

TECHNICIAN HANDS-ON BOOTCAMP COURSE SYLLABUS

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Combines two excellent on-line resources

#	URL	Time (mins)	Comments
1	https://www.youtube.com/watch?v=fEWmiMotimY T1A Amateur Radio Service https://www.youtube.com/watch?v=jomk_c9LLa4 Start at 1:35 or so. T1C Operator Classes https://www.youtube.com/watch?v=PuW1RxspVIQ	7..4 13.5 - 1.3 = 12 12.75	Overview and explanation of the ARRL License Manual; good review of facets of ham radio.
2	https://www.youtube.com/watch?v=Z-194MMckjg 2.1 Subelement T3B Whisperer https://www.youtube.com/watch?v=RwFZ-oOXGNs	10.4 9.8	Frquency and Wavelengthc onsider having a frequency counter with an audio source also SB102 with a dial You can use the 80 meter band on CW with a technician license review kilo and mega go over wavelength chart
3	Modulation_ https://www.youtube.com/watch?v=iVh2dwsltCA 2.2 T8A: https://www.youtube.com/watch?v=kszOBGATUTo	7.4 9.2	MODULATION practice tuning in SSB show drawings of spectrum of CW, AM, FM etc possibly do spectrum displays on FLIDGI
4	https://www.youtube.com/watch?	4	RADIO EQUIPMENT BASICS

	<p>v=DVk3L764YKQ</p> <p>T4B: https://www.youtube.com/watch?v=H9R4uq5juRg</p>		<p>what drawing? need to look up drawings used on test</p>
5	<p>https://www.youtube.com/watch?v=r8w4QeaI5k8</p> <p>3.1</p> <p>T5A: https://www.youtube.com/watch?v=Qnp8cQWPyEY</p> <p>T5B: https://www.youtube.com/watch?v=3OQczM3t0nk</p> <p>t5C https://www.youtube.com/watch?v=Uy3Zdg8RQLg</p> <p>T5D Ohms Law https://www.youtube.com/watch?v=dczEuHlaA4E</p> <p>T7D Voltmeters, etc. https://www.youtube.com/watch?v=6dgZbQ6lOpo</p>	12.33	<p>$P=EI$ measuring volage from AA cell stress the meaning of resistance (sets ratio of E to I) Note batteries set E not I</p> <p>Pico = 1/1,000,000,000,000 (1 trillionth) of the standard unit (Hz, Amperes, Volts, etc.) Micro = 1/1,000,000 of the standard unit (Hz, Amperes, Volts, etc.) Milli = 1/1000 of the standard unit (Hz, Amperes, Volts, etc.) Kilo = 1000 of the standard unit (Hz, Amperes, Volts, etc.) Mega = 1,000,000 of the standard unit (Hz, Amperes, Volts, etc.)</p>
6	<p>https://www.youtube.com/watch?v=19yLsLRo0QU</p> <p>3.2</p> <p>Subelement T6A Questions: https://www.youtube.com/watch?v=1g-Cxx7Ykcl</p> <p>T6B https://www.youtube.com/watch?v=-Zcor5qy24I</p>	16 8.66	<p>Components and Units discrete components and explanations</p>

7	https://www.youtube.com/watch?v=9Liz_Lu9htU 3.3 T6C https://www.youtube.com/watch?v=Wssq-96cmn4 T6D https://www.youtube.com/watch?v=6pzUGS5mmmA	short	Radios & Circuits
8	https://www.youtube.com/watch?v=I8g2SDQ-ul0 4.1 Subelement T3A Whisperer: https://www.youtube.com/watch?v=T5OVC4tN-q8 T3C: https://www.youtube.com/watch?v=h4PS8B4rKFg	11.66	Propagation
9	4.2 Antenna Fundamentals https://www.youtube.com/watch?v=naJtkb7rGbI T9A: Antenna https://www.youtube.com/watch?v=iu14meONMiE	4 14.5	
10	4.3 Feedlines & SWR https://www.youtube.com/watch?v=SxNBIPKHFvQ T7C https://www.youtube.com/watch?v=zFP3DfBPATM	6.75 10.25	

	T9B Feedlines https://www.youtube.com/watch?v=JIT8QucVHfk		
11	4.4 Practical antennas https://www.youtube.com/watch?v=-SG5qWQDMUA	2.8	
12	5.1. Transmitters & Receivers https://www.youtube.com/watch?v=VUGrMvfkHXc T7A: Station Radios https://www.youtube.com/watch?v=LY4b0cdv-zc	11 11	
13	Digital Communications https://www.youtube.com/watch?time_continue=2&v=xMk_g0Z4QGQ T8D https://www.youtube.com/watch?time_continue=4&v=UWrwoh5NeSs	15 11	
14	Power Supplies and Batteries https://www.youtube.com/watch?v=n2nv3UFjJZY T0A AC Power safety https://www.youtube.com/watch?v=r0OGCh01J9g	6.6 11	
15	5.4 RF Interference https://www.youtube.com/watch?time_continue=4&v=5u3ngc_8R0w T7B Common Tx Rx Problems https://www.youtube.com/watch?v=pc4A4kl-JQs	5.75 11	

