



2020 SUMMER ADVENTURE ACADEMIES (11th Annual)
Online registration begins March 2, 2020 at 9AM

SCOUT BSA MERIT BADGE CAMPS (St. Louis Location)

Summer camps designed specifically for middle school and high school aged Scouts. Participants will have the opportunity to work with college instructors to earn an Auto Maintenance, Electricity, and or Plumbing Merit Badge while enjoying the college experience, to include hands-on activities in state-of-the-arts labs and dining in the college café. We encourage troop leaders and parents to be mentors in any of our Scout camps.

Dates/Times: Thursday, May 28, 2020; 9:00AM – 3:00PM, Registration fee: \$60
Auto Maintenance

Friday, May 29, 2020; 9:00AM – 3:00PM, Registration fee: \$60
Electricity OR Plumbing

July 13-17, 2020, 9AM to 3PM, Registration fee: \$95

MIDDLE SCHOOL CAMPS - Rising 6th, 7th, and 8th Graders (St. Louis Location)

All A-Bot Robots – Robots are the future of technology. They are definitely fun to make and program! Hone your engineering and technology skills using NXT robots to successfully maneuver through an obstacle course.

Advanced Robotics – Designed for students who have prior robotics experience with Ranken's *All A-Bot Robots* camp or *FIRST* Lego League. Campers will design & build TETRIX robots and use remote controllers.

Android App Inventor - App Inventor lets you develop applications for Android phones or tablets. This workshop will teach what App Inventor is, how it is used, and how the free-associated software can be loaded onto a computer. Students will create several apps, including a Magic 8 Ball app and a Xylophone app.

Aviation Technology – Get an introduction to aircraft maintenance, and what it takes to keep planes flying. Explore careers for aviators, experience the thrill of flight in an airplane, build & launch model rockets, & more!

Cartography & Web Design – Powered by TechGirlz, girls will learn cartography (map drawing) using real world data, creating custom maps, crowd sourcing, & designing their own website to creatively tell their story.

Design and Engineering – Learn manufacturing processes from blueprints and design to prototype production and quality control using the latest software and Computerized Numerical Control (CNC) machines.

EV3 Robotics & Racing @ Victory Raceway – Students race electric-powered racing karts learning basic principles like acceleration, braking, & race craft in the morning. After lunch, campers will work with LEGO MINDSTORMS Education EV3, building, programming, and testing real-life robotics technology. Transportation is **not** provided. Address: 8800 Watson Road, St. Louis, 63119.

Heavy Metals – Use raw metal to create your own designs! Students will learn the fundamentals of welding, from simple techniques to more complex ones. Students will design and fabricate their own metal masterpiece.

Summer Racers – Summer racers will build their own car, practice team building skills, learn about automotive careers, and how a go-kart works using real world tools and techniques drive a real go-kart safely!

Wood Works – Students will construct their own project from start to finish using a variety of woodworking and power tools safely. Learn fundamental construction techniques and have fun with constructive entertainment.

July 20-24, 2020, 9AM to 3PM, Registration fee: \$95

HIGH SCHOOL CAMPS - Rising 9th and 10th Graders (St. Louis Location)

Airbrushing Paint FX – Brighten up a dull summer at our custom automotive airbrushing camp. Students will learn basic hands-on airbrushing and popular airbrushing techniques. We'll channel your child's inner artist.

Boot-Up Computer Camp – Students will learn about the latest computers and operating systems, how they work and how to apply that knowledge into a real-world networking environment. Working both individually and in small groups, students will complete hands-on class projects.

Design and Engineering – Learn manufacturing processes from blueprints and design to prototype production and quality control using the latest software and Computerized Numerical Control (CNC) machines.

Heavy Metals – Use raw metal to create your own designs! Students will learn the fundamentals of welding, from simple techniques to more complex ones. Students will design and fabricate their own metal masterpiece.

TETRIX Robotics Technology – Build your own robot and apply engineering design principles while expanding your technical skills. Learn programming design and test your skills in a robotic competition.

Remote Control Race Engineering – Students model a motorsports team while working to optimize the performance of a FastTrack RC (remote control) Car through inspection and modifications. Take the challenge!

Women in Engineering - Experience the fun and excitement of solving engineering challenges on a team of like-minded young women. Discover how you can use your unique talents to find satisfaction in engineering.

HIGH SCHOOL CAMPS - Rising 11th and 12th Graders (St. Louis Location)

Adventures in Architecture – Experience architecture and the built environment through designing, sketching, drafting, and model building. Get hands-on experience with laser cutting & computer aided drafting.

Drone Aerial Systems – Learn to fly and video record with one of today's hottest hobbies. In this camp you will learn practical real world uses for drones. Learn to fly through an obstacle course and video record your own flight on the Ranken campus.

MIDDLE SCHOOL CAMPS - Rising 6th, 7th, and 8th Graders (Wentzville Location, 755 Parr Road)

All A-Bot Robots – Robots are the future of technology. They are definitely fun to make and program! Hone your engineering and technology skills using NXT robots to successfully maneuver through an obstacle course.

Android App Inventor - App Inventor lets you develop applications for Android phones or tablets. This workshop will teach what App Inventor is, how it is used, and how the free-associated software can be loaded onto a computer. Students will create several apps, including a Magic 8 Ball app and a Xylophone app.

HIGH SCHOOL CAMP - Rising 9th, 10th, 11th, & 12th Graders (Perryville Location, 1205 Corporation Ln)

Heavy Metals – Use raw metal to create your own designs! Students will learn the fundamentals of welding, from simple techniques to more complex ones. Students will design and fabricate their own metal masterpiece.

LEARN MORE www.ranken.edu/adventureacademy