



RadCerts

Step-By-Step

TRAINING INSTRUCTIONS

Notes:

- Welcome emails may appear in spam.
- If you log in after clicking the link in your email you can skip to step 4.
- Transcripts are provided for easy searching with “ctrl f”.

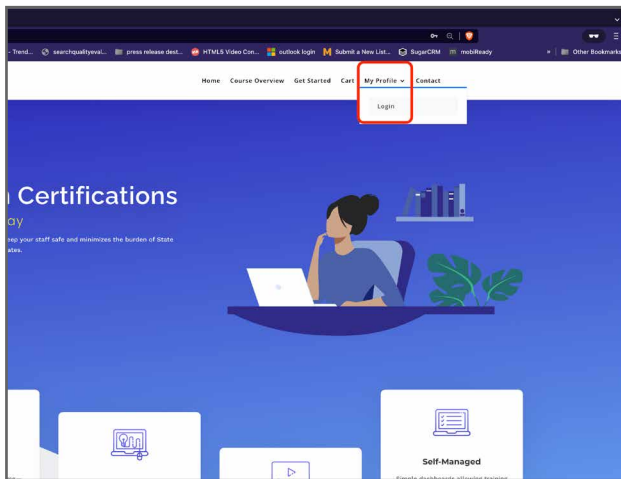
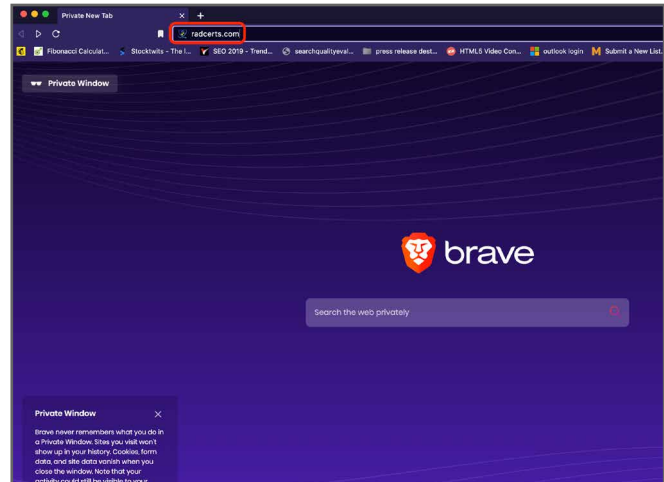
Opening Your Browser

If you're not a computer person and don't know how to open a browser, don't be afraid to ask someone. But basically you're looking for one of the icons on the right; double-click to open. If one of these aren't on the first screen you see on the computer, click the flag on the bottom left of your screen and type “browser” into the search bar. Then click the icon when you see it. The names of these softwares are Firefox, Chrome, Brave, Edge, and Explorer.



Step 1

Type RadCerts into the top bar of your browser and hit Enter. (This screen may look different depending on which browser you're using).

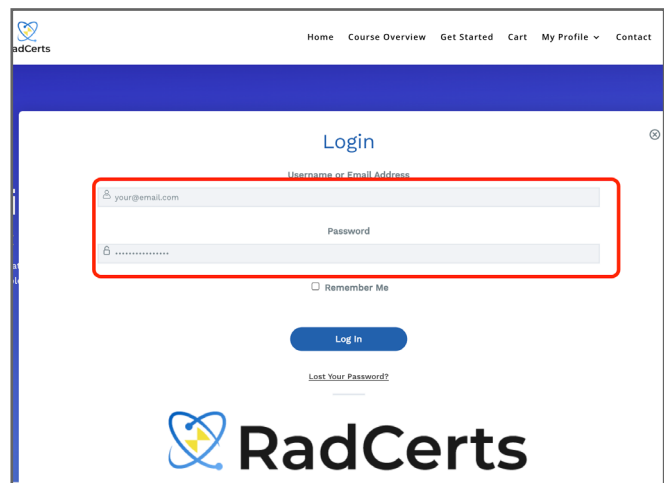


Step 2

Click "Login" at the top right of the page.

