Summer Enrichment Camp Courses 2024

High School

An Exploration of Photography

This class will explore a variety of photographic techniques ranging from alternative process photography, to the current use of digital techniques, and also basic photo editing. Students will have an opportunity to develop photographic works in multiple mediums as well as gain an understanding for the photographic process.

Bet On It

Throughout history, cultures have used different types of dice to make decisions and play games. When should you roll again? Should you call the bluff? Cut your losses while you can? We will explore dice games and activities, while we learn the math associated with them.

Booking It, Medieval Style

This course takes participants through the processes used to make and illustrate medieval books. Hand-made paper, medieval transfer methods, grinding pigments, egg tempera, calligraphy, and more will be explored during this class. Who knew that textbooks could be so fun?

Discovering Japan through Japanese Anime

Do you like Japanese anime or Japanese culture in general? Have you ever thought about having a chance to learn some Japanese language, try some Japanese food and sweets, and learn about its culture and traditions here in Mississippi? My name is Franco Lopes, and I lived half of my life in Japan working as a translator, baker, and teacher. We will use Japanese Original Manga (Japanese comics) and anime to discover specific aspects of Japanese culture such as food, clothing, and specific Japanese expressions that do not translate well into English. You will learn how to introduce yourself and to use cultural Japanese greetings. This course will help you broaden your cultural understanding of the world.

Engineering and Teamwork

Discover the engineering process and foster your teamwork skills through hands-on activities. Students will work with new partners each day to create cargo containers, a mountainous road, a payload mover, and bore through Mount MSMS.

The Face of STEM

What does a STEM (Science, Technology, Engineering, and Mathematics) professional look like? Not the stereotype! From math to physics to biology to chemistry, we will consider the life and work of famous **women** in STEM as we do what they did: chemistry, biology, physics, astrophysics, computer science, and more.

Fractal Frenzy
The participants will enjoy exploring and making various fractal structures in nature and how to identify them. They will construct geometrical and random fractal structures via artwork and computer codes. We will explore number patterns that emerge from Sierpinski's triangle, the Jurassic Park fractal, the Koch snowflake and others. We will also explore number chaos theory and how it applies to fractals.

Going Global: Turning Data into Information
The need to address emerging challenges in public health, sustainability, and other global issues is more pressing than ever. In this class, use real scientific databases and statistics to model our reality, identify specific problems, and then work in teams to turn data into information. Mathematics and life sciences meet in this interdisciplinary course.

I'm with the Band!
A course for those who want to rock, roll or hip hop!

Prerequisites: None

If you play a traditional band/orchestra instrument but have never played guitar, bass, drums or keyboards in a contemporary setting, you may take this course. You are encouraged to bring any traditional band/orchestra instrument to camp.

Ever want to play in a modern band? Students will learn the basics of guitar, bass, keyboards, bass and vocals in this fun and creative setting. Genres include rock, pop, hip hop, rhythm and blues, etc. If you already play a traditional band or orchestra instrument, bring it! Today's artists are incorporating a wide variety of instruments. With the aid of technology, we can do in a few days what once took weeks or months to accomplish. Class activities include learning and performing contemporary songs. Students have fun learning to play instruments and making music!

Materials provided by MSMS: Instruments, iPad©, song charts
      *Students should bring any wind or string instrument they currently play. You will not be required to play it; however, it would be great to have on hand if you choose to play it.

Hit Songwriting!

A course for students who want to express themselves through music!

Students who play an instrument other than drums and keyboards should bring their instrument to camp. This includes guitar, bass or any other wind/string instrument they currently play.

Students in this camp course will compose and record an original song! Today's artists are performing and recording with a wide variety of instruments. With the aid of technology, we can do in a few days what once took weeks or months to accomplish. Class activities include writing lyrics, beats, and chord progressions using technology and instruments to generate music tracks. Students will then learn to record tracks into their song!

Materials provided by MSMS: Instruments, iPad©, song charts

Krypto Kraze

Have you ever wondered how to create a secret code for a message so it is easy to decode but difficult to crack? This course will familiarize students with commonly used cryptography terms, guide students through encoding and decoding messages as well as introduce various encryption techniques such as Caesar cipher and public key encryption. Students will use mathematics with matrices to decode messages. Students will also be able to develop their own secret codes and have their fellow classmates try to crack the codes using mathematics. This course will also discuss the history of coding in various themes. By the end of this course, students will gain better reasoning and problem-solving abilities. Students will be able to reason and use logic at higher levels and gain a greater conceptual understanding of mathematics.

Mystery of Forensic Science

Have you ever wondered how evidence is collected to help bring criminals to justice? Does learning about different techniques and skills used by forensic scientists and crime scene investigators sound interesting to you? Join us as we perform ink chromatography, gel electrophoresis and forensic entomology to solve a few cases of our own!

No Experience Needed Coding
Looking for all students who are interested in computer programming or playing with Robots but have little to no experience. Learn how to program the Sphero Robot and challenge yourself to guide the Sphero through 5 challenging courses/obstacles.

Robotics
Robotics is the fusion of Computer Science and Engineering, and in our camp, we will give students the opportunity to experience both. The Robotics course will teach students the basics of computer programming logic while solving a larger problem.

Stop-Motion Storytelling
Get creative! Stop-motion animation combines creative writing, technology, art, and music to tell stories one frame at a time. In this class, you will learn how to create stop-motion animation with 2D and 3D images. Not of a fan of drawing? Not a problem! From paper cutting to play-dough modeling, you will work in teams to meet the objective of the day.