



ADVANCED DYER OBSERVERS SPACE SCIENCE CAMP - SUMMER 2016 **7th AND 8th GRADERS**

The focus of Vanderbilt Dyer Observatory's camp is astronomy and space science. Campers learn about how scientists discover the secrets of the universe, from exotic black holes to the nature of light. During the week, campers are engaged in exciting hands-on educational science activities: launching rockets, working with and building electronics, experimenting with lasers, and working with telescopes. The camp curriculum has been created by an expert team of astronomy professors, space scientists, and area science teachers.

The Dyer Observers Space Science Camp supports students who are serious about exploring the worlds of science, math, and technology, and opens up their minds to future career possibilities in these fields. Campers are inspired by interacting with astronomers who are respected researchers and seasoned instructors. Participation in group activities builds self-confidence, problem solving skills, and social skills.

SAMPLE ACTIVITIES:

- Design and launch bottle rockets while exploring introductory rocket design.
- Interact with cutting-edge astronomers and learn about their research.
- Discover how telescopes work and build your own.
- Tour historic Dyer Observatory's telescopes, and use them to engage in both daytime and nighttime observations including safely viewing the dynamic surface of the Sun (weather-permitting).
- Learn about comets by making realistic models.
- Examine how craters are formed through impact modeling.
- Journey to the U.S. Space and Rocket Center in Huntsville, AL for a day-long adventure.
- Study basic electronics and use this knowledge to build working projects.
- Construct functioning model rovers and navigate them through challenging terrain.
- Receive an Arduino Uno and use skills learned at camp to build many of your own projects at home.

WHO SHOULD ATTEND: Students entering the 7th or 8th grade in the Fall of 2016

OUR STAFF: Vanderbilt astronomy and physics professors and graduate students, high school science teachers, and Observatory staff.

SNACKS & LUNCH: Snacks and drinks are provided. Campers should pack their own lunch with drink.

COST: \$400 per week. Campers must be dropped off daily between 8:30 – 9:00 AM and picked up no later than 3:15 PM daily. **Please make checks payable to Vanderbilt University.**

CAMP DATES: **June 20-24, 2016** from 9 AM to 3 PM. Campers and their parents will be invited back for one evening during the week for a telescope viewing.

LOCATION: Vanderbilt Dyer Observatory, 1000 Oman Drive, Brentwood. The Observatory is located off of Granny White Pike, approximately 1/3 mile north of Old Hickory Blvd.

QUESTIONS: For more information, please call 615-373-4897 or email Dyer Observatory's Camp Director, Billy Teets at william.k.teets@vanderbilt.edu. Fax: 615-371-3904.