Open Science and Data Management:

Introducing Graduate Students to Research Workflows in a Local Context

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RESEARCH WORKFLOW SUPPORT

The Engineering & Physical Sciences Division of the **UC Berkeley Library** partners with researchers to support the entire research lifecycle.

Over the last five years, librarians have shifted their focus from traditional research help to support for open research workflows (Figure 1). This shift is seen in changes to three librarians' job duties:

- Science Data Librarian:
 offers Research Data
 Management training and
 guidance
- GIS and Map Librarian: supports spatial data accessibility and open source GIS
- Open Science Librarian:
 promotes and educates
 researchers on open science
 practices and tools

In 2019, the Open Science Librarian spearheaded an **Open Science Research Workflows Program** for new graduate students in the Earth & Planetary Sciences (EPS) Department.



Figure 1: Library workshops align with research workflows

6 SESSIONS | MULTIPLE INSTRUCTORS

The sessions focus on trending methods and workflow tools relevant to Earth Sciences students as they launch their research.

DISCOVERY

 Research Workflows and Literature Searching



WRITING







ANALYSIS

Jupyter Notebooks best practices



ANALYSIS/DATA

Approaches to reproducible code



DATA

 Dynamic data management, publishing and citation



NEXT STEPS

DISCOVERY

 Jupyter Notebook open search "biblio" module via CrossRef API

PUBLICATION

 Publishing and authorship trends in Earth Sciences



