For the best experience the following requirements and recommendations should be followed.

**Requirements:**
- External USB web camera capable of at least 1280 x 720 resolution or higher,
  - Or
- Built in laptop web camera capable of at least 1280 x 720 resolution or higher.
- External USB microphone (usually part of an external USB camera), or built in laptop microphone.

**Recommended connection speed:**
- Wired connection and broadband service recommended
  - (Wireless carriers and satellite service NOT recommended)
- 768 kbps minimum must be maintained both upload and download
  - 2Mbps recommended
  - Test your Internet Speed by going to: [http://speedtest.uen.net](http://speedtest.uen.net)

**Recommended computer specifications:**
- Windows 10 Highly Recommended
- Mac OS 10.10 (Yosemite) minimum
- Quad Core
- 4 GB RAM Minimum

**Other Recommendations:**
- Use the latest version of the Chrome browser (at least Version 63.0.0 or higher)
- Have NO other apps or programs running while using CMA/Meeting Server upon connection
  - (if Skype, Google Hangouts, or other applications that may be using your web cam are running this will cause issues)
- It is highly recommended that students use a headset with microphone for the best audio experience.

**Recommendations for having the best experience:**
- Use a headset instead of built-in speakers and microphones. This will improve your audio and help prevent echoes at other locations.
- Mute your microphone when you are not speaking. This prevents others in the broadcast from being distracted by background noise at your location.
- Other internet connected devices/services can significantly decrease your network speed (e.g. Gaming Consoles, iPads, Netflix, etc.). If your network speed is near the minimum required speed, ensure these devices/services are not in use on your network to ensure a more reliable network connection.

**IMPORTANT!** It is highly recommended that you pre-test your connection and computer capabilities before your first scheduled event. Please contact the UEN Operations Center to conduct an audio and video connection test by calling 1-800-863-3496, option 1, then option 1 again.

*Please note that using a desktop video conferencing application is considered a “best effort” connection. There are many variables in connecting dependent upon the individual’s computer and network they are using. There are many issues in connecting that technical support might not be able to resolve for you.*
Please note: **Chrome is the recommended browser to use for joining using “guest” links.**

The following sections will prepare you to connect as a guest to the UEN IVC System.

1. Copy and paste the provided guest link into the address field of a new tab (see fig. 1.5) and hit enter (or if Chrome is set as the default browser, just click on the link), but be sure you are in the Chrome browser.

   ![Fig. 1.5](image)

2. You should now be at the CMA guest log in screen (see fig. 1.6). The page should display the title of the event you are joining. Below the title of the event enter your full name in the NAME field and click the “JOIN MEETING AS GUEST” button.

   ![Fig. 1.6](image)

3. If you get a message in red indicating “Could not join meeting”, please click on the “Join meeting as guest” button again and it should get you to the next step.

4. You should now be at the page where you will need to validate your web camera, microphone and speakers as well as allowing CMA to send you notifications while connected to your event/co-space.

*(cont. next page)*
IMPORTANT:
Before proceeding, ensure that a web camera and microphone are connected to and enabled on your computer. Please note that you must click ALLOW in the following steps. If you accidentally click BLOCK, you will need to refer to the additional troubleshooting section below labeled “ISSUE 2: I am unable to select or “validate” my camera and microphone.”

5. A pop up window will appear asking you to “Show notifications”, click the ALLOW button (see fig.1.7).

6. Next, you will get a second pop up window asking to use your microphone and camera. Click the ALLOW button in the second pop up window to allow your camera and microphone to be enabled (see fig. 1.8)
7. You should now see the screen below (see fig. 1.9). Under the “Use this computer” tab, select your desired Camera and Microphone from the drop down list. After ensuring you can see yourself through your camera and your microphone meter is moving when you speak CLICK the “JOIN MEETING” button to be connected to your event.

![Fig. 1.9](image)

If you are having problems connecting after following the above steps the next pages include some additional troubleshooting steps to try.
ADDITIONAL TROUBLESHOOTING STEPS

ISSUE 1: I’m being asked to enter a “meeting ID”.

- If at any point during the join process you get a screen that is asking for a Meeting ID (fig.1.10) please try the following steps:

  a. Refer to your original join link that should look something like this: https://join.avc.uen.net/invited.sf?secret=JHSv8REDMIKFV9.xlgug2A&id=378929769
  b. The meeting ID is the string of numbers (usually nine numbers) found at the end of the link as highlighted above.
  c. Enter this string of numbers in the field in the window that asks for the Meeting ID as shown below (the number will be different for different events). Leave the passcode field blank.
  d. Click Join meeting.

ISSUE 2: I am unable to select or “validate” my camera and microphone.

1. Ensure you are using a web camera that is capable of 1280 x 720p resolution.

2. Try resetting the browser settings/cache and enabling allow/deny pop up prompts for notifications/camera/microphone
   a. In Google Chrome, open the "Clear Browsing Data" menu by clicking on the three dots at the top right, selecting "More Tools and "Clear Browsing Data."
b. Select the "Advanced" tab and change the "Time range" to "All time."

![Clear browsing data]

```
Time range  All time

Browsing history:
```

c. Check the box next to "Content settings" then click "Clear Data."

![Clear browsing data]

```
Content settings
None
```

d. Open the CMA link for your event in Google Chrome.

e. Type in your name and select "Join meeting as a guest."

f. A pop up will appear asking you to "Show notifications." Click Allow.

g. A second pop up will appear asking to use your microphone and camera. Click Allow.

![Joining TEST](https://call.ncp.uen.net/index.html?7id=79688&secret=e44ef013-cb99-4b8b-88)

h. You should now see the screen below. Verify your camera, microphone, and speakers are working correctly, and then click "Join Meeting."
ISSUE 3: I’m connected to the event but not seeing any incoming video.

1. Refresh the page by pressing the page refresh button in Google Chrome. If video still doesn't show, try refreshing the page again.

If you are still not able to connect, call the IVC Operations Center at 1-800-863-3496 opt 1, opt 1 again.