

# Game Design & Development

## BS in Game Design & Development (Fall 2020 & Later)

Minimum 120 credits required for Bachelor's degree

50+24 credits GAME DESIGN & DEVELOPMENT MAJOR

### Foundational Core (30-32 Credits)

Grade

FYWS 125 <sup>1</sup>	First Year Seminar	
CTL 125	Critical Thinking	
MA _____	Foundational Core Math course <sup>3</sup>	
Choose 1 course from each area *		
<sup>2</sup> Natural and Physical Science <sup>4</sup>		
Literature		
History	HI-100 or HI-102	
Arts/Design/Comm. <sup>5</sup>		
Philosophy		
Theology/Relig		
Social/Behavioral Science <sup>6</sup>		

### Human Journey Seminars: Great Books in CIT (6 Credits)

CIT 201	CIT Seminar I	
CIT 202	CIT Seminar II	

### Liberal Arts Explorations (9 Credits Total)

Student must complete one course in each area.  
(see list on Registrar's Website - checksheets)

Humanistic Inquiry (3 credits)		
Social and Global Awareness <sup>8</sup>		
Scientific Literacy (3 credits)		

\* See list of courses.

<sup>1</sup>(Requires Grade C or higher)

<sup>2</sup>Science/Natural Science courses includes

approved Math and Computer Science courses. Students are required to take at least one course in Biology, Chemistry, or Physics in the Foundational or Liberal Arts Exploration Core. Major and MA courses may be used as a Science/Natural Science in either the Foundational Core or as a requirement in the LAE

Core, but not in both categories.

<sup>3</sup> MA106/MA140/MA151 may count in this area

<sup>4</sup> PY151/153 may count in this area

<sup>5</sup> AR114 may count in this area

<sup>6</sup> EC101 or EC202 or EC295 is recommended

<sup>7</sup> MA131 may count in this area

<sup>8</sup> CS319 is recommended

Note: MA 006 and ESL courses **will not** count towards the 120 credit graduation requirement.

Approved Study Abroad courses may be used to satisfy requirements for the foundational core or a Liberal Arts Exploration

A maximum of 8 Applied Music credits may be applied towards graduation

REQUIRED CURRICULUM		CR	Grade
CSE 125	CSE Explorations	1	
GDD 125	GDD Explorations	3	
CS 111	Introduction to Structured Programming	3	
CS 112	Data Structures	3	
CS 113	Discrete Structures	3	
CS 215	Computer Systems Organization	3	
GDD 271	Game Development	3	
GDD 272	OOP with C# and Games	3	
GDD 273	3D Object Creation	3	
CS 321	Research Methods Seminar	2	
CS 338	Systems Analysis and Design	3	
CS 339	Networking and Data Communications	3	
GDD 371	Advanced Game Programming	3	
GDD 372	Building Computer Games	3	
CS 390	Internship	3	
GDD 417	Senior Project Design	2	
GDD 418	Senior Project Implementation	3	

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GDD ELECTIVES - TAKE ONE OF THE FOLLOWING		CR	Grade
GDD 433	Theory of Computer Gaming	3	
CS 232	Human Computer Interaction	3	
AR 278	Intro to Augmented Reality	3	
GDD 326	Mobile Game Development	3	

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Required Supporting Courses ***		CR	Grade
CS 319	Computer Ethics	3	
MA 131	Elementary Statistics **	3	
MA 151	Calculus I	4	
MA 152	Calculus II	4	
PY151/153	Principles of Physics I and Lab	4	
AR 114	Photoshop and Illustrator	3	
PH-127 or PH-131 or PH-151	Philosophy Course***	3	
	*** Must have grade of C or better		

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### Checksheet Key

T	Course transferred and Requirement satisfied
W	Requirement waived
TW	Course transferred and Requirement waived

\*\*\* Counts for Philosophy course in Foundational Core

**WELCH COLLEGE OF BUSINESS AND TECHNOLOGY**  
**SCHOOL OF COMPUTER SCIENCE & ENGINEERING**  
**BS in Game Design and Development (Fall 2020 & Later)**

<b>YEAR 1</b>	<b>SEMESTER 1</b>	<b>YEAR 1</b>	<b>SEMESTER 2</b>
FYWS 125 OR CTL 125	First Year Seminar OR Critical Thinking	CTL 125 OR FYWS 125	Critical Thinking OR First Year Seminar
MA 151	Calculus I	MA 152	Calculus II
CSE 125	CSE Explorations	GDD 125	GDD Explorations
CS 111	Intro to Structured Programming	CS 112	Data Structures
CORE	Foundational Core	CS 113	Discrete Structures

  

<b>YEAR 2</b>	<b>SEMESTER 3</b>	<b>YEAR 2</b>	<b>SEMESTER 4</b>
CIT 201	Human Journey Seminar I	CIT 202	Human Journey Seminar II
MA 131	Elementary Statistics (LAE Literacy)	CS 215	Computer Systems Organization
GDD 271	Game Development	GDD 272	OOP with C# and Games
PY 151/153	Principles of Physics I	GDD 273	3D Object Creation
AR 114	PhotoShop and Illustrator	CORE	Foundational Core

  

<b>YEAR 3</b>	<b>SEMESTER 5</b>	<b>YEAR 3</b>	<b>SEMESTER 6</b>
CS 319	Computer Ethics (LAE Awareness)	CS 321	Research Methods Seminar
CS 339	Networking and Data Communications	CS 338	Systems Analysis and Design
GDD 371	Advanced Game Programming	GDD 372	Building Computer Games
CORE	Foundational Core	GDD ELEC	GDD Elective
	Free Elective	CORE	Foundational Core
CS 390	<i>Internship (Summer or Fall)</i>		

  

<b>YEAR 4</b>	<b>SEMESTER 7</b>	<b>YEAR 4</b>	<b>SEMESTER 8</b>
GDD 417	Senior Project Design	GDD 418	Senior Project Implementation
	Free Elective		Free Elective
	Free Elective		Free Elective
CORE	Foundational Core		Free Elective
LAE Inquiry	LA Exploration Inquiry	CORE	Foundational Core

effective Fall 2020

Total Credits 120