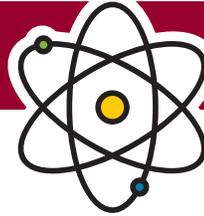


Carolina Master Scholars **ADVENTURE SERIES**

2018

Get a **JUMPSTART** at USC



discover.sc.edu/youth

JUNE 10-15

ADVENTURES IN FORENSIC SCIENCE Rising 6-9 graders

You've seen criminal investigation shows, now work with real-life crime scene investigators and law enforcement officers to help restore justice. Through hands-on opportunities and demonstrations, you will learn about latent fingerprints, bloodstain interpretation, footwear impressions, crime scene diagrams and trace DNA evidence collection. End your adventure with a team investigation of a mock crime scene and create your own crime scene diagram!

ADVENTURES IN VEX ROBOTICS Rising 6-9 graders

Theory and learning sessions will alternate with building sessions as you learn how robots think, sense and function, and then design and build a robot using the Vex™ Robotics System. By studying the past, present and future of robots and engineering, you will learn about different engineering disciplines and what it takes to be an engineer. If you have an interest in robots and are wondering if engineering is in your future, this class is for you! You will round out your adventure by competing against other robot teams. No experience in robots is necessary.

ADVENTURES IN GRAPHIC / DIGITAL DESIGN Rising 6-9 graders

Have you ever wondered how they made the logo for the Gamecocks, University of South Carolina or for your favorite company? Create original graphic design with edge and impact using industry standard tools in Adobe Creative Suite. Develop images, typography and logos for posters, movies, games and album art using digital design while studying color, composition and presentation. An expert from the University of South Carolina will teach you how to design and transform your ideas into a finished portfolio of your projects.

ADVENTURES FOR WOMEN IN ENGINEERING Rising 6-9 graders

Come and explore how modern engineering and computing shapes our future. You will participate in hands-on activities designed specifically for female middle school students by the College of Engineering and Computing. You'll meet women engineers and conduct experiments guided by university professors and students. Spend a week learning about topics such as energy generation sources and their environmental impact, health informatics, smart cities and cyber safety, biomedical engineering and natural hazards. At the end of the week, you will have a better understanding of the breadth and variety of engineering and computing fields.

JUNE 17-22

ADVENTURES IN ENGINEERING Rising 9-12 graders

Do you think you have the "knack" to be a future engineer but are not sure which area you want to specialize in? You will experience different types of engineering and find out what engineers really do in mechanical, electrical, civil, chemical and biomedical engineering to get a clearer picture of what it means to earn a degree in one of those fields. Your experience includes hands-on activities and building sessions in university labs in each area of engineering so you can personally experience how each field is unique and fascinating. This experience will help you decide which area of engineering you want to pursue.

ADVENTURES IN PHARMACY Rising 9-12 graders

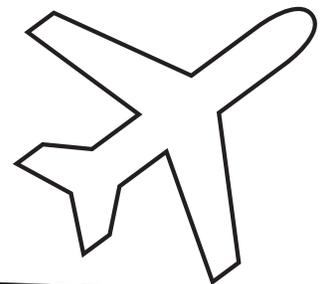
Discover what it takes to become a pharmacist! Pharmacists work in communities, for educational institutions, drug manufacturers and hospitals, and with nuclear medicine to build patient records and medical files. Real-life pharmacists will show you how to read prescriptions, help prepare medications, counsel patients, understand poison warnings and learn patient drug regimens. This adventure includes working in the pharmacy lab at USC's School of Pharmacy where you may even try your hand at compounding and making different types of medicine.

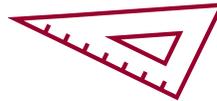
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ADVENTURES IN CREATIVE WRITING Rising 9-12 graders

Expand your writing skills, discover new techniques and polish your prose in your chosen genre. Visit the local art museum or botanical gardens to release your creativity in your writing and expand your imagination. Work with distinguished and published faculty from the USC Poetry Initiative and English department to employ a variety of styles and themes in your essays, fiction, poetry and short stories. At the end of the adventure, you will be able to take home your short stories in a class anthology.





