**Driving Questions**

1. A T-shaped individual is an individual who is anchored in a discipline but has the capacity and openness to span across disciplines. How can learning and the spaces for learning ensure that students become T-shaped individuals upon graduation?

2. Current trends in higher education value a culture of openness and sharing in the academic environment. What can our learning spaces do to promote strategic partnering between students from different backgrounds and disciplines to push learning beyond the boundaries of a classroom?

3. Can architectural identity help champion a program? Can a new space be a catalyst not only for new ideas, but for new programs and curriculum? If you create space, will they come?

4. Can new or renovated architectural space serve as a mechanism to spur innovative learning techniques on a campus? What does a collaboratory look like?

5. Can we grow our potential for learning without growing our campus footprints? Can today’s academic needs fit neatly into yesterday’s structural bones?

6. How can we structure our buildings on public universities, usually built via capital funds or private donors given to specific programs, as to not silo student thinking? What does a classroom or student environment look like in a topic-based education model?

A cross-pollination of VCU’s Schools of the Arts, Business, Engineering, and the College of Humanities and Sciences, the VCU da Vinci Center for Innovation is a unique collegiate model that promotes novelty, entrepreneurship, and a venture creation mindset through interdisciplinary collaboration. When the Center wanted to create a dynamic new environment for its labs and offices, they sought out BCWH to shape an open, transparent, engaging place out of the shell of a historic, turn-of-the-century townhouse. Through a participatory design process, faculty in the Da Vinci Center and architects from BCWH worked to ensure the renovation was responsive and appropriate to students’ needs--cultural, emotional, spiritual and practical.

Before the opening of the da Vinci Center, affectionately known as “807” by the students in reference to its address, the Center was a small certificate program with a few classrooms and a lab in the engineering building and offices in the neighboring business school. The goal of the project was to allow the Center to have a public face and to serve as a 24-hour design incubator. The Center wanted a flexible, open think-tank where students come together in teams to discuss and create, using whiteboards, laptops, hand models, and 3-d machinery to fabricate projects for real-world clients. The designers worked closely with Center faculty to accomplish these goals and set the creative undertone for student work in the space.

In the last two years, the Center has grown into two Masters Programs, three undergraduate certificates, and a scholars program. Enrollment has more than tripled. The product is an example of a renovated space that serves as a catalyst to spur innovation on campus.

The end result was not only the addition of 3,800 square feet for the program, but a tale of process innovation: the new space has grown and influenced the curriculum of the program, allowed for strategic partnering between students from different disciplines, and grown the potential for learning on campus without actually growing the campus footprint. The building itself has become an “intrapreneur” for the students in the various programs by encouraging risk taking and innovative thinking amongst its occupants.
Learning Spaces Collaboratory Roundtable
Spring 2016: Focusing on the Future of Planning Learning Spaces
Georgia Institute of Technology

Interior Space Pre-Renovation:

Interior Space of Collaboratory Post-Renovation:
Da Vinci Center for Innovation
Virginia Commonwealth University
Firm: BCWH
Firm Representative: Charles D. Piper, AIA

Learning Spaces Collaboratory Roundtable
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Interior Space Pre-Renovation:

Interior Space of Collaboratory Post-Renovation:

Former Da Vinci Classroom:
Driving Questions

1. Can a facility advance academic science programs forward 50 years in quality, including the incorporation of emerging and future technologies, laboratory flexibility and adaptability, modern learning methodologies and skills, and sustainable energy/building management systems?

2. How does climate impact design with respect to issues of connectivity and separation?

3. Can the limitation of building “footprint” be an asset when designing a facility that requires more program than available site can accommodate?

4. Does “art” integrated within the architecture enhance student learning and discovery?

5. How do students understand how to use the spaces provided?

6. What are the upper limitations/thresholds for the number of students moving through and engaging with the faculty and within the facility during the course of a typical day?

