University of Central Oklahoma
Audio Visual Standards:

**LCD/LED Displays and Projectors**

Commercial LCD/LED/DLP Projection (XGA) HD capable Display with up to 1080P Resolution with at least 2 VGA and 2 HDMI inputs and Network capable interface and RS-232 control port.

- Projectors must have a minimum of 3,500 lumens for standard classrooms.
- 4,000+ or higher lumens for larger venues and meeting rooms depending on space requirements and distance.

**Recommended Manufacturer for Displays and Projectors**

- Sharp* (preferred)
- Samsung
- NEC
- Mitsubishi
- Panasonic/Sanyo
- Epson

For projector replacement lamps it is highly recommended to use Projector Lamp Experts for discounted rates. For information regarding replacement lamps please contact: 1-866-426-5773

Television displays that require being wall mounted will need to have 120V 15amp receptacle 5.5” off the ground or else determined by the customer’s needs. A backer board support for large displays is required.

- No loose wiring above dropped ceiling.
- All wiring will need to be in Conduit 1-2” depending on installation, building construction and equipment needs. (Conduit size, type and installation shall be coordinated with UCO Facilities Management before installation.)
Security
Any Projection, LCD or high cost media equipment displayed in public area must have:

- Sonic Shock alarm
- Stop Tags
- Cable Kensington lock
- Any type of master key lock.
- OR be connected to a Crestron Room View Server edition or Extron Global Communicator

Video Equipment
- Sony or Panasonic Blu-ray DVD Players with full 1080P resolution (Internet Application based DVD players are based on customer’s needs.
- Sony or Vaddio HD/SD ceiling cameras for video capture.
- Wolfvision or Elmo document cameras for standard classrooms, conference rooms and lecture halls.
*VHS tape media will not be supported in newly built or renovated venues. Digitizing services are available in the Technology Resource Center ADM building room 101 or 974-5595.

Audio
Wireless microphone systems must have either 1. Wide range UHF frequency selection or 2. Fixed UHF frequency with the appropriate frequency setting to avoid outside interference.

Preferred Brands
- Shure
  - U1XP UR4D for similar series systems for large venues and auditoriums
  - PG Series or similar for systems such as smaller conference/meetings rooms and classrooms.
    - Sennheiser
    - AKG
- Speakers must have a polypropylene cone with rubber surround or better. Paper and paper composite coned speakers will not be allowed.
  - Preferred brands
    - JBL
    - BIC
    - Atlas Sound
- Acoustic panels – Consult UCO Architectural and Engineering Services for fire Rating colors and finishes.
Control System

Audio visual control installation will be determined by the complexity of the audio visual requirements. The following table below is a guideline to determine whether to use an *Extron or Crestron* solution.

Once the design, intended use, and technology requirements have been determined for each individual space, UCO will inform the vendor(s) on which control system is desired for each room.

For cases in which Crestron control systems are necessary, detailed programming plans should be communicated to the Office of Information Technology before full implementation.

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Systems should report the following into Crestron Room View Server and Extron Global Communicator:

(Crestron Fusion Room View Server already in place)

1.) System Power*
2.) Display Power*
3.) Display Usage
4.) AV Help Desk
5.) Video previews for each source in the room.
6.) Incorporate UCO Graphic Design Touch Panel Standards

*Provide Feedback and Control.

UCO Blue
#003366
UCO Bronze
#FFCC00

Last updated 6/10/13
For Crestron control rooms, it is highly recommended to use a Certified Crestron programmer in the area.

Vendors shall provide control code, cad drawings, schematics, and equipment manuals and other project documentation to the University of Central Oklahoma upon successful project completion and sign off or after the project has been awarded by purchasing.

**A/V Network Requirements**

Static IP addresses are required for Crestron and Extron Control Solutions. UCO Information Technology will work with vendor on AV network requirements prior to project installation.

**A/V Furniture**

To be determined by client and room specifications. Furniture will need to match Architectural and Engineering Services design and furniture finishes and recommendations.

**Interactive Video Conferencing**

The University of Central Oklahoma is a Tandberg/Cisco video conferencing campus. All codecs and HD cameras should be manufactured by Tandberg/Cisco.

- h.323 & h.264 communications.
- All video conferencing units must be registered with the gatekeeper.
- Cisco Service Maintenance Contract is required to be active and renewed yearly.
- Onenet Support desk 225-9421
- Static IP address are required
- HD Cameras 1080P
- Cisco video conferencing codecs are currently installed in the following areas:
  - Lillard Administration Building room 101A
  - Lillard Administration Building room 101B
  - Lillard Administration Building room 214
  - Lillard Administration Building room 113
  - Thatcher Hall room 308
  - Thatcher Hall room 310
  - CTL Radke Fine Arts Theater
  - CTL Front Lobby
  - Forensic Science Institute Auditorium room 106
  - Forensic Science Institute Conference room 107
  - Forensic Science Institute room 123
For questions regarding video conferencing services, please contact the service desk at servicedesk@uco.edu or 974-2255 or Technology Resource Center 974-5595.

