

eSchool of Graduate PME Guide for Installing DoD Root Certificates on non-NIPRNET Macbooks

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Overview

Our version of Canvas is hosted in a DoD environment. Therefore, just like the AF Portal and checking .mil webmail you must have DoD certificates loaded for your browser to display and function correctly with our Canvas website. **All non-NIPRNET MacBook Users who have not already loaded DoD certificates** need to follow the steps in section I. If you already loaded DoD certificates for your browser go to step 6 of Section I.

If you are using Firefox as your browser of choice, then in addition to the steps in Section I, you must also accomplish the steps in Section II.

This set of instructions is for a non-NIPRNET Macbook. If you have a PC or tablet/phone, please download the applicable eSchool guides for installing DoD Root Certificates on those devices.

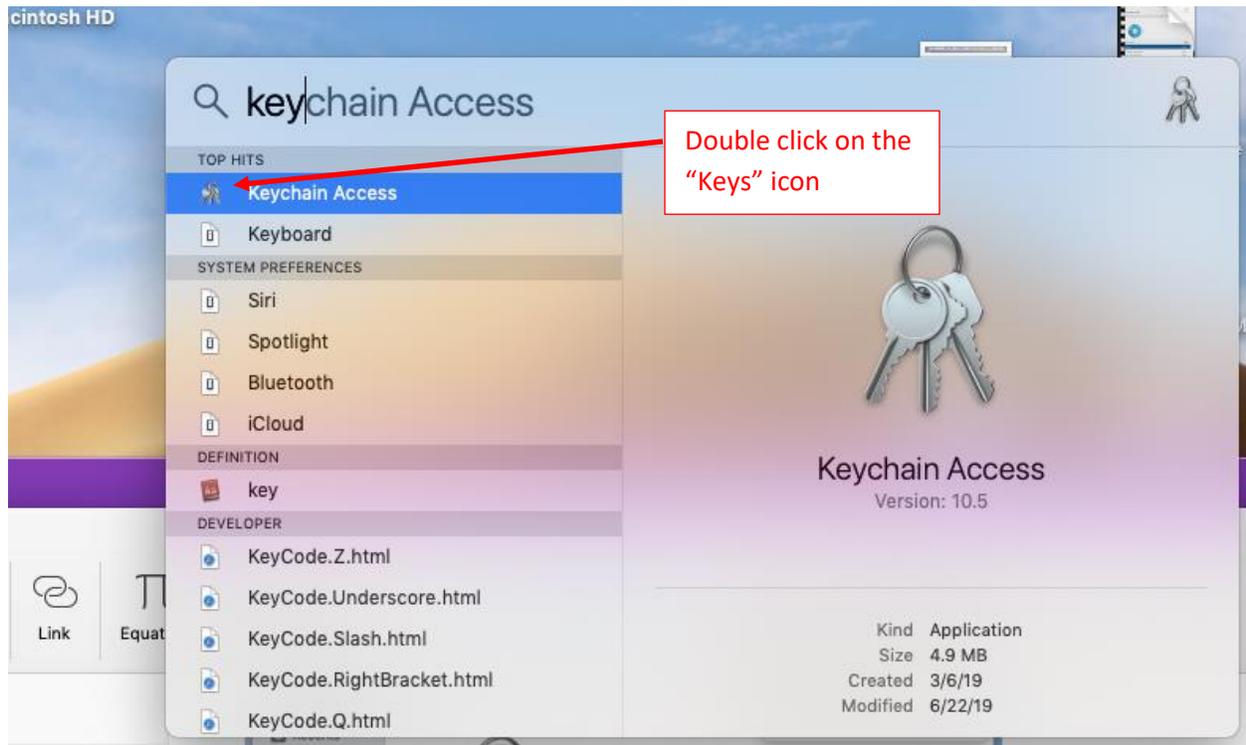
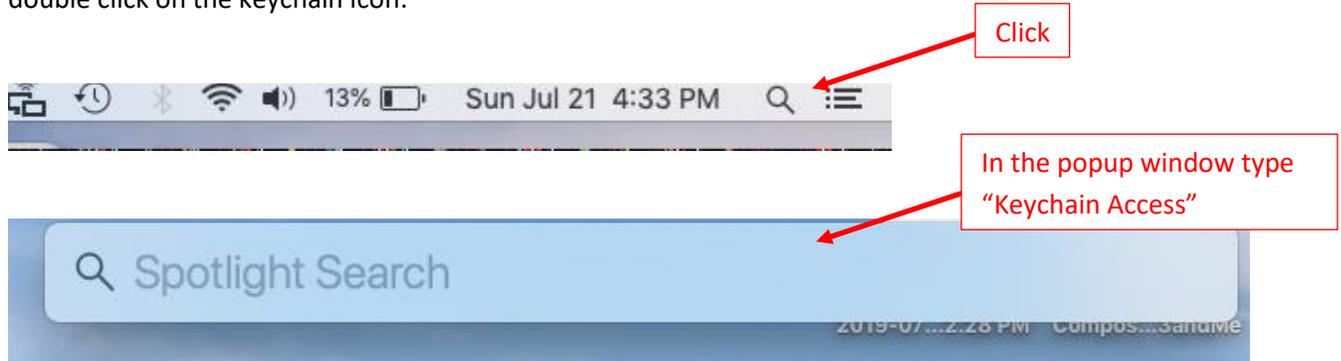
The following directions were developed based on information listed on

<https://militarycac.com/macnotes.htm>:

