

Survey of Game Development Programs

For California Community Colleges

September 2008



C·O·E

CENTERS OF EXCELLENCE
Inform Connect Advance

In collaboration with:

*Multimedia &
Entertainment
Initiative*



Advancing the Business of Creativity



**ECONOMIC &
WORKFORCE
DEVELOPMENT**
through the
CALIFORNIA
COMMUNITY
COLLEGES

Survey of Game Development Programs

is a companion document to the Environmental Scan

Emerging Trends in Game Development

Serious Games, Simulations, Casual and Mobile Games,
and Virtual Worlds

September 2008

The workforce needs of employers in the emerging non-entertainment game industry in California were the target of this primary research study. The findings support the creation, adaptation or expansion of game development programs at California Community Colleges to meet the increasing industry demand and provide employment opportunities for students.

For More Information

This study was a joint project between the Multimedia & Entertainment Initiative and the four Centers of Excellence listed below:



John Avakian, Statewide Director
(650) 574-6499
avakianj@cccwcd.net



San Francisco Bay

John Carrese, Center Director
(415) 550-4418
jcarrese@ccsf.edu

South Central

Sharon Dwyer, Center Director
(805) 648-8976
sdwyer@vcccd.edu

Los Angeles County

Lisa Lewenberg, Center Director
(213) 891-2162
lewenble@laccd.edu

Greater Silicon Valley

Jennifer Oliver, Center Director
(408) 741-2653
jennifer_oliver@westvalley.edu

www.coeccc.net

Contents

Introduction 2
Colleges Offering Game Development Courses within IGDA Core Topic Areas..... 3
Courses Offered by Colleges that Prepare for Game Development Occupations.....4
Courses/Programs Offered in IGDA Core Topic Areas.....5
Courses/Programs Offered in Key Industry Occupations..... 13
Future Courses, Staffing Issues, Internship Opportunities 19
Outreach, Partnerships, Customized Training, and Advisory Boards..... 22
“Other Comments” to Share with Community Colleges 26
Contact List of College Survey Respondents 27
Community College Survey Questionnaire 28

Introduction

The Multimedia and Entertainment Initiative (MEI) in collaboration with the Centers of Excellence (COE) studied the workforce needs of emerging non-entertainment sectors within the larger game industry for California Community Colleges. These sectors include serious games and simulations, casual and mobile games, and virtual worlds. Industries that support the development of games were also examined.

A key component of this research included an assessment of existing community college programs serving this emerging industry. California Community Colleges were surveyed on the courses, certificates and programs they have developed or plan to create to meet the need for skilled workers in the emerging sectors of the game industry.

Surveys were sent to faculty members who indicated an interest or participated in MEI sponsored game development events, conferences and workshops. The survey was e-mailed on May 19, 2008, and re-sent on May 27th and July 2nd to increase responses. The California Taxonomy of Programs (TOP) was searched and colleges listing programs under TOP code 614.20, Electronic Game Design, were also sent a survey.

The survey asked for the following information:

- Courses, certificates or programs developed in eight core topic areas identified in the 2008 Curriculum Framework, International Game Developers Association (IGDA), capacity of each course and frequency offered.
- Courses, certificates and degree programs offered that prepare students for the eight occupations examined in the scan.
- Future courses or programs to be developed in electronic games, serious games, simulations, or virtual environments, and by when.
- Other questions: finding qualified faculty, student internships, outreach to high schools, industry partnerships, customized training, and advisory boards.

A total of 15 colleges responded to the survey. Detailed survey responses, as submitted, are presented in the pages that follow. Survey respondent contact information is included on page 27 of this report.

A copy of the complete environmental scan report, *Emerging Trends in Game Development: Serious, Casual, Mobile, Simulations and Virtual Worlds*, that includes summary information from this survey can be found on the Center of Excellence website at www.coecc.net and the MEI site at www.cccmei.net/gamestudies.

Colleges Offering Game Development Courses within IGDA Core Topic Areas

Survey Question #1: Fill in the following table with the courses and programs in Game Development you currently offer next to the following core topic areas. List the name of the courses, the enrollment capacity, certificates or programs, and the estimated number of times courses will be offered. NOTE: Core topic areas have been adapted from the International Game Developers Association (IGDA) Framework. The 2008 Framework is available at www.igda.org/education.

COLLEGE	CORE TOPIC AREAS							
	Intro to Electronic/ Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
Cabrillo			X C					
Canada				X C D	X C D	X C D		
Canyons			X C	X C D		X C D	X C D	
De Anza	X C D	X C D	X C D	X C D	X C D	X C D	X C D	X C D
East Los Angeles				X C D				
Mt. San Antonio	X C							
Ohlone	X C	X C	X C	X C	X C D	X	X C	
Pasadena	X C	X C	X C	X C		X C		
Riverside CCD	X	X		X C D				
San Diego CCD				X	X	X	X	X
San Francisco	X C	X C	X C	X C		X C	X C	
Santa Ana				X C	X C			
Santa Barbara	X C D		X D	X C D	X C D	X C D	X C D	
Santa Monica	X C	X C	X C	X C	X C	X C	X C	X C
Santa Rosa Jr.								

X = Courses **C = Certificate Program(s)** **D = Degree Program(s)**

Courses Offered by Colleges that Prepare for Game Development Occupations

Survey Question #2: Next, fill in the following table with courses, certificates and degree programs you offer that prepare students for the eight occupations listed.

COLLEGE	GAME DEVELOPMENT OCCUPATIONS							
	Programmers/ Software Engineer	Character 2D Animator	Quality Assurance Technician/ Tester	Production Assistant	3D Modelers/ Animator	Technical Artists/ Graphic Designer	Web Programmers/ Developer	Writers/ Content Developer
	Courses/Certificates/Programs Related to Each Occupation							
Cabrillo	X C D	X C			X	X C D	X C	
Canada		X C D		X D	X C D	X C D	X C D	
Canyons	X C	X C			X C D			X C D
De Anza	X C D	X C D	X C D	X C D	X C D	X C D	X C D	X C D
East Los Angeles		X C D			X C D	X C D	X C D	
Mt. San Antonio		X C D		X C D	X C D	X C D		X C
Ohlone		X			X C	X	X	
Pasadena	X C	X C	X C	X C	X C	X C	X C	X
Riverside CCD		X C D	X C D		X C D	X C D		X
San Diego CCD	X	X			X	X	X C	X
San Francisco	X C	X C		X C	X C	X C	X C	
Santa Ana	X C D			X C D	X C	X C		X
Santa Barbara	X C D	X C D	X C D	X C D	X C D	X C D	X C D	X
Santa Monica	X C D	X C D	X C D	X C D	X C D	X C D	X C D	
Santa Rosa Jr.	X	X			X			

X = Courses **C = Certificate Program(s)** **D = Degree Program(s)**

Note: Technical Artists and Graphic Designers may include Environmental Artists, Level Designers, and Interface Designers.

