or EE 241**: Applied Linear Algebra

### Physics (4 Units)
- **PHYS 151L**: Mechanics and Thermodynamics

### General Education (32 Units)
- **GE A**: The Arts (1 Course)
- **GE B**: Humanistic Inquiry (2 Courses)
- **GE C**: Social Analysis (2 Courses)
- **GE D**: Life Sciences (1 Course)
- **GE E**: Physical Sciences (1 Course)
- **GE F**: Quantitative Reasoning (1 Course)
- **GE G,H**: Global Perspectives (2 Courses)*
- **GESM General Education Seminar (1 Course)*

### Writing (7 Units)
- **WRIT 150**: Writing and Critical Reasoning
- **WRIT 340**: Advanced Writing

### Animation & Interactive Media (12 Units)
- **CTIN 190**: Intro to Interactive Entertainment
- **CTIN 488**: Game Design Workshop
- **CTIN 484L**: Intermediate Game Development
- **CTIN 489**: Intermediate Game Design Workshop

### Games Electives (2-4 Units)
- **CTIN 452**: Intro to Computer Animation
- **or CSCI 424**: Game Engine Tool Development
- **or CSCI 425**: Immersive Game Design

### Engineering (64 Units)
- **CSCI 103L**: Introduction to Programming
- **CSCI 104L**: Data Structures & Object Oriented Design
- **CSCI 109**: Discrete Methods in Comp. Science
- **CSCI 170**: Introduction to Computing
- **CSCI 175**: Intro to Algorithms & Theory of Computing
- **CSCI 281**: Pipelines for Games & Interactives
- **CSCI 350**: Introduction to Operating Systems
- **CSCI 353**: Intro to Networking
- **CSCI 360**: Intro to Artificial Intelligence
- **CSCI 420**: Computer Graphics
- **CSCI 423**: Native Console Multiplayer Game Development
- **CSCI 491aL**: Final Game Project
- **CSCI 491bL**: Final Game Project
- **EE 352L**: Computer Organization & Architecture
- **ENGR 102**: Engineering Freshmen Academy
- **ITP 380**: Video Game Programming
- **ITP 485**: Programming Game Engines

### Optional Electives (2-5 Units)

### Courses with this symbol may be satisfied with AP, IB or A-Level exams. See page 17 for more information.

### Courses with this symbol may be taken in categories A, B, C, or D only. See pp. 15-17 for more information and consult your advisor for detailed assistance.

### Grade Qualifier: A grade of a C (2.0) or better is required for each of the core courses. Courses with a grade of C- or below must be repeated; courses may only be retaken once with department approval.

### Recommended Prep:
- **PHYS 151 with or before ITP 380**
- **CSCI 353 before CSCI 423**
- **ITP 485 before CSCI 423, 424, 425**