The Centennial Centre for Interdisciplinary Science (CCIS) at the University of Alberta is a multi-functional, interdisciplinary science center, constructed as a single facility of nearly 600,000 GSF, in the heart of the historic quadrangle on the campus. With this monumental effort and investment, the Alberta Province intends to transform the institution through a scale of investment, research capability, and scientific community energized by the vitality of an undergraduate population. The facility engages a unique population of undergraduate and graduate level functions, spaces, and scale—thousands of students, researchers and faculty interact in the Centre on a daily basis. The CCIS enhances and connects the learning process through visual, personal and experiential connections with science.

The context of community is central to this academic environment that combines diverse thinking, visual contact, improved opportunities for interactions and the cultivation of ideas—ultimately, intended to increase the pace of research and discovery. Complicated by the lack of available footprint for the facility, the planning process required a solution that respects the scale and identity of the original campus buildings, the public role of the facility on the Main Quad, and the need to engage the public in university functions and activities.

The planning process was defined by a desire to innovate and reimagine the future of science learning on campus. The University President defined this as the desire to look for where the next scientific discoveries would come from, with the aim to build scientific infrastructure that rivals the best in the world. The strategy includes the assembly of diverse scientists with common interests to address complex problems of global importance. The expectation is that cross-disciplinary arrangements of significant scale will increase the effectiveness of science through better integration of University resources, the development of innovative skills, and the attraction of critical talent.
Driving Questions

1. 
2. 
3. 
4. 
Etc.

Maximize daylight + transparency

Anchors Main Quadrangle
Driving Questions

1. Campus pathways + public art
2. Student study balconies
3. Working areas adjacent to faculty offices
4. Daylight and social centers
Driving Questions

1. What are the opportunities and challenges of integrating sciences and engineering into a core interdisciplinary STEM facility?

2. How can governance and facility design leverage advanced research tools to enhance student learning and research?

3. How can a facility respond to the unique curriculum and pedagogic needs of the lower division (early years) learners?

4. How does a facility encourage and foster the undergraduate research experience?

5. How does an institution build a pathway from departmental to interdisciplinary learning and research models?

6. How can a facility engage with the broader community whether actively participating or passively experiencing the place?

The New Core Sciences Facility is a catalyst in Memorial University’s drive to double their faculty and student enrollment in Applied Science and Engineering by 2020. This goal would add 50 new positions to their Faculty of Engineering and Applied Science, more than 300 graduate students and up to 500 additional undergraduates, so they are in need of facilities to accommodate this growth, as well as enable the recruitment/retention of world class faculty and top students.

Providing interdisciplinary learning and research space for Faculties of Science and Engineering, the 450,000 sq. ft. building, which takes design cues from natural elements and local building traditions, is positioned on a signature site that creates a new gateway into the campus.

Flexible lab neighborhoods integrated with the pathways and amenities that serve multiple populations will mix disciplines in an openly transparent research and learning environment that invites students at every stage and background to participate in scientific research and discovery. Science and Engineering will be put on display inside and outside of the building.

The art of science and engineering is demonstrated through socially turbocharged design, used as a creative driver to achieve “the place of choice” for learning and research. Level two is an activated main street/connector; with pedestrian bridges tying into the campus student center and partnering MUN faculties. It is a truly student-focused floor, housing the Senior and Junior design studios, Computer Lab and Classroom, and student collaboration areas.

Active-learning settings utilize flexible furniture and flat panel screens for small group work. Electrical/computer studios include electrical benches with utilities and pod workstations for groups; with table/chairs for teams to cluster and ideate.
The building’s design deeply integrates research with learning. The building supports research and teaching labs for Electrical and Computer Science programs, as well as renewable energy teaching and research labs that will be placed on the roof, overlooking solar panels and wind turbines that serve as test beds for applied research. The teaching lab and research labs are co-located so undergraduates can assist with graduate research and participate in more hands-on learning opportunities. The building will also house a student projects lab and optics research lab.