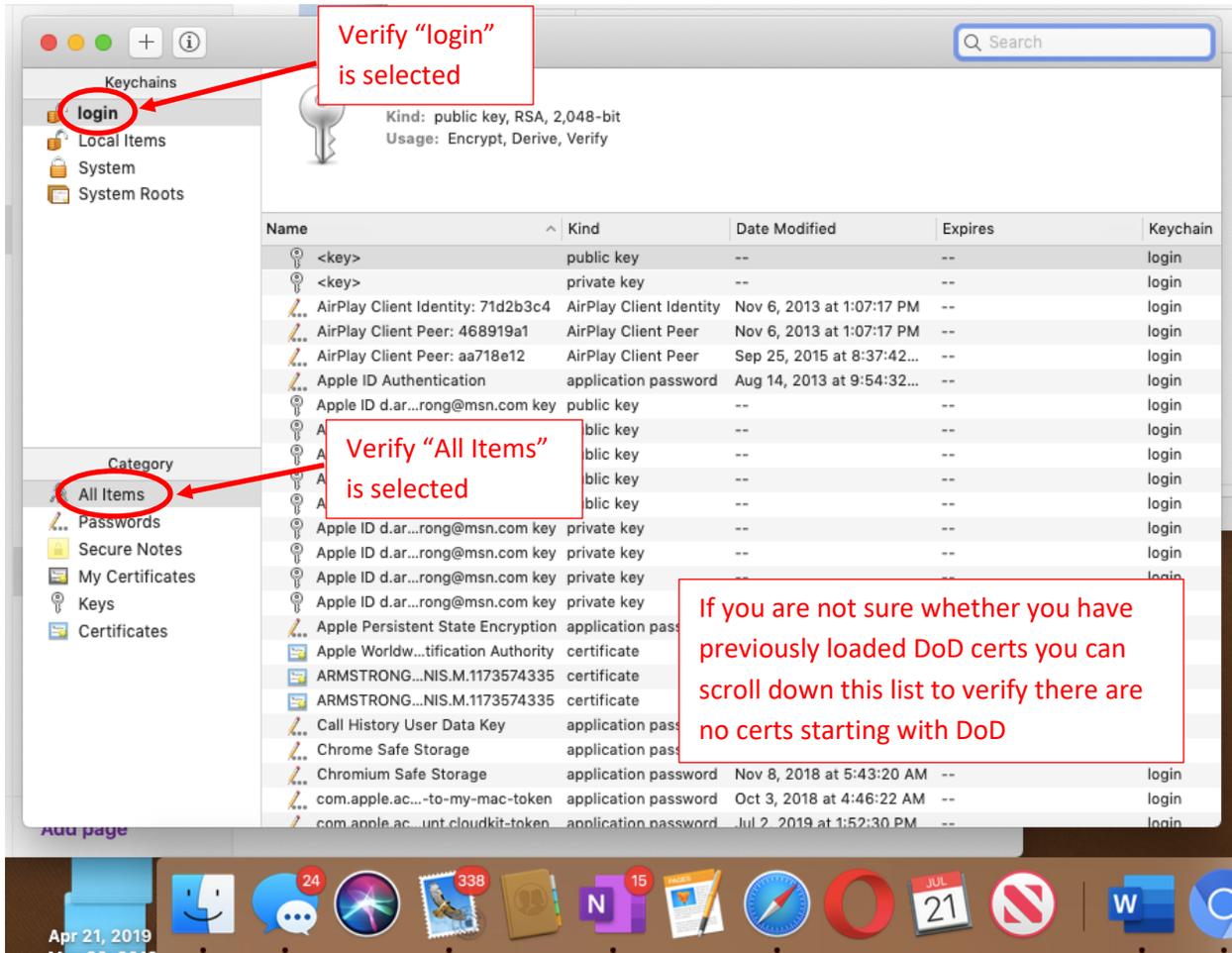
I. Installing Certificates on non-NIPRNET Macbooks (6 Steps)

Step 1: Open up Keychain Access

In the upper right of the desktop click on the “Magnifying Glass” icon, and type “Keychain Access” and double click on the keychain icon:



Step 2: The following window should open. Verify “login” and “All Items” are selected



If you are unsure whether you have previously loaded DoD certificates, then scroll down the list to confirm whether or not they are already loaded. If they are loaded, but you need to load them again you will need to remove any DoD certs on the list. (Just to be clear, they are in alphabetical order and all DoD certs start with “DoD”). If they are already loaded and you think they are current, then you can go to step 6 and continue

Step 3: Download five files using the links listed below. Save the files to your downloads folder.

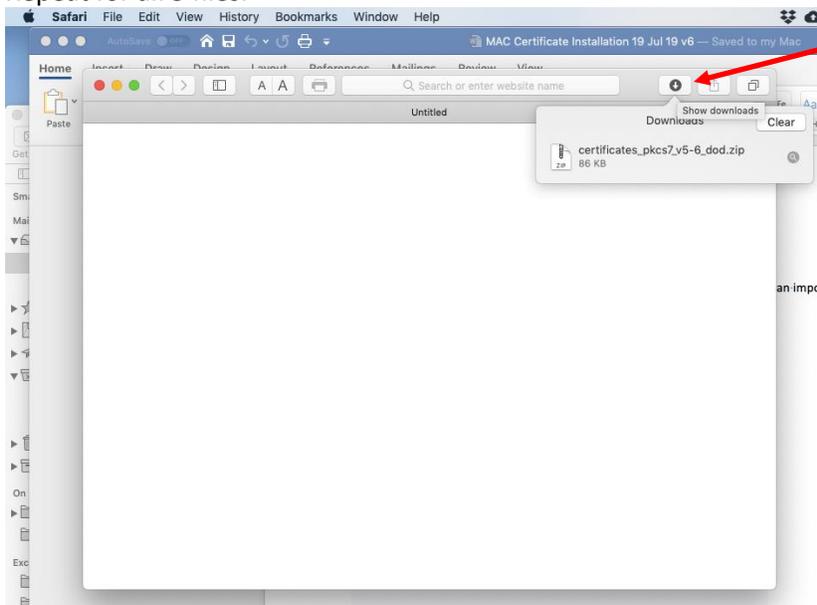
<https://militarycac.com/maccerts/AllCerts.p7b>,
<https://militarycac.com/maccerts/RootCert2.cer>,
<https://militarycac.com/maccerts/RootCert3.cer>,
<https://militarycac.com/maccerts/RootCert4.cer>, and
<https://militarycac.com/maccerts/RootCert5.cer>