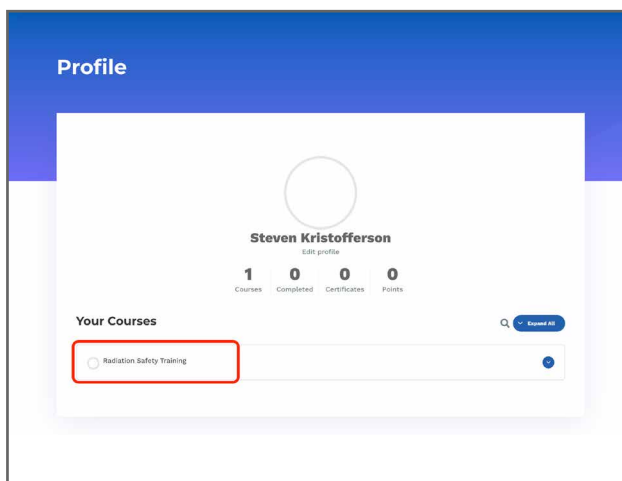
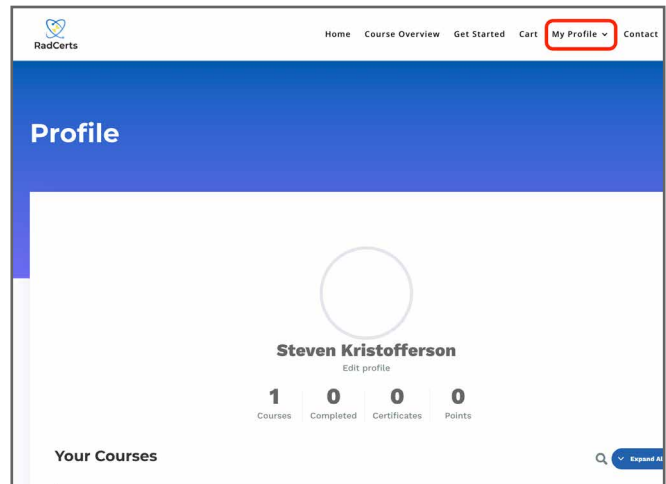
Step 3

Enter the credentials provided by management (if they have your email, it will be in your inbox (check spam)) and hit "Enter" or click the "Log In" button.



Step 3.1

After login you will be taken to your profile page, but if you leave the session and come back, you can get there by hovering over login/logout and clicking “Profile”.

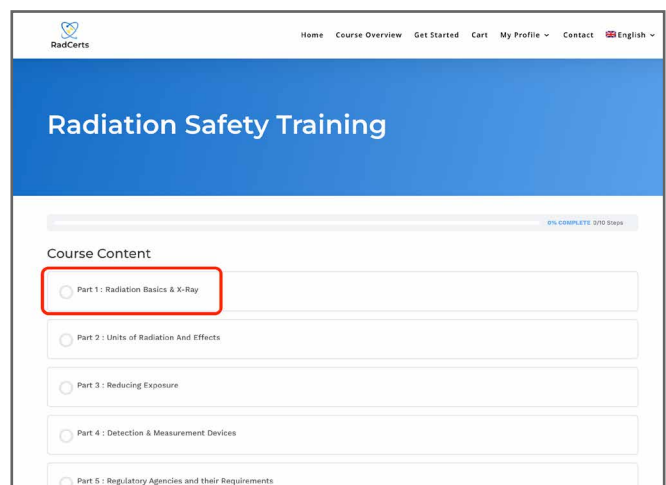


Step 4

Click the course you need to take.

Step 5

Click the first lesson to get started.

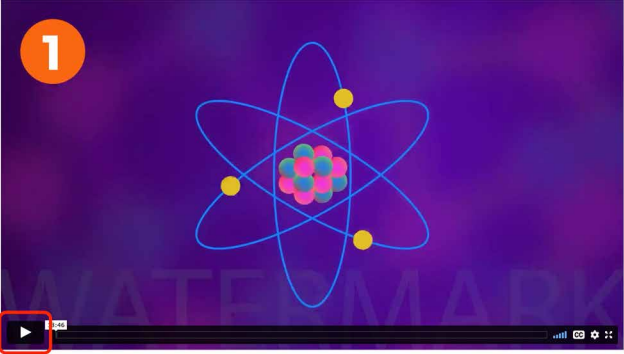


Step 6

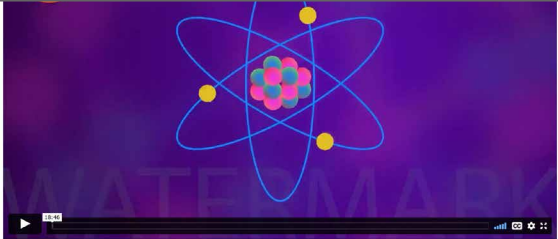
Click the play button and watch the video.

Radiation Safety Training > Part 1: Radiation Basics & X-Ray IN PROGRESS

* After watching the video, scroll past the transcript to mark this lesson complete and navigate to the next.



In lesson 1 we will cover what radiation is, the different types, and how x-ray fits into the picture.



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Every object on earth is made of atoms bonded together. And these atoms have cores of protons and neutrons, with electrons orbiting them.

