



## **HESSBERG ASTRONOMY AWARD**

### **To attend the ADVANCED ASTRONOMY CAMP**

**June 19-26, 2019**

[dudleyobservatory.org/hessberg-astronomy-award/](http://dudleyobservatory.org/hessberg-astronomy-award/)

#### **Description**

The purpose of the Hessberg Award is to provide an opportunity for high school sophomores or juniors in the Capital District of New York to participate in a week-long research experience in astronomy at the **Advanced Astronomy Camp** in Tucson, Arizona:

[www.astronomycamp.org](http://www.astronomycamp.org)

Students are housed in the astronomers' dormitories on Kitt Peak, near Tucson, and work with a variety of telescopes there. They participate in various hands-on astronomical projects under the general supervision of astronomer Dr. Donald W. McCarthy, Jr. and his colleagues from Steward Observatory of the University of Arizona. In addition, campers will attend lectures by local and visiting astronomers on current astronomical research. **This award will pay all registration and travel costs.**

#### **Qualifications**

- Sophomore or Junior in the current academic year
- Attends high school in Albany, Fulton, Greene, Montgomery, Rensselaer, Saratoga, Schenectady or Washington Counties
- Must have completed Algebra II, Geometry or the equivalent

Astronomy Camp does not presume, or require, a background in astronomy.

#### **Nomination Procedure**

Candidates must be nominated by a science teacher or school principal. Students should fill out the application along with their science teacher, then the teacher or principal should submit the application to the observatory. There is not a restriction on the number of nominees per high school.

#### **Each nominee must submit:**

- A completed copy of the Hessberg Astronomy Award Application.
- An essay of 1200-1500 words on a topic chosen by the Astronomy Camp (See topic list below).
- A confidential letter of recommendation from a science or math teacher.

Applications can be sent by mail or email and must be received by  
**March 4th, 2019**

#### **Selection Procedure**

Dudley observatory will review all applications after the due date and select one award recipient. The results will be announced in April.

For questions about the application process, please contact the Dudley Observatory:  
[info@DudleyObservatory.org](mailto:info@DudleyObservatory.org) 518-382-7890 x259

**HESSBERG ASTRONOMY AWARD APPLICATION**  
**To attend the ADVANCED ASTRONOMY CAMP**  
**June 19-26, 2019**

**Student Information:** (PLEASE PRINT CLEARLY)

Name \_\_\_\_\_ Birthdate: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip Code: \_\_\_\_\_

Home Phone: (\_\_\_\_) - \_\_\_\_\_ Grade Level (now): \_\_\_\_\_ Gender: \_\_\_\_\_

Email: \_\_\_\_\_

How often do you check your email? \_\_\_\_\_

Could you use a Web browser to check the Camp "chat page" every few days? \_\_\_\_\_

Science and Math courses taken: \_\_\_\_\_

Extracurricular Activities: \_\_\_\_\_

**To Be Completed By Teacher:**

Math Courses (Completed and Current): Algebra II \_\_\_\_ Geometry \_\_\_\_ Other \_\_\_\_\_

Current Math Teacher's Name: \_\_\_\_\_

School Name: \_\_\_\_\_

School Address: \_\_\_\_\_

School Phone: \_\_\_\_\_

I certify that the above named student has successfully completed Algebra II or Geometry.

Teacher's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**To Be Completed By Parent/Guardian:**

Parent or Guardian Names: \_\_\_\_\_

Email address: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Numbers: Work: (\_\_\_\_) - \_\_\_\_\_ Home: (\_\_\_\_) - \_\_\_\_\_

My child has permission to attend the Advanced Astronomy Camp. I have read the travel guidelines at [www.astronomycamp.org/docs/btcapp.html](http://www.astronomycamp.org/docs/btcapp.html).

The University of Arizona Alumni Association accepts no responsibility for losses or additional expenses due to sickness, weather, strikes, fires, wars, or other causes. All such losses must be borne by the participant. A detailed statement of limitations and exclusions of liability will be provided to participants prior to final payment and is available upon request. I/we understand and agree that I/we are legally responsible for the tuition and all costs associated with Astronomy Camp\* and further that this Agreement shall be governed by and subject to the laws of the State of Arizona and shall be deemed for all purposes to be made and fully performed in Arizona. Parent's

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**\*The tuition fee is waived for the awardee and Dudley Observatory will reimburse for reasonable travel costs (flight to Arizona). Any other costs incurred by the awardee related to astronomy camp are the responsibility of the above signatory.**

**Letter of recommendation**

Please submit one confidential letter of recommendation from a math or science teacher. Recommendation letters must be on school letterhead and signed by the teacher. Homeschool applicants must submit a recommendation letter from an educator who is not their parent/guardian.

For full consideration, all documents must arrive at the Dudley Observatory by  
**March 4th, 2019**

Submit this **form**, the **essay** and the confidential **letter of recommendation** via mail or email to:

Attn: Hessberg Award Application  
Dudley Observatory  
15 Nott Terrace  
Schenectady, NY 12308  
info@dudleyobservatory.org

## **Essay**

Admission to the Advanced Astronomy Camp requires an essay of 1200-1500 words. This essay is our primary means of gauging a student's motivation, creativity, maturity, and ability to follow directions. These are highly valued qualities in Advanced Camp students and we feel they are valuable to future success.

Applicants must write on one of the following three topics. The essay must combine both fact and imagination. Students should first research existing information about the topic and use that research as a basis for imaginative extrapolation. The factual basis must cite at least two published references. The essay must start with an imaginative title. Possible references and example student essays can be found here: [www.astronomycamp.org/docs/camp\\_spec/ATC/essay.html](http://www.astronomycamp.org/docs/camp_spec/ATC/essay.html)

### Essay Topics:

Essay #1: More than 3500 planets have been discovered orbiting other stars. Pretend you are responsible for choosing one of THESE planets or its hypothetical moon(s) to colonize. Where would you go and what would you hope to learn there? Base your essay on known properties of the parent star(s) and the planets themselves.

Essay #2: Pretend you just discovered a large asteroid hurtling towards Earth. Describe the properties of the asteroid and how you would convince your fellow scientists of its imminent danger. Then hypothesize a solution to stop the impending global devastation. Base your essay on the known properties of asteroids, and feel free to be creative with your solution.

Essay #3: Pretend you are the assistant of a famous astronomer (past or present). Describe a research project in which you are involved and how it has impacted your life. Base your essay on biographical information about the particular astronomer and his/her research accomplishments and interests.