Click each link to download the associated file

If you click, the links from within a browser (online viewing vs standalone adobe reader) just click each link and the files will download.

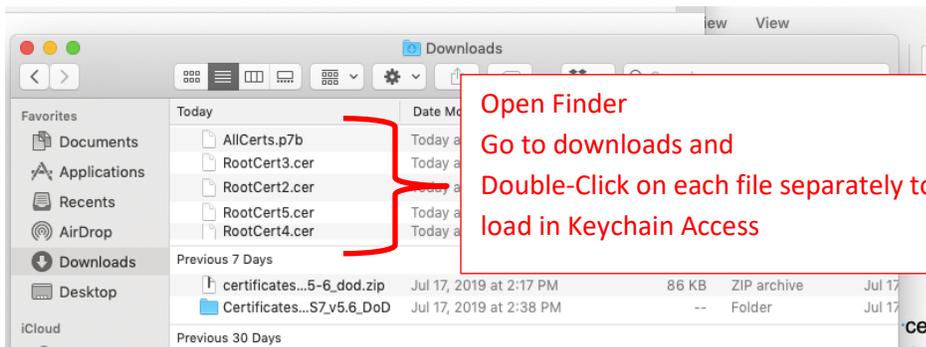
If you are using a standalone pdf reader to view this document than a blank browser window will pop up and the file should download. You can click the download arrow to verify the file was downloaded.

Repeat for all 5 files.

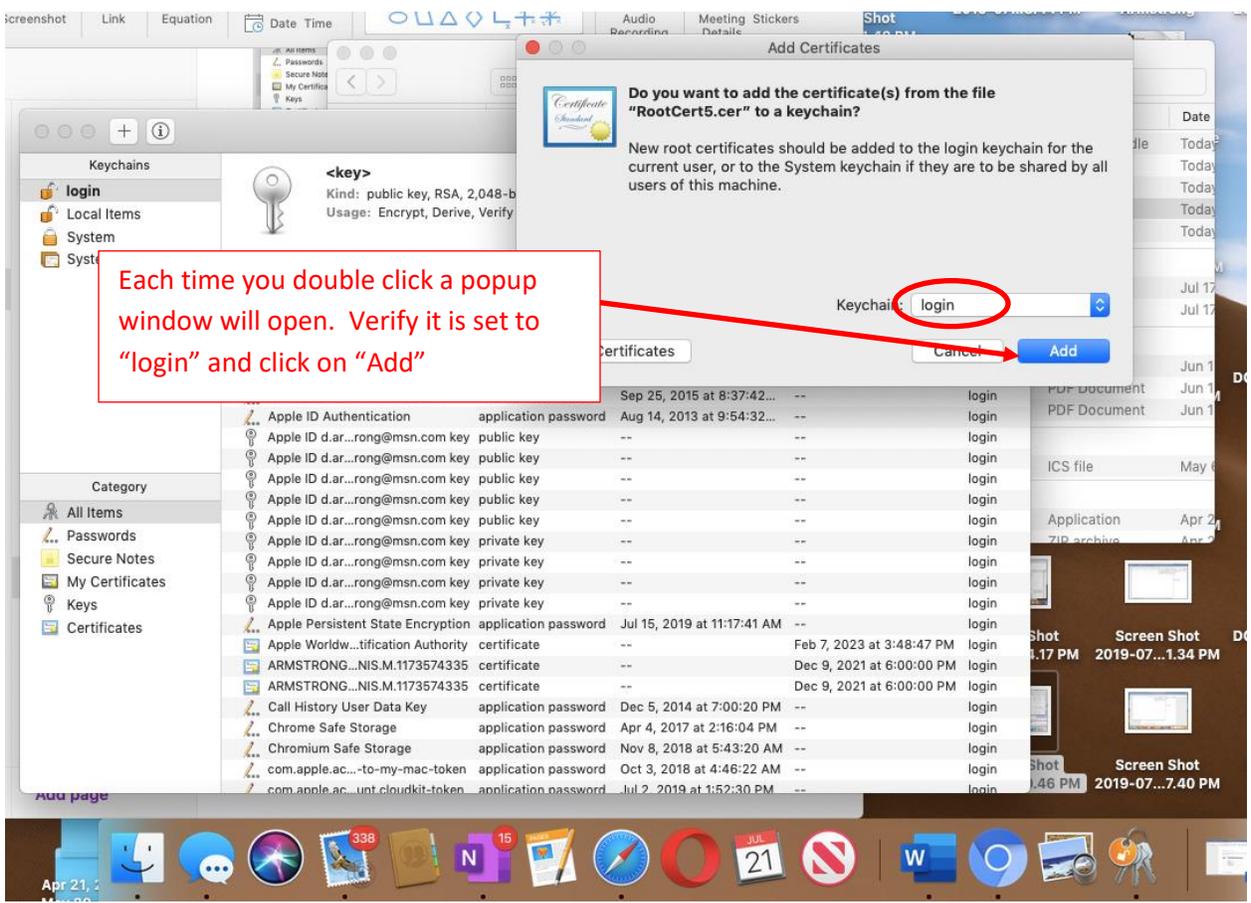


Click to verify the file downloaded

Step 4: Open “Finder”, go to downloads and the five files should be at the top of the list. Double click each file individually and Click “ADD” on the popup window to add the certificate to the KeyChain Access.

