

# MIT Radio Exam Team

## Fully-Remote Amateur Radio Exams

### **Eligibility**

If you are at least 18 years old, are not in the European Union, are not a citizen of the European Union, are not a resident of California, and have never been convicted of a felony, you're all set – skip to Page 2!

**Minors:** Various notes and restrictions apply depending on how young you are.

**Under 18:** You will need a parent or guardian present when you join us for your exam to confirm that they authorize us to administer it and to record the session. We may ask them to electronically sign forms for you after the exam. If you do not have the usually-requested identification (see below), your parent or guardian may provide their government-issued ID instead, in combination with something like your school ID. If you or they wish, your parent or guardian may remain in the room with you while you take your exam, but they must remain visible to the camera and out of your field of view; please note that if there is any indication that they may be communicating with you during the exam, we will be required to invalidate the exam.

**Under 16:** In addition to everything mentioned in “Under 18” (above), please note that our remote examination sessions make use of Zoom videoconferences. Zoom's terms of service (<https://zoom.us/terms>) say that Zoom is not intended for use by anyone under 16 unless it is through an account provided by your school in the Zoom for Education program. Note that you do not need a Zoom account to join us for an exam session. If you are not allowed to independently use Zoom through a school program, then your parent or guardian **must** be considered the one using Zoom, and must remain present during the exam.

**Under 13:** In addition to everything mentioned in “Under 18” and “Under 16” (above), your parent or guardian will need to fill out, sign, and e-mail a “COPPA Parental Consent” form to the operator of the website that we use for testing, so that the testing service will be in compliance with the Children's Online Privacy Protection Act. There will be a link to this form available when you go to the registration page for the exam, or you may ask us for a copy by e-mail. That form must be e-mailed in **before** you register for the exam. We're sorry that this is so complicated, and we're excited that you want to join the hobby!

### ***People in the European Union, citizens of the EU, and California residents:***

Please note that US federal law and VEC policies define records retention requirements for amateur radio exams which may affect your rights under the GDPR or CCPA. You will be required to agree to the Privacy Policy of the website that we use for testing when you begin to register for an exam session. It describes your rights and how they may be affected. Please be sure to review it and understand what you are agreeing to. It can be found ahead of time here: <https://beta.examtools.org/static/privacy.html>

## **About the Exams – What's the same as at our in-person sessions?**

Fully-remote amateur radio exams are very similar to traditional in-person exams. The following list of policies is the same as at our traditional in-person sessions:

- The number of questions on the exams, the question pools they are drawn from, and the distribution of questions across topic areas are identical to what you would experience on an in-person exam.
- There is no time limit on the exams (though we ask that you be considerate of others waiting to be examined).
- You may go back and review or change any of your answers up until you submit the exam to be graded.
- You may skip questions and come back to them.
- Your score will be the number of correct answers you provide – there is no penalty for guessing, so you are advised not to leave any questions blank.
- You may use a calculator if you wish, but you must show the examiners that its memory is completely clear (unlike at an in-person exam, it must not be a physical calculator and must remain on the screen visible to the examiners while you use it).
- You will have at least three Volunteer Examiners who are Extra Class hams monitoring you during the exam and assisting you with the process.
- The exam fee is \$14; this fee cannot be refunded if you do not pass your exam.
- If you pass an exam, you will be allowed to attempt the next higher class element at no additional charge.
- We do not permit retrying a failed exam element at the same exam session.
- You will know your score and whether you passed or failed before you leave the exam session; you will not have to wait to receive your results later.
- We cannot share with you information about which questions you answered incorrectly.

## **But there has to be stuff that's different, right? How does it work?**

Yes. In order to maintain exam integrity, there are a number of things we have to do differently than at a traditional exam session. Here's the basic gist.

