



B.S. Game Development Requirements

The Game Development major is an interdisciplinary program incorporating courses from numerous departments. This interdisciplinary program incorporates the numerous aspects of game development, including programming, design, creative writing and music, to provide students with the opportunity to pursue a variety of careers in the field. This interdisciplinary approach to Game Development distinguishes KU's Game Development major from other programs in this area of study.

Note that all students must achieve 120 undergraduate credits and a minimum 2.0 overall GPA to graduate. The final GPA requirement for Game Development is 2.0.

Required Game Development Core Courses – 33 credits

ANIA 171 Introduction to Three-Dimensional Modeling and Rendering (3 credits)

ANIA 271 Three-Dimensional Prototyping (3 credits)

CPSC 125 Discrete Math for CS I (3 credits)

CPSC 120 Creative Graphical Programming *or* CPSC 135 Computer Science I (3 credits)

CPSC 136 Computer Science II *or* CPSC 220 Object-Oriented Multimedia Programming (3 credits)

CPSC 240 Fundamentals of Game Development (3 credits)

CPSC 320 Two-Dimensional Game Development (3 credits)

CPSC 323 Three-Dimensional Game Development (3 credits)

PRWR 108 Introduction to Creative Writing (3 credits)

MUSC 294 Sound Design for Visual Media (3 credits)

Capstone CODS 335 Interdisciplinary Team Project *or* CPSC 363 Interdisciplinary Software Rapid Prototyping (3 credits) *or* CPSC 385 Computer Science Seminar

Game Development Electives – 27 to 28 credits

At least 27 credits (9 courses) of additional courses from the list below.

Note that FINE 15 and FINE 16 are required prerequisites for most ANIA electives. ART 31 and/or ART 32 are recommended for most ANIA electives.

ANIA 141 Introduction to Visual Storytelling (3 credits)

ANIA 148 Game Design & Prototyping (3 credits)

ANIA 231 Introduction to Two-Dimensional Animation (3 credits)

ANIA 240 Introduction to Three-Dimensional Animation (3 credits)

ART 31 Two-Dimensional Design (3 credits)

ART 32 Three-Dimensional Design (3 credits)

CODS 347 Interactive Spaces (2 credits)

CODS 348 AR/VR/Mixed Reality (2 credits)

CODS 356 Creative Coding (3 credits)

COST 243 Social Games and Communication (3 credits)

CPSC 220 Object-Oriented Multimedia Programming (3 credits)

CPSC 223 Advanced Scientific Programming (3 credits)

CPSC 225 Discrete Math for Computer Science II (3 credits)

CPSC 237 Data Structures (3 credits)

CPSC 242 Server-Side Web Development (3 credits)

CPSC 243 Java Programming (3 credits)

CPSC 256 SQL Programming (3 credits)

CPSC 328 Network and Secure Programming (3 credits)

CPSC 330 Mobile Architecture and Development (3 credits)

CPSC 421 Web-Based Software Design & Development (3 credits)

CPSC 464 Human Computer Interaction (3 credits)

CTME 220 Media Law and Ethics (3 credits)

FINE 15 Drawing I (3 credits)

FINE 16 Drawing II (3 credits)

GEOG 25 Geofiction and Role-Playing (3 credits)

MATH 181 Calculus I (4 credits)

MATH 240 Synthetic Geometry (3 credits)

MATH 260 Linear Algebra I (3 credits)

PRWR/ENGL 223 Games and Literature (3 credits)

PRWR 311 Creative Writing Short Fiction (3 credits)

PRWR 313 Creative Writing Drama (3 credits)

Additional courses may serve as major electives upon approval of the computer science and information technology department.

Directed General Education Courses – 6 to 7 credits

The following courses are required to fulfill the Game Development requirements and are suggested to satisfy General Education categories C and D.

MATH 106 Trigonometry or MATH 115 Pre-Calculus or MATH 181 Calculus I – Category C2 (3-4 credits)

ARTH 27 History of Animation, Game Art & Inter Media – Category D (3 credits)

University Electives – 15 to 18 credits

Program Plan Code: BS_CSGD

Effective Date: Fall 2024

KU B.S. Game Development Checksheet

Student Name:

Student ID Number:

This checksheet provides a mechanism for students and advisors to keep track of a student's progress in the program. Please refer to the program requirements for more details regarding options.

Note that all students must achieve 120 undergraduate credits and a minimum 2.0 overall GPA to graduate. The final major-GPA requirement for Game Development is 2.0.

Required Game Development Core Courses - 33 credits

ANIA 171 Introduction to Three-Dimensional Modeling and Rendering	3 credits	Grade:
ANIA 271 Three-Dimensional Prototyping	3 credits	Grade:
CPSC 125 Discrete Math for Computer Science I	3 credits	Grade:
CPSC 120 Creative Graphical Programming or CPSC 135 Computer Science I	3 credits	Grade:
CPSC 136 Computer Science II or CPSC 220 Object-Oriented Multimedia Programming	3 credits	Grade:
CPSC 240 Fundamentals of Game Development	3 credits	Grade:
CPSC 320 Two-Dimensional Game Development	3 credits	Grade:
CPSC 323 Three-Dimensional Game Development	3 credits	Grade:
PRWR 108 Introduction to Creative Writing	3 credits	Grade:
MUSC 294 Sound Design for Visual Media	3 credits	Grade:
Capstone: CODS 335 Interdisciplinary Team Project or CPSC 363 Interdisciplinary Software Rapid Prototyping or CPSC 385 Computer Science Seminar	3 credits	Grade:
Total Credits	33 total credits	

Game Development Electives – 27 to 28 credits

See list of elective courses below.

