Transforming STEM Education at SRJC

The foundation is strong and the future is bright for STEM education at Santa Rosa Junior College. SRJC is training future leaders to take on the most pressing scientific and societal issues of the day. From global pandemics to climate change to using STEM as a tool for social justice, SRJC now has an extraordinary space designed to do so. With a focus on innovation, the students and faculty of the Physical Sciences, Mathematics, Engineering and Applied Technology disciplines will finally be brought together under one roof at the heart of campus in the new **Lindley Center for STEM Education**.

The new state-of-the-art Lindley Center for STEM Education facility was carefully planned with a vision to achieve the mission of the College and to provide a cutting-edge educational experience for STEM students. The Lindley Center for STEM Education will serve as a campus hub for interdisciplinary teaching, learning and innovation, as well as provide countless educational, experiential, and research opportunities for students and faculty, benefiting SRJC and Sonoma County for generations to come.

Critical Need

The need for world-class engineers, technologists, chemists, physicists, and other STEM leaders has never been greater as California and the nation prepare for the jobs of tomorrow. Economic data reveals that one million additional STEM graduates will be needed during the next decade to meet the demand in the United States. These students will forge scientific breakthroughs, solve society's most complex problems, and build a more humane, just, and sustainable world.

To ensure that SRJC's facilities are well positioned to provide the workforce to support our region's growth and advance STEM initiatives, SRJC is building the **Lindley Center for STEM Education** to help train and create a skilled STEM workforce, with funding provided by Measure H and leveraged by additional state funding. The three-story, 92,000 square foot building will provide critically needed laboratory facilities, design and innovation spaces, and contemporary classrooms, which are essential for 21st century teaching and learning. The completion of this building will create a hallmark STEM program in the region that cements its place as a first-choice institution for degree programs and

transfer preparation where students can discover, learn, experiment, and innovate. It will also strengthen the ability of the SRJC to continue to attract and retain the highest quality faculty.

The Lindley Center for STEM Education will transform teaching and learning in STEM and promote curiosity and knowledge among STEM fields while helping to meet the critical need to increase STEM graduates who will contribute to world-changing scientific discoveries.

STEM Students

SRJC STEM students are prepared for career advancement, entry into professional level employment, or transfer to a four-year university. Each year, approximately 700 degrees and certificates are awarded to students in the STEM departments. Certificate and Associate Degree students are highly sought after by employers in the region. Students pursue diverse and important careers in Civil Engineering Technology, Surveying, and Mechatronics, as well continue on to pursue careers in health care fields such as Nursing, Dental Assisting, and Radiological Technology. Many students transfer to complete four-year degrees in related disciplines at institutions like UC Davis, Sonoma State, Cal Poly San Luis Obispo, UC Berkeley, SF State, and Chico State.

Student Headcount per Term	11,901
Full-Time Equivalent Students per Term	4,171
Average Age	24
% Sonoma County Residents	89
% Female	49
% Latino	38
% First-Generation	25
Active Faculty	119
Course Sections Offered Annually	556
Degrees/Certificates Conferred Annually	700

STEM Programs

Chemistry: The Chemistry program offers a variety of laboratory courses that support students pursuing transfer to four-year institutions and allied health careers. With classes ranging from introductory general chemistry to sophomore-level organic chemistry, students are trained in a variety of laboratory techniques and industry standard instrumentation. The Lindley Center increases the program capacity to three general chemistry labs, expanded instrumentation lab, connected data analysis room, modern organic chemistry lab, and a multi-disciplinary chemistry lab for wine studies, environmental science and other connected disciplines.

Mathematics: The Mathematics program offers a diverse set of classes for students pursuing nearly all educational paths. Ranging from Intermediate Algebra and Statistics to Calculus and Differential Equations, courses are offered to help students transfer, meet degree requirements, and enhance their analytical skills. The Lindley Center increases the number of available classrooms and computer labs for teaching Mathematics, designed to encourage active and collaborative learning.

Physics: The Physics program offers both calculus and non-calculus-based sequences to help students learn more about the world around them. From motion and mechanics, electromagnetism and light, to the principles behind subatomic particles and quantum mechanics, the Physics program prepares students for a variety of educational goals. In the Lindley Center, laboratory space will be doubled along with a lecture hall specifically designed to bring demonstrations to life in front of students.