**Digital Signage**
The University of Central Oklahoma has acquired Four Winds Interactive (FWI) to provide digital signage across campus.

- Submit a service desk ticket to support@uco.edu regarding digital signage needs in your area.
- College/Department is responsible for funding for the project as well as managing the content.
- Submit a service desk ticket for any digital signage issues in your area.

**Classroom Capture (Lecture Capture)**
The University of Central Oklahoma has acquired the Polycom/Accordent system as the vendor for classroom capture on campus.

If a department is interested in implementing this into an area of capture, please contact the service desk at support@uco.edu 974-2255 the Technology Resource Center 974-5595.

Items required to purchase are the following:
- Polycom/Accordent all in one Capture Station
- Vaddio HD/SD wall mounted cameras
- Vaddio Camera Tracking solution (optional)
- Shure wireless Lapel Microphone
- Infrastructure already in place:
  - Streaming Server
  - Web Server
  - Application server
  - Database

**Web Conferencing Services**
The University of Central Oklahoma has acquired Blackboard Collaborate as the web conferencing solution on campus.

If a department is interested in implementing this into an area of capture, please contact the services desk at support@uco.edu 974-2255 or Technology Resource Center 974-5595.
Media Captioning Services
UCO has purchased the Docsoft AV appliance for media transcription services. The Docsoft AV appliance is powerful software and hardware solution designed to audio mine (capture) the spoken content in digital audio and video (AV) files. This appliance can be used to automatically generate text transcripts and closed captioning formats and can be configured to output virtually any text based format. If a department is interested in this service please contact the service desk at support@uco.edu 974-2255 the Technology Resource Center 974-5595.

Teleconferencing Services
UCO has acquired ATT Teleconferencing services for University conference bridging. To request a conference bridge number for your next meeting involving more than 2 attendees in a call please contact the service desk at support@uco.edu 974-2255 the Technology Resource Center 974-5595.

Warranty and Training on AV equipment installed at UCO
Multimedia technology installed at the university must have a minimum of 3 year warranty protection period.

A service level agreement with the vendor and UCO is required on high cost conference rooms, classrooms and auditoriums with a local support response time by end of business day following first contact.

Formal training and documentation by the vendor shall be provided to UCO before project sign off along with support contact information in case of technology Malfunctions.
For all A/V project Installations, the selected vendor will:

- Provide UCO with the full scope of work on the Project.
- Provide Cad Drawing Schematic.
- Provide exact network locations for network drops.
- Provide exact locations on electrical outlets to best fit the installation.
- Provide effective and clean cable management.
- Not have loose cables above drop ceiling.
  - All wiring will need to be in conduit. Conduit to be provided by UCO.
- Work with UCO closely on Network Requirements.
- Work with UCO closely on Crestron Programming needs for installation.
- Provide proper communication to Project Coordinator and provide all project updates as needed.
- Work with UCO to configure equipment to work with UCO existing wireless. Should alternative solution be needed. Vendor will install wireless routers or access points according to UCO specifications and approval.
- Utilize plenum rated cabling for installation.
- Not run AV cable over other electrical sources.
- Provide all tools required to complete the project.
  - UCO will not provide ladders, zip ties, screw drivers, other tools, etc.
- Dispose of all the trash that accumulates during the installation.
  - Vacuum and dust off any ceiling tile debris in the room.
- Finish the project on time as proposed in the Scope of Work and provide closing documentation such as manuals, programming code, drawings, etc.
- Test all programming and functionality of the room prior to project sign off.
- Label all wiring for each independent source.
- Provide formal training and documentation on effective use of the installation.
  - Provide clear and understandable documentation.
- Assign installation technicians to the jobsite that are knowledgeable and professional that will communicate effectively with the customer.
- Install proper surge protectors that are needed based on the amps that the equipment is sending out for proper power management settings.
  - User power conditioner at all possible.
  - No daisy chain surge protectors
- The Vendor is responsible for transporting technology equipment to the worksite.
  - No Drop shipments will be accepted unless agreed otherwise by UCO.
- Use digital wiring for all multimedia equipment.
  - No RG6 cabling (only if identified by the customer)
  - No RCA Composite Wiring (only if identified by customer)
  - No analog wiring (only if identified by the customer)