

GAME PROGRAMMING (B.S.) - BLOOMFIELD COLLEGE

For details about this program, including program description, admission requirements, and contact information, click here (<https://www.montclair.edu/academics/programs/bs-game-programming/>).

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 380	Internship I	3
CAT 408	Pre-Capstone: Game Development	4
CAT 420	Capstone Project I	4
CMP 126	Programming I	3
CMP 226	Programming II	3
CMP 228	Data Structures	3
CMP 300	Systems Analysis and Design	3
CMP 322		3
MTH 131	Understanding Data in Social, Health, and Creative Contexts	3
MTH 221	Calculus I	4
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 121	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 270	Web Design I	3
CAT 328	Artificial Intelligence for Games	3
CAT 360	Selected Topics in Technology	3
CAT 361	3D Modeling	3
CAT 364	Motion Capture with Motionbuilder	3
CAT 370	Advanced Web Design	3
CAT 430	Internship II	3
CMP 330	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 Program of Study Completion

This recommended degree plan is provided as an outline for students to follow in order to complete their program of study 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
SEEDS: Effective Writing 1 (WRT 105 recommended)	4 SEEDS: Effective Writing 2 (WRT 109 recommended)	3
FYS 100	3 CMP 226	3
CMP 126	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 228	3 CMP 300	3
MTH 221	4 SEEDS: World Language 2 or Free Elective	3
SEEDS: World Language 1	3 Major Elective	3
Major Elective	3 Free Elective	3
	16	15

Third Year

Fall	Credits Spring	Credits
CAT 237	4 CAT 308	4
SEEDS: Exploration 3	3 CMP 322	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 408	4 CAT 420	4
CAT 380	3 Major Elective	3
Major Elective	3 Free Elective	3
Free Elective	3 Free Elective	3
Free Elective	2	
	15	13

Total Credits 121