Building upon Memorial’s position that the very best comes from bringing diverse programs and people together; the new facility includes 125,000 sq. ft. designated as incubator/industry partner collaborative research space. Enabling external collaborations and commercialization, this space is infused throughout different zones in the new building. Further, growing the Core Research Equipment & Instrument Training Network program (CREAIT) at MUN is a key objective as well. These cores are strategically located at the building’s front door with accessibility/transparency where appropriate to celebrate research.
We recognize two national trends in higher education—increasing ethnic diversity and the steady growth of active learning classrooms. A team of planners at Hord Coplan Macht and Morgan State University wondered if the success of active learning classrooms is premised on peer-to-peer learning, what happens when the peers change.

A collaborative, professionally and ethnically diverse research team was assembled, including the Dean of the School of Architecture & Planning (Filipino female), Neuroscientist (German female), Instructor (Black male), Science Education Instructor (White female) and architect (White male). This team provided in depth qualitative and quantitative assessment and kept ethnic bias in check.

Our chief findings include increased student-to-student interactions and decreased student-to-instructor interactions in the active learning classroom when compared to the traditional classroom. Student perceptions of the physical space were more positive and they felt more innovative in the active learning classroom. The instructor found students demonstrated more competency in the 4 C’s—communication, collaboration, creativity and critical thinking—and overall grades were far superior in the active learning classroom.

Further, the team found that an ethnically diverse class brings unique inhibitions, among them language, culture and a vast variance of preparedness. The students’ social behavior, their own perceptions and cognitive measures all indicate the physical design of active learning classroom contributes to mitigating their inhibitions, promoting engagement, and producing enhanced learning outcomes.

Spaces throughout the building promote students thinking and doing within a social context.
STUDENT TESTIMONIALS

“I wouldn’t dare to lift my hand to answer a question. I think it is because of my language. It is not my native language. But when you have to interact and when you have to talk about it and when you have to really make yourself part of something… then you learn.”

“In a really formal environment you don’t want people laughing at wrong answer; and you don’t want to get wrong answer as well. But when there’s like a normal conversation… if it’s wrong it’s wrong; I can learn from them.”

“Maybe in general professors speak as if I am already a professional and I am going to understand his perspective. And that’s not where the students are going to understand from. I think in a lot of classes you learn more from students than you do from teachers sometimes.”

ACTIVE LEARNING CLASSROOM
Students are comfortable to test ideas with their group before presenting to the whole class.

ROUND GROUP TABLES
Students perceive the instructor as a co-learner. Space design defines the instructor’s role.

STUDIO
Self-directed learning in collaborative setting.

INFORMAL LEARNING SPACE
Spaces in between for group collaboration.
Learning Space for the Ethnically Diverse Undergraduate Classroom
Morgan State University Center for the Built Environment & Infrastructure Studies

Firm: Hord Coplan Macht
Firm Representative: Jim Determan, FAIA

Learning Spaces Collaboratory Roundtable:
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BREAKOUT ROOMS / GROUP STUDY
Space for intense, extended, discipline-grounded interactions.

MAKER LAB
Space for prototyping, testing and redesign.

TESTING LAB
Space for thinking, building, testing and rethinking.
Duke University engaged Lord Aeck Sargent in 2010 to design a series of phased renovations to Gross Hall which was originally abandoned and slated for demolition. These renovations have transformed the building into a vibrant community for innovative research, teaching and making. This multi-departmental “hub” in the heart of Duke’s campus brings together programs including the Pratt School of Engineering, the Nicholas School of the Environment, Innovation & Entrepreneurship, Physics, the Energy Initiative, and Sustainability & Commerce. A key vision for the project was a facility which will evolve with the students as they gain and share experiences while striving to solve problems through discovery.

Completed in 2014, Gross Hall now includes numerous highly adaptable, modular wet and dry research labs to support constantly changing and evolving research initiatives. The lower basement levels of the building have been renovated as interconnected research and teaching space associated with large and small scale electro-mechanical equipment and fabrication. This confluence creates a unique facility at Duke with the ability to house a wide range of course-related, co-curricular and entrepreneurial-fabrication focused projects and activities.

