

6.2 Instructional Spaces

6.2.1 General Classroom Characteristics

1. New and renovated classrooms at the University of Calgary will provide excellent environments for learning and teaching. A well-designed classroom is the result of careful coordination of architectural, engineering, and operational issues with established instructional technology principles and requires close collaboration between architect, mechanical engineer, electrical engineer, lighting designer, acoustic consultant, audio-visual specialist and the university's advocates for faculty and students.
2. The University of Calgary Classroom Standards are intended to assist in the successful design, construction, and operation of new and renovated classrooms.
3. Designers are responsible for ensuring that classroom design results in functional, comfortable learning and teaching environments that meet the University's stated programmatic requirements. Any proposed design which deviates from the standards must be reviewed and approved by Campus Planning and the Office of the Registrar prior to the start of construction documentation.

6.2.1.1 Classroom Location

1. New and renovated classrooms will be located across the University of Calgary campus in accordance with the highest and best use and the "10 minute walk" principles.
 - a. Large classrooms should be located near major entrances on main/ground level to enhance access and egress for both regular classes and for groups using the facilities on a casual basis in the evenings or on weekends. If classrooms are located on higher levels ensure code requirements for exiting are met.
 - b. Adequate circulation and "crush" space should be provided outside of rooms and attention during design should be given to ensure that traffic in and out of large group spaces does not conflict, and is unimpeded by architectural obstacles, such as intricate stairs, planters, directories, displays or furnishings.
 - c. Classrooms must be easily located and accessible for students and equipment, yet they must be isolated from noisy gathering places. The uses of adjacent spaces must be carefully considered to avoid distracting noises and sounds.
 - d. Halls, vestibules, lounges directly adjacent to classrooms should not contain vending machines. Noise from this equipment interferes with classroom use when doors remain open.
 - e. Several smaller classrooms may share a common storage, preparation or projection room. However, care must be taken to ensure that noise does not "leak" from one classroom to another, from or through the common room or space, or through ducts or ceiling routes.
 - f. Care must be taken in the location of the classroom in relation to the exterior environment to address noise issues, daylighting, views, need for blackout capability, and possible exterior sources of noise, pollution, or other nuisance factors.



- g. Classrooms should not be adjacent to mailrooms, reception areas, dining facilities, rest rooms, loading docks, mechanical equipment rooms, and similar noise producing areas.
- h. For new facilities, consideration should be given during the site planning process for access and parking of vehicles that deliver and maintain audio visual equipment. Issues to consider include ramps, level vehicle access points, and other provisions for the ease of movement of heavy or bulky equipment.
- i. Sufficient space should be allocated in common areas adjacent to classrooms for solid waste stations and wayfinding signage.
- j. Classrooms should be bundled together to allow lighting and HVAC controls to be separate from other floors to reduce energy consumption. Emphasis should be placed on grouping after-hours uses in one location.

6.2.1.2 Classroom Size

1. Classrooms are defined by size as follows:
 - a. **Small:** Classrooms with a seating capacity of fewer than or equal to 30 seats;
 - b. **Medium:** Classrooms with a seating capacity of more than 30, and fewer than or equal to 60;
 - c. **Large:** Classrooms with a seating capacity of more than 60, and fewer than or equal to 100; and,
 - d. **Lecture Halls:** Classrooms with a seating capacity of 100 and more.
2. The size of new classrooms to be constructed will be determined by the Registrar's requirements, or (in renovations) by the space available.
 - a. Classrooms will be designed to accommodate the programmed number of occupants as well as to provide for appropriate additional support space based on the programme to be accommodated.
 - b. Flexibility without sacrificing functionality will allow for maximum usage of classrooms.
3. For the design of new classrooms the following space guidelines should be used for preliminary planning purposes. These guidelines allow for seating, circulation, media equipment, accessibility, and appropriate amounts of lecture space.
 - a. Classrooms under 30 seats: 2.4 m² / station
 - b. Classrooms from 31-60 seats: 2 m² / station
 - c. Classrooms from 61-100 seats: 1.8 m² / station
 - d. Lecture Halls from 101-200 seats: 1.7 m² / station
 - e. Lecture Halls over 200 seats: 1.5 m² / station

