

COURSE TRACKS FOR COMPUTER SCIENCE GAMES (CSGA)

The Computer Science Games degree (CSGA) offers technical and creative training for the video game industry. CSCI 102 is the introductory course for this program and the appropriate course for students with limited or no prior computer programming experience. Students who earn a 4 or 5 on the AP Computer Science A exam, or pass the CSCI 102 Challenge Exam, are able to begin in the next level of courses.

**Please review the prerequisites for upper-division CSCI courses on the next page.*

Computer Science Games — Begin with CSCI 103

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
CSCI 170 CSCI 102 4	PHYS 151L (GE E)* MATH 125 or 126 or 226* 4	CSCI 201L CSCI 104L 4	CSCI 270 CSCI 104L, CSCI 170 4	CSCI ELECTIVE (350, 353, 356, 360 or 420) 4	WRIT 340 WRIT 150 4	CSCI 491aL 4	CSCI 491bL 4
CSCI 103L CSCI 102 4	CSCI 104L CSCI 103L, CSCI 170 4	MATH 129 or MATH 126* MATH 125 4	TAC 380 CSCI 104 4	GE A* 4	CSCI ELECTIVE (350, 353, 356, 360 or 420) 4	GE C 4	GE B 4
MATH 125 (GE F)* 4	CTIN 488 4	WRIT 150 4	FREE ELECTIVE 4	MATH 225 or MATH 235 MATH 126 or 129 or EE 141L 4	GE C 4	FREE ELECTIVE 4	FREE ELECTIVE 4
CTIN 190 4	GESM (GE B)# 4	GAMES ELECTIVE 4	CTIN 489L CTIN 488 4	GE D* 4	OPTIONAL ELECTIVE 6	FREE ELECTIVE 4	FREE ELECTIVE 6
ENGR 102 2	GAMES ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 4	OPTIONAL ELECTIVE 2			

Computer Science Games — Begin with CSCI 102

FIRST YEAR		SECOND YEAR		THIRD YEAR		FOURTH YEAR	
FALL	SPRING	FALL	SPRING	FALL	SPRING	FALL	SPRING
CSCI 102L 2	GESM (GE B)# 4	CSCI 104L CSCI 103L, CSCI 170 4	CSCI 270 CSCI 104L, CSCI 170 4	CSCI ELECTIVE (350, 353, 356, 360 or 420) 4	CSCI ELECTIVE (350, 353, 356, 360 or 420) 4	CSCI 491aL 4	CSCI 491bL 4
WRIT 150 4	MATH 125 (GE F)* 4	MATH 129 or MATH 126* MATH 125 4	TAC 380 CSCI 104 4	GE A* 4	GE C 4	GE C 4	GE B 4
CTIN 488 4	CSCI 170 CSCI 102 4	PHYS 151L (GE E)* MATH 125 or 126 or 226 4	CSCI 201L CSCI 104L 2	MATH 225 or MATH 235 MATH 126 or 129 or EE 141L 4	FREE ELECTIVE 4	FREE ELECTIVE 4	WRIT 340 WRIT 150 4
CTIN 190 4	CSCI 103L CSCI 102 2	GAMES ELECTIVE 4	CTIN 489L CTIN 488 4	GE D* 4	OPTIONAL ELECTIVE 6	FREE ELECTIVE 4	FREE ELECTIVE 4
ENGR 102 2	GAMES ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2	OPTIONAL ELECTIVE 2			FREE ELECTIVE 4
OPTIONAL ELECTIVE 2							

Computer Science Games. Please see previous page.

Mathematics (12 Units)

- MATH 125: Calculus I*
- MATH 126 or 129: Calculus II*
- MATH 225: Linear Algebra & Diff. Equations
- **OR** MATH 235: Linear Algebra & Applications
- **OR** EE 141L: Applied Linear Algebra for Engineering

Physics (4 Units)

- PHYS 151L: Mechanics and Thermodynamics*
- **OR** PHYS 161L: Advanced Principles of Physics I

General Education (24 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)

Game Development Core (16 Units)

(With Prerequisites)

- TAC 380: Video Game Programming
- CTIN 190: Intro to Interactive Entertainment (CSCI 104)
- CTIN 488: Game Design Workshop
- CTIN 489L: Intermediate Game Design Workshop (CTIN 488)

Game Development Core Electives (6 Units)

- Choose at least 6 units of elective from approved elective list. [Click here to review.](#)

Games Capstone (8 Units)

Senior Status Required (With Prerequisites)

- CSCI 491AL: Final Game Project
- CSCI 491BL: Final Game Project (CSCI 491AL)

Engineering (2 Units)

- ENGR 102: Engineering Freshman Academy

Writing (8 Units)

- WRIT 150: Writing and Critical Reasoning
- WRIT 340: Advanced Writing

Computer Science Core (22 Units)

(With Prerequisites)

- CSCI 102L: Fundamentals of Computation
- CSCI 103L: Introduction to Programming (CSCI 102)
- CSCI 104L: Data Structures & Object Oriented Design (CSCI 103 and CSCI 170)
- CSCI 170: Discrete Methods in Comp. Science (CSCI 102)
- CSCI 201L: Princ. of Software Development (CSCI 104)
- CSCI 270: Intro. to Algorithms & Theory of Computing (CSCI 104 and CSCI 170)

Computer Science Core Electives (8 Units)

(With Prerequisites)

Choose at least 8 units of elective:

- CSCI 350: Introduction to Operating Systems (CSCI 201 and CSCI 356)
- CSCI 353: Introduction to Internetworking (CSCI 201)
- CSCI 356: Intro. to Computer Systems (CSCI 104)
- CSCI 360: Intro. to Artificial Intelligence (CSCI 104 and CSCI 170)
- CSCI 420: Computer Graphics (CSCI 104 and 1 from MATH 225 or EE 141 & MATH 126 or EE 141 & MATH 129)

Free Electives (18 Units)

SPECIAL NOTES

- **Courses with the * symbol** may be satisfied with AP, IB or A-Level exams. See page 18 for more information.
- **GESM#:** GESM can be taken from GE categories: A, B, C, or D. Courses listed in the guide are options for a four-year course plan.
- **GE:** Engineering students are encouraged to satisfy GE-G and GE-H with a course that also satisfies a Core Literacy. GE-H may be satisfied by AP/IB. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 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 (CSCI 103, 170, 104 & 201). Courses with a grade of C- or below must be repeated; courses may only be retaken once with department approval.