

GAME PROGRAMMING (B.S.) - BLOOMFIELD COLLEGE

Unless otherwise noted, 120 credits of coursework is required for a baccalaureate degree with a minimum 2.0 overall GPA, and a minimum 2.0 major GPA.

Degree Requirements Overview

Code	Title	Credits
	New Student Seminar	3
	SEEDS General Education Requirements	30-33
	Major Requirements	69-70
	Free Electives	18-14
	Total Credits	120

Major Requirements

Code	Title	Credits
Major Core		
CAT 108	Introduction to Game Design	3
CAT 150	History and Culture of Games	3
CAT 238	Game Programming I	3
CAT 253	Digital Game Design	3
CAT 274	Game Programming 2	3
CAT 380A	Internship I	3
CAT 408A	Pre-Capstone: Game Development	4
CAT 420	Capstone Project I	4
CMP 126A	Programming I	3
CMP 226B	Programming II	3
CMP 228A	Data Structures	3
MTH 131	Understanding Data in Social, Health, and Creative Contexts	3
MTH 221C or MTH 332A	Calculus I Discrete Mathematics	4
CMP 300A	Systems Analysis and Design	3
CMP 322B	Introduction to Operating Systems	3
Major Electives		
	Complete 21-22 credits from the list below.	21-22
	Total Credits	69-70

Major Electives

Code	Title	Credits
CAT 107	Introduction to Music Technology	3
CAT 117	Process Interaction: An Introduction	3
CAT 121A	CAT Foundation Studio	4
CAT 130	Introduction to Data Visualization	3
CAT 215	Level Design	3
CAT 261	Interaction And Interface: Introduction To Physical Computing	3
CAT 264	Computer Imaging	3
CAT 265	Tabletop Game Design	3
CAT 270B	Web Design I	3
CAT 328	Artificial Intelligence for Games	3

CAT 360	Selected Topics in Technology	3
CAT 361A	3D Modeling	3
CAT 364	Motion Capture with Motionbuilder	3
CAT 370	Advanced Web Design	3
CAT 430A	Internship II	3
CMP 330B	Database Management	3

New Student Seminar

Code	Title	Credits
FYS 100	First Year Seminar	3
	Total Credits	3

SEEDS General Education Requirements

Click here for a listing of courses that fulfill the SEEDS requirements. (<http://catalog.montclair.edu/programs/seeds-general-education-requirements/>)

Code	Title	Credits
Foundations		
	<i>Effective Writing I</i>	
	Complete one Effective Writing I course.	3
	<i>Effective Writing II</i>	
	Complete one Effective Writing II course.	3
	<i>Interactive Communication</i>	
	Complete one Interactive Communication course.	3
	<i>Quantitative Reasoning</i>	
	Complete one Quantitative Reasoning course.	3
	<i>Political and Civic Life</i>	
	Complete one Political and Civic Life course.	3
	<i>World Languages</i>	
	Complete two sequential classes in one World Language when starting at the Beginner I or Beginner II level. Complete one class when starting at the Intermediate/Advanced Level.	3-6
Exploration		
	Complete one course from four different Exploration categories.	12
	<i>Analyzing Cultures and Societies</i>	
	<i>Creative Expression</i>	
	<i>Ethical Inquiry</i>	
	<i>Historical Thinking</i>	
	<i>Literary and Artistic Analysis</i>	
	<i>Scientific Reasoning</i>	
	Total Credits	30-33

Recommended Roadmap to Degree Completion

This recommended degree plan is provided as an outline for students to follow in order to complete their degree requirements within four years and 120 credits. This plan is a recommendation and MUST be used in consultation with their academic advisor. Important note: Students should be aware this plan assumes no pre-requisite coursework is required. If pre-requisite coursework is needed, students may have additional requirements to fulfill which do not appear on the plan.

First Year

Fall	Credits	Spring	Credits
WRT 105A (Fulfills SEEDS: Effective Writing I)		4 WRT 109 (fulfills SEEDS: Effective Writing II)	3
FYS 100		3 CMP 226B	3
CMP 126A		3 CAT 253	3
CAT 108 (fulfills SEEDS Exploration 1: Creative Expression)		3 CAT 150 (fulfills SEEDS: Exploration 2 Literary and Artistic Analysis)	3
MTH 131 (Fulfills SEEDS: Quantitative Reasoning)		3 Major Elective	3
	16		15

Second Year

Fall	Credits	Spring	Credits
CAT 238		3 CAT 274	3
CMP 228A		3 CMP 300A	3
MTH 221C or 332A		3 SEEDS: World Language 2 or Free Elective	3
SEEDS: World Language 1		3 Major Elective	3
Major Elective		3 Free Elective	3
	15		15

Third Year

Fall	Credits	Spring	Credits
CAT 237		4 CAT 308A	4
SEEDS: Exploration 3		3 CMP 322B	3
SEEDS: Interactive Communication		3 SEEDS: Exploration 4	3
Major Elective		3 SEEDS: Political and Civic Life	3
Free Elective		3 Free Elective	2
	16		15

Fourth Year

Fall	Credits	Spring	Credits
CAT 408A		4 CAT 420	4
CAT 380A		3 Major Elective	3
Major Elective		3 Free Elective	3
Free Elective		3 Free Elective	3
Free Elective		2	
	15		13

Total Credits 120