6.2.1.3 Classroom Entrances

1. The flow of students should be the major factor in determining the location of classroom entrances:
 - a. Entrances should be located to avoid generating unwanted noise for classrooms still in use.
 - b. Building codes are not the only criteria to consider in determining classroom entrances and exits: traffic flow and the minimization of distraction due to late arrivals and early exits must also be considered.
 - c. The flow of students will be considered in sizing entrances and exits. If classrooms are located on upper floors the width of the stairs as well as the doors in and out of the stairwells must take into account ease of the flow of traffic as well as addressing code requirements.
 - d. Opportunities should be provided, where possible, for students to step out of the traffic flow for discussions and to arrange future meetings.
 - e. The design of entrances, exits, stairs, corridors, and exterior paths should take into account between-class student traffic. It cannot be assumed that a classroom will be completely vacant when students begin arriving for the next class.
 - f. Student entrances and exits should be at the back of the room, or if this is not possible, at the sides. Students arriving late should not have to disrupt a class that is in progress in order to sit down.
 - g. The use of an entry vestibule is desirable in large classrooms and Lecture Halls frequently used for media presentations to control external noise as well as to prevent light from spilling into the classroom.
 - h. Doors into the classroom should be provided with vision panels to allow students to see if the classroom is in use and for security reasons.
 - i. Vision panels in classroom doors should be narrow to minimize exterior light spilling into the classroom. Where complete blackout conditions are required vision lights should be equipped with a means of blackout.
 - j. All doors must have a minimum clear width of 910 mm (36"). Double doors (each leaf minimum 910 mm) are preferred on larger rooms or where equipment movement is a concern. One of the leaves of the double doors should be a fixed leaf top and bottom. Center mullions should not be used.

6.2.1.4 Classroom Layout

1. Classroom layouts must take into consideration the set up and use of audio-visual equipment, disabled access to all areas of the room, layout of the instructor's materials, circulation space and the "empty" floor space needed to keep students from being seated too close to whiteboards, projection screens, and video monitors:



- a. For viewing of 35 mm slides, 16 mm film and overhead transparencies, the distance between the screen and the furthest viewer should be approximately five (5) times the projection screen width.
 - b. For computer data viewing, the distance between the screen and the furthest viewer should be equal to four (4) times the projection screen width for an image with a 4:3 aspect ratio. For a 16:9 or 16:10 aspect ratio, the distance between the screen and the furthest viewer should be equal to three (3) times the projection screen width.
 - c. A minimum distance should be provided between the whiteboard or blackboard and the first row of seats of two (2) times the width of the image size.
2. Sightlines are critical for successful classroom layouts.
- a. All classroom must be designed so that students are able to see and read material being presented at the front of the room and so that faculty can see the students at the side of the room in their peripheral vision.
 - b. Lecture Halls should have tiered floors, wherever possible, to allow for improved sightlines.
 - c. In a large classroom if a flat floor is dictated by physical constraints in an existing building, rear risers should be installed. No more than seven (7) rows of seats should be used on a flat floor.
3. When fixed seating is used, the first row of seating will be moveable seating placed at a continuous fixed-in-place table.
- a. This will accommodate seating for wheelchair users by the removal of any seat in the front row.
 - b. Provides greater flexibility in the use of specialized or temporary seating to accommodate people with temporary or permanent disabilities who are not in a wheelchair.
 - c. Provides a limited choice of seating types in rooms with fixed seats.
 - d. The table can be used for an overhead projector or for the set-up of demonstrations.
4. In small and medium size classrooms provision should be made for coat hooks near the access doors to the room.

