EAPS STRATEGIC PLAN 2022-2027

The Department of Earth, Atmospheric, and Planetary Sciences (EAPS) combines four of Purdue's most interdisciplinary programs: Geology & Geophysics, Environmental Sciences, Atmospheric Sciences, and Planetary Sciences. EAPS conducts world-class research in the Earth and Planetary sciences, educates undergraduate and graduate students, and provides our college, university, state and country with the information necessary to understand the world and universe around us. Our research is globally recognized, our students are highly valued by graduate schools, employers, and our alumni continue to make significant contributions in academia, industry, and federal and state government.

VISION

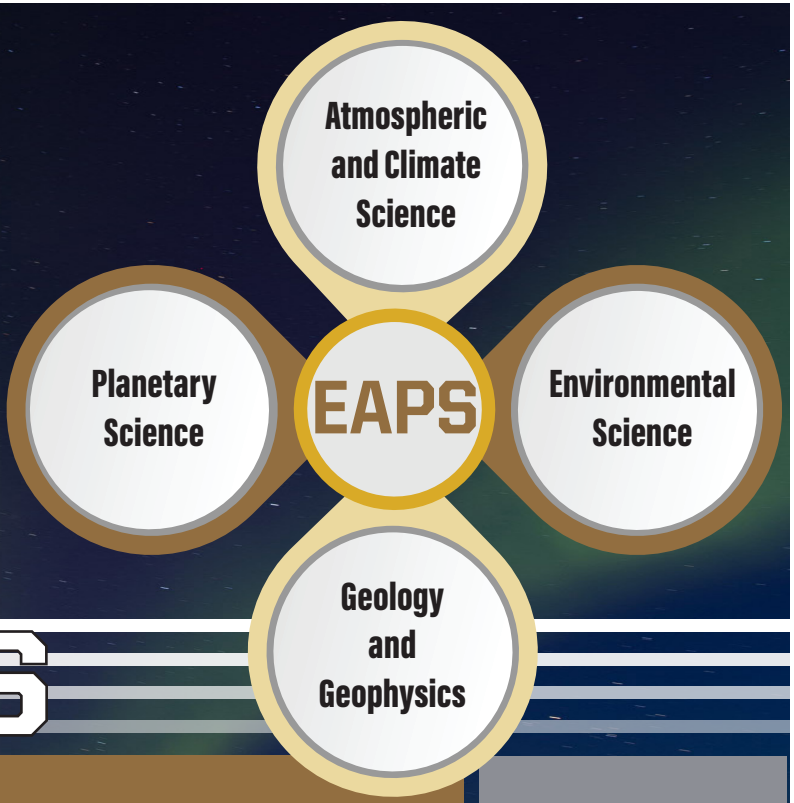
Provide world-class Earth science discovery, teaching, and service to our broader community.

MISSION

Foster a diverse, inclusive, and globally aware community of faculty, staff and students dedicated to advancing discovery, learning, and engagement in the earth, atmospheric, and planetary sciences.

GUIDING VALUES

- Scientific Objectivity
- Integrity
- Creativity
- Foster Diversity, Equity, and Inclusivity
- Service



GOALS

DIVERSITY AND INCLUSION

Commitments

- Strive for a faculty and student body that is representative of the community that Purdue serves as a land-grant institution.
- Create an inclusive department culture that is supportive of new and current members and their diverse identities.
- Improve transparency and accountability and to tracking progress towards our long-term goals.

SCIENCE

From the Bottom Up: Interconnections between earth's interior and surface

Expertise: A unique set of laboratories focused on the geochemical and geophysical properties of earth materials, numerical and analogue modeling,, and robust field programs in geology, hydrology, and seismology.

Initiative: Increase our international reputation by leading studies in the evolution of lithospheric systems, emphasizing interconnections and cycles among processes from the mantle through to the surface.

Initiative: Enhance interdisciplinary collaboration through study of the interplay between the evolution of tectonics, surface environments, climate, and life on Earth.

Integrating Atmospheric, Climate, and Environmental Sciences for a Sustainable Future

Expertise: Research in EAPS assess risks to fundamental societal needs associated with weather, shifting climate, environmental degradation, and depletion of soil and water resources.

Initiative: Develop integrated transdisciplinary programs across the broad time and spatial scales of the Earth System in order to better assess current and future risks to food, energy and water.

Initiative: Expand our research capabilities in climate and climate change science, weather, natural hazards and risk prediction, air, water, and soil chemistry, and vegetation interactions.

Leading Planetary Exploration and Spacecraft Missions

Expertise: Extensive experience studying the evolution of planetary and satellite systems, atmospheres, surfaces, and habitability through laboratory, field, remote sensing, modelling, and spacecraft missions.

Initiative: Increase the international reputation of EAPS by leading exploration of our solar system and beyond with new missions, observations, and samples.

Initiative: Lead a cross-campus consortium on space exploration to connect and expand space exploration research efforts across Purdue.

Agile Science Incubator

EAPS is committed to developing opportunities for research and growth in emerging fields that crosscut existing department areas of expertise. The following areas have been identified as holding promise to becoming central areas of research within the department:

- **Astrobiology**
- **Paleoclimate**
- **Data Science**

EDUCATION

Commitments

- Increase the diversity of graduate students and undergraduate majors and promote an equitable and inclusive environment. educational
- Producing undergraduate students who are well-trained in theory and practice within their chosen field and competitive for employment or graduate school
- Producing graduate students who can do independent, interdisciplinary world-class research, become leaders in the field, and address societal grand challenges.