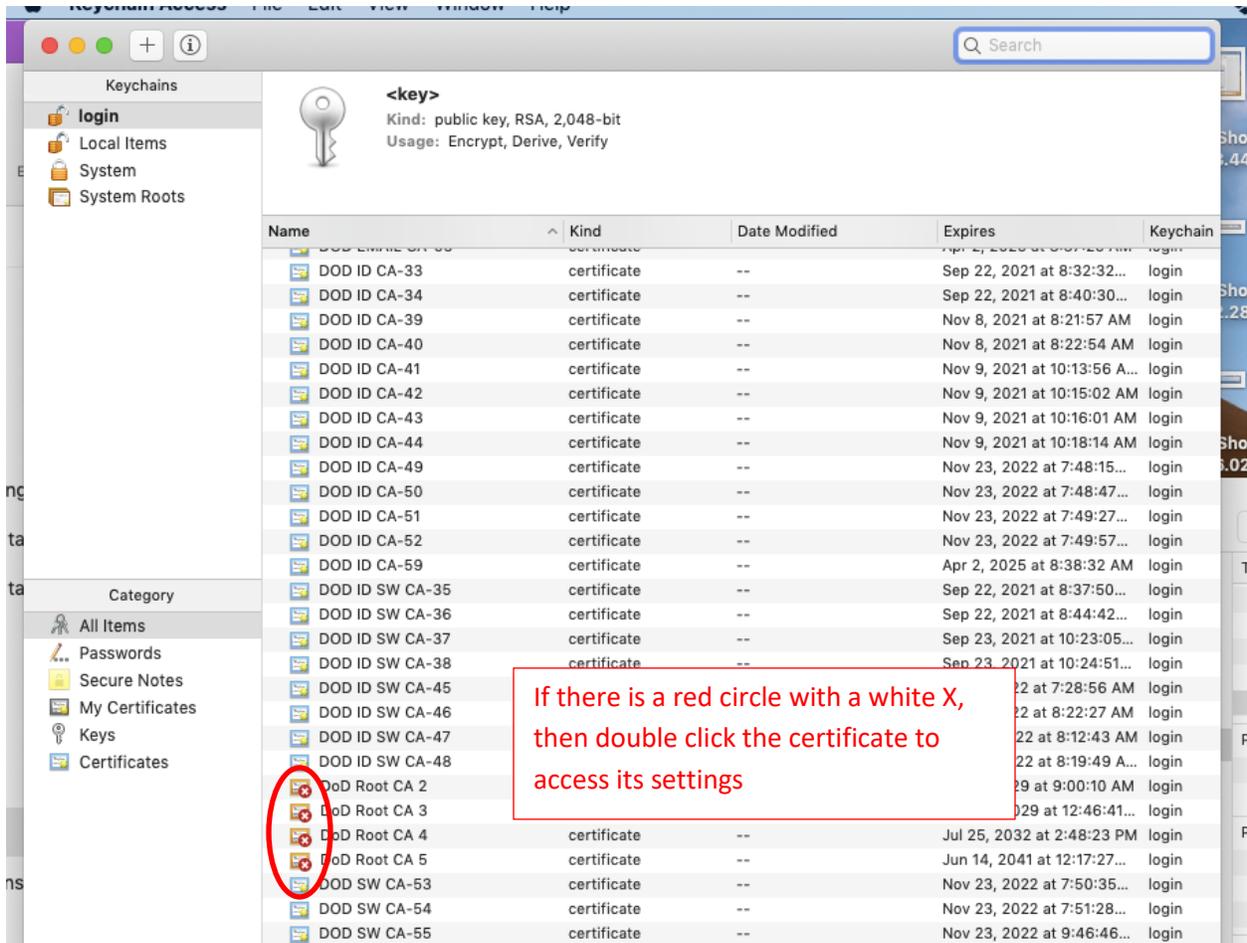


Open Finder
Go to downloads and
Double-Click on each file separately to
load in Keychain Access



Each time you double click a popup window will open. Verify it is set to “login” and click on “Add”