6.2.1.5 Classroom Acoustics

1. Good acoustical design is critical to the success of any learning or teaching environment. Classrooms and teaching laboratories at the University of Calgary will address all aspects of the acoustical environment including blocking the transmission of unwanted noise, noise from HVAC systems, the ability of a lecturer to project their voice to the furthest reaches of the classroom, and the ability of students to be heard when asking questions. Larger lecture halls must consider how to accommodate those with hearing impairment.

2. Every classroom project at the University of Calgary shall employ the services of an Acoustic Consultant with proven experience in the successful design of teaching facilities. At a minimum the Acoustical Consultant will review the proposed classroom design for small and medium size classrooms for acoustical performance and provide an independent report directly to the University. An Acoustical Consultant will actively participate, as a member of the design team whether or not engaged directly by the University or by the Prime Consultant, in the design of large classrooms and lecture halls from start to finish. Adjacent occupancies will be addressed as part of the acoustical design of the space.
3. The Acoustical Consultant will comment upon or address:
 - a. Classroom configuration include shaping of the ceiling and side walls;
 - b. Selection of seating materials;
 - c. Selection of wall and ceiling finishes;
 - d. Selection of light fixtures to avoid trapping of sound;
 - e. Requirements for acoustical treatment for HVAC system;
 - f. Selection of special acoustical treatments where appropriate;
 - g. Sound systems;
 - h. Design for classrooms designated for video- or audio-conferencing;
 - i. Weather stripping and use of drop down sweeps on doors; and,
 - j. Design and use of adjacent spaces, including exterior spaces, that may impact upon classroom acoustics.
4. At a minimum all classrooms will be designed to meet an STC (Sound Transmission Class) rating of 55. Sound components of mechanical systems (fans, ductwork and diffusers) shall be selected to meet the following minimum sound criteria:
 - a. New classrooms: NC 20 to NC 25
 - b. Renovated classrooms: NC 25 to NC 30

6.2.1.6 Classroom Configuration

1. In addition to configuring classrooms for acoustics and traffic flow, classroom design must also take into account the use of current communication media and technologies.
 - a. Projection screens must be large enough to display images of adequate size and must be placed high enough from the floor to provide unobstructed sight lines. This usually requires a ceiling height higher than the standard 2440 mm (8 ft.).
 - b. The ceiling installation of media equipment must be taken into consideration to avoid blocking sightlines with equipment.

6.2.1.7 Accessibility

1. All classrooms must be designed to comply with the University of Calgary Standards for Barrier-Free Access. As a general rule,
 - a. All classroom areas are to be barrier-free, including instructor or stage location of the space.
 - b. Disabled students should have a choice of seats at the front or rear of small and medium size classes, and at the front, mid-section and rear of large classrooms and lecture halls.
 - c. All latching devices to be lever type.
 - d. Automatic door openers will be provided as required by Code and where required by University Standards.

6.2.1.8 Sustainability

1. Classrooms will be designed with a comprehensive, integrated approach to sustainability that seeks to optimize occupant health and comfort, energy efficiency, and the life cycle cost of the project. Special emphasis should be placed on effective ventilation, efficient lighting strategies, occupant comfort control, views to the outdoors, and the selection of low-emitting materials (especially in furniture and finishes).

6.2.2 Classroom Finishes and Fittings

1. Finishes in classrooms will be selected based on durability, acoustic properties, maintenance requirements, sustainability and aesthetics. The goal is to support an excellent teaching and learning environment.

6.2.2.1 Flooring

1. Carpet is not an acceptable flooring material at the University due to maintenance issues. This will be strictly enforced in high traffic areas such as classrooms and corridors. Smooth, impervious, easily maintained and durable finishes will be used on all floors.
2. The use of quarry tile and other hard, dense corridor surfaces directly outside of lecture rooms should be avoided. These surfaces generate and transmit traffic noise as well as creating an uneven surface for moving carts, and potentially jarring projection lamps, and optical or electrical components.
 - a. Fixed lecture theatre seating with continuous seminar tables is to be 'swing-away' seating with moulded backs and seats of plastic or plywood. Fixed lecture theatre seating with tablets is also to be constructed out of plastic or wood moulded backs and seats. All seats to have metal frames.