JUNE 24-29

ADVENTURES IN ELECTRICAL ENGINEERING - POWER-UP & EXPLORE RENEWABLE ENERGY

Rising 6-9 graders

Discover Electrical Engineering by exploring renewable energy. From wind turbine farms to solar panels on roofs and roadways, renewable energy is a clean way to run the world. Solar and wind energy is used to power houses, cars and even small islands. Companies like Tesla are leading the charge to power our lives without polluting the environment. Spend the week learning the foundation of Electrical Engineering and the theory behind renewable energy. During the week, you will work with a team to build a miniature, clean-energy city!

ADVENTURES IN COMPUTER GAMING

Rising 6-9 graders

Venture into the exciting, interactive world of computer gaming! You'll use a game engine to learn the skills behind graphics, modeling, animation, multi-level game design, artificial intelligence and basic programming techniques such as if/switch, for/while loop and more. Through instruction by USC's Computer Science department and hands-on programming, you will work in a group to create a finished product—your own video game.

ADVENTURES IN LAW

Rising 6-9 graders

Spend your day in court—as an attorney! Learn about concepts of the court system, criminal investigation, defense and prosecution and evidentiary and trial prosecution. Work with real-life attorneys and law enforcement officers, tackling a real case from the moment the crime is perpetrated. You'll have the opportunity to visit the South Carolina Supreme Court and see the legal system from the inside! At the end of the adventure, your team will work out the crime through a mock trial.

ADVENTURES IN AEROSPACE

Rising 9-12 graders

Have you ever wondered what it takes to be an aerospace engineer? Spend the week with us and you will learn about the research, design, development and manufacture of aircraft, including the basics of composite materials, computer aided design and manufacturing, program industrial-scale robots, test manufactured products and the future of 3D printing! Discover new innovations in the USC McNAIR Center for Aerospace Innovation and Research, and then head over to the Challenger Learning Center of Richland School District One to learn about rocketry. End your week by creating your very own composite aerospace part!

JULY 8-13

ADVENTURES IN MEDICINE: ULTRASOUND

Rising 9-12 graders

Welcome to the stethoscope of the future—ultrasound. Using sound waves, ultrasound provides images of the inner workings of the body in a non-invasive way so doctors can make quick, lifesaving decisions. Using a handheld ultrasound probe and an ultrasound unit the size of a laptop, you will learn to scan the body in the same labs and with the same doctors as our medical students at the University of South Carolina School of Medicine. You will practice these techniques on a real-life simulator and real patients, learning anatomy and physiology along the way.

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ADVENTURES IN BUSINESS-ENTREPRENEURSHIP

Rising 9-12 graders

Have you dreamed about creating and launching a project and pitching it on the popular TV show Shark Tank? Faculty at the Faber Entrepreneurship Center at University of South Carolina's Darla Moore School of Business will help you identify a product or service that solves a problem, define your market and advantage and how to pitch your product in front of investors. You will learn leadership skills, think big, be innovative and succeed. By end of the week, you will work in a group to create your own product and pitch it like you see on Shark Tank!

ADVENTURES IN EXTRAORDINARY CHEMISTRY FOR EXTRAORDINARY LIVES

Rising 9-12 graders

As a budding chemist, try out hands-on experiments that will help you connect real-world situations with science. Have you ever wondered about the cosmetics, food, and medicine you use? This adventure will help you uncover the science – and chemistry – behind those and many more. Practice concepts from chemistry, the science that investigates the very small, to understand the large. An expert in USC's Department of Chemistry and Biochemistry will show you that a sparkle of imagination has created a constellation of essential, amazing products. Using various techniques and equipment, discover how chemistry is touched by and used in our everyday lives. Study career fields and what it takes to be a chemist.

JULY 15-20

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ADVENTURES IN INFORMATION TECHNOLOGY

Rising 9-12 graders

Dive into engineering and computing using the Arduino microcontroller. This STEM+C camp will feed your interest in learning to code and understand the basics of electrical engineering. Join the Information Technology Department in the College of Engineering and Computing who will help you design your own electrical circuits and sensors, and learn about programming them using the Arduino IDE, a simplified version of C++. You'll learn how to control lights, motors and speakers and how to make your Arduino sense its environment. Applying everything you've learned, you'll end your adventure by making your own project to solve an everyday problem.

JOIN US!

Visit us online for registration and program information.

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Phone: 803-777-9444

Email: pups@mailbox.sc.edu



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SOUTH CAROLINA