Engineering: The Engineering program, located down the hall from the "Design, Make, Break" space, offers core lower division courses to prepare students for a variety of careers in the engineering field – including civil, mechanical, and electrical engineering. New, expanded lab spaces with outdoor access will help enhance the hands-on learning experience that has been a hallmark of the Engineering program.

Applied Technology: The Applied Technology array of disciplines include multiple career education programs such as 3D Modeling & Animation, Construction Management, Interior Design, GIS, Surveying Technology, and Civil Engineering Technology, which train students in multiple in-demand fields. Students are prepared to quickly enter these professions or enhance existing industry skills for career advancement. Anchoring the program will be two, state-of-the art CADD labs, to provide students with industry standard skills and knowledge.

MESA: Math, Engineering, Science Achievement (MESA) fosters academic success for first-generation, low-income students in the STEM fields through specialized opportunities focused on transfer retention, course tutorials and support, collaborative study skills, internships, and research experiences. The MESA Community College Program acts as a community hub designed to assist students connect the dots from a discipline of interest, to a transfer major, to a four-year bachelor's degree, to a STEM career. As the name implies, MESA students regularly exceed district achievement metrics for GPA, course completion, persistence, and transfer outcomes.

Opportunity for Impact

The amazing spaces in the new Lindley Center for STEM Education will only come alive when filled with the people and tools to inspire learning, encourage exploration, and develop aspiring STEM professionals. By allowing the SRJC Foundation to recognize major gifts to the STEM Education Endowment with named spaces within the building, donors will play a vital role in SRJC's efforts to provide transformational STEM education programs that enhance academics, job skills, career readiness, and promote transfer to four-year colleges for years to come.

Generous contributions through naming opportunities help:

- Attract and retain students through scholarships, internships, and field work
- Offer hands-on learning opportunities and research projects for students
- Support activities including poster presentations, research experience, and conferences
- Sponsor community lectures, events, and activities from thought-leaders
- Provide activities that promote faculty and staff development
- Purchase the latest innovative technology, equipment, and software systems

The Lindley Center for STEM Education officially broke ground in October 2020 and the building is expected to be complete and open in Fall 2023. We want students and faculty to be able to hit the ground running with the programs, tools, and technology they need to pursue innovation with urgency. With a gift to the STEM Education Endowment, your named space will be recognized by students, faculty, and visitors to the building for generations to come.

In this time of uncertainty when scientists of all kinds are needed more than ever to solve the many challenges plaguing the planet, support for STEM education is essential. Your gift to the STEM Education Endowment will help to fulfill the promise of higher education and provide opportunity for immediate impact in the lives of students and the community we share.

New Spaces and Naming Opportunities

The new Lindley Center for STEM Education has multiple areas for student and faculty collaboration and hands-on learning labs. Anchoring the building on the first floor is the 'Design, Make, Break' space to help students explore and create projects from the planning through testing phases of design.

At the central intersection of the building is the STEM Student Success Center where students can learn not only from peers but instructors across all STEM disciplines to provide academic and professional support.

The third floor is graced with a southern outdoor terrace providing a calm space for students to congregate as well as for events. Throughout the building are student study areas with many connected to instructor offices so that learning does not stop when class ends.

Prominent Naming Opportunities

Lobby and Learning Staircase	The heart of the Lindley Center for STEM Education is an expansive central staircase to lead students from the Design, Make, Break lab to the STEM Success Center on the second floor. It is here that students will be able to gather, socialize, and study, bathed in light from floor to ceiling windows. The lobby and staircase will be the artery feeding the entire building.	$300,000
Design Make Break Space	A central theme to building design was "Science on Display" and hands-on learning. The anchoring Design, Make, Break space, located on the first floor, is a living laboratory where students will design projects, use digital tools to fabricate their ideas, and test (or break) their models – demonstrating the core tenets of the design process. Science is about experimentation and this space will be used to showcase both the ingenuity and efforts of student innovation.	$250,000
Chemistry Wing and Math & Physics Wing	The Math and Physics Wing will be located on the second floor. Here, the beauty of mathematics will not only be explored, but will also equip students with the analytical insights and tools necessary to become problem solvers in today's complex society. On the third floor, the Chemistry Wing will provide hands-on learning opportunities and laboratory spaces for students to learn and explore about the structure and properties of atoms and molecules that make up the world around us.	$150,000 *(Each)*
MESA Center	Providing peer study space, access to technology and academic tutoring, webinar and guest speaker meeting rooms, dedicated counseling, and an area for STEM students and faculty to gather, the MESA Student Center is designed as the focal point for MESA's integrated academic and student support services.	$100,000
STEM Student Success Center	STEM speaks to all of our internal curiosities, but sometimes students need a little extra support outside of the classroom. This space will provide dedicated support to all students across STEM, with supplemental instruction and tutoring, workshops, and career/professional enrichment activities. Located at the top of the "Learning Staircase," students will be directed to this Center regardless of where they are taking classes in the building.	$50,000
Third Floor Terrace Reserved	Topping the Lindley Center is a third-floor terrace that will provide inspiring views across campus. Designed to provide an outdoor congregating space, the internal student study area behind wall-to-ceiling glass doors can be joined with the terrace to host events such as student meetings, conferences, and poster presentations.	$50,000

