Ham Radio Technician Class Licensing Course

Ole Virginia Hams

Amateur Radio Club

ARRL The national association for AMATEUR RADIO

"OLE VIRGINIA HAMS"
AMATEUR RADIO CLUB INC.
MANASSAS VIRGINIA
W4OVH
WORLDWIDE FRIENDSHIP THROUGH AMATEUR RADIO

Information

- Mark Braunstein, WA4KFZ
- Email: wa4kfz@cox.net
- Club information: www.w4ovh.net
- Sessions: Monday evenings 1900-2000
- Slides: PDF files via email and download

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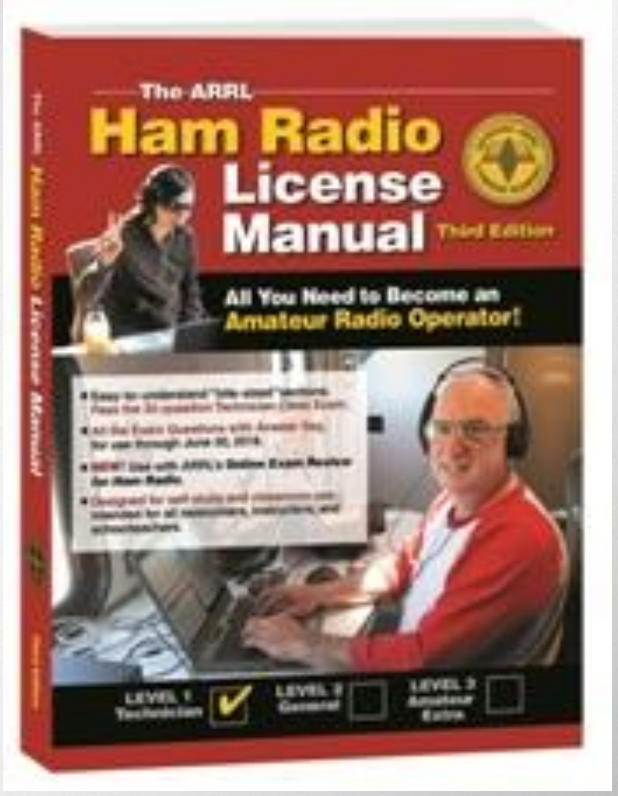
Textbook

- **ARRL Ham Radio License Manual 3rd Edition**



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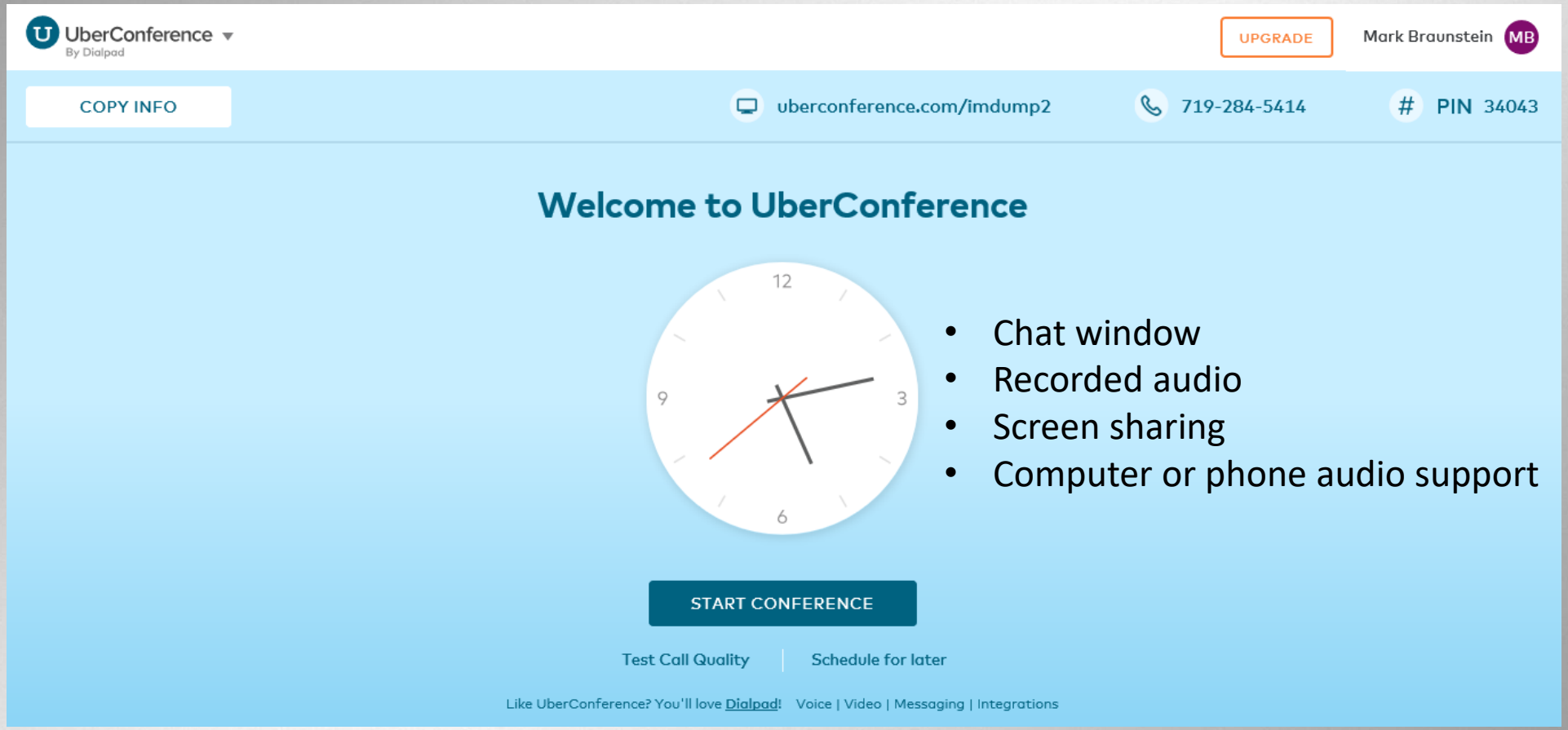
On-line Conferencing



