**Intern Project Submission Template**

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| **Project Title:** | Lunar Meteoroid Ejecta Study |
| **Session:**  *Check all that apply.* | Fall 2022  Spring 2023  Summer 2023 |
| **Number of Interns:** | 1 |
| **Primary Mentor:** | Anthony DeStefano |
| **Alternate Mentor:** |  |
| **Project Approver:** |  |
| **Funding POC:** | TBD |
| **Funding Status** | Choose an item. |
| **Intern Location:** | MSFC |
| **Building/Room:** | 4600/5xxx |
| **Mission Directorate:**  *Please select the mission directorate and/or project directly benefiting from the tasks involved in this internship.* | Aeronautics Research Mission Directorate  Center Operations Directorate  Human Exploration and Operations Missions Directorate  Science Mission Directorate  Space Technology Mission Directorate |
| **Work Environment:**  *Check all that apply.* | Field Work  Office Setting  Laboratory  Observatory |

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| **Project Description**  *Describe what an intern would be doing on this project.* | The main goal of this project will be to use the Lunar Meteoroid Ejecta Engineering Model (LMEEM) to study how the meteoroid ejecta environment changes on the lunar surface for a given lander or habitat and for different landing locations. Meteoroid ejecta is created when a meteor hits the Moon at hypervelocity speeds. The excavated material from the crater is ejected, typically at much slower speeds than the primary meteor, and is called the meteoroid ejecta. |
| **Computer/Software Skills**  *List the computer skills needed of this project (languages, hardware, software, etc.)* | Familiarity with Python and Object-Oriented C++ in addition to MS products (PowerPoint, Excel, Word, etc.) |
| **Scientific and Technical Skills**  *Scientific and Technical skills include any knowledge or capabilities to perform specialized tasks.* |  |
| **Other Skills**  *List any other skills needed. This includes soft skills (ability to listen, leadership, teamwork, etc.)* |  |
| **Academic Level:**  *Check all that apply.* | High School  College Freshman  College Sophomore  College Junior  College Senior  Master’s  Doctorate  Educator |
| **Major:**  *Choose all majors you will consider for this project.* | Architecture  Biological Science  Business  Communication  Computer and Information Sciences  Education  Engineering - Aerospace / Aeronautical and Astronautical Engineering  Engineering - Biomedical/Medical Engineering  Engineering - Chemical  Engineering - Civil  Engineering - Computer  Engineering - Electrical / Electronics / Communications Engineering  Engineering - Environmental/Environmental Health Engineering  Engineering - General  Engineering - Materials Science  Engineering - Mechanical  Engineering - Mechatronics / Robotics / Automation Engineering  Engineering - Nuclear  Engineering - Physics  Engineering - Systems  Engineering Technology  English  Environmental Design  Health Science  History  Human Resources  Legal - Law  Liberal Arts and Sciences / General Studies and Humanities  Mathematics  Natural Resources Conservation and Research  Physical Science - Astronomy and Astrophysics  Protective Services  Psychology  Science Technology  Social Science |

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| **Additional Information:**  *Please include any additional information to be shared with the internship program coordinators.* | Full-time |