HF SEMINARS

I. HF Basics and the Radio (2 hours)

1. Why HF? What are your expectations and objectives for HF?
   [collect responses]

2. Then, you want , whether QRP or 100 W., to get your RF from A to B as efficiently and cleanly as you can. And, you want to hear and understand the signals from B to you at A.
   [we've just outlined the specs for rig and antenna]

3. Review the radio spectrum, putting ham bands in perspective. Brief introduction to the basics of propagation and the ionosphere - when bands are good. Overview of most used HF modes: CW, SSB, PSK, RTTY, mention PACTOR and Bob's seminar. Time domain and frequency domain views. Listen to each mode on the radio. Bandwidth requirements. Pluses and minuses of each mode.
   [What modes are the class interested in?]

4. The Radio:
   a) The Receiver: basic characteristics and features: freq. range, modes, sensitivity - min. det. sig., selectivity - rejection of strong nearby signals, filters - LC, crystal, DSP, the SDR approach: Rob's seminar, pre-amp, atten., RIT, noise blanker. Listen to real signals, compare crystal/DSP filters.

   b) The Transmitter: power, freq. range, modes, spurious signal suppression incl. harmonics, carrier, sideband, and IMD; CW keying/keyer, T-R, XIT, SPLIT, LSB, USB, mike gain and compression.

5. Hands-on, Q & A, Recap