Note: folding tablet arms are described in detail under Classroom Fixtures and Furniture.

6.2.2.2 Wall and Ceiling Finishes

1. Cut-pile carpet is acceptable as an acoustically absorbent material for wall installation at lower frequency ranges. It has proven a durable and cost effective acoustically absorbent wall finish for institutional settings.

6.2.2.3 Whiteboards / Projection Screens

1. Each classroom must be equipped with whiteboard(s).
2. All whiteboards will be equipped with pen trays.
3. All whiteboards will be equipped with cork strips and map hooks that cannot be removed
4. For classrooms that require large, sliding tiered whiteboards, separate corkboards with map hooks should be provided near the front of the classroom.
5. In all classrooms, whiteboard space should be provided that can be used when the projection screen is down and in use.
6. The following should be used when determining the minimum whiteboard size requirements for classrooms:
 - a. Small classrooms: 3600 mm long x 1200 mm high (12 ft x 4 ft)
 - b. Medium classrooms: 6000 mm long x 1200 mm high (20 ft x 4 ft)
 - c. Large classrooms: 9000 mm long x 1200 mm high (30 ft x 4 ft) (may consider tiered boards)
 - d. Lecture Halls 3 sections @ 3600 mm long x 1200 mm high (3 x 12 ft x 4 ft) (2 tier high each section)
7. Projection screens over 2400 mm (8 ft) wide should be motorized. In most cases, the size of the projection screen is related to the Media Package specified. Sometimes it is desirable to install two or more screens for various presentation purposes.
8. A projection screen's lower limit stop should be set at a minimum 1200 mm (4-ft.) above the finished floor.
9. In large classrooms, a separate projection screen should be provided for use with a standard overhead projector. This screen should be located so it can be used when the main screen is also in use.
10. Projection screens will be installed a sufficient distance in front of the whiteboard so that a lecturer is able to use both at the same time.
11. Lighting design will carefully consider the use of whiteboards and projection screens at the same time to ensure that both can be used simultaneously.

6.2.2.4 Window Coverings

1. All classrooms requiring projection should have effective, easily operated, and durable closures over the windows in walls and doors allowing the room to be completely darkened. Complete black-out conditions will be stipulated and must be confirmed on a project-by-project basis.
2. Window shading mechanics to be electronically operated in conjunction with the classroom lighting control in large classrooms and lecture halls.

6.2.2.5 Controls

1. The lecturer should be able to control the lights, sound levels, raise and lower the projection screen, and control the audio-visual equipment from a convenient location at the front of the room.
2. The control panel should be positioned at a height in compliance with accessibility standards.
3. If the room is equipped with a projection booth, all these functions should also be clustered and duplicated in the booth.
4. Controls for lights must also be accessible from the rear of the classroom but not from outside the classroom.

6.2.2.6 Chair guards

1. Chair guards should be installed around the walls of classrooms with movable chairs and tables, and be wide enough to prevent furniture of different heights to damage the walls.

6.2.2.7 Storage for audio-visual equipment

1. Storage requirements for audio-visual equipment will be confirmed on a project-by-project basis.
2. Storage arrangements for audio-visual equipment for large classrooms and lecture halls will be confirmed in the project description or project and be accepted in writing by the Communications/Media division of the Information Technologies group.

