



The **West Valley Amateur Radio Club** is partnering with the **West Valley Ham Shack** to host some great learning opportunities. **Class size is limited so don't wait!** We will schedule additional sessions if needed. See page 2 for **September** classes.

To register for these classes send an email to: WestValleyHamShack@gmail.com and specify which class(s) you would like to attend, or visit the **Shack website**: <https://www.westvalleyhamshack.com/>.
Classes will be held at the Shack: 11115 W. Nevada Avenue
Youngtown, AZ. 85363

We are especially excited about the Oct 7th class below (to prepare for Field Day).

Oct 7th: Band Pass Filter Build (Open to WVARC members only)-- A band pass filter(BPF) is a device that passes frequencies within a certain range and rejects (attenuates) frequencies outside that range. These filters have the benefit of lowering the noise floor; improving single-band weak signal reception and out-of-band suppression to reduce harmonics on adjacent bands. They are a necessity for **Contest** and **Field Day Operations** where operators are frequently in close proximity to one another.

The kits include all parts to construct a working filter for the HF band that you select. The kits are just over **\$50.00**. Specifications are: Insertion: Typical, 0.5-.7db, Rejection: Typical, >30db band-to-band, Power Handling: 100W pep Impedance (ohms): 50.

In addition to a short demo lecture, the student will drill, install PL-259 connectors, wind toroids and solder components to the printed circuit board. An LCR meter will be used to accurately set the inductance of the wound toroid, a NanoVNA will then be used to sweep the filter and set the pass frequency, and finally, an SWR meter will be used to set the SWR of the filter. In addition to taking a working band pass filter home, the build is educational and teaches the basics of capacitance, inductance and resonance and allows the participant to align their just-built filter.

Recommended prerequisites for this class are soldering and NanoVNA 101.
(Limit 6 students per class).

Method: Lecture/Lab

Note: After you register for class, Rusty KJ6AMR will contact you for purchase of your kit. He will arrange a bulk purchase so that we receive the best discount.



WVHS Sept 2024 Classes

The West Valley Electronics Club (aka West Valley Ham Shack) added classes to the calendar! Our classes are typically limited to 10 students, are free, and open to the public (you do not need to be a member). Lab-based classes have a lower participant limit and may have a material fee.

Visit the calendar of events on our website: <https://www.westvalleyhamshack.com/calendar-of-events> for the latest schedule. Email westvalleyhamshack@gmail.com to register for a class

Upcoming classes are listed below. Classes are at **9am on Mondays** and are ~2hrs in length unless otherwise specified:

Sep 2nd: Discovering your Technician Privileges – Now that you have your Technician license do you know what you can do with it? You can still talk all over the country, or even all over the world with the right gear and tools. In this class, we will help you get the most out of your technician license. This class is perfect for new Hams or even hams who have had their technician license for years but haven't ventured out beyond the local repeater.

Sep 9th: General Class Electrical Principles (G5) – Advance toward your General class license with this new proposed Electrical Principles class just for Technicians. Material to be covered includes the Sub-Element G5 questions on the FCC test. One question from each of the following areas will appear on the test:

- Resistors, capacitors, and inductors in series and parallel; and transformer basics.
- The decibel; current and voltage dividers; electrical power calculations; sine wave root-mean-square (RMS) values; PEP calculations.
- Reactance, inductance, capacitance, impedance, impedance transformation, resonance.

Some math is involved, but it is straight forward. A calculator would be helpful.

Sep 16th: Parks on the Air (POTA) -- Learn about the new craze in portable amateur radio operations that promotes emergency awareness and communications from national and state parks. This course teaches you how to hunt parks from the comfort of your shack, and how to activate a park and rack up many contacts from experienced activator, Frank K7SD. You'll also learn the basics of building a "go-box" for portable operations.

NEW!! Sep 23rd: NanoVNA 101 -- The objective of this class is to familiarize the participant with the basic functions of the Nano Vector Network Analyzer (NanoVNA). Some of the topics include navigating the VNA menu, calibration, setting the measurement range and setting up sweeps to perform reflective (S11) and thru S21 Tests. Knowledge of these VNA functions will allow the user to make basic measurements such as Standing Wave Ratio (SWR), Return Loss in dB's, Line Loss in Coax, Length of Coax, Frequency Range of an Antenna and Resonate Frequency. If you have a NanoVNA, please bring it!

Sep 30th: Introduction to DMR -- Do you have a new DMR radio, and you want to take advantage of all that extra capability? This class will help you get started on DMR Brandmeister. Although we will not cover specific radios, we can help you make sense of the radio you have. Or maybe you just want to see what DMR is all about and you haven't purchased a DMR radio yet!