Additional Naming Opportunities

Student Study Spaces	$50,000
Large Lecture Hall	$50,000
STEM Courtyard	$50,000
Virtual Reality Lab	$25,000
Computer Labs	$25,000
Science Labs	$25,000
Lecture Halls	$15,000
Chemistry Instrumentation Room	$15,000
Various Classrooms	$10,000

Victor Tam, Dean
Science, Technology, Engineering & Math
vtam@santarosa.edu 707-527-4246

Sarah Laggos, Director of Philanthropy
Santa Rosa Junior College Foundation
slaggos@santarosa.edu 707-527-4733

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W. Terry Lindley Center for STEM Education


INNOVATION

White Baffle Ceiling + Wood + Natural Stain – Wood coordination is required with furniture

SMITHGROUP

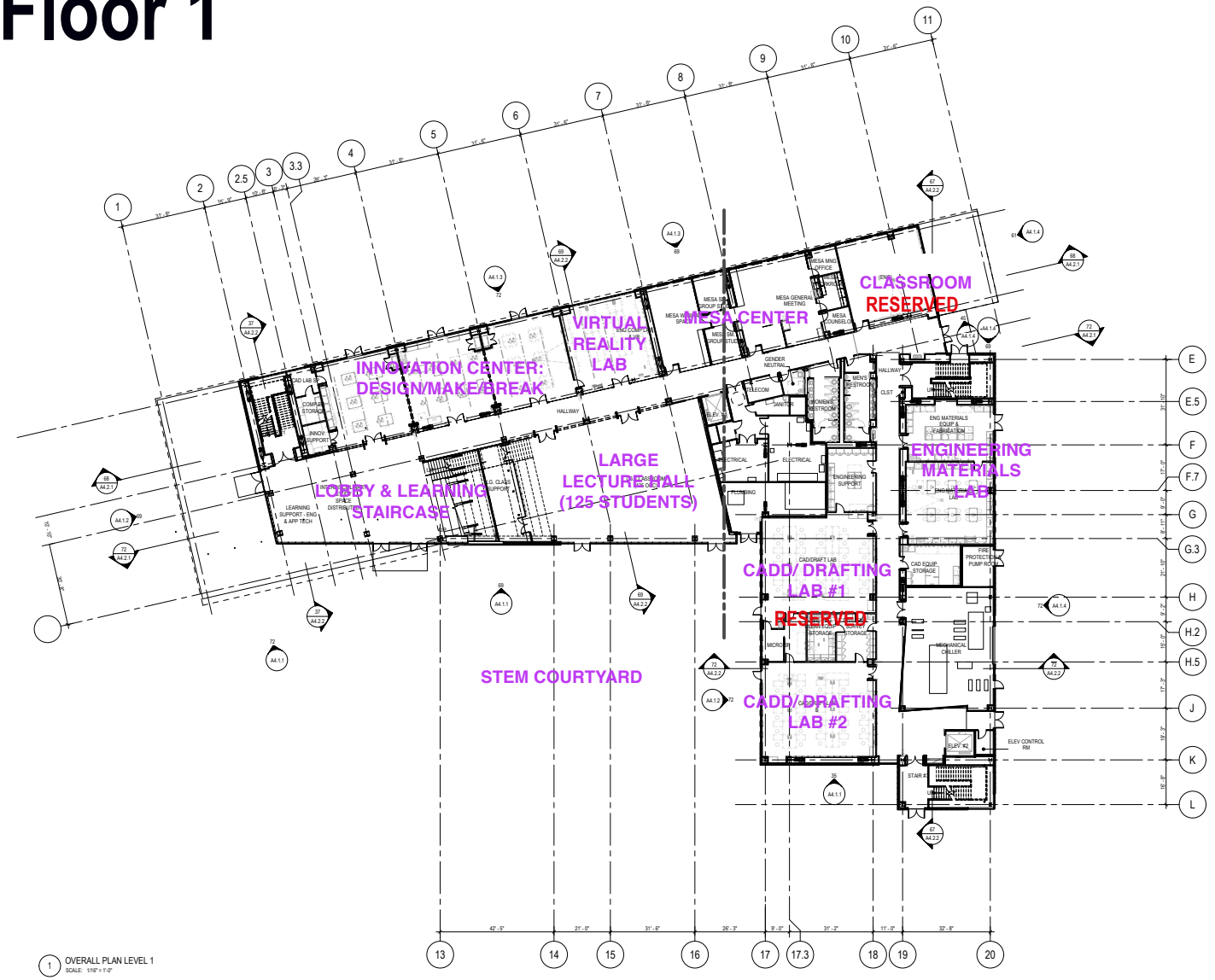
MESA– 1st floor MESA Entry

SMITHGROUP

LEVEL 3 – PROPOSED - VIEW 2

SMITHGROUP

Floor 1



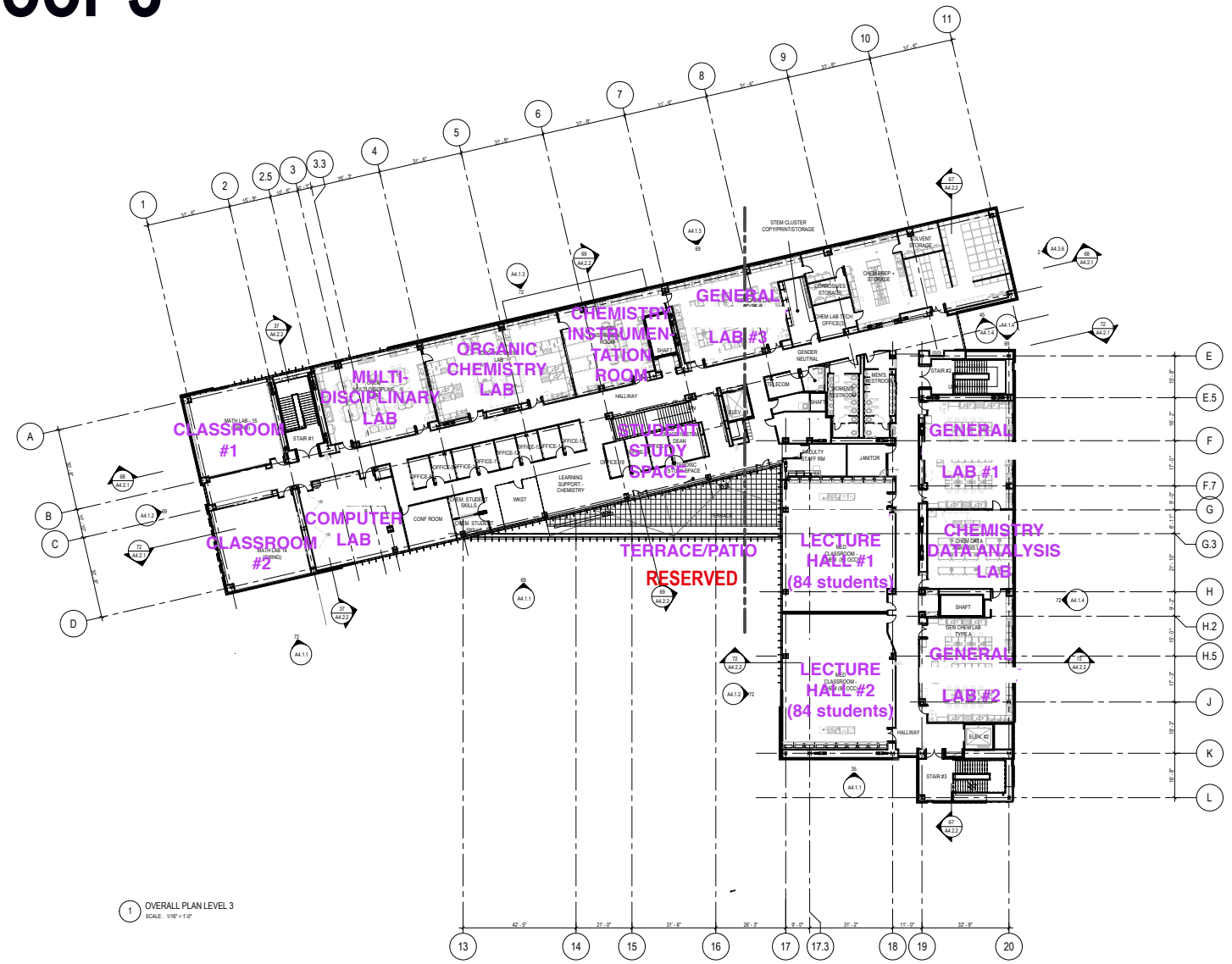
1 OVERALL PLAN LEVEL 1
SCALE: 1/16" = 1'-0"

