

2019 Bobcat Summer STEM Academy



The goal of this summer academy is to stimulate the interest of middle school and high school students in science, technology, and engineering, and mathematics (STEM) disciplines and prepare them to pursue higher education

Middle School Sessions (open to 5th through 8th grade)

#1- JUNE 10TH - JUNE 14TH: LIGHTS, LASERS & OPTICS!

Brought to you by Dr. Anne Kelley in collaboration with the CalTeach program

- Students will learn concepts related to basic physics and apply that knowledge through hands-on activities related to measuring wavelengths.



- Times: 9am to 4pm-
- one week session
- Pricing: \$100
- Spots: 24

#2- JUNE 17TH - JUNE 21ST: 3D MODELING CREATIONS

Brought to you by Dr. Alejandro Gutierrez 's team (School of Engineering at UC Merced)

In this workshop, students will learn how to use engineering design software to create a miniature rover vehicle. Additionally, students will learn the fundamentals of 3D printing and fabricate their rover prototype.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#3- JUNE 24TH - JUNE 28TH: RESEARCH & PROGRAMMING USING ROBOTICS

Brought to you by Dr. YangQuan Chen's team (School of Engineering at UC Merced)

The Drones have landed! This Summer Bobcat Academy session will highlight Drones in the introductory Robotics course. The course will introduce the student basic Circuit Theory, Robotic Components, and an introduction to Coding Robots and Drones while adding a daily college level writing component.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#4- JULY 8TH - JULY 12TH: CSI-BOBCAT INVESTIGATIVE FILES

Brought to you by CalTeach Program & the UC Merced Police Department

- Students will learn skills related to solving cases through hands-on activities using tools present in forensic science.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#5- JULY 15TH - JULY 19TH: ALL ABOUT CHEMISTRY

Brought to you by Dr. Erik Menke in collaboration with the CalTeach program

- Students will learn introductory chemistry concepts by the use of hands-on kits.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#6- JULY 22ND - JULY 26TH: DISCOVERING A CURE- ADVENTURES IN MICROBIOLOGY

Brought to you by Dr. Archana Chavan (School of Natural Sciences) and the CalTeach Program at UC Merced

What are antibiotics? and why do we need to care about antimicrobial resistance in bacteria? To find answers to these questions, we will use bacteria growing in a petri dish, in very exciting experiments. These bacteria are engineered to produce fluorescent proteins of different colors that will allow for easy visual analysis of experimental results. Students will get hands on experience in microbiology techniques that are used in many biomedical research labs. Come join us on this exciting expedition!



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

High School Sessions (open to 9th through 12th grade)

#1- JUNE 10TH - JUNE 14TH: 3D MODELING CREATIONS

Brought to you by Dr. Alejandro Gutierrez 's team (School of Engineering at UC Merced)

In this workshop, students will learn how to use engineering design software to create a miniature rover vehicle. Additionally, students will learn the fundamentals of 3D printing and fabricate their rover prototype.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#2- JUNE 17TH - JUNE 21ST: RESEARCH & PROGRAMMING USING ROBOTICS

Brought to you by Dr. YangQuan Chen's team (School of Engineering at UC Merced)

The Drones have landed! This Summer Bobcat Academy session will highlight Drones in the introductory Robotics course. The course will introduce the student basic Circuit Theory, Robotic Components, and an introduction to Coding Robots and Drones while adding a daily college level writing component.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#3- JUNE 24TH - JUNE 28TH: CODING BOOT CAMP

Brought to you by Chi Yan-Leung's team (School of Engineering at UC Merced)

Students will explore different problem solving skills in software development and have fun activities in programming mini computers.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#4- JULY 1ST & JULY 2ND (TWO-DAY): WANT TO BE A PUBLIC HEALTH DETECTIVE?

Brought to you by Carlisha Hall & Shaina Sta. Cruz (Public Health, School of Social Sciences, Humanities & Arts at UC Merced)

Students will be trained as "public health detectives" and learn how to examine real world problems using epidemiological research methods.



- Times: 9am to 4pm
- one week session
- Pricing: \$40
- Spots: 24

#5- JULY 8TH - JULY 12TH: SUCCESS IN AP BIOLOGY

Brought to you by CalTeach Program at UC Merced

- Students will learn concepts and study skills needed to be successful for AP Bio courses.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#6- JULY 15TH - JULY 19TH: CSI- BOBCAT INVESTIGATIVE FILES

Brought to you by CalTeach Program & the UC Merced Police Department

- Students will learn skills related to solving cases through hands-on activities using tools present in forensic science.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

#7- JULY 22ND - JULY 26TH: SUCCESS IN AP CALCULUS

Brought to you by the CalTeach Program at UC Merced

- Students will learn concepts and study skills needed to succeed in AP Calculus courses.



- Times: 9am to 4pm
- one week session
- Pricing: \$100
- Spots: 24

PRICING FOR THE SESSION INCLUDE SNACKS, DRINKS, LUNCH & INSTRUCTION FOR EVERYDAY OF THE SESSION.

Registration link:

- Please register at this link to reserve a spot and pay for the workshop: https://commerce.cashnet.com/UCME251_W1
- Registration: Will open up April 22nd until May 31st or until all spots are filled!

Questions?

Email: calteach@ucmerced.edu

Call: 209-228-4098