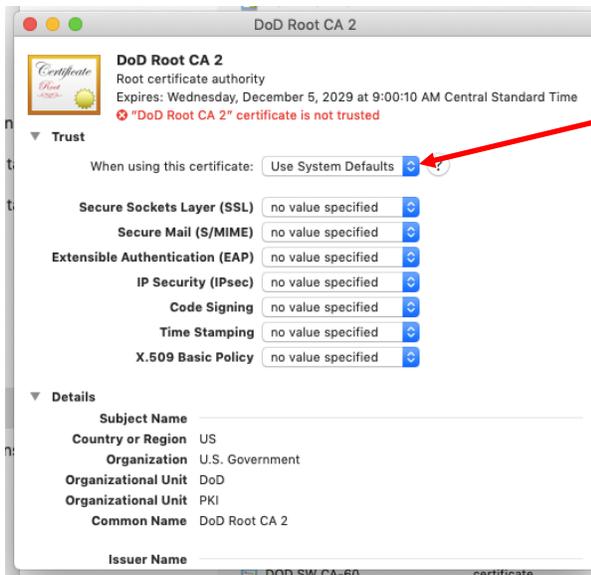
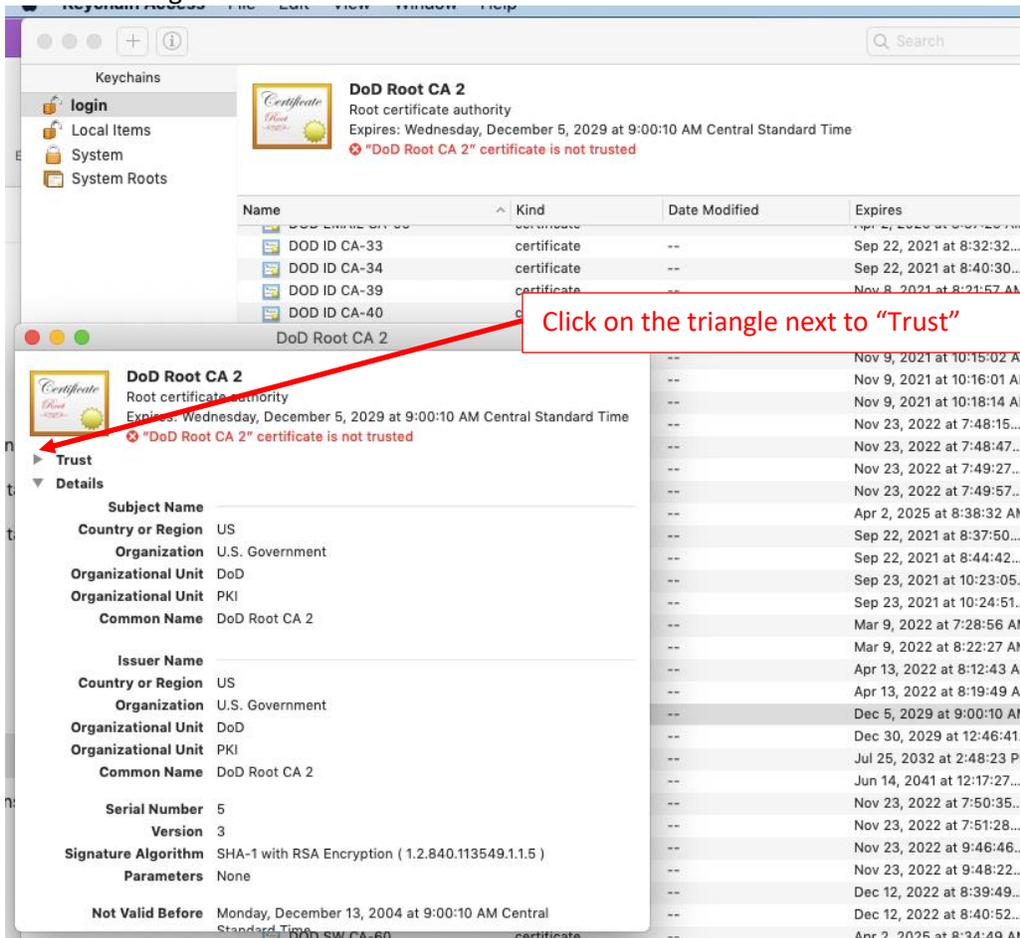
Step 5: Check each DoD Root CA-“X” certificate. If they have a red circle with a white X then you need to tell you computer to trust the certificate using the procedure below



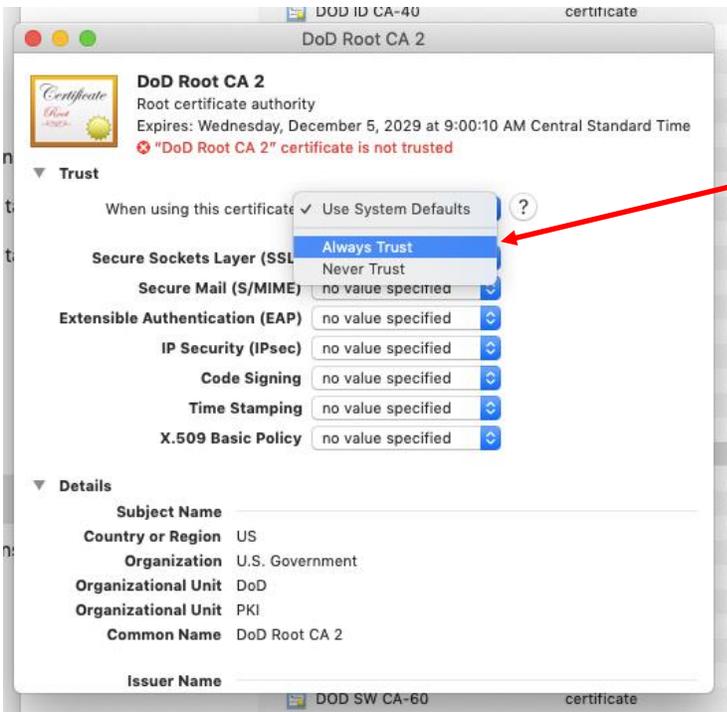
If they do not have a red circle with a white X (like the ones below) then skip to the next step.