6.2.2.8 Clocks

1. Clocks are required in all classrooms.
2. The clock should be located where it is easily seen by the lecturer.
3. Confirm current clock specifications prior to development of construction documents. Indicate the location of clocks on construction documents. (Model, style, wiring synchronization requirements, finish, etc.) (e.g. Simplex #2310-8015 (2340 Hz.) or 2310-

9271 (120 V. wired synch.) depending on the building where the clock is installed, complete with 12 hour dial, semi flush mounted, 300 mm square, brushed aluminium finish.)

6.2.3 Classroom Furniture

1. All furniture should be selected for durability and be of a brand, model, and colour to permit efficient repair, exchange, and replacement.
2. All fixed furniture (platforms, tables, tablet arm seating, etc.) should be permanently attached to the floor.
3. Fixed continuous tables, minimum 400 mm (16 in) wide are recommended in order to provide adequate room for students to spread out class material and to accommodate the use of laptop computers.
4. Tables arranged in long concentric arcs should be spaced at 750 mm (30 in) to 915 mm (36 in).
5. The use of moveable chairs is recommended. They are more comfortable for people of varying heights and sizes and allow the user to adjust his or her position relative to the writing surface to suit their particular needs. Moveable chairs allow greater choice to persons with disabilities.
6. Either tables or chairs should have a rack to store books and personal effects.
7. All media cabinets should be mechanically fixed to wall(s).
8. All hanging equipment (video projectors, speakers, televisions/monitors, etc.) should be fixed with securely fastened safety cables, designed to meet seismic requirements.
9. Left handed writing tablets should be provided for at least 10% of the seats, evenly distributed throughout the room.
10. Storage of tablet arms shall be initiated by a single motion by the chair occupant and shall retract to a fully stored position by the force of gravity.
11. All fixtures, cabinets, table and counter tops, and furniture should be covered with high-pressure plastic laminate unless selected surfaces must match existing materials in the room.
12. Seats should be minimum 530 mm wide.
13. Every seating place in classrooms with fixed seats and/or tables will be numbered. The numbering system will be in the format YZ, where Y is a letter corresponding to the row (A being the first row), and Z the seat number in the row and 01 being the first seat). Numbering should start with the front right seat (looking towards the front of the room). An engraved metal seat/row plate, 34 x 75 mm, will be glued or screwed to the seat or table. Font should be Helvetica narrow, 25 mm high or an approved font.

6.2.4 Classroom Mechanical Systems

1. Classrooms must be designed for user comfort and teaching effectiveness, and promote optimum conditions for study, listening, reading, and interaction.
2. Classrooms with fixed seating should also include air conditioning. If it is demonstrated or argued during the design process that this is not required for user comfort, the consultant will demonstrate that;
 - a. Acceptable comfort conditions can be maintained, and
 - b. In the event that a retrofit may need to be made at a later date that there is an acceptable means of providing such a retrofit without significant downtime or costs (above what it is estimated that an air conditioning system would have originally cost).
3. In areas where heat generating audio-visual equipment will be located, such as projection booths, audio-visual equipment closets, and cabinets, ventilation and/or cooling must be provided to lengthen the life of the equipment.
4. Projection booths shall be equipped with separate HVAC systems or zoned independently of the classroom. Projection booths shall be equipped with 2 hour manual timers to activate the HVAC system serving the booth.

6.2.5 Classroom Lighting Systems

1. Classrooms must be designed for user comfort and teaching effectiveness, and promote optimum conditions for study, listening, reading, and interaction.
2. Sustainable design, easy maintenance, low heat generation and maximizing energy efficiency, will be considered in the design of all new and renovated classrooms.
3. Lighting fixtures and lamps should be specified for minimum light intrusion onto projection screens. General guidelines for the selection of light fixtures should include the use of recessed lamps in sharp cutoff luminaires to provide controlled lighting with minimal light spill on projection screens and to avoid shining light directly in the audience's view.

