

# **TWO-DAY TECHNICIAN LEVEL AMATEUR RADIO COURSE - - June 23 & 24, 2018**

INCLUDES PARTICIPATION WITH ALCONA ARRL FIELD DAY (FD) WEEKEND EVENT

Sponsored by: Alcona County Amateur Radio Group

Location: Alcona Recreation Area (Fair Grounds), 854 N. Barlow Road, Lincoln; across from Kris Mart

Registration: contact Instructor

Course Cost: No cost for course; \$15 Standard FCC exam fee for All Non-Alcona School 4-H attendees applies

Instructor: Stan Darmofal, W8SZ; e-mail: [w8sz@arrl.net](mailto:w8sz@arrl.net); Phone: 989-724-5550

Alcona County Emergency Coordinator and Radio Officer;

ARRL (American Radio Relay League) Instructor and Certified FCC ARRL-VEC Examiner

4-H Program Manager: Les Thomas; e-mail: [thoma322@msu.edu](mailto:thoma322@msu.edu); Phone: 724-6478

Amateur Radio Support: Members of the Alcona County Amateur Radio Group & VE Team

Textbook: *Ham Radio License Manual*, 3<sup>rd</sup> Edition **ONLY** by the ARRL; Available from the instructor at the discounted rate of \$22.50

Refreshments: Plenty of FREE refreshments provided for Class and FD participants

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## **Some Helpful Hints:**

- Read the material **in the order** as shown in the **Syllabus** below. Be certain to go to the referenced test questions in the chapter you are reading when you see: "Before you go on, study test questions...."
- If you have any problem understanding a question, review the specific material referenced below the question's answer
- If you don't understand the information after the review, make a note of your question(s) and have the instructor clarify the information for you in class - - don't spend a lot of time re-reading - - chances are others have the same question and the instructor can get to the appropriate information quickly!
- Don't become discouraged if you don't understand the technical and mathematical material immediately - - the in-class videos, hands-on demonstrations and fun projects will go a long way to help you learn!
- Don't buy any equipment until you have a chance to see the various Ham gear in action in the class

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Here are a few sites that will provide you information on Amateur Radio. The ARRL site is by far the best with many links to other sites:

<http://www.arrl.org/> - - The American Radio Relay League; FOR ARRL FD SEE: [www.arrl.org/field-day](http://www.arrl.org/field-day)

<http://www.alconaradio.org/> - - The Alcona County Amateur Radio Group Site (See "Links" Page)

<http://www.heavens-above.com/> - - Amateur Radio Satellites, ISS, Astronomy and more!

<http://www.findu.com/> - - primarily an Amateur Radio database archiving weather, position, telemetry, and message data using the Automatic Position Reporting System (APRS)

<http://www.qrz.com/> - - A Ham Radio "Super Site"

<http://www.echolink.org/> - - EchoLink allows licensed amateurs to communicate over the Internet

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Here is an Internet site for the On-line FCC Amateur Radio Practice Tests (It randomly creates tests just like the exam you will take) - - be certain to read the "Help Page" information link in the first paragraph:

<http://www.aa9pw.com/radio/index.shtml>

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**SEE PAGE 2 for SYLLABUS**

**Date & Time:**

**PRIOR to Jun 23<sup>rd</sup>:** *Read:* Chapters 1 through 5 (**MUST READ AND REVIEW PRIOR TO CLASS**)

*Review:* All Chapter 11 questions referenced in the reading material above

**Saturday, Jun 23<sup>rd</sup>:**

Noon – 12:30 pm

***Class Overview INCLUDING DISCUSSION OF FIELD DAY EVENT***

***Hands-On Demo:*** 2 Meter Repeater; Repeater Phone Patch

***Video:*** “*Discovering Amateur Radio - - The Power of Amateur Radio!*”

***Review:*** Chapter 1: Welcome to Amateur Radio (Chapter 1 material is NOT on exam)

12:30 pm – 2 pm

***Review:*** Chapter 2: Radio and Signals Fundamentals

***Review:*** Chapter 3: Electricity, Components and Circuits

***Video:*** “*Basic Electronics & Amateur Radio*”

***Hands-On Demo:*** Using Electronic Components & Measuring Devices

***Test:*** Chapters 2 & 3; Sample of FCC Questions; ***Review*** answers

2 pm – 2:10 pm

***Break***

2:10 pm – 4 pm

***Review:*** Chapter 4: Propagation, Antennas and Feed Lines

***Hands-On Demo:*** Building & Testing Antennas

***Hands-On Demo:*** Using a SWR Meter, Antenna Analyzer

4 pm – 5 pm

***Review:*** Chapter 5: Amateur Radio Equipment

***Video:*** “*International Space Station Contact*”

***Test:*** Chapters 4 & 5; Sample of FCC Questions; ***Review*** answers

**PRIOR to Jun 24<sup>th</sup>:**

*Read:* Chapters 6 through 9 (**MUST READ AND REVIEW PRIOR TO CLASS**)

*Review:* All Chapter 11 questions referenced in the reading material above

**Sunday, Jun 24<sup>th</sup>:**

Noon – 3 pm

***Video:*** “*Match-Up: Texting vs. Morse Code*”

***Hands-On Demo:*** Operating a HF Station FROM THE FIELD DAY STATIONS

***Hands-On Demo:*** Operating VHF/UHF/Packet/Digital Modes

***Review:*** Chapter 6: Communicating with Other Hams

***Review:*** Chapter 7: Licensing Regulations

***Review:*** Chapter 8: Operating Regulations

***Test:*** Chapters 6, 7 & 8; Sample of FCC Questions; ***Review*** answers

3 pm – 3:10 pm

***Break***

3:10 pm – 4 pm

***Review:*** Chapter 9: Safety

***Hands-On Demo:*** Safety Practices, Limiting RF Exposure

***Hints:*** “*How to pass your Technician Level FCC Exam*”

***Test:*** Sample of Actual FCC Exams; ***Review*** Exam Answers

4 pm – 4:45 pm

***Review:*** All Chapters - - “*Intense Review*”

4:45 pm – 5 pm

***Break***

**Sunday, Jun 24<sup>th</sup>:**

**FCC Exams for all license levels; MUST PRE-REGISTER AT:**

**Starting at 5 pm**

<http://alconaradio.org/testreg/test.aspx>