



Environmental Analysis Program

Pomona College
Biogeochemistry Laboratory

SOP-XXX

New to the Lab? Start Here

Standard Operating Procedure

SOP Number	SOP-XXX
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Table of contents

1 Welcome	1
2 Step 1: Required Safety Training	1
3 Step 2: Lab Equipment Basics	2
4 Step 3: Software and Data Management	2
5 Step 4: Project-Specific Training	2
6 Step 5: Get Signed Off	3
7 Questions?	3

1. Welcome

Welcome to the EA Program lab and field research team at Pomona College. Before you begin any lab or field work, you need to complete the training steps below. This page walks you through everything in order.

2. Step 1: Required Safety Training

Complete these SOPs first. You will not be cleared for independent work until you have read and been signed off on each one.

Order	SOP	What You'll Learn
1	L002: General Laboratory Safety	Lab rules, PPE, emergency procedures, training sign-off form
2	L003: Hazardous Materials Handling	Chemical safety, spill response, waste disposal, storage
3	F001: Field Safety	Transportation, weather hazards, biotic hazards, emergency response

! Before You Touch Anything

You must complete both safety SOPs and be signed off by the PI or Chemical Safety Officer before working independently in the lab or field.

3. Step 2: Lab Equipment Basics

Once safety training is complete, familiarize yourself with the equipment you will use most often.

SOP	What You'll Learn
L400: Soil Moisture	Drying oven, analytical balance, desiccator use
L102: Using Balances	Proper weighing technique
L11: Micropipettes	Accurate liquid dispensing (coming soon)
L14: Milli-Q Water System	Producing ultrapure water (coming soon)

4. Step 3: Software and Data Management

We use R, RStudio, and GitHub for data analysis and collaboration. You will need accounts and basic proficiency before starting a research project.

- **RStudio Server:** Access at your institution's RStudio Server URL (ask the PI)
- **GitHub:** Create an account at github.com and request access to the [marclos/SOPs](#) repository
- [SOP L801: RStudio Server and GitHub](#)

5. Step 4: Project-Specific Training

Depending on your research project, you will need additional SOPs. Your PI or project lead will tell you which ones apply. Common starting points:

If you're doing soil work:

- [F400: Soil Sampling and Processing](#)
- [L400: Soil Moisture](#)
- [L403: Nitrate and Ammonium \(KCl Extraction\)](#)
- [L408: Solvita CO₂ Burst](#)
- [L406: Loss on Ignition](#)
- [L407: Shimadzu TOC-L](#)

If you're doing water quality work:

- [F300: Surface Water Sampling](#)
- [F200: Eureka Manta2 Multiprobe](#)
- [LXXX: Accumet pH Meter](#) (coming soon)
- [L305: Colilert Quanti-Tray](#)

6. Step 5: Get Signed Off

After completing the required reading and supervised practice for each SOP, get your training record signed by the PI or designated trainer. Training records are maintained in the EA Program files.

7. Questions?

- **SOP questions:** [Open an issue](#) on GitHub
- **Lab access:** Contact the PI or lab manager
- **Safety concerns:** Contact the Chemical Safety Officer or Campus Safety