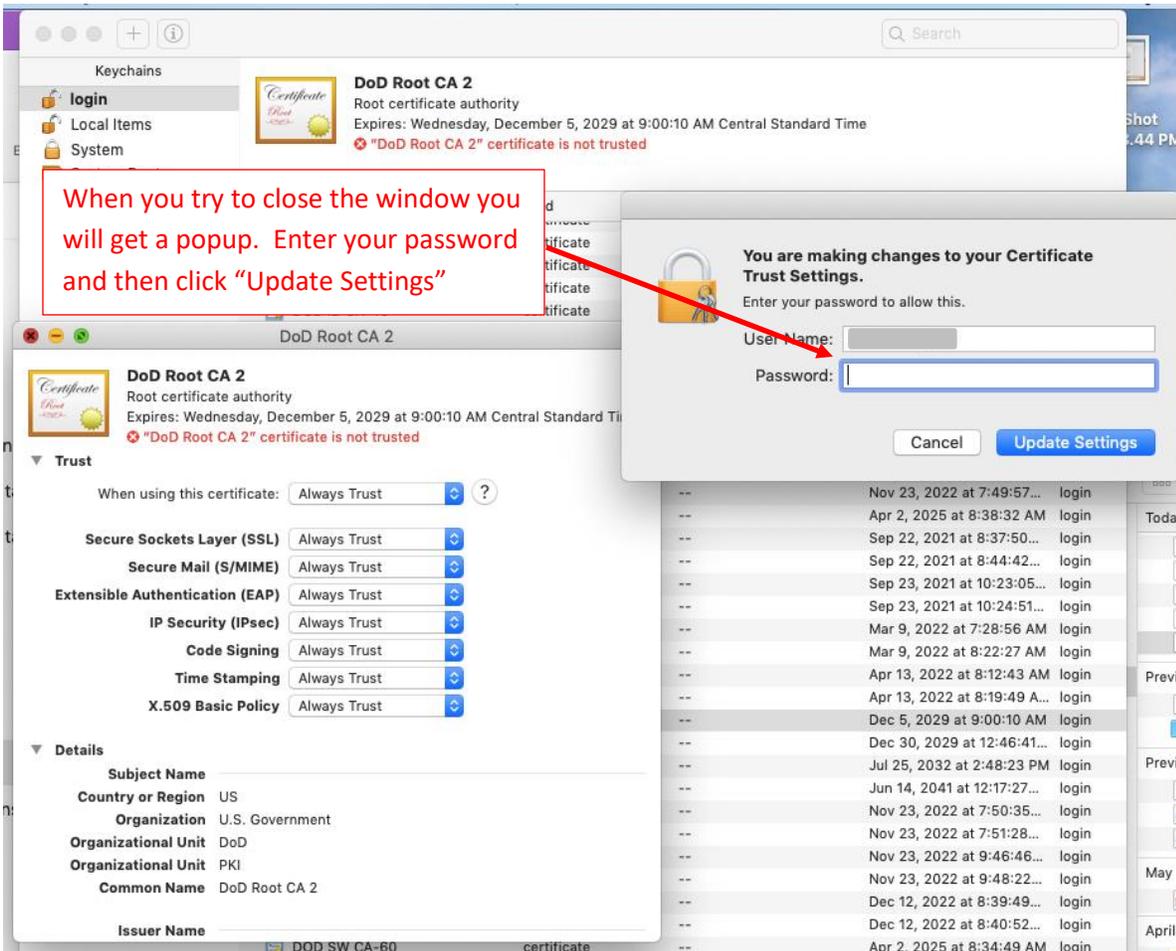
After double clicking on a certificate with a red circle and white X, you will see the popup window below. Click the triangle next to Trust



The Trust settings will open up. Click on the dropdown arrow for "When using this certificate"



Select "Always Trust"



Once you have done this for the four CA certificates (DoD Root CA-2 through 5) your Keychain Access each of the DoD Root CA certificates should have a Blue circle with a White plus sign.

Keychains

- login
- Local Items
- System
- System Roots

Category

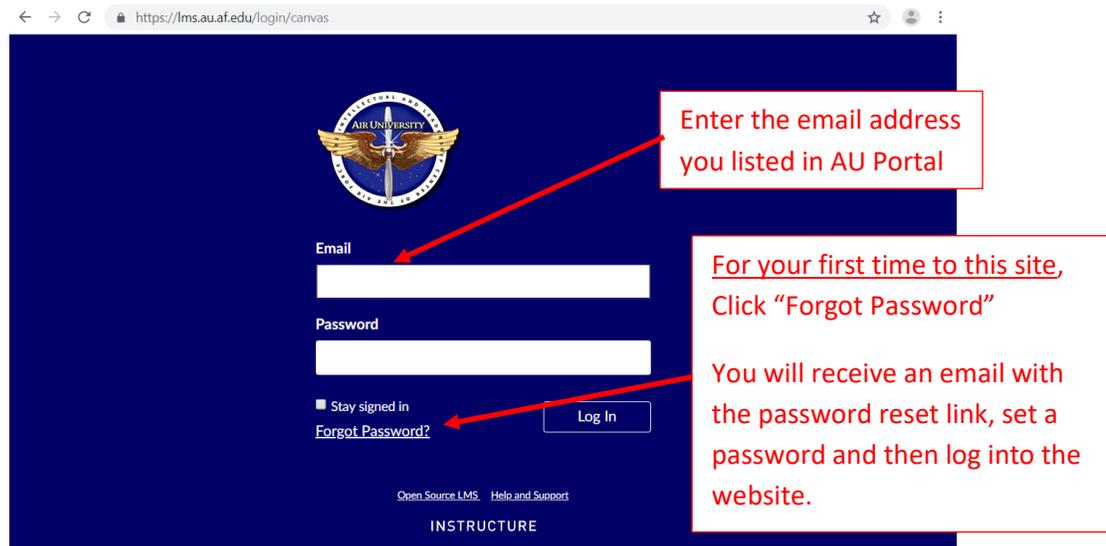
- All Items
- Passwords
- Secure Notes
- My Certificates
- Keys
- Certificates

