

# **UCSD StudentTECH 2013**

## **Advanced Technology for Middle and High School Students**

Sponsored by the San Diego Supercomputer Center, University of California, San Diego

### **Design and Program Your Own Video Game!**

Monday- Friday, July 29- August 2, 2013

Class meets at the University of California, San Diego from 8:30 a.m. - 3:00 p.m. daily.

### **Design and Program Your Own Video Game!**

#### **Course Overview:**

Created by research scientists at Apple, Stagecast Creator is an easy-to-learn, easy-to-use software tool for making your own games and simulations. Starting with a blank stage, simply add a cast of characters using the included picture painter or imported graphics, then move the characters around to generate rules of behavior completely visually. Without using a traditional programming language, you can easily create games or simulations and then share them with friends at home or on the Internet. This class is a perfect introduction to game design for those with no computer programming experience to create a standalone game that can be played by countless others on the web. Ray Kinne has taught video game programming for the last 15 years for San Diego City Schools and SDSU. It is a passion of his that is infectious.

#### **What you can expect from this workshop:**

- \* A patient knowledgeable instructor who loves creating games as much as you do.
- \* In depth tutorials, guided instruction and support, and the opportunity for self-expression.
- \* Increased knowledge of basics of computer programming in a simple and easy way to understand.
- \* An original game created by you for others on the web to play.

Over the course of a week, students will learn the basics of game design and programming in unique and intuitive manner. Students will complete a functional prototype of their game and gain the knowledge on how to continue following their passions once the workshop ends.

Following is a list of the workshop events, including a summary of the themes, tools and techniques that will be covered:

#### **Monday, July 29, 2013 – Stagecast Creator: Learning How To Use The Tools Needed To Create Your Own Game**

Participants will create a digital portfolio where they will reflect and share their work with others. Participants will work in teams on interactive tutorials and then guided practice as practice basic and necessary skills. Topics will include: making rules, more than one character in a rule, changing appearance, animation, why rules don't fire (debugging), creating your own characters, sounds, interactivity, stages and doors, randomness.

#### **Tuesday, July 30, 2013 – Advanced Programming Topics And Concepts**

Students will review and reinforce previous topics, then tackle the concept of variables in a video game, how to change variables, variables with text or numbers, jars, and Boolean Logic. Students will practice creating timers, counters, projectiles, and scoreboards.

**Wednesday, July 31, 2013 – Designing Your Own Video Game**

Prior concepts and learning will be reviewed. Students will work in teams to create storyboards for an original video game. Rules, objectives, and storylines will be defined. Storyboards will be shared and discussed with the class providing valuable feedback for the participants. Students will work in teams under supervision of their instructor to create the introduction and rules/objective screens for their games. Artwork for the game will be created.

**Thursday, August 1, 2013 – Programming Begins!**

Prior learning and concepts will be reviewed. Artwork will be animated and programmed. Rule lists will be evaluated and tested. Solutions for inevitable problems will be debated and discussed.

**Friday, August 2, 2013 – Finishing Your First Game**

Multiple levels and screens of the game will be built, tested, and difficulty will be adjusted accordingly. Students will create documentation for the game, prepare a final version, and place their work with screenshots of their game for others to try on the internet.

**Instructor:** Ray Kinne, San Diego Unified School District

**Prerequisites:**

- Must be a current middle or high school student in grades 7-10.
- Interested in learning how design, program, and test your very own video game
- Willingness to work in teams
- Eager to ask questions, share ideas, and help others in the class

**Course fee: \$235.00. Registration deadline: June 7, 2013. Space is limited to 19 participants.**

If you have any questions regarding this workshop or the application process, please contact Ange Mason via phone at 858 534 5064 or email at [amason@ucsd.edu](mailto:amason@ucsd.edu)

## Design and Program Your Own Video Game!

July 29- August 2, 2013

### Applicant Information:

Name: \_\_\_\_\_  
Last First Middle

Mailing address: \_\_\_\_\_  
Street Address or Post Office Box City/State Zip

Telephone: \_\_\_\_\_ Email: \_\_\_\_\_

Date of birth: \_\_\_\_\_ Age as of June 30, 2012: \_\_\_\_\_

Gender: \_\_\_\_ Male \_\_\_\_ Female

San Diego County Middle or High School: \_\_\_\_\_  
School name District

Grade completed by June 2012: \_\_\_\_\_

Email: (optional) \_\_\_\_\_

### Parent or Legal Guardian Information (if applicant is under 18): (Please Print)

Name: \_\_\_\_\_

Mailing address: \_\_\_\_\_  
Street Address or Post Office Box City/State Zip

Telephone: (Home) \_\_\_\_\_ (Work) \_\_\_\_\_

Email: (Please Print) \_\_\_\_\_

**Course fee: \$235.00**

**Please make your check or money order payable to UC Regents and submit both payment and application in a single envelope to the following address:**

Ange Mason  
Attn: Student Summer Workshops  
San Diego Supercomputer Center  
University of California, San Diego  
9500 Gilman Drive, Mail Code 0505  
La Jolla, CA 92093-0505

If you have any questions regarding this workshop or the application process, please contact Ange Mason via phone at 858 534-5064 or email at [amason@ucsd.edu](mailto:amason@ucsd.edu).