Courses/Programs Offered in IGDA Core Topic Areas

Question #1: Fill in the following table with the courses and programs in Game Development you currently offer next to the following eight core topic areas. List the name of the courses, the enrollment capacity, certificates or programs, and the estimated number of times courses will be offered. NOTE: Core topic areas have been adapted from the International Game Developers Association (IGDA) Framework. The 2008 Framework is available at www.igda.org/education.

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
Cabrillo			Game Programming in Java Game Programming in Java: E=30; F= 1x/yr					
Canada (continues on next page)				3D Animation Video Game Art 3D Animation Video Game Art Life Drawing: E=30; F= 2x/yr Drawing For Animation: E=30; F= 1x/yr Digital Painting: E=25; F= 2x/yr History of Animation: E=30; F= 4x/yr Motion Graphics: E=25; F= 3x/yr Digital Animation I (Flash): E=30; F= 5x/yr Digital Animation 2: E=25; F= 3x/yr Digital Animation and Modeling 1: E=25; F= 5x/yr Digital Animation and Modeling 2: E=25; F= 2x/yr Character Creation and	Digital Animation Video Game Art Digital Animation Video Game Art Digital Audio: E=25; F= 2x/yr	3D Animation Video Game Art 3D Animation Video Game Art Motion Graphics: E=25 Storyboarding for Animation and Interactive Media: E=25		

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
				Animation: E=25; F= 2x/yr Special Effects and Compositing in 3D: E=25; F= 1x/yr Environments and Hard Surface Modeling: E=25; F= 1x/yr Photoshop Textures for 3D: E=25; F= 2x/yr 3D Spatial Visualization: E=30; F= 2x/yr Introduction to Computer Graphics: E=30; F= 2x/yr Digital Imaging I: E=30; F= 2x/yr Digital Illustration: E=30; F= 2x/yr				
Canyons			Videogame Animation C Programming: E=20; F=1x/yr C++ Object Oriented Programming: E=20; F=1x/yr	Videogame Animation Animation Production Animation Production Environmental Design for Animation: E=22; F=1x/yr Character and Prop Design: E=22; F=1x/yr		Videogame Art Animation Production Computer Animation Production Animation Production Computer Animation Production Animation Production Story Development and Storyboarding: E=22; F=2x/yr	Videogame Art Computer Animation Production Computer Animation Production Real-time Videogame Animation: E=22; F=1x/yr Introduction to 3D Computer Animation: Maya: E=20; F=four times/yr Advanced Maya Animation: E=22; F=1x/yr Texture Mapping for Computer Animation: E=18; F=1x/yr	

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
De Anza	<p>Computer Animation Web Development Animation: Programming in C Film/Television: Animation Emphasis</p> <p>Seminar in Animation Production Topics: Game Development: E=30; F= 2x/yr</p>	<p>Computer Animation Web Development Animation: Programming in C Film/Television: Animation Emphasis</p> <p>Seminar in Animation Production Topics: Game Development: E=30; F= 2x/yr</p> <p>Screenwriting for Animation: E=30; F= 1x/yr</p> <p>Advanced Animation Workshop: E=30; F= 3x/yr</p>	<p>Computer Animation Web Development Animation: Programming in C Film/Television: Animation Emphasis</p> <p>Workshop with Professional Computer Animator, MEL Scripting: E=30; F= 2x/yr</p> <p>Intro 2D Computer Animation (Flash): E=30; F= 2x/yr</p>	<p>Computer Animation Web Development Animation: Programming in C Film/Television: Animation Emphasis</p> <p>Animation Storyboard: E=30; F= 1x/yr</p> <p>Animation Layout & Visual Development: E=30; F= 1x/yr</p> <p>Intro to 3D Computer Animation (Modeling): E=30; F= 4x/yr</p> <p>Advanced Animation Workshop: E=30; F= 3x/yr</p> <p>Workshop with Professional Computer Animator: F= 2x/yr</p>	<p>Computer Animation Web Development Animation: Programming in C Film/Television: Animation Emphasis</p> <p>Sound for Animation: E=30; F= 1x/yr</p> <p>Studio & Remote Audio Production: E=30; F= 1x/yr</p> <p>Advanced Animation Workshop: E=30; F= 3/yr</p>	<p>Computer Animation Web Development Animation: Programming in C Film/Television: Animation Emphasis</p> <p>Screenwriting for Animation: E=30; F= 1x/yr</p> <p>Animation Storyboard: E=30; F= 1x/yr</p> <p>Scriptwriting for Film & Video I: E=25; F= 3x/yr</p> <p>Scriptwriting for Film & Video II: E=25; F= 3x/yr</p> <p>Scriptwriting for Film & Video III: E=25; F= 3x/yr</p>	<p>Computer Animation Web Development Animation: Programming in C Film/Television: Animation Emphasis</p> <p>Seminar in Animation Production Topics: Game Development: E=30; F= 2x/yr</p>	
East Los Angeles				<p>Multimedia Animation Animation</p> <p>Intro to Design: E=25</p>	<p>Multimedia Animation Animation</p>			
Mt. San Antonio (continues on next page)	<p>3D Animation</p> <p>Intro to 3D Animation: E=25; F=3 sections (Fall & Spring)</p> <p>Texture Lighting and Modeling: E=25; F=1 section (Fall & Spring)</p> <p>Special Effects – Dynamics: E=25; F=1 section (Fall & Spring)</p> <p>Special Effects – Particle Systems: E=25; F= 1 section (Fall & Spring)</p>							