Highly-collaborative, formal and informal social spaces complement the technology-rich classrooms, project-based teaming spaces, faculty and staff offices and administrative space. A sky-lit atrium “Winter Garden” connects the second and third floors and intentionally brings together diverse campus groups for gathering and teaching activities.

An interdisciplinary maker space – The Foundry - has created a buzz of excitement on the Duke campus among faculty and students interested in a center for informal exploration, fabrication and “tinkering.”

Driving Questions

1. How can a small portion of an unloved, sputnik era chemistry building slated for demolition be repurposed in the short-term to create an economical, “pop-up” collaboration environment?
2. After the initial renovation, the University became excited about the potential of a comprehensive, phased renovation and asked “If we use this for prototyping collaborative space and demonstrating our commitment to sustainability, what groups/departments have unmet needs for interdisciplinary innovation and how can we create a unique environment for teaching & research?”
3. Throughout the multiple phases we asked: “What is a good mix of functions, spaces, furniture and technology that allows students to find optimum accommodations for individual and group learning?”
4. When the final phase was conceived as flexible maker space, various stakeholders asked “what are the key components of a home that encourages informal investigation and tinkering?”
5. Now that the project is fully occupied, Lord Aeck Sargent believes a post occupancy evaluation should assess the successes and opportunities for improvement with one key overriding question being: “How do we best determine/quantify if a diverse mix of nonscience and science faculty and students in a single building creates an environment more conducive to interdisciplinary work and innovation than if in separate, more discipline specific buildings?”
RESEARCH ON DISPLAY

SEMI-TRANSERTRANPENT FACULTY OFFICES

THE DESIGN CREATES A "START UP" ATMOSPHERE

THE FOUNDRY HAS EXTENSIVE PROJECT LOCKERS, TEAM TABLES & WHITEBOARDS ALL AROUND
THE WINTER GARDEN IS THE HEART OF FLOORS 2 & 3

FORMAL AND INFORMAL MEETING AREAS

GROUP PROJECT ROOMS SURROUND THE LOBBY

TEAM ROOMS IN THE FOUNDRY CAN BE RESERVED FOR LONGER TEAM PROJECTS
Driving Questions

**The Watt Family Innovation Center is intended to be the driving force for change to enable Clemson University and its partners to lead in the development of creative solutions to significant technical and social challenges of the 21st Century by answering the following key questions:**

1. How do we create a campus-wide “heart” for student engagement and innovation?

2. How do we enhance technology-enabled problem-solving skills for students?

3. What does an agile, timeless, learning and research environment look like?

4. What tools, spaces, relationships and events will attract, retain and support the highest caliber faculty & students?

5. How do we create deep learning through immersion in critical-thinking scenarios?

6. How do we create the destination for collaboration with industry, government, and academic partners to accelerate intellectual and economic development and help students build a bridge to a bright future?

**Description:** Clemson University's new Watt Family Innovation Center (WFIC) provides a unique environment in which advanced instructional technologies foster student engagement and industry partnerships that address real-world complex problems. The 70,000 GSF facility invites students to take ideas from concept to the marketplace by the use of its rich program spaces: Project Labs, high-tech Collaborative Learning rooms, Immersive Visualization Theater, Rapid Prototyping Lab, High Bay Lab, Skills Development Studio, High Tech Auditorium and Project Demonstration and Collaboration spaces. While the WFIC is primarily a University-wide resource for innovation, the building additionally serves as a home to experiment with new learning models for general engineering courses – exposing 1st year students to real world challenges that inspire deeper learning.

The design team worked rigorously with Clemson University to generate a cohesive design response to the driving questions facing the project. Through visioning sessions, research, and exploration, the team was able to apply new technologies, implement systems in new unique ways and uncover a wealth of opportunity through the establishment and collaboration of Industry Partnerships during the design and construction process. An innovative process and journey, enabled this innovative facility for Clemson University.

