Some classrooms have controls capable of adjusting the aspect ratio to more adequately display widescreen-formatted material onto the projection screen or display monitor. A list of these rooms is included below.

How to Use Aspect Ratio Controls
In rooms with hard button control panels,

- Press the aspect ratio button on the control panel.
- Allow the system to adjust to a new setting. There is a slight delay as the system adjusts.
- If the new display is still distorted, press the button again.

In rooms with touchpanel control systems,

- There is a brief guide on the screen that will assist you in making a selection. If the selected mode does not display the image to the desired size, press the AUTO SET-UP, or select a different mode to change aspect ratio mode.
- The AUTO SET-UP mode will attempt to estimate the appropriate ratio for the image.
- Press ESCAPE to return to the Main Menu.

FAQ—Aspect Ratio

What is Aspect Ratio?
An aspect ratio is the ratio of the width of an image compared to its height. The two most commonly used ratios for display devices are standard 4:3, and 16:9 also known as widescreen.

(Example of 4:3 display)

(Example of 16:9, or widescreen, display)
FAQ—Aspect Ratio

Why should I use this feature?
Aspect ratio controls give you several different options to display your content on the classroom’s widescreen projector or monitor. The appropriate mode will depend on the ratio of your content as well as your preference as to how it will look on the screen. Depending on your content, there may be an advantage to be able to show the details of widescreen material that does not appear truncated or cut off.

What is displayed if no controls are used?
If you do not select any aspect ratio options:
- When displaying a computer screen, the projector will attempt to match the computer display settings.
- When displaying a video,
  - VCR: the projector will display standard 4:3;
  - DVD: projector will attempt to match settings encoded on the DVD.

What do the different options mean?
The touchpanel controls offer many options for displaying different types of content. Here is a brief description of the options available. Note that not all options are available in every classroom.

**Video Signals** (available when a video signal, such as from a DVD player, is present):

4:3  Select to view a picture with normal 4:3 ratio. This ratio generally matches older films and television programs. If using a DVD, check the disc’s outer case or description to determine its proper ratio. When using this mode, a standard 4:3 image will display properly but will not fill out the entire screen on each side.

16:9  Select to view a picture squeezed. This mode is generally used for “enhanced” or “anamorphic” widescreen video material with a 16:9 ratio. If using a DVD, check the disc’s outer case or description to determine its proper ratio. Some video material may display black bars around the image. Using this mode with 4:3 video material will stretch the image to fill the screen.

ZOOM: A 16:9 aspect ratio picture is enlarged to fill the screen. This mode may be useful for widescreen video material that contains bars or bands around the image. For some material, portions of the image may be cropped.

FULL: Displays a picture on the whole of the screen. When using 4:3 ratio materials, the sides of the image may be horizontally stretched on the sides. Widescreen video will be displayed with no black bars or bands around the image. Some content will look identical in this mode as it does in the “16:9” mode.
**Computer Signals** (available only when a computer/laptop signal is present):

4:3  Makes the aspect ratio 4:3. This mode is intended for computers running a display resolution that matches the 4:3 ratio, such as 1024x768. The image will retain its full height in this mode with no alteration.

16:9  Makes the aspect ratio 16:9. This mode is intended for computers running a display resolution that matches the 16:10 ratio, such as 1280x800. A 4:3 resolution image will appear stretched in this mode.

**FULL 1**: Displays a picture vertically or horizontally to fill screen without changing aspect ratio of the original. When using some wide display resolutions, this mode will zoom image to fill screen. This mode may not change image when using some display resolutions.

**FULL 2**: Displays a picture on the whole screen. This mode may crop image when using certain display resolutions. This mode may not change image when using some resolutions.

**NORMAL**: Displays picture while matching one pixel of picture element to that of the projector. Picture will be clear but the size will be smaller. This mode will match the display resolution of the projector to that of the computer. If the computer’s resolution is above 1280x800, the image may be cropped. If the computer’s resolution is below 1024x768, the image size may be smaller and contain bands around the image.

**Auto Set Up**

If the selected mode does not display the image to the desired size, press AUTO SET-UP, or select a different mode. AUTO SET-UP will attempt to estimate the appropriate ratio for the image.

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**Which general purpose classrooms have Widescreen Aspect Ratio Control options?**

OCM is continually updating the classroom equipment as it reaches the end of its planned life-cycle and video projectors with widescreen capability will be added whenever possible. This feature currently exists in over half the classroom inventory.

There are several ways to determine if the classroom you are scheduled in has this feature:

- the Aspect Ratio control will be available on the control panel in the classroom,
- review the specific classroom instruction document
- email your inquiry to OCM at classroom@umn.edu

**NOTE**: Controls located at instructor station, hard button or touchscreen. There are also touchscreen controls at tables in STSS active learning classrooms. Controls may be “Projector Aspect Ratio,” “Image Aspect,” “Aspect Ratio Controls,” “Aspect Ratio,” or “Lectern Source Aspect Ratio.” Note: At the STSS Tables, the controls are under “Monitor Set Up.”