


Required Software and Hardware

In order to take an online pesticide certification exam, you will need the following. **Please make sure you have all of these set and ready to go before you begin. Non-compliance with any of these requirements could cause your exam to not be graded.**

1. **Computer** (exams cannot be taken on mobile devices or iPads)
2. **Camera/Webcam:** Copy and paste the link below to test your webcam.
<https://www.onlinemictest.com/webcam-test/>
3. **Microphone** (internal or USB): Copy and paste the link below to test your microphone.
<https://www.onlinemictest.com/>
4. **Google Chrome Browser** (make sure you have the latest version of Chrome; see instructions below: To update Google Chrome)
 - a. Copy and paste the link <https://www.google.com/chrome> to download Chrome.
 - b. Download Chrome
 - c. (Windows version needed: 7, 8, 8.1, 10 or later; Mac version needed: OSX Yosemite 10.10 or later)
5. **Proctorio Extension**
 - a. A link will be provided when you log into the Canvas website. Installation takes 30 seconds.
6. **Reliable Internet Connection--VERY IMPORTANT. Unreliable or poor internet connection is the single most common reason that your exam will be deemed invalid or will not be graded.**
 - a. The proctoring software streams data from your computer to their servers and back. In order to allow continuous exam data transfer, it is important to have sufficient internet quality.
 - o Check your internet connection (bandwidth/upload speed, download speed and ping/latency) by going to <https://www.speedtest.net> and press "Go."
 - The lower the ping the better (less than 100ms),
 - The higher the download and upload speed the better (**upload speed greater than 1.0 Mbps/US national average is 9.4 Mbps**).
 - b. An unstable connection may cause you to be disconnected from the exam and prevent your exam from being graded (See *Proctorio's requirements below*).

To update Google Chrome:

- On your computer, open Chrome.
- At the top right, click More .
- Click Help > About Google Chrome.
- Click Update Google Chrome.
- o Important: If you can't find this button, you're on the latest version.
- Click Relaunch.

If your system does not meet the above requirements try the following steps:


- Use a private network when taking a proctored exam.
- Turn off any programs that can consume a lot of bandwidth (e.g., BitTorrent, Netflix, video gaming systems, etc.)
- Avoid WiFi interference. Take your exam using a wired (Ethernet) connection. If that is not possible, move closer to the router for best performance.
- 2GB free ram is needed to ensure good internet connectivity (see below)

To determine how many GB of free RAM your computer has:

- Click on the **Start** menu
- Type "**about**," and press Enter when "**About Your PC**" appears.
- Scroll down, and under **Device Specifications**, you should see a line "**Installed RAM**"—this will tell you how much RAM you currently have.
- Proctorio requires 2GB to run the system properly.

7. We recommend that you clear your cache and cookies which will help free up ram and assist with overall internet connectivity.

To clear your cache and cookies: On your computer, open **Chrome**.

- At the top right, click  (three dots in the top right corner).
- Click **More Tools** > Click **Clear browsing data**.
- At the top, choose a time range. To delete everything, select "**All time**."
- Next to "**Cookies and other site data**" and "**Cached images and files**," check the boxes.
- Click **Clear data**.
- Restart your computer.

8. **Photo identification** (driver's license, passport, or government issued ID)

9. **Quiet, comfortable location** to take the exam (**headphones or earphones are not permitted**)

Proctorio's Requirements:

	Windows	Mac	Linux	Chrome OS
Operating System	Window 7+	macOS 10.11+	Ubuntu 18.04+	Chrome 58+
Processor	Intel Pentium or better	Intel	Intel Pentium or better	Intel or ARM
Free Disk Space	250 MB	250 MB	250 MB	250 MB
Free Ram	2 GB	2GB	2GB	2GB
Upload Speed	Greater than 1Mbps	Greater than 1Mbps	Greater than 1Mbps	Greater than 1Mbps
Microphone	Internal or external	Internal or external	Internal or external	Internal or external
Webcam Internal or External	320x240 VGA resolution	320x240 VGA resolution	320x240 VGA resolution	320x240 VGA resolution

HELPFUL TIPS:

- **Make sure you are using the latest version of the Proctorio extension and your internet browser.**
- **Try to update your operating system before starting the exam.**
- **Disable extra applications or extensions during your exam.**
- **When possible, utilize an Ethernet cable for a secure internet connection.**
- **Try to free up WiFi usage during your exam (talk to roommates, family and friends) to enable a more stable connection.**