6.2.5.1 Lighting Systems Guidelines

1. All classrooms over 30 seats should have a minimum of three lighting systems:
 - a. One system should control the classroom's general use of fluorescent lights. A master ceiling-mounted occupancy sensor should be installed. The light fixtures should be installed in rows parallel to the front wall. Separate switches should control the front, middle and rear rows.
 - b. One system should control low-level lights for note taking. Special care should be taken for uniformity of lighting, and to avoid shine on the screens and reflection toward the audience.
2. One system should control board lights, to illuminate the writing surface at the front of the room. Contrast between whiteboard and background, and screen and background is the

key to good lighting design. Uniformity of illumination and lack of shadows is at least as important as level. Avoid bright bands of light directly above a whiteboard.

3. Optionally, a fourth system could control spotlights that highlight the instructor and demonstration area.

6.2.5.2 Lighting Level Guidelines

1. Classroom lighting levels will be determined in consultation with these standards, the lighting designer and will be approved by the Project Manager and Campus Engineering prior to the start of construction documentation.

6.2.5.3 General Requirements

1. All light switches shall be clustered, simple to use, with clearly labeled functions on the switch plates. Light controls should be conveniently located close to the entrance doors, and duplicated at the whiteboard or lectern (front of the room, except for small classrooms), and in the projection booth (if available).
2. Aisle lights (on a separate circuit) should be provided in lecture halls.
3. All fluorescent light fixtures shall have a dimmable electronic ballast. Alternatively, the individual tubes in each fixture shall be controlled by separate switches to allow intermediate lighting levels, as well as all fluorescent tubes on or off.
4. Lighting levels required should be obtained through the use of programmable low voltage controls. All buttons should be labeled.

6.2.6 Classroom Electrical Systems

1. All electrical equipment (including contractors, lighting fixtures, dimmers, etc.) should be of selected brands, models, and specifications to conform to campus standards (refer to Design Guidelines for University of Calgary).
 - a. All conduit should be of continuous EMT electrical metallic tubing (conduit) type material where possible.
 - b. Areas and situations where EMT is not possible, junction boxes or flexible conduit should be installed only by prior approval of the University.
 - c. Junction boxes should not be located in hidden or inaccessible corners
 - d. All conduit should be at least 20 mm (3/4") inside diameter or larger. Larger conduit is generally installed to ensure space for expansion.
 - e. Low voltage cables (e.g. audio, video, and control cables) are all required to run in a separate conduit from any AC wiring. All conduit and electrical circuits should have the same ground reference.
 - f. All audio, video, computer and control electrical circuits should be fed from "clean" legs from the transformer free of high inductive loads. There should be no elevator motors,

compressor motors, blower motors, etc. on the side of the power transformer that feeds the media equipment.

- g. All electrical control circuits (per classroom) should come to a single location.
- h. This location should be large enough for the lighting contractor cabinet, and when there is control of the lights from a faculty workstation podium, a NEMA type I box that contains the low voltage media control system. This NEMA box of adequate capacity must be fitted with internal threaded studs to accept the panel that the control modules are mounted on.
- i. The location should be convenient for maintenance and secure from vandalism.
- j. If possible this location should be isolated from the classroom to eliminate repair and contractor noise.
- k. Utility AC outlets on separate circuits from the media equipment should be provided inside the classroom for overhead projectors, portable VCRs, computer terminals, etc.
- l. There should be at least one duplex outlet on each wall, as well as on the front, classroom side, of the projection booth. In larger rooms that have fixed seating on risers, an outlet should be provided in the face of the first riser (centered in the room), and on the face of a riser midway back in middle of seating (centered in the room).
- m. The number and locations of outlets will increase with the size of the room. Consult the Communications Media (ComMedia) for specific requirements pertaining to outlet quantities for audio-visual equipment.
- n. When a room is intended for computer use, all wiring shall utilize table supports or the like for wire management raceways where able, that include power control and data wiring. All lead wire to tables must be concealed. Raceways must maintain wiring out-of-sight beneath the tables, preventing loose loops of wire which may promote snagging.
- o. Whenever possible power and audio/video outlets shall not be floor mounted to avoid the intrusion of water and debris. Outlets shall be mounted on the rear stage wall and/or the front stage wall or other vertical surfaces (such as the risers of tier seating).
- p. Video Projection - Provide continuous 120V A/C power to the video projector, and a conduit to the projector control station at the front of the classroom and to the projection (or control) booth. This conduit is to be used for low voltage projector control and signal cables.