DoD Root CA 5
Root certificate authority
Expires: Friday, June 14, 2041 at 12:17:27 PM Central Daylight Time
This certificate is marked as trusted for this account

Name	Kind	Date Modified	Expires	Keychain
DOD ID CA-33	certificate	--	Sep 22, 2021 at 8:32:32...	login
DOD ID CA-34	certificate	--	Sep 22, 2021 at 8:40:30...	login
DOD ID CA-39	certificate	--	Nov 8, 2021 at 8:21:57 AM	login
DOD ID CA-40	certificate	--	Nov 8, 2021 at 8:22:54 AM	login
DOD ID CA-41	certificate	--	Nov 9, 2021 at 10:13:56 A...	login
DOD ID CA-42	certificate	--	Nov 9, 2021 at 10:15:02 AM	login
DOD ID CA-43	certificate	--	Nov 9, 2021 at 10:16:01 AM	login
DOD ID CA-44	certificate	--	Nov 9, 2021 at 10:18:14 AM	login
DOD ID CA-49	certificate	--	Nov 23, 2022 at 7:48:15...	login
DOD ID CA-50	certificate	--	Nov 23, 2022 at 7:48:47...	login
DOD ID CA-51	certificate	--	Nov 23, 2022 at 7:49:27...	login
DOD ID CA-52	certificate	--	Nov 23, 2022 at 7:49:57...	login
DOD ID CA-59	certificate	--	Apr 2, 2025 at 8:38:32 AM	login
DOD ID SW CA-35	certificate	--	Sep 22, 2021 at 8:37:50...	login
DOD ID SW CA-36	certificate	--	Sep 22, 2021 at 8:44:42...	login
DOD ID SW CA-37	certificate	--	Sep 23, 2021 at 10:23:05...	login
DOD ID SW CA-38	certificate	--	Sep 23, 2021 at 10:24:51...	login
DOD ID SW CA-45	certificate	--	Mar 9, 2022 at 7:28:56 AM	login
DOD ID SW CA-46	certificate	--	Mar 9, 2022 at 8:22:27 AM	login
DOD ID SW CA-47	certificate	--	Apr 13, 2022 at 8:12:43 AM	login
DOD ID SW CA-48	certificate	--	Apr 13, 2022 at 8:19:49 A...	login
DoD Root CA 2	certificate	--	Dec 5, 2029 at 9:00:10 AM	login
DoD Root CA 3	certificate	--	Dec 30, 2029 at 12:46:41...	login
DoD Root CA 4	certificate	--	Jul 25, 2032 at 2:48:23 PM	login
DoD Root CA 5	certificate	--	Jun 14, 2041 at 12:17:27...	login
DOD SW CA-53	certificate	--	Nov 23, 2022 at 7:50:35...	login
DOD SW CA-54	certificate	--	Nov 23, 2022 at 7:51:28...	login
DOD SW CA-55	certificate	--	Nov 23, 2022 at 9:46:46...	login
DOD SW CA-56	certificate	--	Nov 23, 2022 at 9:48:22...	login
DOD SW CA-57	certificate	--	Dec 12, 2022 at 8:39:49...	login
DOD SW CA-58	certificate	--	Dec 12, 2022 at 8:40:52...	login
DOD SW CA-60	certificate	--	Apr 2, 2025 at 8:34:49 AM	login
DOD SW CA-61	certificate	--	Mar 31, 2025 at 8:41:24...	login
fmsd-daemon-aps-token	application password	Jun 15, 2017 at 11:17:17 PM	--	login

Step 6: If you are going to use Firefox as your browser, then go to the next section and follow the steps.

If you are using a “non-Firefox” browsers (Safari, Chrome, etc.), then close your internet browser, reopen it and login to Canvas (<https://lms.au.af.edu>). All icons should display properly and you should have complete functionality. If you experience issues accessing Canvas with non-Firefox browsers, then please see the [Troubleshooting](#) section at the end of this handout.



The screenshot shows the Canvas login page for AU Portal. The page has a dark blue background with the AU Portal logo at the top center. Below the logo are two input fields for "Email" and "Password". There is a "Log In" button to the right of the password field. Below the password field is a checkbox for "Stay signed in" and a link for "Forgot Password?". At the bottom of the page, there are links for "Open Source LMS" and "Help and Support", and the word "INSTRUCTURE" is centered at the very bottom. Two red callout boxes with arrows point to the "Email" field and the "Forgot Password?" link. The first callout says "Enter the email address you listed in AU Portal". The second callout says "For your first time to this site, Click 'Forgot Password'". Below the second callout, there is additional text: "You will receive an email with the password reset link, set a password and then log into the website."

(Unless you are using Firefox)