- Chat window
- Recorded audio
- Screen sharing
- Computer or phone audio support

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Session 1

- Introduction
  - What is ham radio?
  - Equipment definitions
  - Repeaters
- Data Modes
  - Keyboard-to-keyboard
  - Packet
  - APRS
  - Winlink
  - Mesh networking

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Session 2

- Basic Electricity
- Metric Units

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Session 3

- Basic electrical properties
- Reactance, impedance and resonance

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Session 4

- Diodes and transistors
- Modulation

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Session 5

- Transmitters, receivers and transceivers
- Radio signals and waves

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Session 6

- Antennas

Session 7

- Feed line
- SWR, test equipment and antenna matching tuner

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Session 8

- Radio wave propagation
- Safety

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Exam Session

- Saturday, April 7th 2018, 0830-1200
- Buckhall VFD
- Exam fee: $15

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Repeat after me…

- If you don’t study, you will not pass!

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Let’s Get Started

- Our goal during this class is for each of you to achieve the Technician Class Amateur Radio License!
  - The license will authorize you to operate an Amateur Radio (Ham Radio) transmitter.

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Steps to Obtaining Your Ticket

- Study the material in the *Ham Radio License Manual.*
- Review the questions in the back of the book
- Take interactive practice exams.
- Pass a proctored 35-question multiple choice test.
  - Questions pulled directly from the question pool.
  - Need to answer 26 questions correctly.
- No Morse code is required.

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Exam Elements

- SUBELEMENT T1 – FCC Rules, descriptions and definitions for the amateur radio service, operator and station license responsibilities - [6 Exam Questions - 6 Groups]
- SUBELEMENT T2 - Operating Procedures - [3 Exam Questions - 3 Groups]
- SUBELEMENT T3 – Radio wave characteristics, radio and electromagnetic properties, propagation modes – [3 Exam Questions - 3 Groups]
- SUBELEMENT T4 - Amateur radio practices and station setup – [2 Exam Questions - 2 Groups]
- SUBELEMENT T5 – Electrical principles, math for electronics, electronic principles, Ohm's Law – [4 Exam Questions - 4 Groups]
- SUBELEMENT T6 – Electrical components, semiconductors, circuit diagrams, component functions – [4 Exam Groups - 4 Questions]
- SUBELEMENT T7 – Station equipment, common transmitter and receiver problems, antenna measurements and troubleshooting, basic repair and testing – [4 Exam Questions - 4 Groups]
- SUBELEMENT T8 – Modulation modes, amateur satellite operation, operating activities, non-voice communications – [4 Exam Questions - 4 Groups]
- SUBELEMENT T9 – Antennas, feedlines [2 Exam Groups - 2 Questions]
- SUBELEMENT T0 – AC power circuits, antenna installation, RF hazards – [3 Exam Questions - 3 Groups]

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