Course 1:	credits	Grade:
Course 2:	credits	Grade:
Course 3:	credits	Grade:
Course 4:	credits	Grade:
Course 5:	credits	Grade:
Course 6:	credits	Grade:
Course 7:	credits	Grade:
Course 8:	credits	Grade:
Course 9:	credits	Grade:
Total Credits	27-28 total credits	

Directed General Education Courses

MATH 106 Trigonometry or MATH 115 Pre-Calculus or MATH 181 Calculus I (Category C2)	3-4 credits	Grade:
ARTH 27 History of Animation, Game Art & Inter Media (Category D)	3 credits	Grade:

University Elective Courses – 15 to 18 credits

Course 1:	credits	Grade:
Course 2:	credits	Grade:
Course 3:	credits	Grade:
Course 4:	credits	Grade:
Course 5:	credits	Grade:
Course 6:	credits	Grade:
Total Credits	15-18 total credits	

Summary of Graduation Requirements

Total credits from major courses	60
Total credits from general education program	42-45
Total credits from university electives	15-18
Minimum total credits to graduate	120
Minimum overall GPA	2.0
Comprehensive Exam	PASS

List of Elective Courses

At least 27 credits (9 courses) of additional courses from the list below.

ANIA 141 Introduction to Visual Storytelling (3 credits)
ANIA 148 Game Design & Prototyping (3 credits)
ANIA 231 Introduction to Two-Dimensional Animation (3 credits)
ANIA 240 Introduction to Three-Dimensional Animation (3 credits)
ART 31 Two-Dimensional Design (3 credits)
ART 32 Three-Dimensional Design (3 credits)
CODS 347 Interactive Spaces (2 credits)
CODS 348 AR/VR/Mixed Reality (2 credits)
CODS 356 Creative Coding (3 credits)
COST 243 Social Games and Communication (3 credits)
CPSC 220 Object-Oriented Multimedia Programming (3 credits)
CPSC 223 Advanced Scientific Programming (3 credits)
CPSC 225 Discrete Math for Computer Science II (3 credits)
CPSC 237 Data Structures (3 credits)
CPSC 242 Server-Side Web Development (3 credits)
CPSC 243 Java Programming (3 credits)
CPSC 256 SQL Programming (3 credits)
CPSC 328 Network and Secure Programming (3 credits)
CPSC 330 Mobile Architecture and Development (3 credits)
CPSC 421 Web-Based Software Design & Development (3 credits)
CPSC 464 Human Computer Interaction (3 credits)
CTME 220 Media Law and Ethics (3 credits)
FINE 15 Drawing I (3 credits)
FINE 16 Drawing II (3 credits)
GEOG 25 Geofiction and Role-Playing (3 credits)
MATH 181 Calculus I (4 credits)
MATH 240 Synthetic Geometry (3 credits)
MATH 260 Linear Algebra I (3 credits)
PRWR/ENGL 223 Games and Literature (3 credits)
PRWR 311 Creative Writing: Short Fiction (3 credits)
PRWR 313 Creative Writing: Drama (3 credits)
OTHER ELECTIVE COURSE UPON APPROVAL OF THE CS&IT DEPARTMENT CHAIR

Program Plan Code: BS_CSGD

Effective Date: Fall 2024



B.S. Game Development 8-Semester Planner

Student Name:

Student ID Number:

Each semester listed below provides information including course categories, typical credit hours (CH.), and space to add specific course selections. This planner is only a suggested path. Consult with your program advisor regarding your unique plans and interests as you make choices about your schedule.

First Semester Plan

Major	CPSC 120 or CPSC 135 (CPSC 120 Recommended)	3 CH.	Selection:
Gen Ed	ARTH 27 (D) or Gen. Ed. Elective	3 CH.	Selection:
Gen Ed	COMP 100 (A1)	3 CH.	Selection:
Gen Ed	FYSM 100	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Total		15 CH.	

Second Semester Plan

Major	CPSC 136 or CPSC 220 (CPSC 220 Recommended)	3 CH.	Selection:
Gen Ed	MATH 106 or MATH 115 or MATH 181 (C2)	3 or 4 CH.	Selection:
Major	Game Dev. Elective (consider CODS 10, ART 31, ART 32, FINE 15, FINE 16)	3 CH.	Selection:
Gen Ed	COMP 200-level (A2)	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Total		15-16 CH.	

Third Semester Plan

Major	CPSC 240	3 CH.	Selection:
Major	CPSC 125	3 CH.	Selection:
Major	ANIA 171	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective or ARTH 27 (D)	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Total		15 CH.	

Fourth Semester Plan

Major	PRWR 108	3 CH.	Selection:
Major	Game Development Elective	3 CH.	Selection:
Major	Game Development Elective	3 CH.	Selection:
Major	Game Development Elective	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Total		15 CH.	

Fifth Semester Plan

Major	CPSC 320 <i>or</i> CPSC 323	3 CH.	Selection:
Major	MUSC 294	3 CH.	Selection:
Major	Game Development Elective	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Total		15 CH.	

Sixth Semester Plan

Major	CPSC 323 <i>or</i> CPSC 320	3 CH.	Selection:
Major	ANIA 271	3 CH.	Selection:
Major	Game Development Elective	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Total		15 CH.	

Seventh Semester Plan

Major	Game Development Elective	3 CH.	Selection:
Major	Game Development Elective	3 CH.	Selection:
Major	Game Development Elective <i>or</i> Gen. Ed. Elective	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Total		15 CH.	

Eighth Semester Plan

Major	Capstone (<i>CPSC 363 or CODS 335 or CPSC 355</i>)	3 CH.	Selection:
Major	Game Development Elective	3 CH.	Selection:
Gen Ed	Gen. Ed. Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Elective	University Elective	3 CH.	Selection:
Total		15 CH.	

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