The building’s raised access floor system along with demountable walls allow rooms to be rapidly reconfigured. The glass walls, natural light, and views to the sky provide a vibrant atmosphere that puts the creative activities of the center on display. Wireless Audio and video connections to the 191 touch-controlled large-screen monitors is seamless and managed from a central Command Control Center. Collaboration software enables simultaneous editing on the “immersive collaboration walls” by multiple users and external partners. Full height Media Walls and immersive technology provide immediate visualization, editing and sharing of student projects. The 210 foot long exterior media mesh allows for the sharing of ideas at a campus scale, promoting innovation and curiosity.

Because of the aggressive vision for the Watt Family Innovation Center, Industry partners contributed materials, systems, furniture and technology through generous gifts-in-kind in support of research on how smart buildings enable learning. A collaborative process between Clemson University and the Design Team fostered these relationships and enabled increased value in the building as well as its long term academic sustainability. The Watt Family Innovation Center’s design supports Clemson’s 2020 plan, drives curricular innovations, and enhances leading-edge research.
East Elevation of the Philips Color Kinetics mesh with views to the entire community engaging and immersing them into the WFIC experience.

The Atrium serves as the University Brand Center for visitors as well technology demonstration space. This space puts Innovation on Display.
View through second floor project rooms

Second floor project room collaboration with neighboring views

View through third floor project and multi-purpose rooms

Collaborative/Active learning classroom with touch enabled technology

Student gathering space with café access and views into project space

Third floor corridor with technology, collaborations zones and views

Second floor corridor with collaboration zones and atrium views
Driving Questions

1. How can we proactively plan for change?
2. How do we navigate institutional change, while maintaining a steady course throughout a prolonged or multi-phased project?
3. How can we create a “commons” that will physically connect a diverse range of different programs?
4. How can we celebrate diversity and manifest interdisciplinarity in our physical spaces?
5. How might we foster a sense of “community” in an urban campus with a predominately a commuter population?
6. What types of spaces should we create and co-locate that will encourage commuter students to stay and collaborate with peers beyond regular classtimes?
7. How do we create a vibrant heart for intellectual exchange, encouraging peer-to-peer, student-to-faculty, and faculty-to-faculty interactions and chance encounters?

Project Description

Connecting Physical Space to Institutional Mission

Part of the City University of New York since 1964, John Jay College of Criminal Justice trains students in emergency response, forensic psychology, and cyber security. Enrollment increased dramatically after the September 11 terrorist attacks, prompting the school to create more space and expand its offerings. The new building – which doubled the size of John Jay’s existing facilities and addressed the College’s need for instructional and social spaces – is a critical component of the transformation of John Jay from a junior to a senior college of The City University of New York educational system. It provides an appropriate venue for the College to advance its mission of “educating for justice” by emphasizing faculty and student research and encouraging collaboration across disciplines.

Creating a New Campus Heart

A major goal of the project was to provide John Jay’s commuter student body with an identifiable, central academic and social hub fully integrated and connected to existing facilities. A 500-foot-long stepped social cascade, initiating at the fifth floor cafeteria and descending four stories to the main student entrance, provides ample leisure space for social and academic interaction between students, faculty, and school administrators.

Enhancing Circulation & Connections

A variety of smart classrooms flank the cascade, and the use of escalators co-mingled with the stepped stairs allows students to quickly get from one class to the next without having to wait for elevators. A 65,000-square-foot roof terrace tops the low-rise podium and acts as a crossroads for outdoor connections via a campus green.

Learning Outside the Classroom

John Jay’s new vertical campus is organized around a central multi-tiered social cascade, which provides essential circulation functions while creating opportunities for chance encounters between students and faculty. The cascade is the central campus commons that connects classrooms, science labs, double height academic quads, black box theater, faculty offices, administrative functions, campus services, cafeteria, and green roof. The cascade functions as unassigned, social space where students can study individually or gather in groups to shape informal learning settings outside the classroom.

