

LOS MEDANOS COLLEGE

ARTICULATION AGREEMENT

DATE DRAFTED: June 24, 2020

VALID ACADEMIC YEARS: 2018-19 through 2020-21

(Retro-actively validated)

LMC COURSE: COMSC-110 Introduction to Gaming

HIGH SCHOOL COURSE: Introduction to Game Design

School: Antioch High School

Address: 700 W. 18th St Antioch, CA 94509

A. COLLEGE COURSE DESCRIPTION: An introduction to electronic game development with an emphasis on computer animation and programming. Computer animation will introduce the student to an overview of character modeling, rendering, animation, illustrations, storyboarding, and game design. An overview of computer programming will introduce the student to gaming structures, animation techniques, design fundamentals and programming options. Both of these concepts are very important for students entering the Gaming industry.

B. UNITS: 3

C. PRE-REQUISITES: NA

D. REQUIRED CONTENT FOR ARTICULATION:

1. Historical and Technological Components of Electronic Gaming

2. Game Design

- a. Structures of game design
- b. Structures of game programming
- c. Rules of the game
- d. General design fundamentals
- e. Game audio

3. Computer Animation

- a. Character Modeling
- b. Character rendering
- c. Animation tools / software
- d. Character rigging
- e. Game storyboarding
- f. Beginning illustration

4. Learning to Program

- a. Installing ALICE
- b. Designing and implementation of a program
 - i) Scenarios and storyboards
 - ii) Naming conventions

- iii) Writing methods
 - iv) Using comments
 - v) Looking at the code
 - c. Putting together the pieces
 - i. Variables
 - ii. Creating math expressions
 - 1. Order of operations
 - iii. Working with Strings and Text
 - d. Using functions and control statements
 - i. Boolean values
 - ii. Functions and IF/ELSE
 - iii. Definite and Conditional Loops
 - iv. Repetition: Recursion
 - e. Events
 - iv. Interactive programming
 - v. Handling key presses and mouse events
 - vi. Using events in simulations and games
 - f. Inheritance
 - vii. Lists and Arrays
 - g. Debugging

E. REQUIRED COMPETENCIES (PERFORMANCE OBJECTIVES) FOR ARTICULATION

By the end of the first semester, Students will:

1. Demonstrate the ability to develop a game synopsis, complete with character definition, strategy identification, and story boarding.
2. Demonstrate the effective use of the computer animation components necessary to build a working electronic game.
3. Demonstrate the comprehensive use of the computer programming tools, techniques, practices, and syntax necessary to build a working electronic game.
 - a. Demonstrate the ability to order and calculate arithmetic operations correctly
 - b. Create if-statements and if/else-statements
 - c. Create for-loops and while-loops
 - d. Create algorithms and code for decision structures that demonstrate understanding of initialization statements, control statements, Boolean expressions, and counter statements
 - e. Create programs that use advanced sequence manipulation techniques
 - f. Display understanding of various formal debugging techniques
 - g. Demonstrate the ability to add animation to an existing program
 - h. Demonstrate the ability to divide a program into sets of cooperating functions and other blocks of related code
4. Effectively research and then communicate in written form the requirements, qualifications, and practices of the gaming industry.

F. METHODS FOR END OF COURSE ASSESSMENT:

Credit by exam: Students must receive a grade of “B” or better on the final exam

- Students will work through the chapter tutorials, then complete the end-of-chapter assignments that will help reinforce concepts learned during class lectures pertaining to the creation of a virtual world using ALICE. Students will answer a series of questions that test their knowledge concerning current trends related to the gaming industry, as well as the ALICE interface, programming terminology, character development, and storyboard creation
- Through the use of multiple choice, fill-in-the blank, and short written answers students will be assessed on the fundamental concepts, terms, and principles of computer game design and the use of the Alice programming environment.
- Students will investigate the job requirements, qualifications, and practices of the gaming industry using information from at least 3 game manufacturers. The paper will analyze the information and provide conclusions as to current job market trends for gaming careers.
- Student Final Project

G. PROCEDURES AND/OR CRITERIA FOR COURSE ARTICULATION:

1. Complete the Intro to Game Design course at Antioch High School with a grade of “B” or better.
2. Receive a “B” or better on the agreed upon college/high school final exam procedure.
3. Be recommended for credit by the high school teacher.
4. Apply for admission at Los Medanos College.
5. Register for CATEMA for electronic recommendation of college credit **within the academic year in which credit was earned.**
6. Upon completion of the above, the student will receive on his/her LMC and CCCCD (California Community College District) transcript the units of credit for LMC’s COMSC-110 course.
7. College transcripts will reflect the **FINAL EXAM GRADE** earned and will be notated as *Credit by Exam.

