

Objective 106.01

Understand concepts used to create digital video.



Course Weight : 5%



ExplorNet CareerTech

from The Centers for Quality Teaching and Learning



Digital Video

Moving images that have been captured, created, or edited electronically

- ✓ Analog (non-digital) video signals transmit information continuously in the form of a wave
- ✓ Digital video signals transmit information in the form of individual bits of data



Characteristics of Digital Video

- Aspect Ratio

ratio of a video screen's height dimension and width dimension; common ratios are standard (4:3) and widescreen (16:9)

- Frame Rate

speed at which video frames appears on a screen; measured by F.P.S. (frames per second)

- Scanning Method

method by which video picture appears on a screen (720p, 1080i, etc.)

Interlaced : displays half of the video picture at a time (odd lines, then even); alternates too quickly for human eye to notice

Progressive : displays the entire video picture at all times; greatly reduces any flickering of picture; better quality image than interlaced



Broadcasting Systems

Different parts of the world use a variety of video broadcasting systems

- **NTSC** (National Television System Committee)
used in North America and many other parts of the Western Hemisphere
- **SECAM** (Sequential Color with Memory)
used primarily by France, Northern Africa, and Russia
- **PAL** (Phase Alternating Line)
used by Europe, China, and many other parts of the Eastern Hemisphere



Streaming Video

- ✓ Transmitting video files that can begin playing over the Internet as the remaining data is still being downloaded
- ✓ Creates little to no wait time to begin viewing the video file
- ✓ Example websites that use streaming video technology include *YouTube*, *Netflix*, *Vimeo*, *UStream*, etc.