6.2.7 Classroom Media Equipment Packages

1. University of Calgary has defined standard "Media Packages" of audio-visual equipment for classrooms. Media Package I should be provided for small classrooms; Media Package 2 for medium and large classrooms; and Media Package 3 for Lecture Halls. These media packages are designed as the minimum audio-visual packages that support teaching requirements for particular classroom sizes.
2. Media Packages are developed and refined with five principles in mind:

- a. Ease of use - all equipment purchased, instructions for use posted, and installations are done with long term 'ease of use' a primary consideration.
 - b. Self service operation - faculty will be expected to independently use audio visual equipment that has been installed in the classrooms.
 - c. Off the shelf technology - equipment must be use proven and easily interchangeable to permit maximum 'up time' of our classrooms.
 - d. Media packages must allow for future technology to be integrated as new products and concepts become available.
 - e. The media packages and their individual components must allow for high reliability and fast repair. In University of Calgary classrooms that have audio visual equipment installed, a presenter on our campus will find a standard media package that incorporates these principles.
3. Where a sound system is installed that allows microphone usage, an assisted listening device may be desirable. Contact the Disability Resource Centre for their recommendations.
4. The following equipment lists give the requirements for each media package. Although this equipment is provided by the University of Calgary, classrooms must be designed to accommodate the particular specified media package. Since needs and teaching styles vary greatly, the requirements of each room will be different. The suggested application of media packages for a given space will be obtained from ComMedia by the UofC Project Manager, however the following can be used as a guideline:
- a. Level 1 Media Package (Small Classrooms)
 - 1 Data projector
 - 1 Projection screen
 - 1 Wired Ethernet connection for instructor laptop
 - b. Level 2 Media Package (Small Classrooms):
 - 1 Data projector
 - 2 Projection screens
 - 1 Amplified sound system
 - 1 Wired Ethernet connection for instructor laptop
 - c. Level 3 Media Package (Medium and Large Classrooms)
 - 1 Data projector
 - 2 Projection screens
 - 1 Amplified sound system
 - 1 Video playback unit (VHS/DVD)

- 1 Control system for audio/visual equipment
- 1 Computer with wired Ethernet connection
- 1 Wired Ethernet connection for instructor laptop
- 1 Media podium

d. Level 4 Media Package (Lecture Theatres)

- 2 Data projectors
- 2 Projection screens
- 1 Amplified sound system
- 1 Video playback unit (VHS/DVD)
- 1 Control system for audio/visual equipment, can be located with proximity to media podium in small room adjacent to lecture theatre, location/configuration to be reviewed by ComMedia
- 1 Computer with wired Ethernet connection
- 1 Wired Ethernet connection for instructor laptop
- 1 Media podium

6.2.8 Media Podium (Instructor Lectern)

1. For classrooms and lecture halls, the media podium should house controls to all lighting, audio/visual, and public address systems. It should also contain in a secure locking cabinet the instructor computer, video playback equipment, a connector panel for additional equipment, Ethernet connections, and storage for cables and remotes.
2. As with the other standardized media packages, the objectives in designing and building the Faculty Lecterns remain:
 - a. Self service operation
 - b. Simple, intuitive, and easy to use interface
 - c. Off the shelf technology
 - d. Flexibility for integration of future technology
 - e. High reliability and fast repair response

Revision History

Revision Date	Version	Description
Feb 2014	1.1	Baseline version
August 9, 2023	1.0	Added Revision History table to end of document and reset to Version 1.0.