Smart Classrooms

The mission of the Classroom Technology Support team is to standardize, support, and maintain all university classrooms according to the SMART classroom standards for classroom technology.

Currently, there are over 400 technology-equipped classrooms on campus, comprising over 250 fully digital classrooms and a blend of digital-analog setups.

Standard Classroom Equipment

- A multimedia data projector
- Electric screen
- Podium consisting of:
    - Computer (PC or Mac)
    - Bluray or DVD player
    - Document camera (not included in all podiums)
    - Extron Switcher
    - Ceiling or wall-mounted speakers.
    - Intercom system for immediate assistance when faculty need technology support from the classroom (Intercom support is available Monday through Friday, 7 a.m. to 5 p.m.)

Active Learning Classrooms

In addition to the standard classrooms, we've worked with departments to develop over twenty Active Learning Classrooms across campus, with more being planned each year.

App State Classroom Technology Standards

The purpose of this publication is to ensure that all Audiovisual (AV) for App State classroom spaces are designed and constructed to the standards set by Classroom Technologies (part of Information Technology Services).

These guidelines will be used as the AV standards for renovations and new construction projects to promote consistent learning spaces that effectively meet the needs of faculty, staff, and students and can be supported by the Classroom Technologies team.

This document covers the basic physical requirements for audiovisual equipment used in Academic Classrooms but may not be able to cover all types of scenarios on campus.

If for any reason these standards cannot be met, consultation with Classroom Technologies (part of Information Technology Services) at App State is mandatory before solicitation of AV Design Services and implementation of any construction work.

Type	Brand	Specs, Requirements, and Provisions
Data Projectors	NEC	- LCD, laser technology, 16:10 - IP5x sealed cooling system provides a filter-free projection solution - Whisper quiet operation for minimal distraction - Manual horizontal & vertical lens shift enables flexible projector placement - up to 4K UHD (3840x2160) @ 30Hz via HDMI, HDBaseT, ECO Mode, Wired Network connection, Cornerstone correction - Minimum 6000 lumens 5-year warranty
Data Screens	DA-Lite	- Cosmopolitan Electrol Series 16:10 - LVC and Silent motor - Wall mounting brackets for wall mounting
Commercial Displays	Samsung, LG, Sharp, Sony, NEC	**Requirements: must have a compatible Extron driver available for on/off function via RS 232 or Data (Lan) connection (preferred)Peerless Articulating mount rated for display weight (screens over 70" and 100 lbs may require additional wall blocking)**
Monitor Display-Podium (lectern monitors)	Wacom DTK, Viewsonic	- Wacom DTK - 2451 Pen Display (if pen display functionally desired) - Viewsonic VX2252MH (if pen display functionally is not desired)
Monitor Display Mount - Podium (lectern)	Ergotron	LX Desk Monitor Arm 42-241-026

Projector Mounts	Chief	• Speed-Connect Suspended Ceiling Tile Replacement Kit Mount - White CMS 445 • RPA Elite Universal Projector Mount with Keyed Locking (A version) RPMAU • CMS mounting poles
AV Switchers	Extron Electronics, Pro Series	• Pro Series • supports signal resolutions up to 4K/60 at 4:4:4
AV Controllers	Extron Electronics, Pro Series	• Pro Series • Supports TouchLink® Pro touchpanels, eBUS® button panels, Network Button Panels, and IPL EXP I/O expansion interfaces
Touchpanel control	Extron Electronics	• 7" Cable Cubby TLP Pro 725C for podiums (lecterns) • 7" Cable Cubby to contain (2) 110VAC duplex 15A outlets, (2) USB-C and USB-A charging ports • 7" Cable Cubby to contain (1) USB-C pull-out video cable connection and (1) HDMI pull-out video cable connection • 10" TLP Pro 1025T for ALC classrooms and classrooms where more functionality is needed
Computers		Supplied by Appalachian State University
Instructor station in standard classrooms	Spectrum Industries, Inspiration Plus Lecterns	• 55411 -Laminate - (CH) Edgeband -(CH) Metal Finish - (B) Height- (42) Style - (S2) Rear Rack Rail - (1) Flip Up Shelf D-(2) Base Option (5B) Door Logo-(1) Power option - (0) Keyboard-(0) Side Door -(0)Cut out for Extron Pro 725c • Cable cubby to contain (2) AC Electrical outlets and USB-C charging ports, USB-C video cable laptop connection, HDMI video cable laptop connection
Active Learning Classrooms (ALC) furniture	KI	• Tables - *Modified-Backbone, Mobile,60" Base Length,74P Edge,70"Wx88"L cutouts for Extron Electronics cable cubby 1402, HDMI cable, AC and USB outlets • Instructor station – All Terrain 44" Binder Tower, Shelf/File w/Outriggers, Lpd- Bwd,74P Edge, Steel /nickel bow tie (hinge left),22x20"D • Middle Atlantic AV Cart - RFR-1628BR RFR Reference Series Furniture Rack - Black Rain
Power Distribution Unit (PDU)	Tripp Lite PDU	Metered 120 15A PDUMH15-6 Rack Mount
Line Conditioner	Tripp Lite	LC1200
Speakers	Extron Electronics	• Speaker FF220T, 42-141-03 Full-Range Flat Field Speakers with Low Profile Enclosure and 70/100 V Transformer for drop ceilings • SM speakers for wall applications • SF Pendants for open ceilings
Audio Amplifiers	Extron Electronics	
Podium Top Intercom	Algo 8201 IP PoE Intercom	Surface mount box Extron Electronics SMB 112 Black
Cameras	PTZ Optics	PT20X-USB-GY-G2 and associated wall or ceiling mount (Zoom Platform)
Microphone	Audio Technica	• U853RW (white) Cardioid Condenser Microphone Hanging (Ceiling) • ES9450/xlr mic for podium podium mount
Audio Processing	Extron Electronics	• DMP 64 Plus C AT Audio DSP (60-1823-10) • SW4 USB Pro (60-1834-01)

Cabling	Plenum rated	- Label all cabling per ANSI/TIA 606-B standards to include identification at each device - input/output clarification and provide as-built maps at the end of the project - All work must meet the requirements of the Office of State Construction, the NEC, and NC Building Code - Provide a finished A/V product per design and per equipment specifications in complete working order, provide training to App State personnel
Networking Equipment	Cisco Business	16-port Gigabit PoE Managed Switch CBS 350-16p-2G - To be located in the podium

Ceiling Projector

- (2) 110VAC duplex 15A outlet
- (1) data RJ45 port

Projection Screen

- (1) 110VAC 15A hard-wired

Flat Panel Display

- (1) 110VAC duplex 15A outlet
- (1) data RJ45 ports
- (1) ¾" wall conduit terminated above ceiling grid

Instructor Lectern, wall

- (1) 110VAC quad 20A outlet
- (1) data RJ45 port
- AV cabling conduit, (2) 1" with pass-through plates terminated above the ceiling grid

ALC classroom KI Furniture

- (1) 110VAC quad 20A outlet @ each table display
- (1) data RJ45 port @ each table display
- (1) ¾" wall conduit terminated above the ceiling grid from each table display
- (1) ¾" wall conduit terminated above the ceiling grid from each table

Software installed on SMART classroom podiums

Smart classrooms have Dell/Mac computers running the current Windows 11 Podium build or the latest Mac OS. The build includes Office 2019, SMART Notebook software, Google Chrome, other web browsers, and other university-licensed software.

- Smart Classroom Tech FAQ

Search Knowledge Base

Submit a Service Request

We value your feedback! Click HERE to suggest updates to an existing article, request a new article, or submit an idea.