Encouraging Interdisciplinary Interaction

By mapping “soft boundaries” for shared, interdisciplinary programs and through careful delineations of “hard boundaries” for disciplined or controlled research – campus collaboration is maximized, while meeting dedicated space requirements for academic and research space. A broad range of needs helped to define potential physical intersections between departments, while identifying absolutes or “must-haves” for the institution as a whole. A rigorous efficiency factor was achieved by creating a palette of flexible spaces that serve multiple functions.
INTEGRATED BUILDING PLAN

INTEGRATED BUILDING SECTION

"CASCADE" SOCIAL SPACE

PHOTOMONTAGE - SHOWING SOCIAL "CASCADE" BELOW
Driving Questions

1. What does student-centered planning mean? How might we address in our planning the need for spaces that enable us to engage fully our entering and lower level students in the doing of engineering from the very first day?

2. Engineering itself is a multi-disciplinary community. How can our planning and the spaces resulting from our planning dissolve barriers between disciplines, and build community across disciplines that is sustainable over the long-term?

3. Becoming socialized into a community of STEM practitioners requires spaces where students can build and test the things they draw and design. How can we introduce students to the environments where engineering is practiced in the world beyond the campus? How are such spaces different from those of past generations of spaces for educating engineers?

4. How many different kinds of spaces, traffic patterns, adjacencies, etc. need to be considered in developing an ecosystem of learning spaces for 21st century learners in fields of engineering?

Consistent with the Samuel Ginn College of Engineering’s goal to provide the best student-centered engineering experience in America, the construction of the engineering student achievement center will create a comprehensive facility capable of significantly transforming the personal and professional success of tomorrow’s Auburn engineers.

Engineering education at Auburn University extends well beyond the traditional classroom. With a focus on student achievement, Auburn Engineering is dedicated to providing students with a high level of professional development and academic support throughout their college experience. To enhance these efforts from the time they initially engage with the college until they begin their career in the engineering profession, the college has embraced a vision to create a state-of-the-art student achievement center designed to meet the educational and professional development needs of all of our undergraduate and graduate students.

The more time students spend actively engaged in individualized activities with faculty and fellow students, the higher their educational success rate. Greater opportunities for collaboration, time spent working on hands-on projects, and improved access to faculty, mentors, tutors and professional practitioners will significantly enhance their overall educational experience.

This multifaceted center will bring together a multitude of important student support programs to create a student-centered environment that strategically addresses their professional development needs throughout their academic careers at Auburn. Perhaps equally important, this facility will give students a sense of “home” that encourages them to spend more time among faculty and students, creating an element of synergy among engineering faculty and students.
Designed to serve all engineering students from every field of study, the center will incorporate high-contact initiatives that support students through:

**Student Recruiting**
The ability to attract the finest students begins with focused, intentional recruiting efforts at both the undergraduate and graduate level. This is often the college’s first opportunity to make an impression. Concerted, individual recruiting enables us to bring high-achieving students to Auburn who strengthen our instructional and research programs.

**Curriculum Advising**
Providing guidance to students as they choose a major, determine class load and make plans for a specific course of study is critically important in the early stages of their college career. Dependable, ongoing access to advisers increases the likelihood that students will seek guidance and adhere to an individualized academic plan.

**Career Mentoring**
Career and professional mentoring is vital to keeping students highly focused and motivated toward their long-term goals while undertaking the rigors of an intensive engineering curriculum. This program will enable students to actively explore various career opportunities and technical challenges that engineering programs offer. Through one-on-one mentoring sessions with seasoned professionals, organized plant trips to observe engineering in action and group discussions with practicing engineers, the Career Mentoring Center will help students align with a field of engineering that fits their interests and goals.

**Engineering Tutoring Center**
A challenging engineering curriculum causes even top students to seek assistance to reach their full potential. Ready access to tutoring can significantly improve the performance, and success, of students. This center will provide tutoring at all levels through a formalized program utilizing exceptional teaching assistants.

**Student Maker Spaces**
The lower level of the center will be designed to provide a unique venue for students to participate in the practical application of engineering through team-oriented design projects. With increased access to supervised work spaces, machine shops, additive manufacturing tools and electronics shops, students can engage in active-learning opportunities through creative, hands-on design projects that develop creativity in engineering design and innovation.