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
	<p>Game Level Design: E=25; F=1 section (Fall & Spring)</p> <p>Advanced 3d Modeling: E=25; F=1 section (Fall & Spring)</p> <p>Advanced 3D Animation: E=25; F=1 section (Fall & Spring)</p> <p>Demo Reel: E=25; F=1 section (Fall & Spring)</p>							
Ohlone (continues on next page)	<p>Video Game Development</p> <p>Introduction to Video Game Design: E=35; F= 2x/yr</p> <p>Video Game Development: E=35; F= 2x/yr</p>	<p>Video Game Development</p> <p>Introduction to Video Game Design: E=35; F= 2x/yr</p> <p>Video Game Development: E=35; F= 2x/yr</p>	<p>Video Game Design</p> <p>Standard computer science courses: E=30; F= 118x/yr</p> <p>Standard Physics Mathematics through calculus, discrete mathematics, finite mathematics</p> <p>Textures for 3D: E=30; F= 1x/yr</p> <p>3D Animation: E=30; F= 1x/yr</p> <p>Computer Networking: E=25; F= 66x/yr</p>	<p>Art</p> <p>Graphic Design</p> <p>Multimedia</p> <p>Interior Design</p> <p>2D Design: E=23; F= six/yr</p> <p>3D Design: E=23; F= 1x/yr</p> <p>Color: E=35; F= 1x/yr</p> <p>Art Appreciation: E=35; F= 12x/yr</p> <p>Art History A and B: E=35; F= 2x/yr</p> <p>Studio courses: E=25; F= 21x/yr</p> <p>Graphic Design: E=25; F= 10x/yr</p> <p>Photography: E=25; F= 18x/yr</p> <p>Interior Design C1 xpts: E=23; F= 4x/yr</p> <p>Interior Design: E=23; F= 2x/yr</p> <p>Visualization and Presentation (Interior Design): E=23; F= 1x/yr</p> <p>Architectural Drafting for Interior Design: E=23; F=</p>	<p>Music Theory</p> <p>Commercial Music</p> <p>Music</p> <p>Intro to Western Classical Music: E=35; F= 10x/yr</p> <p>Music Appreciation: E=120; F= 3x/yr</p> <p>Music Theory: E=20; F= 8x/yr</p> <p>Musicianship: E=20; F= 4x/yr</p> <p>Pro Tools 101: E=23; F= 3x/yr</p> <p>Pro Tools and MIDI: E=23; F= 1x/yr</p> <p>Studio Recording: E=23; F= 1x/yr</p> <p>Live Recording: E=25; F= 1x/yr</p> <p>History of Jazz: E=35; F= 3x/yr</p> <p>History of Rock and Roll: E=35; F= 12x/yr</p>	<p>Screenwriting: E=15; F= 1x/yr</p> <p>History of Film: E=120; F= 2x/yr</p> <p>Writing Short Fiction: E=25; F= 1x/yr</p> <p>Creative Writing: E=25; F= 4x/yr</p> <p>World Mythology: E=25; F= 1x/yr</p> <p>Science Fiction and Fantasy: E=25; F= 1x/yr</p> <p>Psychology and Literature: E=25</p>	<p>Video Game Development</p> <p>Video Game Development: E=35; F= 2x/yr</p> <p>Introduction to Video Game Design: E=35</p>	

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
				1x/yr CAD for Interior Design: E=23; F= 1x/yr Architectural Model Making: E=23; F= 1x/yr History of Decorative Arts: E=23; F= 1x/yr Applied Design: Residential Lighting: E=23; F= 1x/yr Applied Design: Color for the Home: E=23; F= 1x/yr				
Pasadena	Interactive Multimedia Design Certificate New Course being approved: E=40; F=Fall/Spring	Interactive Multimedia Design Certificate Art 158 Interactivity for the Internet (Flash): E=22; F=Spring New course being approved: E=40; F=Fall/Spring	Interactive Multimedia Design Certificate Art 158 Interactivity for the Internet (Flash): E=22; F=Spring Art 198 Design for the Internet: E=22; F=Fall/Spring	Interactive Design Graphic Design Digital Photography Photo 30/Photoshop: E=22; F= Yr round Art 56/Painting & Drawing on the computer: E=22; F= Yr round Art 50/ABC- Graphic Design: E=22; F=Fall/Spring Photo 40/Digital Photography: E=22; F= yr round Art 155/A B Maya: E=22; F=Fall/Spring		Interactive Multimedia Design Design Film/Video Art 154/Interactive Multimedia Design: E=22; F=Spring Photo 126/Digital Film Narrative: E=22; F=Fall/Spring Art 156/Motion Graphics: E=22; F=Fall		
Riverside CCD	CIS 35 Intro to Game Development: E=25; F=2x/yr	CIS 36 Intro to Game Design: E= 25; F=2x/yr CIS 37 Beg. Game Level Design: E= 25; F=2x/yr		Game Art Game Art CIS 38A/3D Modeling: E=25 CIS 38B/3D Animation: E=25 CIS 38C/Rendering and Dynamics: E=25				

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
San Diego CCD				Photoshop/Beg, Inter, Adv	Sound for Multimedia: E=35,F=6 Flash/Audio Techniques	Viral Video/Storytelling production and project management	Flash/Video Integration Viral Video/Storytelling production & project management	QuickBooks Small Business Management Word, Excel, Access
San Francisco	<p>Multimedia Studies: Animation</p> <p>Multimedia Studies: Web Design and Graphics</p> <p>Orientation to Multimedia: E=35; F= 2x/yr</p>	<p>Multimedia Studies: Animation</p> <p>Game Design for Multimedia: E=25; F=1x/yr</p>	<p>Multimedia Studies: Programming</p> <p>Flash Game Programming: E=35; 2x/yr</p> <p>Advanced Multimedia Programming: E=35; 2x/yr</p>	<p>Multimedia Studies: Animation</p> <p>Multimedia Studies: Web Design & Graphics</p> <p>Multimedia Content and Form: E=35; F= 2x/yr</p> <p>Multimedia Process and Production: E=50; F= 2x/yr</p> <p>2D Animation for Multimedia: E=25; F= 4x/yr</p> <p>3D Imaging for Multimedia: E=25; F= 2x/yr</p> <p>Beginning Photoshop: E=25; F= 6x/yr</p> <p>Beginning Illustrator: E=25; F= 4x/yr</p> <p>Visual Literacy: E=25; F= 4x/yr</p> <p>Graphic Design: E=25; F= 2x/yr</p> <p>Advanced Photoshop: E=25; F= 2x/yr</p> <p>Advanced Illustrator: E=25; F= 2x/yr</p>		<p>Multimedia Studies: Animation</p> <p>Storytelling and Storyboarding for New Media: E=35; F=1x/yr</p>	<p>Multimedia Studies: Animation</p> <p>2D Animation for Multimedia: E=25; F= 4x/yr</p> <p>3D Imaging for Multimedia: E=25; F= 2x/yr</p> <p>Game Design for Multimedia: E=25; F= 1x/yr</p>	

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
Santa Ana				3D Animation Art-Digital Media Arts Art-Digital Media Post-Production Art-Digital Media Freelance 3D Modeling Fundamentals: E=18-25; F= 2x/yr 3D Advanced Modeling Techniques: E=18-25; F=2x/yr 3D Animation Fundamentals: E=18-25; F=2x/yr 3D Animation: Advanced Techniques: E=18-25; F=2x/yr 3D Realism-Texturing and Lighting: E=18-25; F=1x/yr 3D Character Animation: Commercial Applications of 3D: E=18-25; F=1x/yr	Digital Music Production Music-Digital Media Post-Production			
Santa Barbara (continues on next page)	3D Animation 3D Animation Video Game Design: E=36; F=Each semester		Computer Science Computer Science Video Game Programming: E=24; F=1x/yr DS Programming: E=24; F=1x/yr	3D Animation 3D Animation Digital Imaging I, II, III: E=36; F=each semester Flash I & II: E=36; F=each semester Digital Drawing: E=36; F=each semester Fundamentals of Digital Animation: E=36; F=1x/yr Computer Animation I: E=36; F=1x/yr 3D Modeling: E=36;	3D Animation 3D Animation Introduction to Audio for Multimedia: E=36; F=1x/yr	3D Animation 3D Animation Writing for Multimedia: E=36; F=1x/yr	3D Animation 3D Animation Multimedia Work Experience (internship program): E=36; F=each semester	