16	<p>5.5 RF Grounding https://www.youtube.com/watch?time_continue=11&v=eHf6v-W_X7A</p> <p>T4A (not a great match) http://www.hamwhisperer.com/2010/06/lesson-13-technician-class-exam-prep.html</p>	4 13	
17	<p>6.1 Contact Basics https://www.youtube.com/watch?v=vA6PSf9zEqI</p> <p>T8C Operating https://www.youtube.com/watch?v=OS9D5Nm6sY8</p>	14 13	
18	<p>6.2 Band Plans https://www.youtube.com/watch?v=-7wyWr1mH6g</p> <p>T1B Frequency Assignments https://www.youtube.com/watch?v=x20K8asxfKI</p>	4.75 11	
19	<p>6.3 Making Contacts https://www.youtube.com/watch?v=UcASsRVF8ow</p> <p>T1F Station identification https://www.youtube.com/watch?v=gJjeIQXO0P4</p>	6.8 14	
20	<p>6.4 Using Repeaters https://www.youtube.com/watch?v=4opPihImOY'</p>		

	<p>T2A: https://www.youtube.com/watch?v=3EfEIEfaVkk</p> <p>T2B: https://www.youtube.com/watch?v=yB-xVdpcDOI</p>		
21	<p>6.5 Nets https://www.youtube.com/watch?v=1HX1py03-SI</p>	8.1	
22	<p>6.6 Emergency Communications https://www.youtube.com/watch?v=wUCfutRudaY</p>	17.5	<p>FEMA Online Training (FYI....these are long) and NOT REQUIRED for this license -- here just in case you get interested in EmComm</p> <p>IS-100.b – Introduction to Incident Command System, ICS-100</p> <ul style="list-style-type: none"> •IS-200.b – ICS for Single Resources and Initial Action Incidents •IS-700.a NIMS An Introduction •IS-800.B National Response Framework, An Introduction
23	<p>6.7 Special Activities https://www.youtube.com/watch?v=d6QKatAiw4A</p>	10.75	
24	<p>7.1 Licensing Terms https://www.youtube.com/watch?v=1QXEjBzGbM4</p>	7.5	
25	<p>7.2 Working with the FCC https://www.youtube.com/watch?v=26zHs7pf5pU</p>	3.25	
26	<p>7.3 Bands and Privileges</p>	8.3	

	https://www.youtube.com/watch?v=gsnskRGZne0		
27	7.4 International rules https://www.youtube.com/watch?v=jw6ZfLhGYjo	5.25	
28	7.5 Callsigns https://www.youtube.com/watch?v=fozabUzAnR8	8.5	
29	8.1 Control Operators https://www.youtube.com/watch?v=3m5kj-jhiQM	4.3	
30	8.2 Identification https://www.youtube.com/watch?v=TFXoB-Db7XQ T1F https://www.youtube.com/watch?v=gJjeIQXO0P4	8 13	
31	8.3 Interference https://www.youtube.com/watch?v=Fb0vVd4HwAQ	7.25	
32	8.4 3 rd Party Comms https://www.youtube.com/watch?v=g0bX0oMa1Ro	4	
33	8.5 Remote and automatic operation https://www.youtube.com/watch?v=11OOuFHxVu4 T1E: Control Operators https://www.youtube.com/watch?	4.5 13	

	v=HuGGGFYOfhQ		
34	8.6 Prohibited transmissions https://www.youtube.com/watch?v=nckpNabVkW0 T1D Prohibited https://www.youtube.com/watch?v=rPePFNV4Rro	6.3	
35	9.1 Electrical Safety https://www.youtube.com/watch?v=lwkVHKkFHGg https://www.youtube.com/watch?v=r0OGCh01J9g	9	
36	9.2 RF Exposure https://www.youtube.com/watch?v=4nTOfWNWvK0 T0C RF Exposure https://www.youtube.com/watch?v=BjfXr7IVVIQ	3.75 13	
37	9.3 Mechanical Safety https://www.youtube.com/watch?v=PH6bIOV88Jo T0B Antenna Installation hazards https://www.youtube.com/watch?v=wKK2mtdaYRY	3.25 10.55	
38	Prepping for the Exam		
39			
40			

