

2023 Technology Fee Full Proposal

Title: Stetson Medical Science Building Auditorium – Large Format Immersive Display: Reinvesting in the 1956 built and second largest schedulable academic space on campus.

Proposer:

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Sponsoring Organization: University of Florida Health Science Center:

Colleges of Dentistry, Health Professions, Medicine, Nursing, Pharmacy, and Veterinary Medicine

Purpose:

The auditorium of the Stetson Medical Science Building is our oldest (built in 1956) and is the second largest academic schedulable space at the University of Florida according to the STARS Master Classroom List, just under the Carelton Auditorium. **This proposal recommends installing a large format immersive display that will enable students and other audience members to view a dynamically configurable screen large enough to read and see appropriate to the size of the space.** This would enable twice the standard image quality allowing for accurate transmission of high-resolution medical images with true colors to allow students to learn using current medical image standards. Currently there are two projection screens and projectors that are too small and dim for such a large space.

This very large auditorium sits at the heart of the Health Science Center (HSC) campus nestled between the main UF Health Hospital and most of the HSC colleges and centers. The potential for this space includes classes, student events, white-coat ceremonies, graduations, invited guest speakers and other high-profile events.

Installing a configurable large format immersive display is technically feasible in this space, as there is enough room to install and maintain this technology that preserves safety and efficiency. We have a team of IT Professionals who will assist with the installation and maintenance as well as the day-to-day training and support. The screen will utilize the entire stage width and height and be controlled by a video processor and intuitive interface that will enable a variety of screen configurations to suit the needs of the faculty or speaker.

The two screens currently in the space are duplicated images of each other and small relative to the size of the room. This setup was designed to enable people on both sides of the auditorium to read the screen. This method is effective for the first third of the seats. Beyond that, the image is too small to be read. A single projector will not have the width, brightness, nor configurability of a large format display.

This proposal aligns with these aspects of strategic plans across the UF campus.

The UF Campus Master Plan, 2020-2030

Policy 1.1.2: Assess the condition, adequacy, and functionality of existing academic and research space to identify corrective actions including reinvestment, replacement, and efficiencies gained through reprogramming space uses.

Policy 1.1.3: Dedicate significant resources to regenerating or replacing older facilities and providing equity in space conditions across colleges and departments.

The MSB Auditorium is currently used for events that exceed 165 seats (our next largest space). The current functionality of this space has been assessed for Visual Displays at well below the lowest level according to the Learning Space Rating System (LSRS) v3 (as described by Educause) which suggests using a contemporary standard appropriate to the size of the room. The appropriate screen size would be 24-foot diagonal. The space currently has two 12-foot diagonal screens that are duplicated. Corrective action would include a larger video format for this space and benefit the six Health Science Colleges and Centers and others around campus.

UF Strategic Plan for IT, 2020-2025

Goal 1, Objective 3: Advance innovative pedagogies and the success of all students through an accessible, state-of-the-art teaching and learning ecosystem and dedicated faculty support.

Goal 3, Objective 2: Enable a technology ecosystem that creates a world-class constituent experience that is integrated, dynamic, responsive, and personalized.

Goal 3, Objective 3: Leverage integrated technology platforms to create meaningful communities, share stories of impact, and inspire investment in the University of Florida.

Goal 4, Objective 1: Advance universal design and a user-centered approach to technology services delivery for the institution's stakeholders.

The MSB Auditorium with a large format immersive display would allow for innovative teaching and learning experiences where faculty could utilize large format visuals and simulations of systems large enough to be seen with audio captioned in convenient locations such as the top of the screen for students with hearing impairments and others who could benefit from this service. Theatrical presentations and awards ceremonies could use the immersive display to enhance the experience of the event and create a space that inspires philanthropic investment for other aspects of the space.

One UFHealth Together – Roadmap 2023-2028

Goal 3, Objective 3: Incentivize implementation of curricular and educational technology innovations across colleges and campuses, including AI across the curriculum, “smart” classrooms, and simulation centers.

Goal 4, Objective 1: Create learning environments that reflect our diverse communities and sustain multiple avenues for inclusion, diversity, equity, and access.

A large format immersive display that is configurable will enhance the ability of faculty and presenters to display information in a variety of formats and sizes in ways that enhance their curriculum. Comparative images can be shown in incredible detail across the wide expanse of the screen. Faculty can walk up to the screen and point out items of interest.

Removing the existing projectors and screens will be handled internally. Three vendors have looked at the space and the best product, service, and price is \$96,000. Our team will work with the vendor to install, ensuring we have a deep understanding of the technology and maintenance required to support the system. Replacing the existing screens and projectors with similar equipment would cost \$94,000 and would result in far less flexibility and usability. This initial investment will help incentivize leadership and visitors to consider funding to improve the physical space of the room (furniture, carpet, walls, ceiling, and lighting).

The-year project budget only includes technology for the large format immersive screen and components necessary for video configuration. We anticipate this new feature would help catapult plans and funding for facilities, furniture, lighting, and audio which are also needed to enhance this central space.

Impact/Benefit:

A large format immersive display can be configured to enhance light, large text, moving and static images. Remote and in-room presenters can be viewed larger than life-sized on the new screen alongside their visuals. Students with hearing impairments could benefit from having sign language interpreters occupying a dedicated space on the screen near the content so they would not have to turn their heads quite so often from interpreter to content to enjoy the presentation. They could also benefit from having transcribed text at a reasonable size on the screen. The larger screen would enable magnification and high contrast to help with visual accessibility. Content could be more fully customized to allow for larger font size, multiple languages, or content highlighting to help emphasize key points or headings for students with attention difficulties.

