

## Berkeley Discover Initiatives Proposal Society of Physics Students 2021

Event	Description	Fund Type	Justification	Requested Funds (per year)
UG Seminars	<b>Snacks:</b> Undergraduate seminar is an opportunity for students to know the research other undergraduates do, and get a chance themselves to practice formal presentations. These events help students understand what research in physics means, how to get involved, and what sorts of expectations are realistic. Having snacks for the seminars will increase the attendance for the event!	Budget	\$30*(10 seminars/sem)*(2 sem/yr)	\$600
UG Seminars	<b>Speaker:</b> Giving a talk can be very energy-intensive, requiring several hours of preparation, especially for people with very different backgrounds. Talks are given once a week throughout the year, and there can be difficulty with encouraging people to give talks. Giving speakers a stipend would increase their incentive to give such a talk and provide an apt reward for the multiple hours of thought and preparation involved.	Stipend	\$100*(10 seminars/sem)*(2 sem/yr)	\$2,000
Outreach	<b>Transportation Reimbursements:</b> SPS members seek opportunities to volunteer within the larger community through outreach events. Outreach, by its very nature, involves traveling to other places (e.g. high school, Bay Area Science Festival). However, if the process incurs additional cost, there will be less incentive for members to actively contribute.	Budget	historical cost of transport to Bay Area Science Festival	\$300
Mentorship	<b>Family Budget:</b> Mentorship program is one of the major ways to engage new members for SPS. The family composes of upper and lower classman, where upperclassmen provide valuable resources and advice to the lowerclassmen. The mentorship group usually forms strong bonds between the members, and such bond would even last throughout one's undergraduate years in Berkeley! To promote the freedom for family to have bonding activities, this part is a budget for each family (group) to go to events (e.g. bowling, karaoke)	Family Budget	150/group * 10 groups/sem * 2 sem/year	\$3,000

Electronic Workshop	<p><b>Equipment Purchase:</b> Every physics major thinks twice before taking 111A. An immense amount of material is pushed into a single semester, which stresses both student and the instructors out. Most of the material is very important for experimentalists in terms of data collection and noise reduction, compounding student stress. One direct way in which SPS seeks to improve this circumstance is through equipment and circuit awareness. From student feedback, we know that many students' frustration with 111A stems from a lack of training on these topics. During Fall 2021, we will plan the workshops with enthusiastic SPS members; in the spring, we will deliver the workshops toward the physics community. The money would be primarily spent on purchasing electronic compartments.</p>	Budget	20 person * 25/person	\$500
Field Trips	<p><b>Transportation &amp; Ticket Reimbursements:</b> To give undergraduates more chances to explore in the physics community, we would love to organize field trips to places such as Lick Observatory, Lawrence National Lab, Exploratorium, conferences, etc. Such events would greatly inspire students and motivate them to dive deep in the realm of physics. We plan to host these events twice every semester to avoid collision with exams.</p>	Budget	\$30/person * 15 people/event * 2 times/sem * 2 sem	\$1800
Video Camera Equipment	<p><b>Equipment Purchase:</b> In 2020-2021 academic year, SPS leveraged virtual platforms to make countless connections with student groups in other departments or universities. Several academic competitions and social gatherings resulted from these efforts. For example, we've invited students from UCSB to one of our Faculty-Student Lunches with Professor Hitoshi Murayama, and in turn attended a similar event they hosted with Professor Barry Barish. We also hosted the 2021 SPS Zone 18 meeting for all West Coast and Hawaiian SPS chapters, which included academic talks, skill-developing workshops, and student-initiated poster sessions. There are now several collaborations, such as Chilloquiums, inter-UC Physics Hackathon, and American Physicists' Tournament, which we seek to continue organizing</p>	Budget	\$100 DC outlet charger + ~\$50 tri-pod + ~\$50 microphone	\$200

	and expanding. With the transition back to an in-person semester, we wish to supplement our current camera with a tripod, DC outlet charger, and microphone to be able to live-stream and connect with other universities across the globe.			
Departmental Welcome Kit	<b>Material Expense:</b> For many incoming students (first years and transfers), their first three weeks of physics classes cement their impression of the physics department, either carrying them into the major or turning them away from physics. To provide support in this key time, show that the department is a community, and increase awareness of resources (academic and emotional), SPS would like to put together a Welcome Kit, containing a booklet with information on advising, administrative/departmental resources, the PA Scholars program, clubs, and upcoming events; some SPS swag (e.g. stickers); and candy!	Budget	250 bags * \$18/(50 bags) + \$250 booklets * 1.32/booklet + \$80 (candy)	\$500
Industry Alumni Speaker Series	<b>Travel Expense:</b> So far, most of the speaker series on campus have professors or graduate students as speakers, giving students the mindset that physics majors might only thrive in academia. SPS strongly feels that Berkeley physics students will benefit from exploring the opportunities of industry and learning about common, alternative paths to physics academia. We wish to invite more alumni from industry to give talks on their paths, work, and choices. With the alumni speaker series, there will be a higher representation from industry physicists and a clearer path for students who wish to dive into industry after getting a bachelor's degree.	Budget	[\$800 roundtrip flight (assuming within US) + \$200 hotel room for one night] [\$100 travel + lodging maybe (discount maybe) =] \$400 travel+lodging + \$100 honorarium + \$100 meals/incidentals ~\$600/person * (4 times/year, or roughly once every other month) = \$2400 ~ \$2500	\$2500

Officer Retreat	<p><b>Retreat expense:</b> Not all SPS officers spend the same amount of time/care in their position, simply due to the differing nature of each role, as well as their other commitments within the community and department. Therefore, providing stipends based on expected/total hours invested, while being fair, would be unequal. The members of the undergraduate physics student body at Berkeley who come forward to be SPS officers choose to spend their time in SPS because they find the community and work meaningful. We fear that adding a financial aspect would erode this sense of purpose and community. But we would deeply appreciate the opportunity to reward our officers for all of their hard work in a communal manner. To this end, funds for a retreat would encourage community-building between the ever-growing group of SPS officers and perpetuate positivity into the events SPS organizes/holds. In previous years, SPS has attempted to host an officer retreat but has failed due to a lack of funding and the unwillingness to gather these funds from our hard-working officers. Particularly as the size of the SPS officer bard expands, such events for social bonding are becoming more important. This is a tangible way to improve the core of the community which SPS nurtures.</p>	budget	18members*\$20/meal*1meals ~ \$360 food + \$60/car*4cars ~ \$600	\$600
<b>Total</b>				<b>\$12,000</b>

*The above initiatives are meaningful, financially-feasible initiatives for the Society of Physics Students at Berkeley to pursue and align with the ideals of the Berkeley Discover program.*

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