### **Technical requirements/options**

- You will need a computer with a webcam and non-headset microphone and speakers capable of joining a Zoom videoconference (you will not be allowed to wear a headset during the exam). Any platform will do.
- You will need a web browser. Chrome is highly recommended for the web testing platform we use. Firefox is known to work with a couple of rough edges. You can try using a different browser, but there are no guarantees that it will work (though we will be happy to pass along bug reports to improve it for the future).
- You may wish to use a calculator during the exam. If so, it must be a computer app on the screen, and its memory must be cleared. If you aren't used to using your computer's calculator app, familiarize yourself with it before the exam.
- You will be required to show us around the space you have chosen to take your test in. You may find it easier to do this by joining your smartphone or tablet to the Zoom meeting as well, if it isn't easy to aim your computer's webcam 360 degrees around and up and down.
- Your computer must have only one monitor. If you have additional monitors, you will either need to show us that they are physically unplugged, or you will need to show us via screen-sharing that the display configuration for your OS is configured to only use one monitor.

### **Testing environment requirements**

You must take the exam in a room where you are alone (unless you are a minor and your parent or guardian will be remaining with you during the exam as described on Page 1). There cannot be any study materials within reach or view in the room, no radio-related posters on the walls, and nothing that might be useful to help you answer questions on the workspace where you have your computer. You will have to show us all 360 degrees of your chosen space. You must not be distracted during the exam – if you appear to be communicating with anyone, looking away from the screen, handling objects other than your keyboard and mouse, etc., we will have to invalidate your exam. If anyone enters your room during the exam, we will likewise have to terminate and invalidate it.

How you meet these requirements is up to you. Many people have chosen to handle the issue of a messy room they don't want to clean up or worry about someone entering by taking the exam in a bathroom with a locked door. Some deal with a messy desk by taking an exam on their bed. Feel free to be creative.

## The process rundown

1. **Registration:** If the exam is publicly listed, you may have already registered and will then receive an e-mail including this document and payment instructions. If it is an invite-only exam that you have inquired about, if you are invited to participate in the exam, you will receive an e-mail including this document, a link to register for the exam, and payment instructions. Be sure you review the eligibility rules on Page 1 of this document, and complete the online registration.
2. **Payment:** You must pay the \$14 exam fee prior to the exam session. Note that this is not refundable if you fail your exam or do not show up for the exam session. It will, however, be refunded if you are unable to agree to the various terms necessary to use the tools we require for remote exams, or if we are unable to complete your exam session due to technical issues which aren't your fault. We currently accept payment via PayPal, Zelle, Cash App, Popmoney, or check. Regardless of which payment method you choose, we must have received your payment before the exam session, or we cannot administer an exam.
3. **Pre-exam info:** You will receive an e-mail in the couple of hours leading up to the exam with an invitation to a Zoom meeting, and an estimated time that we will be ready for you (we test one applicant at a time and stagger the appointments based on average times we see people take). Please join the Zoom meeting a few minutes before your estimated appointment; you will be placed in a waiting room until it is your turn. We may send messages to people in the waiting room via Zoom, or if you provided a phone number, via SMS, to update you if we're running significantly behind or ahead of schedule (for example, if someone doesn't show up for their exam). Do not worry about signing into the ExamTools website that your registration confirmation tells you about; we will walk you through that once we cover some preliminaries on Zoom.
4. **Identification check:** When you join us in the Zoom meeting, we will greet you, ask if you have any questions about the process or rules, and then ask to see your ID. Though the rest of the exam process will be recorded on video, it is not our intention to record your ID documents. Zoom will show you whether recording is in progress. If we have forgotten to stop recording when the previous applicant finished their session, feel free to ask us to temporarily discontinue recording at this point. For remote exams, we need to see a driver's license (or other state-issued identity document) or a passport (unless you are a minor and your parent or guardian is providing their ID documents as described on Page 1).
5. **Recording:** At this point, we will begin recording your session.
6. **Credit for previous elements:** If you have previously passed any elements, we will need to see your current amateur license (if you passed an exam so recently

that your license has not yet been issued, we will need to see your CSCE). You may have already e-mailed that to us. If not, you may show it to us on camera, or you may show it to us on the computer once you begin sharing your screen (below).