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

COLLEGE	Core Topic Areas							
	Intro to Electronic/Video Games	Game Design	Game Programming	Visual Design	Audio Design	Interactive Storytelling	Game Production	Business of Gaming
	Courses/Certificates/Programs Related to Each Core Topic Area							
				F=1x/yr 3D Effects Animation: E=36; F=1x/yr 3D Character Animation: E=36; F=1x/yr 3D Lighting and Rendering: E=36; F=1x/yr <i>Fine Art</i> Life Drawing: E=24; F=1x/yr Figure Drawing: E=24; F=1x/yr Classic Animation I & II: E=24; F=1x/yr				
Santa Monica	Game Development Interactive Media Principles of Game Dev.: E=30; F=2x/yr	Game Development Interactive Media Game Development/Play Mechanics: E=30; F=2x/yr	Game Development Interactive Media 2D Game Authoring: E=28; F=2x/yr 3D Game Authoring: E=28; F=1x/yr	Game Development Interactive Media Character Illustration: E=30; F=1x/yr Color Theory: E=30; F=2x/yr Story Boarding: E=30; F=2x/yr	Game Development Interactive Media Digital Audio Fundamentals: E=28; F=6x/yr Digital Audio/Games: E=28; F=1x/yr	Game Development Interactive Media Storytelling: E=30; F=2x/yr	Game Development Interactive Media Project Management: E=30; F=1x/yr 2D Game Authoring: E=28; F=2x/yr 3D Game Authoring: E=28; F=1x/yr	Game Development Interactive Media Principles of Game Dev.: E=30; F=2x/yr
Santa Rosa Jr.								

E = Enrollment Capacity

F = Frequency of Offerings

Blue = Certificate Program

Green = Degree Program

Courses/Programs Offered in Key Industry Occupations

Question #2: Next, fill in the following table with courses, certificates and degree programs you offer that prepare students for the eight occupations listed.

COLLEGE	GAME DEVELOPMENT OCCUPATIONS							
	Programmers/ Software Engineers	Character 2D Animators	Quality Assurance Technician/Tester	Production Assistants	3D Modelers/ Animators	Technical Artists/ Graphic Designers	Web Programmers/ Developers	Writers/ Content Developers
	Courses/Certificates/Programs Related to Each Occupation							
Cabrillo	CC+ Programming Java Programming Skills Game Programming in Java Web Programming Computer Science Introduction to Programming Concepts and Methodology, C++ C++ Programming Introduction to Programming Concepts and Methodology, Java Java Programming Introduction to Data Structures and Algorithms Discrete Mathematics Elementary Computer Organization	Animation Skills Web Design and Animation using Flash Animation Illustration Techniques Animation Perspectives Interactive Projects using Flash Interactive Programming using Flash			Introduction to 3D Studio Max Intro to Maya Intermediate 3D Studio Max 3D Wireframe and Surface Modeling Virtual Reality	Digital Imaging Digital Publishing Drawing and Composition Digital Illustration Photoshop Techniques Digital Imaging		
Canada (continues on next page)		Digital Animation Video Game Art Digital Animation Video Game Art Digital Animation 1 Digital Animation 2 Storyboarding History of Animation		Digital Animation Video Game Art Introduction to Computer Graphics Digital Imaging	Digital Animation Video Game Art Animation and Modeling 1 Animation and Modeling 2 3D Character Development and Animation	Digital Animation Video Game Art Graphic Design Web Design Multimedia and Digital Animation Video Game Art Digital Painting	Web Design Multimedia Digital Animation 1 Digital Animation 2 Web Design I Web Design 2 Cascading Style Sheets Digital Imaging I Introduction to	

COLLEGE	GAME DEVELOPMENT OCCUPATIONS							
	Programmers/ Software Engineers	Character 2D Animators	Quality Assurance Technician/Tester	Production Assistants	3D Modelers/ Animators	Technical Artists/ Graphic Designers	Web Programmers/ Developers	Writers/ Content Developers
	Courses/Certificates/Programs Related to Each Occupation							
		Drawing for Animation Digital Painting Introduction to Computer Graphics Digital Imaging			Special Effects and Compositing in 3D 3D Environments and Hard Surface Modeling 3D Spatial Visualization Digital Imaging Digital Painting	Digital Imaging Photoshop Textures for 3D Digital Illustration Digital Photography 1 Digital Illustration Digital Page Layout Introduction to Computer Graphics	Computer Graphics	
Canyons	Video Game Animation C Programming C++ Object Oriented Programming	Computer Animation Production Video Game Animation Flash Animation Environmental Design for Animation Character and Prop Design for Animation			Computer Animation Production Video Game Animation Computer Animation Production Introduction to 3D Computer Animation: Maya Advanced Maya Animation Texture Mapping for Computer Animation Real-time Videogame Animation		Flash for the Web Webpage Design I Webpage Design II	Computer Animation Production Video Game Animation Animation Production Computer Animation Production Animation Production Story Development and Storyboarding
De Anza (continues on next page)	Programming in C Business Programming Intro to Programming Using C Intermediate Problem Solving in C Advanced C++ Programming Intro 2D Computer Animation (Flash) Workshop with	Animation Computer Animation Film/TV: Animation Emphasis Principles of Character & Motion Basic Techniques of Animation	Programming in C Computer Animation Film/TV: Emphasis Business Programming Computer Software Quality Assurance	Animation Computer Animation Film/TV: Animation Emphasis All Animation production courses Role of the Producer	Animation Computer Animation Film/TV: Animation Emphasis Intro to 3D Computer Animation: Modeling Workshop with Professional Computer Animator	Animation Programming in C Computer Animation Film/TV: Animation Emphasis Animation Layout & Visual Development Seminar in Animation Production Topics: Game Development	Web Development Computer Animation Film/TV: Animation Emphasis Web Authoring Software I & II Web Graphics Software I & II Advanced Web	Animation Computer Animation Film/TV: Animation Emphasis Screenwriting for Animation Animation Storyboard

