



HESSBERG ASTRONOMY AWARD

To attend the **ADVANCED ASTRONOMY CAMP**

June 20-27, 2017

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

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.

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 apply through their school by contacting the school's science coordinator, rather than by applying directly to the Dudley Observatory. There is not a restriction on the number of nominees per high school.

Students & Parents should contact the school science teacher for forms and information.

Teachers and Principals may contact the Dudley Observatory.

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 email or USPS and must be received by

February 28, 2017

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

518-382-7890 x259

HESSBERG ASTRONOMY AWARD APPLICATION
To attend the ADVANCED ASTRONOMY CAMP
June 20-27, 2017

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.

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. 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
February 28, 2017

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

Essay Topics:

Essay #1: More than 2300 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 choose to visit a hypothetical planet in a KNOWN binary star system of your choice. Describe how and why life on your planet would be different from that on Earth. Base your essay on the known properties of the parent stars (e.g., mass, temperature, luminosity, orbit, lifetime, age, etc.).

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.