

Interagency Ecological Program 2023 Workshop IEP Training Course #1

Course Title:

Introduction to GIS with QGIS

Course Location:

Friday, March 29, 2023, from 9:00 a.m. – 12:00 p.m. 2nd floor in Room 2-309
CNRA Headquarters (715 P Street, Sacramento, CA 95814)

Registration:

Seating is limited to 25 participants. Registration is required to attend this class. Registration information can be found on the [IEP Workshop web page](#).

Instructor:

Dr. Michele Tobias, UC Davis DataLab, mmtobias@ucdavis.edu

Course Description:

This introductory-level training course will focus upon the fundamental concepts and skills needed to explore and analyze data using Geographic Information Systems (GIS) software with examples using the QGIS platform.

By the end of this workshop, you will be able to:

- Define GIS and geospatial concepts and terminology.
- Know the difference between vector and raster data types.
- Properly connect and add data to a QGIS project.
- Work with vector data attributes in QGIS.
- Perform basic selections and queries in QGIS.
- Symbolize data by attributes.
- Assemble a basic map for export.

Prerequisites:

No prior experience with QGIS or other GIS software is needed, though attendees should be comfortable learning new computer applications, working with the basics of spreadsheets, and managing and organizing files on their own computers.

What to Bring:

- A laptop computer. If your laptop battery does not last, I recommend you bring your laptop charging cord and an extension cord for plugging in for power.
- Download and install QGIS, a free and open-source program that runs on Mac, Windows, and Linux, from qgis.org
Note: It is recommended you install the software prior to the training day.
- Download the data for the class prior to the training. Go to the [UC Davis Box account Intro-To-Desktop-GIS-with-QGIS](https://ucdavis.app.box.com/s/cnlz6ejmje4qgf7z80h7ygbwydc65kkm)
URL: <https://ucdavis.app.box.com/s/cnlz6ejmje4qgf7z80h7ygbwydc65kkm>
Note: The download button in the upper right corner will download a zip file with all the necessary files.
- Print copies (optional) of the workshop course materials from the [UC Davis Datalab page for the Intro-to-Desktop-GIS-with-QGIS](https://github.com/ucdavisdatalab/Intro-to-Desktop-GIS-with-QGIS)
URL: <https://github.com/ucdavisdatalab/Intro-to-Desktop-GIS-with-QGIS>
Otherwise, you can refer to course materials during class via WiFi.
A few printed copies will also be available onsite.
- Wear comfortable clothing. No food is allowed inside the room. Water bottles are okay. A café is located on the 1st floor that sells food, snacks, and drinks. Water fountains and water bottle filling stations are located near the restrooms.

Course Schedule:

9:00 a.m. – 9:30 a.m.	Setup & Welcome
9:30 a.m. – 11:30 a.m.	Workshop Instruction
11:30 a.m. – 11:45 a.m.	Questions & Answers
11:45 a.m. – 12:00 p.m.	Wrap Up

This workshop course description was modified from:

<https://datalab.ucdavis.edu/eventscalendar/introduction-to-gis-with-qgis-maptimedavis/>

Instructor Bio:

Michele Tobias is a biogeomorphologist with a background in geospatial methods for ecology. At DataLab, she helps researchers understand and design geospatial methods and workflows, from data collection to spatial analysis to data visualization and cartography. Michele earned her PhD from UC Davis in Geography where she studied California's sandy beach ecosystem with a mix of traditional phytosociological methods and innovative remote sensing tools. She has a bachelor's degree in Geography (focused on biogeography) and German (focusing on linguistics) from UCLA and a master's degree in Ecology (resource ecology & management) from University of Michigan. She worked at the UC Davis Information Center for the Environment as a postdoctoral scholar. Michele's research interests include applying spatial analysis methods to new avenues of research.