7. **Tour of your exam site:** You will be asked to show us a 360 degree tour of the space you have chosen to take your exam in, as well as the floor, ceiling, your desk or other surface that your computer will be on, the fact that you don't have anything written on you, sticky notes on your keyboard, additional monitors hooked up, etc. If we're unsure of anything, VEs may ask to get a closer look at something. We do not mean this to be intrusive, though we understand that by its nature, it can be. We are required to do this, and are only looking to make sure that you are alone and that nothing you may be able to get answers from is with you. As described earlier, feel free to be creative – if you'd rather not show us what's on your desk, you can take the exam on an empty bed. If you'd rather not show your room at all, perhaps the bathroom or basement would be simpler. Many people find it easier to give this tour by temporarily connecting a smartphone to the Zoom meeting – you may do this, or turn your laptop or computer webcam around; whatever works for you. Once the tour is over, we ask that your phone be made completely silent and put out of your reach and view during the exam.
8. **Screen sharing:** We will ask you to share your complete desktop with us in Zoom. Note that it is **not** sufficient to share just your browser window, as we are required to ensure that you aren't using any other programs. The only programs you may have open during the exam are Zoom, a calculator application, and your web browser. Your web browser may have only one window, and that window may have only one tab, and it must stay on the exam website. We may ask you to show us that the calculator is cleared, that other programs aren't running, and that your computer isn't configured to use additional screens.
9. **Website login:** We will talk you through logging into the ExamTools website, verifying your information, and getting ready to take your exam.
10. **Take your test!:** Once you start your exam, all of the VEs will mute our microphones to avoid distracting you. We will, however, be watching and listening in case you have any problems – if you do, just ask us out loud. We can help you with any software issues or exam rule questions, but we cannot answer questions about the content of the exam or clarify any of the questions that it asks. You must remain focused on the exam the whole time – the following things will require us to terminate and invalidate your exam: appearing to be looking anywhere other than the screen or doing anything other than using your keyboard

or mouse, muting your video or audio, disconnecting from the Zoom meeting, opening another program or website, moving away from the computer, communicating with anyone else, having someone else enter your testing space, or anything else that causes us to question the integrity of the exam. We know this may seem draconian. Please remember that taking a ham exam without an in-person proctor is a very new possibility, and the world is watching us to see if we can truly do this safely. We appreciate your cooperation!

11. **Receive your score:** When you finish your exam and click the button to have it graded, we will authorize the computer to score the exam and give you your results, and hopefully be able to congratulate you. If you pass and would like to try the next element for a higher license class, you'll be able to do so at this point – it will work exactly the same way.
12. **Finish your session:** When you are done taking exams, we'll talk you through finishing the “paperwork.” If you haven't passed any exams, there's nothing that you need to do; we'll encourage you to study some more and come back and try again. If you have passed any exams, we'll show you how to look over the drafts of your license application and Certificate of Successful Completion of Exam to make sure all the information is correct, and then we'll explain how to electronically sign the forms. Once you've done that, you're finished – you will be able to log out of the website and leave the Zoom meeting. The VEs will sign your paperwork shortly thereafter, and you will receive your CSCE by e-mail. We'll submit the results of your exam session electronically; they're usually processed within a few business days.
13. **Get on the air!:** If you're getting your first license, you need to wait until the FCC issues you a callsign. When they do, if you provided your e-mail address, you should receive an e-mail from the FCC with your license (and most likely also an e-mail from ExamTools telling you your new callsign). Once you get your new callsign, you can start operating. If you're already licensed and have just passed an exam to upgrade, as soon as you receive your signed CSCE from us, you can begin using your new privileges immediately by adding “/AG” or “/AE” to the end of your callsign to indicate that you're awaiting your newly-earned license. Congratulations!