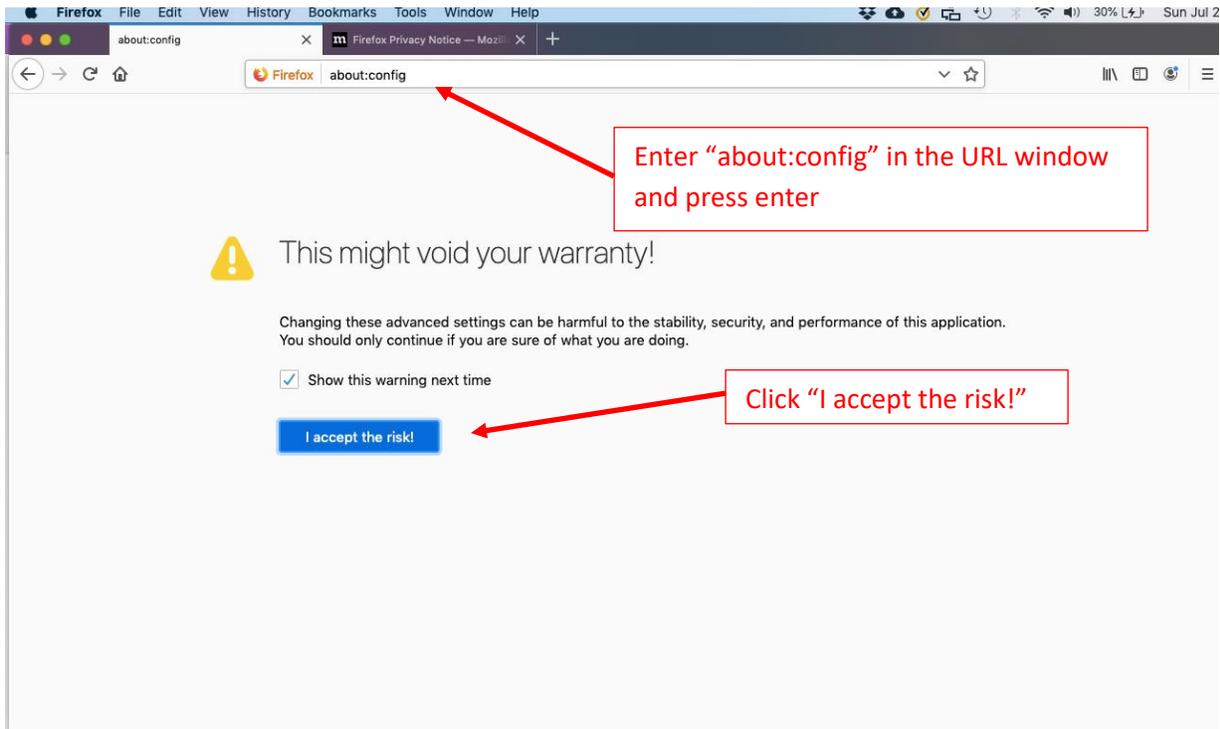


If your internet browser of choice is Chrome, or Safari, there are no more steps for you to take. You should be able to login to Canvas and have everything display and function properly.

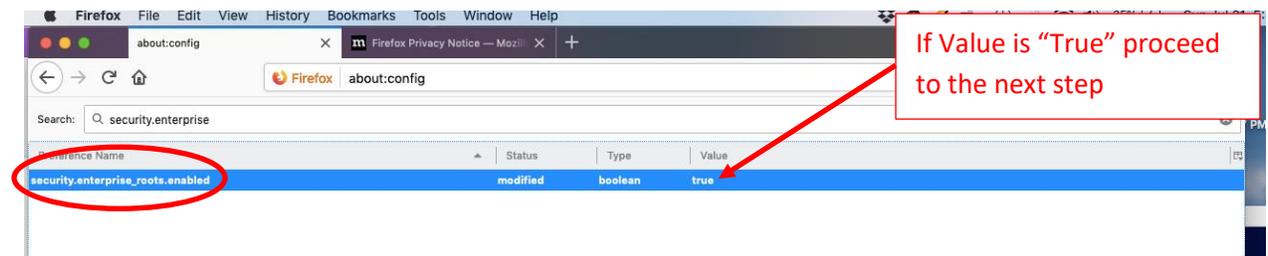
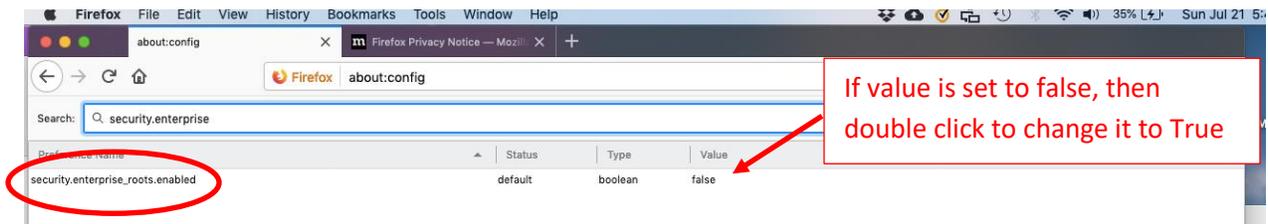
If you are using Firefox as your browser, you MUST perform the steps below for Canvas to work on the browser.

II. If Using FireFox, you must also do these steps (3 Steps)

Step 1: Once you have loaded the certificates as instructed in section I, open Firefox, type “about:config” in the URL address window and press enter. You will get a warning message. Click “I accept the risk!” (These steps will tell Firefox to use the Certificates you loaded in section I.)



Step 2: When the window opens, Start typing “security.enterprise_roots.enabled” when the certificate pops up, if the value is false (normally the case) then double click on it to change it to true.



Step 3: Close the Firefox browser, reopen it and login to Canvas (<https://lms.au.af.edu>). All icons should display properly and you should have complete functionality. If you experience issues accessing Canvas, then please see the [Troubleshooting](#) section at the end of this handout.

Troubleshooting Tips and Tricks

1. If you get an error code below, click the link for procedures to correct it.

Error 100001 [Solution](#)

Error 100013 [Solution](#)

2. If you tried to access the Canvas website prior to loading the certificates, you may need to clear your keychain. Click the link below for procedures to clear the keychain.

[Clearing the keychain](#) (opens a new page)

3. If you are still having problems you may have some bad certificates. Open Keychain Access again and look at the CA-2 and CA-3 certificates. If they have a light blue frame (may have a red circle or not), delete the certificate (move to trash). If they have a yellow frame do not delete them.



DoD Root CA 2 or 3 certificate