COLLEGE	GAME DEVELOPMENT OCCUPATIONS							
	Programmers/ Software Engineers	Character 2D Animators	Quality Assurance Technician/Tester	Production Assistants	3D Modelers/ Animators	Technical Artists/ Graphic Designers	Web Programmers/ Developers	Writers/ Content Developers
	Courses/Certificates/Programs Related to Each Occupation							
	Professional Computer Animator: MEL Scripts	Intro 2D Computer Animation (Flash) Advanced 2D Computer Animation (Toonz) Advanced Animation Workshop Workshop with Professional Traditional Animator			Intermediate 3D Computer Animation Advanced 3D Computer Animation Workshop with Professional Computer Animator	Workshop with Professional Computer Animator: Tech Artist	Graphics/Software Digital Imaging Software I & II Intro 2D Computer Animation (Flash) Entire programming course sequence	Scriptwriting for Film & Video I, II, III Literature classes
East Los Angeles		Animation Multimedia Animation Multimedia Animation			Animation Multimedia Animation Multimedia Animation	Arts/Graphic Communication Arts/Graphic Communication Intro to Computer Graphics Graphic Design Intro to Digital Imaging	Multimedia Graphic Arts Animation Multimedia Graphic Arts Animation Introduction to website design	
Mt. San Antonio (continues on next page)		Traditional Animation, Digital 2D Animation 3D Animation Animation Character Development Web Animation Motion Graphics Principles of Animation Storyboarding Intro to 3D Animation Texture Lighting and Modeling Special Effects – Dynamics		Traditional Animation, Digital 2D Animation 3D Animation Animation	Traditional Animation, Digital 2D Animation 3D Animation Animation Intro 3D Texture, Lighting, Modeling Dynamics Particle Systems Environment Adv. Modeling Adv. Animation, Demo Reel Storyboarding Game Level Design	Digital: 2D Animation Animation Motion Graphics		Traditional Animation 2D Animation 3D Animation Storytelling/Boarding Script Development for Animation

COLLEGE	GAME DEVELOPMENT OCCUPATIONS							
	Programmers/ Software Engineers	Character 2D Animators	Quality Assurance Technician/Tester	Production Assistants	3D Modelers/ Animators	Technical Artists/ Graphic Designers	Web Programmers/ Developers	Writers/ Content Developers
	Courses/Certificates/Programs Related to Each Occupation							
		Special Effects – Particle Systems Game Level Design Advanced 3D Modeling Advanced 3D Animation Demo Reel			Texture Map Artist			
Ohlone		3D Animation Intro to Flash Animation Advanced 3D Modeling and Animation			3D Modeling and Animation 3D Modeling	Textures for 3D Graphic Design	Advanced Flash for the Web Web Site Design	
Pasadena	Interactive Multimedia Design Art 158 Flash	Interactive Multimedia Design Art 158 Art 156 Art 154	Interactive Multimedia Design Art 158 Art 154	Interactive Multimedia Design Film/Video Art 154 198, 156,158	Interactive Multimedia Design Art 155 AB	Interactive Multimedia Design Graphic Design Digital Photography Film/Video Art 50 ABC	Interactive Multimedia Design Computer Science Art 198, 158	
Riverside CCD		Game Art Game Art CIS 38A/3D Modeling CIS 38B/3D Animation CIS 38C/Rendering and Dynamics	Game Art Game Art CIS 35/Intro to Game Development CIS 37/Beg. Game Level Design		Game Art Game Art CIS 38A/3D Modeling CIS 38B/3D animation CIS 38C/Rendering and Dynamics	Game Art Game Art CIS 38A/3D Modeling CIS 38B/3D animation CIS 38C/Rendering and Dynamics CIS 37/Beg. Game Level Design CIS 36/Intro to Game Design		CIS 35/Intro to Game Development CIS 36/Intro to Game Design CIS 37/Beg. Game Level Design
San Diego CCD	ASP.net Linux MySQL PHP	Flash/ Beginning & Intermediate			Revit	Photoshop/ Beginning, Intermediate, Advanced Illustrator/ Beginning, Intermediate, Advanced Bridge	Interactive Dreamweaver/ Beginning, Intermediate, Advanced Flash/ Beginning,	Viral Video/ Storytelling Production and Project Management

COLLEGE	GAME DEVELOPMENT OCCUPATIONS							
	Programmers/ Software Engineers	Character 2D Animators	Quality Assurance Technician/Tester	Production Assistants	3D Modelers/ Animators	Technical Artists/ Graphic Designers	Web Programmers/ Developers	Writers/ Content Developers
	Courses/Certificates/Programs Related to Each Occupation							
							Intermediate, Advanced	
San Francisco	Multimedia Studies: Animation Flash Game Programming Advanced Multimedia Programming	Multimedia Studies: Animation 2D Animation for Multimedia 3D Imaging for Multimedia Game Design for Multimedia		Multimedia Studies: Animation Computer Skills for Multimedia Multimedia Content and Form 2D Animation for Multimedia 3D Imaging for Multimedia Game Design for Multimedia Beginning Photoshop Beginning Illustrator Visual Literacy Graphic Design Advanced Photoshop Advanced Illustrator	Multimedia Studies: Animation 3D Imaging for Multimedia	Multimedia Studies: Animation Computer Skills for Multimedia Multimedia Content and form Game Design for Multimedia Beginning Photoshop Beginning Illustrator Visual Literacy Graphic Design Advanced Photoshop Advanced Illustrator	Multimedia Studies: Web Design and Graphics Fast Track: Web Production Computer Skills for Multimedia Multimedia Content and Form Multimedia Process and Production Web Design with Dreamweaver Advanced Web Design with Dreamweaver Designing Interactive Applications with Flash Advanced Multimedia Production	
Santa Ana	Computer Information Systems Computer Information Systems			3D Animation Art-Digital Media Post-Production Art-Digital Media Freelance Art-Graphic Design Art-Digital Media Arts	3D Animation All Courses as listed previously, plus the required design and drawing course	3D Animation Art-Digital Media Post Production Art-Digital Media Freelance		
Santa Barbara	Computer Science Computer Science See course offerings listed in Question 1.	3D Animation 3D Animation See course offerings listed in Question 1.	3D Animation 3D Animation See course offerings listed in Question 1.	3D Animation 3D Animation See course offerings listed in Question 1.	3D Animation 3D Animation See course offerings listed in Question 1.	3D Animation 3D Animation See course offerings listed in Question 1.	Computer Science Computer Science See course offerings listed in Question 1.	See course offerings listed in Question 1.

COLLEGE	GAME DEVELOPMENT OCCUPATIONS							
	Programmers/ Software Engineers	Character 2D Animators	Quality Assurance Technician/Tester	Production Assistants	3D Modelers/ Animators	Technical Artists/ Graphic Designers	Web Programmers/ Developers	Writers/ Content Developers
	Courses/Certificates/Programs Related to Each Occupation							
Santa Monica	Game Development Interactive Media AA Option 2D Game Authoring 3D Game Authoring	Game Development Interactive Media AA Option Web Animation Character Illustration	Game Development Interactive Media AA Option	Game Development Interactive Media AA Option Career Exploration	Game Development Interactive Media AA Option Maya I Maya II Maya III Maya IV	Game Development Interactive Media AA Option 2D Game Authoring 3D Game Authoring Graphic Design	Game Development Interactive Media AA Option Web Design	
Santa Rosa Jr.	Intro to Programming Data Structure & Algorithms JAVA 4	Flash Web Animation			Character Animation using 3D Studio Max Intermediate Concepts and Action Scripting with Flash			

Note: Technical Artists and Graphic Designers may include Environmental Artists, Level Designers, and Interface Designers.

