Polk County Amateur Radio Association
2010 General Class Study Guide
Lessons 1 thru 4
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Week One - January 16th - Lessons 1 - 4

Lesson 1 - "Introduction to the General Class License"

- Chapter 1, pp 1-1 to 1-15
- Introductions of class members and instructor
- Review the band plan on page 1-2

Lesson 2 - "HF Procedures and Practices Overview"

- Chapter 2, pp 2-1 to 2-22
- On display: QSL Cards, HF Radio, sound card interface, digital software
- What does CQ DX mean? Page 2-2
- How to "break" into a conversation? Page 2-2
- What is the recommended signal separation by mode? Page 2-3, Table 2-1
- What is a "band plan" and "DX Window?" Page 2-0 (Considerate Op Guide)
- How do you select a frequency to call a voice/cw CQ? Page 2-3
- Why is it a good idea to maintain a "log" of your contacts? Page 2-5
- What do you do when you notice increasing interference? Page 2-6
- Identify each of the "modes" of operation, cw, digital, image, voice. Pages 2-7 thru 2-17
- Describe VOX and what 3 adjustments are made to control VOX? Page 2-11
- What does QSK mean? What mode is it used? Page 2-13
- CW operators use abbreviations, what are some of them? Page 2-13
- Where are "digital" signals found on 80, 40 and 20 meters? Page 2-14
- Describe data bits and bauds per mode. Pages 2-15 thru 2-17
- What modes use "varicode?" Page 2-16
- Review the FCC EmComm Rules. Pages 2-20 thru 2-21

Lesson 3 - "Rules and Regulations"

- Chapter 3, pp 3-1 to 3-18
- Be sure to study and memorize the band, frequency and mode chart on page 3-8 and the Summary of Amateur HF Bands, Table 3-2
- Know the maximum height of a tower you can have without FAA authorization. Page 3-2
- What is the Amateur Auxiliary? What function do they serve? Page 3-2
- How can "fox hunting" assist the Amateur Auxiliary? Page 3-2
- Know how the volunteer licensing program works. Pages 3-3 thru 3-5
- What is a "beacon" station? Why are they useful? How much power can a beacon station use? Page 3-10
- Know the difference between "primary" and "secondary" status. Pages 3-12 thru 3-13
- Seldom used, the FCC can impose "quiet hours." What are they? Page 3-12
- What are the three types of interference? Pages 3-11 thru 3-12

- Why is repeater coordination important? Page 3-12
- Know the third-party traffic definitions and rules. Page 3-13
- Can music be transmitted over ham radio? Page 3-15
- Are encryption of “secret codes” every allowed? Page 3-15
- Why are “swap nets” allowed on the amateur bands? Page 3-15
- If you use a gain antenna on 60 meters, you must record its gain in your log. Page 3-16
- Be sure you know what is meant by “good amateur practices.” Page 3-16
- How much power are you permitted to use on the ham bands? Page 3-17
- What is the difference between PEP and ERP? Page 3-17
- What is meant by QRO? QRP? Page 3-17 sidebar
- Know the maximum “symbol rates” and bandwidth for digital transmission per band. Page 3-18 Table 3-4

Lesson 4 - "Math Review"

- Chapter 4, pp 4-1 to 4-7
- Please review the power formula. Page 4-1
- Refresh your understanding of Ohm’s Law. Page 4-2
- Review the power measurements formula (decibels). Page 4-3 to 4-4
- Know what RMS means and how to calculate an RMS voltage. Page 4-5
- Review the formulas for a PEP and PEV. Pages 4-6 thru 4-7