**Distance Learning Circumstances:*

Final Exam “Procedure” will still need to be fulfilled whether the high school class meets in person or moves to a distance learning platform. If the high school class moves to an online learning environment, all efforts will be made to enable students to earn college credit, however due to circumstances beyond the high school/college control, course content may not be able to be completed in order to fulfill the articulation agreement requirements.

H. TEXTBOOKS OR OTHER SUPPORTING MATERIALS

- Litvin, Gary and Litvin, Maria. Java Methods, 2nd AP Edition. Andover, MA: Skylight
- Learning to Program with ALICE, 3rd Edition
- Publishing, 2011. www.skylit.com/javamethods

ARTICULATION AGREEMENT

DATE DRAFTED: June 24, 2020
VALID ACADEMIC YEARS: 2018-19 through 2020-21
(Retro-actively validated)

LMC COURSE: COMSC-110 Introduction to Gaming

HIGH SCHOOL COURSE: Introduction to Game Design

School: Antioch High School
Address: 700 W. 18th St Antioch, CA 94509

COLLEGE SIGNATURES

Natalie Hannum

Natalie Hannum (Jul 8, 2020 18:10 PDT)

Natalie Hannum Date
LMC Vice President of Instruction

Ryan Pedersen

Ryan Pedersen (Jul 8, 2020 11:13 PDT)

Ryan Pedersen Date
LMC Dean of Mathematics & Sciences

Louie M. Giambattista

Louie M. Giambattista (Jul 8, 2020 11:03 PDT)

Louie Giambattista Date
LMC Computer Science Department Chair

Karen Stanton

Karen Stanton Date
Faculty, Los Medanos College

HIGH SCHOOL/ROP/DISTRICT SIGNATURES

Louie Rocha

Louie Rocha (Jul 11, 2020 12:44 PDT)

Louie Rocha Date
Principal, Antioch High School

Mike Santos

Mike Santos (Sep 23, 2020 13:51 PDT)

Mike Santos Date
AUSD Director of Program Improvement

Christine Ibarra

Christine Ibarra (Sep 23, 2020 11:33 PDT)

Christine Ibarra Date
AUSD Associate Superintendent, Educational Services

Amy Bettencourt

Amy Bettencourt (Sep 23, 2020 00:07 PDT)

Amy Bettencourt Date
AUSD Director of Instructional Support

Erin Susoev

Erin Susoev (Sep 22, 2020 16:15 PDT)

Erin Susoev Date
AHS Teacher












COMSC-110 w-AHS 2018-21 FINAL

















Final Audit Report

2020-09-23

Created:	2020-06-24
By:	Colleen Grim (cgrim@losmedanos.edu)
Status:	Signed
Transaction ID:	CBJCHBCAABAAukvf4GyWFcVQP4_tPicV3jOgZfDJxa69


"COMSC-110 w-AHS 2018-21 FINAL" History

-  Document created by Colleen Grim (cgrim@losmedanos.edu)
2020-06-24 - 4:29:15 PM GMT- IP address: 67.169.20.160
-  Document emailed to Karen Stanton (kstanton@losmedanos.edu) for signature
2020-06-24 - 4:30:29 PM GMT
-  Email viewed by Karen Stanton (kstanton@losmedanos.edu)
2020-06-24 - 6:36:21 PM GMT- IP address: 108.251.1.226
-  Document e-signed by Karen Stanton (kstanton@losmedanos.edu)
Signature Date: 2020-06-24 - 6:37:17 PM GMT - Time Source: server- IP address: 108.251.1.226
-  Document emailed to Louie M. Giambattista (lgiambattista@losmedanos.edu) for signature
2020-06-24 - 6:37:18 PM GMT
-  Email viewed by Louie M. Giambattista (lgiambattista@losmedanos.edu)
2020-07-08 - 6:03:13 PM GMT- IP address: 24.5.67.217
-  Document e-signed by Louie M. Giambattista (lgiambattista@losmedanos.edu)
Signature Date: 2020-07-08 - 6:03:52 PM GMT - Time Source: server- IP address: 24.5.67.217
-  Document emailed to Ryan Pedersen (rpedersen@losmedanos.edu) for signature
2020-07-08 - 6:03:54 PM GMT
-  Email viewed by Ryan Pedersen (rpedersen@losmedanos.edu)
2020-07-08 - 6:12:51 PM GMT- IP address: 198.27.161.198
-  Document e-signed by Ryan Pedersen (rpedersen@losmedanos.edu)
Signature Date: 2020-07-08 - 6:13:41 PM GMT - Time Source: server- IP address: 198.27.161.198
-  Document emailed to Natalie Hannum (nhannum@losmedanos.edu) for signature
2020-07-08 - 6:13:43 PM GMT