Radiation is the broad term for any energy that comes from these atoms, whether it's a physical piece that gets ejected, or electromagnetic waves.

Particle Radiation refers to the incomplete pieces of atoms which can be created by unstable elements like Uranium. This is what most people think of when they hear radiation and the most dangerous kind belongs to this class. But it is not the kind you will experience at work.

Electromagnetic Radiation refers to all non-physical energy, which can be either giant, gentle waves we use for radio, mid-range frequencies we perceive as light, or tiny, intense waves we call x-ray.

"x-rays" are the rays of light created when an electron moves to a lower orbit within an atom.

The problem with x-ray is that its energy is strong enough to knock electrons off other atoms. This is an action we call ionization.

Ionization is bad because when unintentional changes to atoms and molecules happen within you, your body has to fix it. Your body has to fix errors all the time, but too much work isn't good for it, and not all damage is repairable.

[Back to Course](#) [Next Lesson >](#)

Step 7

When finished, scroll down and click “next lesson”.

Repeat these steps until you reach the last lesson.

Step 8

The last lesson will have a quiz attached to it. Click it!

TRANSCRIPT

Personnel Monitoring & Dosimetry

What is dosimetry? Here are some examples of different types of dosimeters. You may have seen doctors or nurses or radiologists wearing these at hospitals. Since all of us here at ABM are considered occupational workers we all do have dosimeters and our individual dose is monitored.

Personnel Monitoring

Occupational radiation workers are required to be monitored if expected to receive in excess of 500 millirem in one year. As we said before, we've never even come close to that limit. I think my cumulative lifetime dose even doing this for more than 10 years is somewhere in the 200-300 millirem range. It is very unlikely for anyone working around Eagle Product Inspection x-ray equipment to ever receive even in excess of 100 millirem in a given year, which is, of course, that occupational radiation worker threshold or limit. A registrant is required, however, to perform monitoring, measurement, and calculated dose to determine an individual does not exceed occupational, declared pregnant women, minors, or member of the general public dose limits. That's one reason that we will be coming by annually and surveying the x-ray units—to do dose calculation and ensure that you guys are not likely to receive, in the course of a year, in excess of these radiation limits. Those surveys will be on record with your Radiation Safety Program and are available to you if you're ever wanting to look at those.

Personnel Monitoring Devices

One way to monitor individual dose is through the use of a personnel monitoring device, or a TLD. This is the type of dosimeter that we use which is actually called the Thermoluminescent Dosimeter. It measures three different dosages: a deep dose, a shallow dose, and the eye dose. Again different parts of the body are more or less susceptible to radiation dose. They use a single dose to calculate these three different types. It can accurately measure dosages from beta, gamma, x-ray radiation down to about 1 millirem of accuracy. It must be provided by an NVLAP certified laboratory. The brand that we use is Luxel or Landauer. This is the name of the provider. Inform the Radiation Safety Officer whenever you have medical treatment or a test involving radioactive materials, as this dose is not to be included in your occupational dose. Occupational dose just refers to radiation dose that you're getting in the course of your employment.

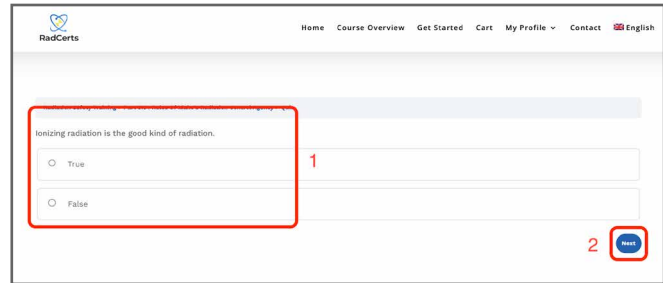
I just wanted to show you one of the types of dosimeters. This is what we use here at ABM Equipment for all of our technicians. It's exactly the type that's shown on the screen there; it's a Thermoluminescent Dosimeter. What we do is we take this and we send it in every quarter. They send us a new one and then we send the existing ones back to them. They do a special test on it. Then they send us a report saying what our cumulative dose for that quarter is, in addition to our lifetime accumulated dose.

[Lesson Content](#)

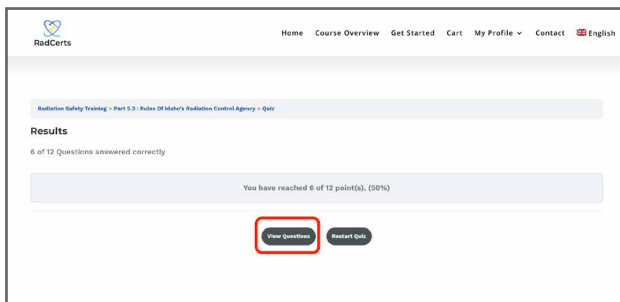
[Quit](#)

Step 8.1

Select your answers and click “Next” until you finish. (The average number of questions is 14.)