**International Experience Office**
It is important for students to experience the global context within which engineering is practiced in today’s world. This office will connect Auburn students with the worldwide community and promote the study of topics related to global engineering, social challenges, and environmental awareness.

**Engineering Leadership and Professional Development Center**
Ongoing workshops and seminars with industry leaders and engineering professionals, targeted leadership training and development, and opportunities to engage in the Business-Engineering-Technology program will help students begin to develop as professional engineers early in their educational careers.

**Industrial Relations and Innovation Center**
Companies regularly visit Auburn’s campus to recruit students, develop research contacts, explore intellectual property, and develop continuing education programs. This center, which would house an industrial liaison to act as a chief technology officer for the college, will provide a single point of contact for companies to engage with the College of Engineering. Creating a “front door for industry,” this initiative will enhance technical innovation and development by providing a vehicle for industrial research contracts. It also will coordinate key industrial and economic development groups with the college.

**Engineering Career Placement Office**
An engineering-centric career placement office within the college will directly facilitate students’ career and professional opportunities. Resources such as company information sessions, interviewing seminars, and targeted recruiting events, as well as regular engagement with industry and professional schools, will educate students about their post-graduation options. Additionally, students can engage directly with companies to improve placement rates with top-ranked corporations. This office will create a “one-stop shop” for students to investigate cooperative education, internships, as well as full-time job placement.

Auburn Engineering is committed to providing an exceptional education that prepares graduates for meaningful and productive careers while equipping them to contribute immediately to the global workforce. This requires defining engineering education in a changing world and training engineers inside and outside the classroom. This engineering student achievement center will enable the college to build the infrastructure to make this vision a reality and position the college to seek additional funding to support programs and initiatives housed within this center.
Extend a Campus of Quads and Paths

Leverage Movement and Visibility

Unify the Engineering Campus

Connect Across Programs
The WSU Digital Classroom Building, open in 2017, will be a $60-million space purpose-built as a new high-technology learning commons on the campus of Washington State University. WSU has a campus-wide initiative to address the tremendous advances made in understanding how 21st century students learn. The vision of campus leaders for this striking new 80,000 sq. ft. facility is that it serves as a gateway, showcase venue, and catalyst for this initiative.

To ensure that vision was realized, we collaborated with campus leaders to focus on the “why” of the spaces we were designing, which was more important than focusing on the “what”— which most often become merely a laundry list of neat spaces. As technology designers, with this project we were offering a true path to innovation: classroom technology designed around the institutional goals for pedagogies (learning and teaching) into the future.

The innovations are an in-the-round active learning lecture hall with circular, blended video displays viewable from any seat, two large flat-floor collaborative active learning classrooms, multiple flexible classrooms, and a variety of dedicated, pedagogy-specific spaces. The space also nurtures the culture of innovation, including purpose-built areas where the campus can grow digital learning skills such as digital curriculum development offices and faculty innovation and student skills learning studios.

This project can also be used as a vehicle to take a step back and look at how the life-span for technology and endless pursuit of learning innovation stands at odds with the vast life-cycle of physical buildings and the traditional “once-and-done culture” of academic building design and construction. This project is using one of several “alternative procurement models” Vantage is experimenting with that offer a more philosophical approach to learning + space.

The building capitalizes on the rising slope of the site and different desire paths through the building to enhance the sense of excitement and collaboration. Users entering at varying levels will pass through many different showcases, places to collaborate (and watch collaboration happening), and opportunities to passively and actively interact with the resources of the Digital Classroom Building.
Rendering of the complete building placed at the gateway to the main “Palouse Walk” through campus.

Interior view of the main "hill climb" stairs.

Sketch diagram of the interior circulation spaces.

Active Learning Spaces in the Digital Classroom Building will range from 45 to 120 students. The design of technology and interiors has been tailored to the pedagogy and the scale of each space, respecting the dynamism of large groups and the intimacy of smaller ones.

The circular seating arrangement and the overhead display in the digital hall enables communal storytelling, facilitated discovery, and a shared experience. For seating up to 300 students, this space is intended to bring the ethos of active learning into the large lecture hall format.