-  Email viewed by Natalie Hannum (nhannum@losmedanos.edu)
2020-07-09 - 1:10:42 AM GMT- IP address: 99.4.124.154
-  Document e-signed by Natalie Hannum (nhannum@losmedanos.edu)
Signature Date: 2020-07-09 - 1:10:59 AM GMT - Time Source: server- IP address: 99.4.124.154
-  Document emailed to Louie Rocha (louierocho@antiochschools.net) for signature
2020-07-09 - 1:11:01 AM GMT
-  Email viewed by Louie Rocha (louierocho@antiochschools.net)
2020-07-09 - 3:44:43 AM GMT- IP address: 162.228.216.16
-  Document e-signed by Louie Rocha (louierocho@antiochschools.net)
Signature Date: 2020-07-11 - 7:44:18 PM GMT - Time Source: server- IP address: 162.228.216.16
-  Document emailed to esusoev@antiochschools.net for signature
2020-07-11 - 7:44:20 PM GMT
-  Colleen Grim (cgrim@losmedanos.edu) replaced signer esusoev@antiochschools.net with Erin Susoev (erinsusoev@antiochschools.net)
2020-09-22 - 9:22:26 PM GMT- IP address: 73.222.206.220
-  Document emailed to Erin Susoev (erinsusoev@antiochschools.net) for signature
2020-09-22 - 9:22:26 PM GMT
-  Email viewed by Erin Susoev (erinsusoev@antiochschools.net)
2020-09-22 - 11:14:49 PM GMT- IP address: 13.57.220.168
-  Document e-signed by Erin Susoev (erinsusoev@antiochschools.net)
Signature Date: 2020-09-22 - 11:15:31 PM GMT - Time Source: server- IP address: 73.222.43.19
-  Document emailed to Amy Bettencourt (amybettencourt@antiochschools.net) for signature
2020-09-22 - 11:15:32 PM GMT
-  Email viewed by Amy Bettencourt (amybettencourt@antiochschools.net)
2020-09-23 - 1:27:52 AM GMT- IP address: 54.151.74.199
-  Document e-signed by Amy Bettencourt (amybettencourt@antiochschools.net)
Signature Date: 2020-09-23 - 7:07:36 AM GMT - Time Source: server- IP address: 174.194.130.6
-  Document emailed to Christine Ibarra (christineibarra@antiochschools.net) for signature
2020-09-23 - 7:07:39 AM GMT
-  Email viewed by Christine Ibarra (christineibarra@antiochschools.net)
2020-09-23 - 6:33:11 PM GMT- IP address: 169.199.67.3
-  Document e-signed by Christine Ibarra (christineibarra@antiochschools.net)
Signature Date: 2020-09-23 - 6:33:26 PM GMT - Time Source: server- IP address: 169.199.67.3

 Document emailed to Mike Santos (mikesantos@antiochschools.net) for signature

2020-09-23 - 6:33:28 PM GMT

 Email viewed by Mike Santos (mikesantos@antiochschools.net)

2020-09-23 - 8:51:02 PM GMT- IP address: 169.199.67.3

 Document e-signed by Mike Santos (mikesantos@antiochschools.net)

Signature Date: 2020-09-23 - 8:51:25 PM GMT - Time Source: server- IP address: 169.199.67.3

 Agreement completed.

2020-09-23 - 8:51:25 PM GMT