Future Courses, Staffing Issues, Internship Opportunities

COLLEGE	FUTURE COURSES OR PROGRAMS	ESTIMATED START DATE	DIFFICULTY FINDING QUALIFIED FACULTY	INTERNSHIPS
Cabrillo	<p>Courses: Foundations of Game Design Game Design Projects Certificate: Game Design</p>	No date given	No	No
Canada	<p>Game Development Workshop using Torque Non-Linear Storytelling for Games Interactive Design with ActionScript Web Application Digital Video Multimedia Design</p>	Fall 2009/ Spring 2010	Yes, any course dealing with hands-on animation and modeling. Most qualified teachers have high-paying jobs in the industry and a very limited schedule in which they could teach.	Yes, we have offered internships for students at school and have endeavored to find internships and work-experience in outside companies or participating in various projects. We have worked internally with Cañada College, The Arts & Olive Festival at Cañada and externally with Espresso Fitness, Electronic Arts, and other independent projects.
Canyons	<p>College of the Canyons is looking to rapidly expand its courses and content for game design and production. We are looking to add programming courses that align with game engine requirements. Most importantly, we will begin to offer more varied courses in game design, game writing and level design. By the end of Spring 2009, the college will have a game development track that will cover all the aspects of game design and production.</p>	Fall 2009/ Fall 2010	As of now no. The only game production class currently offered is covered by the Animation Chair, whose background has been Art Director for various game companies. Additionally, we have most of the game programming classes covered with the knowledge of our current programming instructors. Where we might have problems is finding game designers and writers to teach.	A local game development business, Way Forward Games, has been kind enough to hire, as both entry level and internship, a number of our animation students.
De Anza	<p>We intend to expand the overview course and are exploring a multi-disciplinary Game Development certificate program.</p>	Most of the courses are already in place.	No, we have found outstanding faculty, who work full-time in the game/film industry. However, other qualified teachers are always encouraged to apply.	De Anza College has a large internship program with NASA, including web design or media production positions. In De Anza's Animation program, paid group internships are intermittent and have included an interactive "Rugrats" game, a professional animated music video, and scientific animation for a major medical supply company.

COLLEGE	FUTURE COURSES OR PROGRAMS	ESTIMATED START DATE	DIFFICULTY FINDING QUALIFIED FACULTY	INTERNSHIPS
East Los Angeles				Through Advisory Board members, Create LA (LACCD's Program)
Mt. San Antonio	Visual Design for Games Game Design using Flash Serious Game Development Game Scripting Game Programming	August 2010	No	We offer Work Experience credits associated with internships. We have places internships in various animation studios in the So Cal area.
Ohlone	None	N/A	Yes, we need instructors for the Intro to Video Game Design class and for the Video Game Development class	We have a class for work experience, but it is mostly the students who are in charge of looking for companies who may require their services.
Pasadena	Pending: Level 2D Game Design Course (Visual Arts & Media Arts) Pending: Level 3D Game Design Course (Computer Science)	Spring 2009	No	Many of the studios and small boutique companies doing interactive web experiences: Disney, Fox, Warner Bros, Interactive, etc.
Riverside CCD	Intermediate level courses on level and game design. Programming using DirectX and Open GL	Fall 2010	No	No
San Diego CCD	Digital Storytelling Game Prototyping	Fall 2008	Game Design	San Diego Continuing Education's Career Development Services partners with Jobing.com at http://cds.jobing.com
San Francisco	Courses: Exploring Game Worlds Game Production Workflow Game Audio Career Planning & Portfolio Development Tracks: Game Art and Graphic Design Game Production Motion Graphics	Fall 2010	Difficulty finding Flash teachers	We do offer an internship class, but require the students to find the business that they want to work with. We are not currently working with any particular companies.
Santa Ana	N/A	N/A	Yes. All courses in the 3D Animation Certificate Program.	Yes. Local video game and architectural visualization companies.

COLLEGE	FUTURE COURSES OR PROGRAMS	ESTIMATED START DATE	DIFFICULTY FINDING QUALIFIED FACULTY	INTERNSHIPS
Santa Barbara	Following the recommendations of EA, THQ and Alelo, we are developing a strand of game/level design, gameplay, game mechanic courses.	Fall 2009	No, our active involvement in the Game Developer's Conference, the IGDA, and general visibility at large has afforded us ready access to industry professionals that are interested and available to serve as "guild faculty" – teaching alongside our college faculty in our online program.	Yes, in fact it is the primary mission of the Serious Game Design Institute. Currently, we have students in internships for Alelo and Anacapa Sciences and we have several companies that need interns that we have not yet been able to supply. Alelo (winners of the 07 Serious Games Showcase and Challenge) has more demand for interns that we are able to supply. Ideawork has more demand for Flash developers for advergaming than we can meet. Imprint Interactive has more demand for Virtools designers than we can provide.
Santa Monica	Serious Gaming Massive Multiplayer Online Gaming	Fall 2010	Yes. All game authoring courses and game design/play mechanics.	Electronic Arts, Activision, Sony, Atari, Microsoft, Disney, etc.
Santa Rosa Jr.	Programs: Programming for Digital Media Visual Graphics for Digital Media Audio Production for Digital Media Courses: Digital Audio 1: MIDI Sequencing Digital Audio 2: Editing Digital Audio 3: Mixdown & Mastering Audio Recording with Pro Tools 1 Audio Recording with Pro Tools 2 Intro to Gamemaking 1 Intro to Gamemaking 2 Gamemaker Computer Game Programming Introduction to Digital Media Digital Media Capstone	Fall 2009	No	No, but will be developing programs as the curriculum is developed.

Outreach, Partnerships, Customized Training, and Advisory Boards

COLLEGE	OUTREACH TO LOCAL HIGH SCHOOLS	PARTNERSHIPS	CUSTOMIZED TRAINING VIA CONTRACT EDUCATION	ADVISORY BOARD
Cabrillo	Not at this point, though the GAME club at Cabrillo is discussing local activities that could include high schools.	No	Yes, but I am not sure of the details. The program is organized by Rock Pfothenauer, Dean of Instruction, Career Education and Economic Development. Phone 831.479.6482. Email: rock@cabrillo.edu	Various members of local companies
Canada	Yes, we currently have articulation agreements at Sequoia High School and Menlo Atherton and concurrent enrollment courses being taught at Sequoia High School. We also have multiple outreach events every year to showcase our program and classes. The articulation path at Sequoia High School is directly tied to the 3D Animation and Video Game Art program. We also have worked very closely with Capuchino High School's faculty and their students have participated in the ACME Animation Network partnership through the SB70 grant during the past two years. High school and post -secondary faculty members have received training on specific software programs.	Yes, our advisory committee is comprised of industry experts from various companies such as Electronic Arts, Espresso Fitness, Adobe, and Apple and we are constantly working on new partnerships. Partnerships have led to the opening of internships, organized field trips and constant advice about our course offerings and industry standards. Numerous field trips the past several years to Electronic Arts, PDI Dreamworks and Communication Arts Magazine.	No, it may be an option in the future but currently we don't have any customized training.	We have a diverse and active advisory board. We meet twice per year to discuss program offerings, curriculum, promotion, industry trends, etc. The advisory board members include, Art Directors, Video Game Animators, Video Game Technical Directors, Graphic Design Magazine Art Directors, Animation programmers, Video Game programmers, Computer hardware and software developers, Film and Video Storytellers and Editors, as well as academic advisors from high schools and four year transfer colleges and universities.
Canyons	Not at this time.	Way Forward, Inc., a local videogame producer has been instrumental in help our animation students enter the workforce by both hiring interns and hiring graduates for entry level positions.	Not at this time.	Our Advisory Board for Animation is the same for the Game Development track. Both are being revised as we have a new chair of the Animation Department. Current Advisory Board members meet once per year and via phone conference at least one more time per year.

