

Astronomy Camp Program Information

Hancock Field Station's Astronomy Camp promises to be a week of fun, excitement, and learning. Whether you're a full-fledged astronomer or this is your first time looking through a telescope, you will have the opportunity to discover many new things about the stars and planets and the world of space exploration. Astronomy Camp offers numerous hands-on activities and an open forum for discussing the many exciting theories and discoveries of modern Astronomy.

Our week will be packed with exciting activities focused on the many facets of astronomy. In the mornings, we will learn about the moon, other planets, and learn about the stars by studying our very own star: the sun. In the afternoon we will take a break to enjoy a refreshing swim in the cool John Day River. The late afternoon holds opportunities to scale the climbing wall and to enter into mind-expanding discussions about black holes and cosmology.

At night we will observe the sky to get a closer look at other galaxies and nebulae, attempt to count the stars in the sky, take an imaginary voyage to the other planets of our solar system and learn our way around the summer constellations.

Nighttime temperatures at a higher elevation are still **very cold**, and we will have the opportunity to stay up very late, enjoying the stars, and catch up on sleep during the day! We will get the opportunity for campers to visit with volunteer astronomers and to look through their large telescopes. Come with warm clothes, a willingness to stay up late and curiosity about the cosmos!

Course Syllabus

OBJECTIVES: Academic and outdoor training goals

- ◆ To understand the use of telescopes and star charts
- ◆ To gain an understanding of the scientific field of astronomy
- ◆ To be able to relate terrestrial processes with the processes on other planets in our solar system
- ◆ To gain an understanding of the makeup of and characteristics of light, the properties of stars and their relation to the study of astronomy

ACTIVITIES: Hands on learning in the field

- ◆ View the night sky through telescopes and use star charts to help navigate through the constellations
- ◆ Learn the constellations: their significance today, and their mythology from the past
- ◆ Investigate physical examples of astronomical distances
- ◆ Participate in role playing games that build teamwork and facilitate decision making
- ◆ Identify characteristics of stars, planets, meteorites and other bodies in our universe

SCIENTIFIC CONCEPTS: Scientific Principles to be introduced

- ◆ The orbits of bodies within our solar system (planets, asteroids, comets)
- ◆ Geomorphology: the processes that have worked to shape the surface of planet Earth
- ◆ Erosion: water as a key factor, possible evidence for its existence on other planets
- ◆ Gravity and how it affects our solar system and our galaxy

SAMPLE DAILY SCHEDULE* **Astronomy Camp**

8:00 a.m.	General camp wake-up
8:30 a.m.	Breakfast
10:00 a.m.	Field activities (Lunch included)
1:30 p.m.	Rest & relaxation
3:30 p.m.	Swimming
6:00 p.m.	Dinner
7:30 p.m.	Interest groups
8:30 p.m.	Campfire
9:30 p.m.	Evening Astronomy
11:30 p.m.	Goodnight

***ALL SCHEDULES ARE SUBJECT TO CHANGE**

Programs that are partly or entirely field-based will follow a unique schedule each day, depending on the activities planned. Drive times between field sites and campgrounds will include stops for short hikes and games, meals, and bathroom breaks.

TECHNOLOGY AND COMMUNICATION

Cell phones are not allowed on any OMSI Science Camp program. Cell phones are too easily lost or damaged. Campers have an excellent support system at camp including their fellow campers, the counselors, the instructional staff, and the lead staff. We will ensure that any necessary communication between parents/guardians and campers can take place through the main phone at each site. Instructional staff carry cell phones during transportation and on off-site programs for emergency purposes only. An important part of the camp experience is for each camper to gain independence, develop greater resilience, and enjoy the unique opportunities offered by OMSI Science Camps without technological distractions. We are grateful for the trust parents and guardians put in our staff to care for each camper, and we appreciate the time taken in discussing this important issue with your camper before his or her program begins.

Digital cameras are allowed, but remember that, at camp, things can easily be lost or damaged. We recommend single use cameras or film cameras. Please keep in mind cell phones with cameras will not be allowed.

For the safety of your child and OMSI Science Camps staff, we strongly discourage our staff from having contact with your child after camp since we cannot supervise it. Making new friends is one of many positive outcomes of OMSI Science Camps programs, and campers who want to stay in touch with each other may exchange phone numbers, addresses, or e-mails. Please understand that any communication between your child and another camper or a staff member after the camp session is over is the responsibility of the camper's parent or guardian to oversee.

If your child would like to contact a staff member, then email letter to: hancock@omsi.edu .