<http://dcasler.com/ham-radio/training/> includes links to all the videos

1. Chapter 1, Welcome to Amateur Radio. See video above.

2. Section 2.1, Radio Signals and Waves, [for video click here](#). (Okay for use with 3rd edition)
3. Section 2.2, Modulation, [for video click here](#)
4. Section 2.3, Radio Equipment Basics, [for video click here](#).
5. Section 3.1, Electricity, [for video click here](#).
6. Section 3.2, Components and Units, [for video click here](#)
7. Section 3.3, Types of Radios and Radio Circuits, [for video click here](#).
8. Section 4.1, Propagation, [for video click here](#).
9. Section 4.2, Antenna Fundamentals, [for video click here](#).
10. Section 4.3, Feed Lines and SWR, [for video click here](#).
11. Section 4.4, Practical Antenna Systems, [for video click here](#). Also, see [this excellent video by K7AGE](#) that walks you through building your own inexpensive outdoor 2-meter ground plane antenna.
12. Section 5.1, Transmitters and Receivers, [for video click here](#).
13. Section 5.2, Digital Communications, [for video click here](#).
See also [this video about using packet radio bulletin boards](#).
14. Section 5.3, Power Supplies and Batteries, [for video click here](#)
15. Section 5.4, RF Interference (RFI), [for video click here](#)
16. Section 5.5, RF Grounding, [for video click here](#)
17. Section 6.1, Contact Basics, [click here for video](#).
18. Section 6.2, Band Plans, [click here for video](#).
19. Section 6.3, Making Contacts, [for video click here](#).
20. Section 6.4, Using Repeaters, [for video click here](#)
21. Section 6.5, Nets, [for video click here](#)
22. Section 6.6, Emergency Communications, [click here for video](#)
23. Section 6.7, Special Activities, Modes, and Techniques, [click here for video](#).
24. Section 7.1, Licensing Terms, [for video click here](#)
25. Section 7.2, Working with the FCC, [for video, click here](#)
26. Section 7.3, Bands and privileges, [for video, click here](#)
27. Section 7.4, International Rules, [for video click here](#).
28. Section 7.5, Call Signs, [for video click here](#).
29. Section 8.1, Control Operators, [for video click here](#)
30. Section 8.2, Identification, [for video click here](#)
31. Section 8.3, Interference, [click here for video](#).
32. Section 8.4, Third-Party Communications, [for video click here](#).
33. Section 8.5, Remote and Automatic Operation, [click here for video](#)
34. Section 8.6, Prohibited Transmissions, [for video click here](#).
35. Section 9.1, Electrical Safety, [click here for video](#)
36. Section 9.2, RF Exposure, [click here for video](#).
37. Section 9.3, Mechanical Safety, [for video click here](#).
38. Preparing to take your examination, [for video click here](#).

The Questions

<http://www.arrl.org/files/file/Instructor%20resources/Technician%20Class/Technician%20rev%203-10.pdf>

The Ham Whisperer List of Question Portions:

Technician Class License Course (Valid through June 2018)

- Lesson 1: T1A Section Amateur Radio services
- Lesson 2: T1B Section Authorized frequencies
- Lesson 3: T1C Section Operator classes and station call signs
- Lesson 4: T1D Section Authorized and prohibited transmissions
- Lesson 5: T1E Section Control operator and control types
- Lesson 6: T1F Section Station identification and operation standards
- Lesson 7: T2A Section Station operation
- Lesson 8: T2B Section VHF/UHF operating practices
- Lesson 9: T2C Section Public Service
- Lesson 10: T3A Section Radio Wave Characteristics
- Lesson 11: T3B Section Radio and electromagnetic wave properties
- Lesson 12: T3C Section Propagation modes
- Lesson 13: T4A Section Station setup
- Lesson 14: T4B Section Operating controls
- Lesson 15: T5A Section Electrical principles
- Lesson 16: T5B Section Math for electronics
- Lesson 17: T5C Section Electronic principles
- Lesson 18: T5D Section Ohm's Law
- Lesson 19: T6A Section Electrical components
- Lesson 20: T6B Section Semiconductors
- Lesson 21: T6C Section Circuit diagrams
- Lesson 22: T6D Section Component functions
- Lesson 23: T7A Section Station Radios
- Lesson 24: T7B Section Common transmitter and receiver problems
- Lesson 25: T7C Section Antenna measurements and troubleshooting
- Lesson 26: T7D Section Basic repair and testing
- Lesson 27: T8A Section Modulation modes
- Lesson 28: T8B Section Amateur satellite operation
- Lesson 29: T8C Section Operating activities
- Lesson 30: T8D Section Non-voice communications
- Lesson 31: T9A Section Antennas
- Lesson 32: T9B Section Feedlines
- Lesson 33: T0A Section AC power circuits
- Lesson 34: T0B Section Antenna installation
- Lesson 35: T0C Section RF Hazards