COLLEGE	OUTREACH TO LOCAL HIGH SCHOOLS	PARTNERSHIPS	CUSTOMIZED TRAINING VIA CONTRACT EDUCATION	ADVISORY BOARD
De Anza	Advanced and motivated regional high school students continually enroll in De Anza's animation and game-related courses. Faculty members at those high schools often take master classes from leading industry professionals at De Anza.	Several full-time artists from game giant Electronic Arts teach the computer animation classes at De Anza. They include a computer modeler/texture artist, a character rigger/technical artist/MEL scripter, and an animation supervisor. Other De Anza faculty members worked at EA before moving to feature film visual effects at Dreamworks and the Orphanage. De Anza Animation alumni now working at EA periodically conduct master classes in Game Design at De Anza.	No, we do not do contract ed. Our industry partners have their own extensive in-house training programs.	Adjunct De Anza Animation faculty from major studios such as PDI/Dreamworks, Electronic Arts, The Orphanage, Industrial Light & Magic and prominent sole proprietorships such as Carl's Fine Films form the core of our Advisory Board. Because they teach at De Anza as well as work full-time in the industry, they can suggest program improvements that are more informed and detailed than a conventional Advisory Board could offer.
East Los Angeles	No			We have an active board of artists and educators.
Mt. San Antonio	High school students can take our classes and we articulate a few beginning classes with high schools.	We are currently working on this.	We would like to develop such programs.	Active Board comprised of various professionals from areas of graphic design and the animation industry.
Ohlone	We have a video game development club formed by students. They meet regularly once a week, High School students are welcome to attend and work with the club to produce games.	No	No	We meet once a year. We have professionals from the industry as well as 4-year university professors
Pasadena	PCC works closely with the academies, specifically Pasadena High School Visual Art and Design Academy and a community based organization Armory Center of the Arts and ACME Network.	ACME Network, LA Business Technology Group, the studios, etc.	All of our fee-based courses are offered at PCC. We currently do Apple Pro Certified Training. Companies don't typically contract with us for courses but certainly send one or two employees to take semester courses and give their employees release time.	Extensive in terms of breadth and depth of experiences and types of multimedia and entertainment applications.
Riverside CCD	No	No	No	Educators from local universities and developers from local studios (game designers, producers, and artists).

COLLEGE	OUTREACH TO LOCAL HIGH SCHOOLS	PARTNERSHIPS	CUSTOMIZED TRAINING VIA CONTRACT EDUCATION	ADVISORY BOARD
San Diego CCD	Share a faculty member with Kearny High Educational Complex, the School of Digital Media and Design. Faculty member teaches full time at the high school, and part time for San Diego. Classes taught are Viral Video, Project Management and Storytelling. Share advisory information with both Kearny High Educational Complex and Crawford High Educational Complex. Both have Multimedia Academies.	Regional Multimedia Industry Advisory Council that provides information and insight to Region 10 community colleges. Participants and minutes are available at www.meiregion10.com .	In the San Diego Community College District, contract education is offered through the Employee Training Institute: www.trainwitheti.com/index.shtml .	Regional Multimedia Industry Advisory Council.
San Francisco	We are offering the IDST 110 – Orientation to Multimedia to three high schools in San Francisco: Galileo, Burton and Lincoln high schools.	No	No	We do not currently have one
Santa Ana	No	NA	No	Current. Professional 3D artists and art directors for video game, television, and film production companies.
Santa Barbara	School of Media Arts has a robust outreach schedule of offerings at our service area high schools through our dual enrollment program.	We are members of the IGDA and SIGGRAPH. Our Advisory Board members are our partners (see Advisory Board list).	We are currently providing customized training to EA, THQ, Anacapa Sciences, Alelo, and Bank of America in game production management.	We have an active Advisory Board with members that meet with us on a frequent basis: Electronic Arts, Redwood Shores, CA; THQ, Agoura Hills, CA; Anacapa Sciences, Santa Barbara, CA; Alelo, Los Angeles, CA; Ideawork, Santa Barbara, CA; Media27, Santa Barbara, CA; CafeFX, Santa Maria, CA; NavAir, Orlando, FL; Incinerator Games, Carlsbad, CA; Imprint Interactive, Seattle, WA; Lumberjack, Ventura, CA; Virtools, Los Angeles, CA; Perforce, Alameda, CA; introNetworks, Carpinteria, CA; Linden Labs, San Francisco, CA; Autodesk, San Rafael, CA; Adobe, San Jose, CA

COLLEGE	OUTREACH TO LOCAL HIGH SCHOOLS	PARTNERSHIPS	CUSTOMIZED TRAINING VIA CONTRACT EDUCATION	ADVISORY BOARD
Santa Monica	Yes. LAUNCHPAD program has provided college level courses to local high school students during summer.	No.	No.	Not effective or relevant to game industry. Mostly film production and animation consultants.
Santa Rosa Jr.	In connection of the CTE Community Collaborative Digital Media grant, we will be offering a summer institute in digital media/game design for high school students. One institute will be offered at SRJC and one at Napa Valley College.	We are developing these partnerships as we develop the courses/programs	No	To date we have relied on the CIS Advisory Board, an active board comprising faculty from SRJC and Sonoma State University, and computer industry representatives. In connection with the CTE grant, a regional advisory steering committee will be formed. From this group, we will constitute a local SRJC advisory committee to advise on the development of programs and courses.

