You Too Can Advise High School Researchers!

A. J. Shaner¹, G. Y. Kramer¹, A. L. Nahm², M. Bakeman³, S. Buxner⁴, A. Hackler¹, and D. A. Kring¹

¹USRA-Lunar and Planetary Institute (3600 Bay Area Boulevard, Houston, TX 77058, shaner@lpi.usra.edu), ²DLR, Berlin, Germany, ³Planetary Science Institute, Tucson, AZ

The Exploration of the Moon and Asteroids by Secondary Students (ExMASS) program provides an opportunity for high school students to participate in authentic, student-centered research. ExMASS is managed by the Center for Lunar Science and Exploration (CLSE), one of nine teams comprising NASA's Solar System Exploration Research Virtual Institute (SSERVI). Over the course of one academic year, up to 10 teams of U.S. high school students conduct their own scientific investigations of Earth's Moon or asteroids with guidance from a scientist advisor. Interested in advising high school student researchers? Read below to find out more!

Advise from anywhere!

With a few exceptions, participating schools have not been located near their assigned advisor. But, that’s OK! Communications largely take part via email, phone calls and through online platforms such as Skype.

Face-to-face is great! (If possible.)

If advisors are near their student teams, they are encouraged to meet in-person once during the program. Dr. Ryan Clegg-Watkins’ team from Crocker, MO was able to make a day-trip to Washington University in St. Louis to meet with her and other researchers.

For more information on the ExMASS program, visit https://goo.gl/X7LVbp or contact Andy Shaner at shaner@lpi.usra.edu.

Teacher (Mentor) Role vs. Advisor Role

The information below was gathered from participating teachers and scientists who have participated in the ExMASS program as advisors. Though not comprehensive, this information is useful for scientists interested in advising a team in the ExMASS program.

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<th>MENTOR ROLE</th>
<th>ADVISOR ROLE</th>
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<td>Student Team Manager – Set team deadlines/schedule based on ExMASS program deadlines; Provide team structure; POC w/ advisor; should initiate all contact.</td>
<td>Scientific Content Interpreter – Answering questions from student teams about content in a paper after reading the paper, or as students read the paper.</td>
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<td>Initial Content Expert – Conduct Moon and Asteroid 101 (including presentations) over the summer preceding the program year.</td>
<td>Scientific Paper/Resource Distributer – Obtains and distributes relevant published papers, abstracts, etc. students should have at their disposal for their particular research topic; Identify relevant data repositories and assists student teams obtain relevant data.</td>
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<td>Scientific Paper Reviewer – Read, digest, and present information from scientific papers (recommended by advisor).</td>
<td>Science Community Liaison – Contacts other scientists with questions as necessary.</td>
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<td>Information Gatekeeper – Distribute/Withhold pertinent information as necessary.</td>
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MENTOR AND ADVISOR ROLE

Assist student teams with deciding on a research topic (is it feasible given their time constraints, resources, etc.? and formulating their research question and research plan.

Provide positive reinforcement/encouragement throughout the entire process.

What Advisors are Saying

“I enjoy teaching younger students about planetary science and wanted to provide encouragement and guidance as a group carried out a research project.”

“I like interacting with students and I don’t have that opportunity where I work. In addition, this is minimal commitment so it’s good for busy people (like all of us).”

“I enjoy helping students and teachers discover science and to learn more about the Moon. Science is accessible to everyone!”

“I felt this program met my expectations. It wasn’t too time consuming, yet I felt that I was able to offer appropriate support and guidance to my team.”

“Working with high school students helps me become a better scientist because I have to work on the way I communicate science with people.”

“Let the teachers and students do the work. Wind them up and point them in the right direction, giving them course correction along the way.”

“I was again amazed at the talent of the smart kids. My team proved to be better than some of the graduate students I have worked with.”

*Advisors report spending 1-2 hours (or less) per week communicating with their team.