**Audio Visual Systems:**

Crestron control system components to include the specified control processor, connectivity and the ability to provide integrated control of at least one multimedia projector, one pair of specified stereo speakers, one specified Blu-ray DVD unit, two computer outputs for main computer and laptop, and two additional source devices (e.g. digital document camera, composite video camera). Vendor must provide all required manufacturer power supplies, cables, rack kits, expansion and wall plates (metal expansion and/or wall plates require the use of insulated plenum cabling), sensors and controls. A pre-terminate (25') Twenty-five feet umbilical cord wrapped in braided TechFlex should be installed to connect equipment rack to wall plate. Cabling in walls and ceiling must be plenum rated.

Vendors may submit proposals only for equal or better quality items specified with make and model if the specified item is no longer available from the manufacturer. Specified items not available from the manufacturer will require the vendor to quote the direct replacement item from the specified manufacture and will require approval from Northern Kentucky University’s Office of Information Technology. On those items not specified, please supply catalogue pages with all specifications and indicate the make and model of any suggested items.

Programming of Crestron Control System should also include the Crestron Fusion and X-Panel modules. Programming Code (compiled and uncompiled) for Crestron Control Systems must be submitted to the Northern Kentucky University’s Office of Information Technology upon project completion. All programming will become property of Northern Kentucky University.

**Preferred Product Specifications:**

The following list specifies acceptable models of equipment, which at this date are preferred by the Northern Kentucky University’s Office of Information Technology for the consistency and ease of support. Substitutions for discontinued items must be of the same manufacturer and be the current replacement for that model.

- Spectrum Link Lectern 36” w/4” casters, model # 55123 IDHD
- Spectrum document camera/task shelf, model# 55140 IDHD
- Middle Atlantic PB-XS, Rackmount for PD815SC
- Middle Atlantic PD815SC, 8-outlet power distro w/surge
- Middle Atlantic PD-915R, 9-outlet power Distro
- Middle Atlantic U1, 1RU utility rack shelf
- Middle Atlantic U2, 2RU utility rack shelf
- Crestron Control System, Crestron DMPS-300-C
- Crestron AirMedia, AM-100
- Crestron 4.3” Isys touchpanel user interface, gloss black, TPMC-45MB-B-S
- Crestron DM 8G+ receiver/room controller, RMC-Scaler-C
- Crestron PoE injector, PWE-4803RU
- Chief Universal Projector Mount, RPMAU
- Chief Suspended Ceiling Kit, CMS-440
- QSC Acoustic Design Speakers (Pair), AD-552
- Sony Blu-Ray DVD Player, BDP-S5200
- Da-Lite 16:10 109” Matte White Manual Screen, Model B
- Da-Lite Mounting Brackets (Pair), Model 6
- Panel Crafters -2-gang wall plate, engraved, brushed black 1 VGA (engraved LAPTOP), 1 3.5mm audio, 1 power outlet, 1 HDMI, (engraved AUX HDMI), 1 cat5e (engraved LAN), 1 Composite Video RCA with L/R Audio (engraved AUX VIDEO)
Panel Crafters - custom 2-gang, engraved, brushed aluminum - 1-speakon (engraved SPKRS), 1 cat5e (engraved DM), 2 male XLR (engraved Mic 1 & Mic 2)

PowerLite 99W WXGA 3LCD Projector                     V11H578020
Epson DC-12 Document Camera                                 V12H594020

Note: All HDMI cables should be Crestron® Certified HDMI® Interface Cables

- The vendor is expected to be pro-active in advising Northern Kentucky University's Office of Information Technology representatives of improvements in relevant AV technology and pricing in a timely manner, and to provide demonstration samples for testing and evaluation in actual use.
- Equipment shall be of current design and consist of standard products established manufacturers, carrying valid manufacturer’s standard USA warranties.
- All items must be new. Used, including demonstrator equipment is unacceptable.
- The smart controls shall be designed to provide optimum usability for all controllable equipment. They shall imitate the design and functionality type user interface for the University's existing systems.

ADDITIONAL HARDWARE REQUIREMENTS: Additional requirements include extension cables from podium interior (equipment location) to podium surface to allow convenient plug-in of additional equipment; cable-pack to include HDMI connections for desktop PC and laptop, composite video, audio (for desktop PC and laptop).

Connector plates, plugs, 20’ cables, other required hardware, and installation to allow podium to be moved around the front of the room (i.e. “umbilical cord” with plugs at both ends, to connect podium equipment to wall for power, network, projector, and speakers. Cabling, connectors, programming, installation, and all required components and labor necessary for complete installation.