Collaborative learning would be enabled allowing students who could not quickly move onto the stage to present from their seats. Assistive technologies could be integrated with the large format display further enhancing the experience for all students.

The display could be used to showcase disability-related content, personal narratives, or awareness campaigns which could foster understanding, empathy, and inclusion among all students.

The display could be used to nurture better comprehension and retention in anatomy and physiology by displaying 3d models of human anatomy. Faculty can help students explore different body systems, zoom in on specific organs, and help describe functions interactively.

Faculty can create realistic scenarios using the video wall showing virtual patient simulations. Students can participate in virtual patient encounters, diagnose illnesses, and practice clinical decision-making skills. Simulated patient interactions help bridge the gap between theory and real-world practice.

Large format displays can show health-related data such as epidemiological trends, disease prevalence, or treatment outcomes. Students can analyze graphs, charts, and maps collaboratively, promoting data literacy and evidence-based decision-making using this health data visualization.

The video wall could be used to promote public health campaigns. Students can create visually appealing content to raise awareness about topics like nutrition, exercise, mental health, or disease prevention. Having this available in a space can engage a wider community than if just placed on digital signs.

Interdisciplinary collaborations between nursing, pharmacy, public health, medicine, dentistry, and veterinary medicine could take place and be viewed on the large screen. They could discuss cases, share perspectives, and encourage teamwork with the goal of holistic patient care.

While this space is mainly used for large classes, it is also used by student groups to present skits, talent shows and other events. The new screen would add fresh variety to the backdrops of these events, further creating an amazing experience. This function is critical to the student experience and helps bring visibility to our students' varied skills for a balanced life and the venue.

Mounting the large format immersive display towards the back provides a stage that has increased accessibility and access for people with disabilities over the existing drop-down screens that potentially interfere with stage access. In addition, light from the projectors which originates from the audience can impede speakers' ability to connect and reach their students/audience. With the light source coming from behind the speaker, they will be better able to engage the audience.

It is our expectation that faculty, staff, and students will want to use this space more frequently and that this will drive the refurbishment of the flooring, chairs, walls, and lighting. We plan to budget for audio improvements this coming fiscal year and will include assistive listening infrastructure to further improve the usability of the space.

Sustainability:

The selection process for a vendor included consideration regarding access to replacement panels and support to help extend the life of the device. The company we are working with offers a 5-year warranty on all parts and installation. The display comes with 5% spare displays for us to keep on hand and the repair turnover is very quick with the repair site in Orlando, Florida.

Replacement costs will be factored into our five-to-seven-year replacement cycle and come from planned budget expense. The Educational Technologies Classroom Support team will obtain training to maintain the system to keep things in good shape and keep costs down.

The system is designed to be energy efficient with twice the life of current projectors. Replacing parts only takes a fraction of the time to replace projector lamps and projectors resulting in potentially less down time.

Timeline:

Task	Duration	Begin Date	Responsible
Prepare quotes	2 weeks	2/1/24	EdTech
Lead time for display	8 weeks	6/1/24	Vendor
Install additional power	1 week	6/1/24	Facilities
Install mounting infrastructure	4 days	8/1/24	Vendor/EdTech
Install display and processor	3 days	8/5/24	Vendor/EdTech
Program processor	3 days	8/2/24	Vendor/EdTech
Training	1 day	8/8/24	Vendor

Budget:

Description	Cost
Absen NX1.8 1.87mm Pitch 800 Nits DVLED Wall 8x5 Config (25.20ft W X 8.86ft H)	\$71,396.21
Draper Custom Mount for Absen NX1.8 8x5	\$11,734.70
Installation By MDM	\$7,800.00
Project Supervision and Management	\$2,914.29
Hardware For Install & Projects	\$385.00
Freight / Shipping	\$2,142.86
Total	\$96,373.06

The initial cost for this project is \$96,373.06 and is inclusive of hardware, software, installation, and five-year warranty. Operating and replacement costs will become part of the UF Health IT EdTech operating budget.

Faculty Feedback

We surveyed the faculty of the Health Science Center and received about a 10% response rate (67 responses), which was better than expected for an unannounced email survey. The following are select ideas and comments from faculty.

- Structures of nanoparticles, video with schematics, side by side films, Xray and CT
- Presentations along slide anatomy/physiology media
- Video clips, large data tables, nested slides that tell a story when viewed together.
- Multiple images of headlines and photos that might be controversial
- Allow more material on a single slide - so a single concept can be shown without moving back and forth between slides.
- multiple videos to convey key concepts structural molecular biology
- projecting images of clinical manifestations of a certain disease as it progresses or responds to treatment
- Model diagram and its equations, figures that show the results of sensitivity analysis
- How anatomy of the brain and spinal cord relate to each other in a 3-dimensional space.
- Large tables from population studies. Sometimes I'm telling a story, for instance of the ratio of 2:1 for depression in females to males, and it would be nice to show multiple pieces of data with pics to really make this compelling
- Clinical correlations. What is happening with a patient at the same time some clinical data (labs, scans, biopsies) are returning
- 3D images of biological molecule - the DNA helix and explaining between the major and minor grooves
- This would be an amazing medium for showcasing scientific/microscope images from our newly formed MBI Neuroscience Microscope Co-op - especially for public outreach - but also amazing for lectures, talks and discussions regarding imaging w/in the neurosciences - as high-resolution fluorescent images and movies tend to look rather bland on normal screens, but the dimensions could allow for amazing figures and videos etc. to display during seminars/lectures.