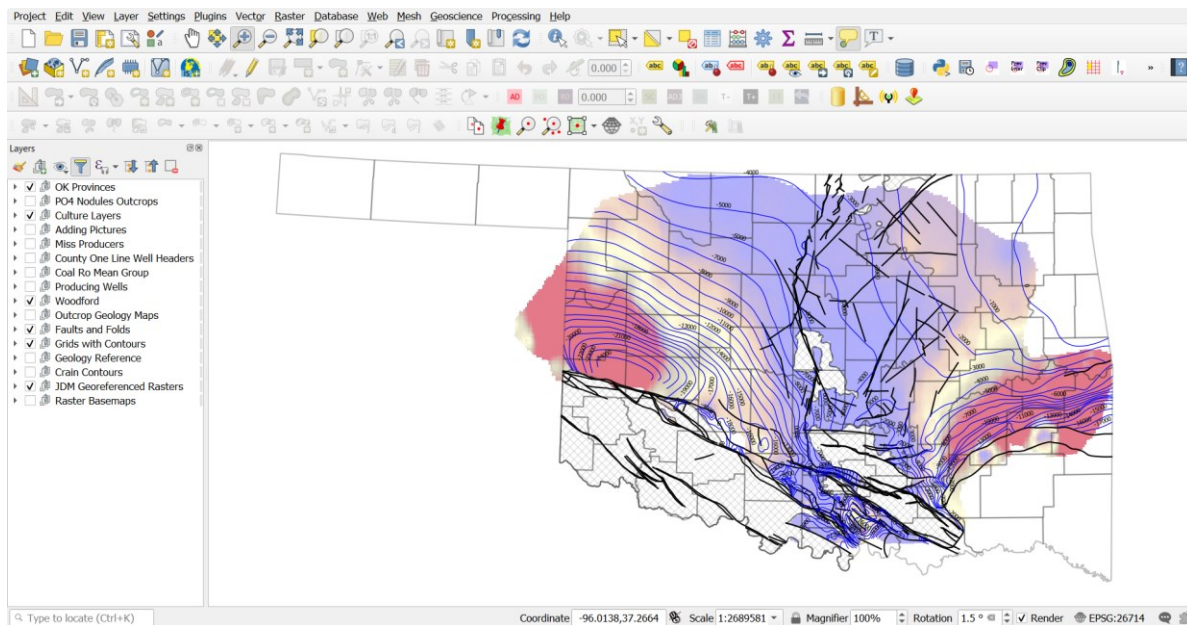


# QGIS® for Geoscience Professionals

Online workshop, four weeks, two hours/week

Wednesday 8-10 AM Central Time: January 19-February 9

[Convert event time to your local time](#)



If you have used ESRI or other Geographic Information System (GIS) programs, you are already familiar with the utility and capabilities of relational database mapping and analysis. If you have used Petrel, Geographix, Kingdom, Petra, or other commercial petroleum geoscience programs you appreciate how mapping software can be tailored to the demands of a specific industry (oil and gas).

Did you know that open-source (free) mapping software can be adapted to many of the specialized geoscience mapping functions you may have done in commercial software?

QGIS can be challenging to learn but is worth the effort.

In this four-week introductory online workshop, we will explore some of the most common geoscience uses of Quantum Geographic Information Systems (QGIS) – globally the most popular and advanced open-source GIS program available.

The online workshop will be conducted in the form of lecture, demonstration, class exercises and interaction on your computer.

Each weekly session will be 2 hours in length and will include homework assignments for practice and exploration to reinforce learning

**Cost:**

**\$200 Tulsa Geological Society Members**

**\$250 Non-TGS Members**

## **Outline and Schedule**

**Week 1 – Wednesday January 19<sup>th</sup> 8:00-10:00 AM CT**

- **Understanding QGIS components and functions**
- **Understanding and setting coordinate reference systems**
- **Setting defaults, autosave and saving**
- **Understanding data types and layers**
- **Understanding web connectivity and data sources**
- **Creating projects and loading data**
- **Styling geoscience data**
- **Exporting data**

**Week 2 – Wednesday January 26<sup>th</sup> 8:00-10:00 AM CT**

- **Working with geoscience data – tables, Raster and Vector**
- **Querying, filtering and calculating**
- **Creating and modifying grids**
- **Creating and modifying contours**
- **Calculating thickness and volumes**
- **Refining maps (smoothing, clipping, pre-press)**

**Week 3 – Wednesday February 2<sup>nd</sup> 8:00-10:00 AM CT**

- **Using other gridding algorithms**
- **Gridding from contours – TIN**
- **Using oil and gas well data**
- **Linking raster logs to wells and making a cross section**
- **Using elevation data and making 3D models**

**Week 4 – Wednesday February 9<sup>th</sup> 8:00-10:00 AM CT**

- **Georeferencing rasters**
- **Using other plugins**
- **Analyzing faults and fractures with Rose diagrams**
- **Loading SGY files and linking to a seismic viewer**
- **Using QGIS Resources**