CHCA Intersession 2022

January 3-14, 2022

Course Name: **Making Video Games**	
Instructor(s): **Adam Cool**	
Course Type: **Local Day (Greater Cinti Area)**	Service Hours: **0**
Maximum enrollment: **20**	Minimum enrollment: **6**
Cost:	$ 0

Overview:	Good for both complete beginners and experienced programmers, students will learn how to design and create their own video game. Working by themselves or in small groups, by the end of the session students will have a complete game that they can play and distribute. Development will be in GameMaker Studio 2, a popular 2D game development environment.
Course Goals:	- Learn basic game design principles - Learn basic and intermediate programing concepts - Learn to create digital art and animation - Design and create a fully functional video game from the ground up
Writing Component:	All writing for this session will be done in the course of completing tutorials, analyzing existing video games, and designing and creating their game.

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Description:

While each day will look slightly different, time will primarily be spent on 3 things:

1) Game Development (designing, planning, coding, troubleshooting, animating, etc.)
2) Exploration/Learning (completing tutorials, researching/experiencing/analyzing existing video games, etc.)
3) Breaks from Screens (going for walks, playing board games, other social activities, etc.)

Development will be in the GameMaker Studio development environment. Students who are unfamiliar with it (the majority of students) will spend their first couple days completing tutorial projects which help them learn to navigate within the environment and introduces many of the basic programming principles we will be using.

Additionally, in order to prepare for the creation of their game, students will research several different genres of games and analyze their core elements. As part of this process, they will consider what types of games are feasible for them to create within this environment. They will also be asked, at this point, to decide whether they are working solo or with a small group.

Having completed the tutorials and developed an understanding of different genres, students will be equipped to design and create their own game. They will plan the user experience (levels, menus, controls, story line, etc.) as well as the underlying structure (objects, algorithms, animations, etc.) for the games.

By the end of the first week, students will begin creating their games. From that point, the majority of their time will be spent on development of the code and taking breaks from that task both to refresh the mind and to infuse new ideas into their project.

In addition to developing their own game, students will be asked to consult on other students' projects. This collaboration exposes them to other algorithms and techniques that may be helpful in the course of their own work as well as supporting their peers.

The session will culminate with a celebration and playtesting of the various creations and the opportunity to showcase what they have created. Students will be able to compile the code into an executable that enables them to play the finished game and to distribute it to their friends and family.

This course is well suited to:	students who like video games and want to create their own, and who enjoy or think they might enjoy programming. Please note that the course does involve programming and we will spend a large portion of time doing that, so if your student knows they do not like programming, this is not the course for them.
Cost:	$ 0
Additional costs:	There may be optional days where we have a meal delivered or walk to a local restaurant for lunch.