“Other Comments” to Share with Community Colleges

COLLEGE	Is there anything else you would like the community colleges to know about your program?
Canada	<p>We are beginning a student Animation and Video Game Club. We are in constant conversations with video game and animation companies to insure our curriculum meets industry standards enabling our students to leave with competitive skills. The Animation and Video Game Club is only one example. Articulation is of utmost importance to us as we encourage all of our students to continue with their education for further degrees and keeping competitive. Towards that goal, all of our course outlines are posted on the web. Our program has an active and updated website for current and interested students (www.canada.college.edu/multimedia).</p> <p>We have a special connection with industry in terms of our participation in a National Science Foundation Grant with the Institute for Women in Trades, Technology and Science. Our campus is small and, as such has a well deserved reputation for hands-on mentoring and counseling. Students from diverse and traditionally under-represented groups such as women in gaming, find a warm, supportive and self-challenging atmosphere which leads to their and others' success.</p>
Canyons	<p>The program is growing. In the next year we will revise the entire Game Development Certificate to more directly relate to the needs of the game industry. At least three new classes will be offered beginning with 3D Character Design and Modeling, which will include Maya and Zbrush, two industry standards. Also beginning next year will be a course in computer programming for game engines and a game design/writing course.</p>
De Anza	<p>The principles and techniques of good animation and visual storytelling apply to both the film and game worlds. De Anza's Animation program prepares students to work in both environments and the courses are taught by faculty who work in both.</p>
East Los Angeles	<p>Animation, Game Design, Multimedia studies can never compete with Math and English for number of students and the investment necessary to maintain a vital program using current technology is a discouraging struggle at the community college. Faculty are encouraged to spend countless hours writing grant proposals that must be justified and compete with other vocational programs in a futile process to garner funding. Also, community college students as a group, do not function at or near college level academically. Expectations for the community college to effectively graduate students with professional level skills in two years is unrealistic.</p>
Moorpark	<p>Courses/program in game development are under development. An 18 unit certificate program is scheduled to be ready Spring 2009; a 36 unit degree program is scheduled to be available by Fall 2009.</p>
Mt. SAC	<p>We are exploring a tighter integration with all visual/graphic offerings on campus and looking at the potential for a laboratory school as well as the development of introduction to games courses in the areas of visual development for games, Internet and video games.</p>
San Diego CCD	<p>San Diego Continuing Education offers hundreds of short-term, non-credit classes focusing on practical, computer-based topics, plus certificate programs for professional development. A full list of classes each semester is available at www.sdce.edu – sort by Business Information Technology.</p>
San Francisco	<p>We have a lot of classes throughout the college that should be put together for a Game Design and Development Certificate. We need to gather information about what skills local employers see as essential.</p>
Santa Monica	<p>It is VERY popular, but suffers from under enrollment due to low profile within the entire college. Program suffers from no marketing budget.</p>

Contact List of College Survey Respondents

The following individuals responded to the 2008 Survey of Existing/Planned Game Development Programs at Regional Colleges.

COLLEGE	CONTACT NAME	EMAIL ADDRESS
Cabrillo	Ed Parrish	edparris@cabrillo.edu
Canada	Daniela Castillo	castillod@smccd.edu
Canyons	Jeffrey Baker	jeffrey.baker@canyons.edu
De Anza	Martin McNamara	mmcnamara@fhda.edu
East Los Angeles	Chris Moreno	morenoc@elac.edu
Mt. San Antonio	Don Sciore	dsciore@mtsac.edu
Ohlone	Pilar Lewis	plewis@ohlone.edu
Pasadena	Laurie Burruss	cosmodog@pacbell.net
Riverside CCD	Matt Fast	matt.fast@rcc.edu
San Diego CCD	Cynthia Scott	cscott@sdccd.edu
San Francisco	Beth Cataldo	bcataldo@ccsf.edu
Santa Ana	Patricia Waterman	waterman_patricia@sac.edu
Santa Barbara	Jim Kiggins	kiggins@sbcc.edu
Santa Monica	David Javelosa	javelosa_david@smc.edu
Santa Rosa Jr.	Mike Starkey	mstarkey@santarosa.edu

Community College Survey Questionnaire



Survey of Existing/Planned Game Development Programs at Regional Colleges

- The Bay Area, South Central and Los Angeles regional Centers of Excellence (COE) in collaboration with the Multimedia and Entertainment Initiative (MEI) are conducting a workforce study of trends in the Game Development industry. A valuable component of this study is an assessment of how community colleges are currently responding to the industry's training and workforce needs. You have been identified as someone with either a current game development program at your college, or an interest in perhaps starting one. Therefore, your input is valuable to this study.
- Please take a few minutes to complete the following survey questions (approximately 15 minutes of your time) and email your responses to me at avakianj@cccewd.net.
- The results of this questionnaire will be compiled and included in the Centers of Excellence/MEI report on Game Trends, and will be available as a resource for college faculty who have an interest in this subject/program area.

THANK YOU!

1. Fill in the following table with the courses and programs in Game Development you currently offer next to the following eight core topic areas. List the name of the courses, the enrollment capacity, certificates or programs, and the estimated number of times courses will be offered. NOTE: Core topic areas have been adapted from the International Game Developers Association (IGDA) Framework. The 2008 Framework is available at www.igda.org/education.

Core Topic Areas	Course Names that Relate to Topic Area (list all that apply)	Enrollment Capacity for Each Course	Certificates or Programs that Relate to Topic Area	How often will these courses/programs be offered by June 2009?
Intro to Electronic/ Video Games	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Game Design	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Game Programming	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Visual Design	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Audio Design	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Interactive Storytelling	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Game Production	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Business of Gaming	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.

2. Next, fill in the following table with courses, certificates and degree programs you offer that prepare students for the eight occupations listed.

Occupations	Courses That Prepare Students For Occupation (list all that apply)	Certificates That Prepare Students for Occupation	Degree Programs That Prepare Students for Occupation
Entry-Level Programmers or Software Engineers	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Character or 2D Animators (includes Flash Animator)	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Quality Assurance Technicians or Testers	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Production Assistants	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
3D Modelers and Animators	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Technical Artists and Graphic Designers (may include Environmental Artists, Level Designers, and Interface Designers)	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Interactive Web Programmers or Developers	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.
Writers & Content Developers	1. 2. 3. 4.	1. 2. 3. 4.	1. 2. 3. 4.

- 3. What future course or programs in electronic games, serious games, simulations, or virtual environments are you planning?
- 4. When are you planning to offer them? (Please give an estimated start date for each course that is planned.)
- 5. Are you having difficulty finding qualified faculty to teach your current courses? If yes, please list which courses.
- 6. Do you offer internships and/or work experience programs? If yes, please identify the businesses/organizations with which you work.
- 7. Do you provide programs or activities related to the Game Industry to local high schools? If yes, what specific programs or activities do you offer and with what schools?
- 8. Do you currently have industry and/or employer partnerships that support these courses/programs? If yes, what is the nature of the partnership, and please name the employer associations or organizations.
- 9. Do you provide customized training to employees at local companies through contract education? If yes, what employers do you provide training to, and in what content or topic area?
- 10. What is the status and composition of your Advisory Board?
- 11. Is there anything else you would like the community colleges to know about your Program?

CONTACT INFORMATION (Please)

Name: _____

Title: _____

College: _____

Daytime Phone: _____

THANK YOU!