The screenshot shows a quiz question on the RadCerts website. The question is "Ionizing radiation is the good kind of radiation." with two radio button options: "True" and "False". A red box highlights the question text and the "True" option. A red number "1" is next to the "True" option. A red box highlights the "Next" button in the bottom right corner, with a red number "2" next to it.



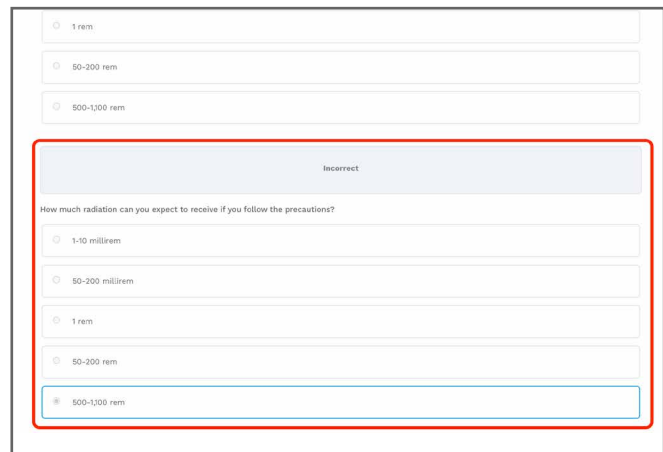
The screenshot shows the RadCerts Results page. The page title is "Radiation Safety Training - Part 5.3 (Rules Of Idaho's Radiation Control Agency) - Quiz". The results section shows "6 of 12 Questions answered correctly" and "You have reached 6 of 12 point(s), (50%)". A red box highlights the "View Questions" button.

Step 8.2

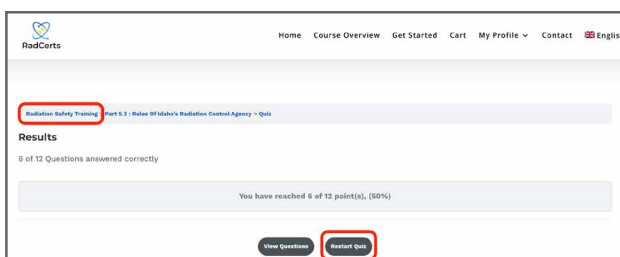
If you get questions wrong you can click “View Questions” to see which ones.

Step 8.3

Wrong answers will be displayed like this.



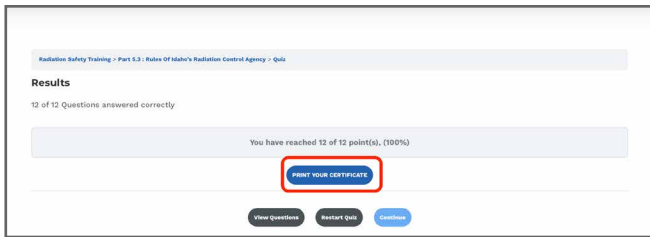
The screenshot shows a quiz question on the RadCerts website. The question is "How much radiation can you expect to receive if you follow the precautions?". There are five radio button options: "1-10 millirem", "50-200 millirem", "1 rem", "50-200 rem", and "500-1,000 rem". A red box highlights the question text and the "500-1,000 rem" option, which is marked as incorrect.



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Step 8.4

To go back through the videos or reference the transcripts, use the navigation bar up top. When you found the answers, retake the quiz.



Step 8.5

Once you get all the answers correct you'll have the option to view your certificate.

You're Certified!

Management can see that you've finished the course and no further action is necessary.

If you didn't want to save your certificate but change your mind later you can follow these steps to find it again:

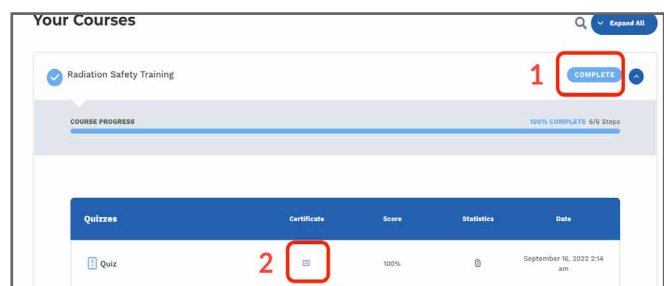
A

Get back to your profile by clicking "Profile" in the top menu.



B

Click the course at the bottom of the page, then the little certificate icon.



C

Your certificate can be printed or downloaded using the boxes in the top right of the screen.