Plot Date:

Floor 2


CLASS ROOM #7
RESERVED
RESERVED
CLASS ROOM #6
CLASS ROOM #5
STEM SUCCESS CENTER
CLASS ROOM #4
CLASS ROOM #3
CLASS ROOM #2
CLASS ROOM #1
CLASS ROOM #8
CLASS ROOM #9
CLASS ROOM #10
LAB #1
COMPUTER LAB
LAB #2
LECTURE HALL (48 students)
RESERVED
CLASSROOM #11
1 OVERALL PLAN LEVEL 2
SCALE: 1/16" = 1'-0"

Floor 3


CLASSROOM #1
MULTI DISCIPLINARY LAB
ORGANIC CHEMISTRY LAB
CHEMISTRY INSTRUMENTATION ROOM
GENERAL LAB #3
STUDENT STUDY SPACE
COMPUTER LAB
CLASSROOM #2
TERRACE/PATIO RESERVED
LECTURE HALL #1 (84 students)
LECTURE HALL #2 (84 students)
GENERAL LAB #1
CHEMISTRY DATA ANALYSIS LAB
GENERAL LAB #2
1 OVERALL PLAN LEVEL 3
SCALE: 1/16" = 1'-0"

ELLIOT AVENUE

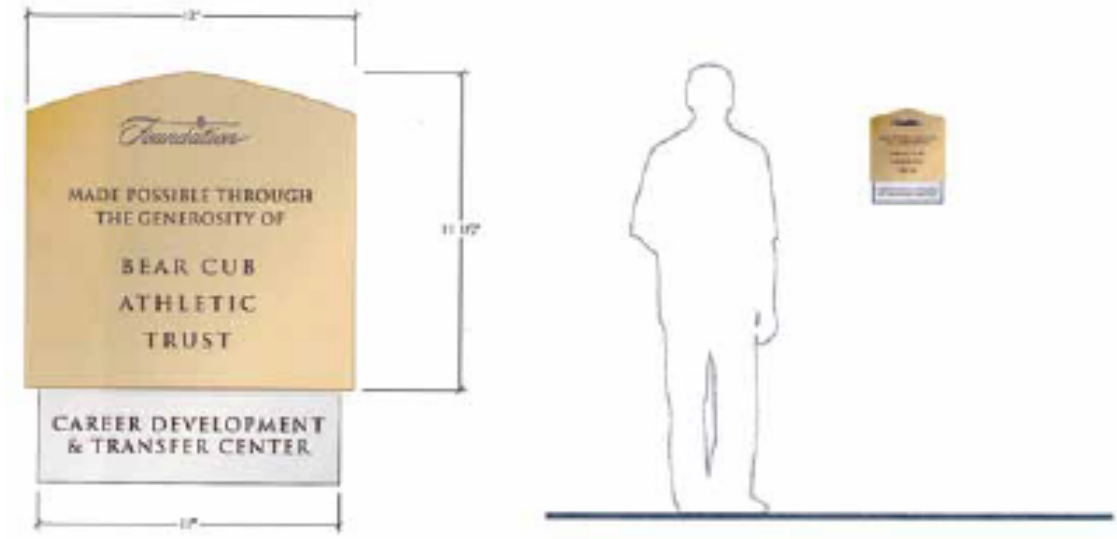
SCHOLARS DRIVE

BUSSMAN HALL

PLANETARIUM WAY

Marquee Lettering

Room Plaque



Marquee lettering and room plaque examples from the Lawrence A. Bertolini Student Services Center

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