



SCIENCE ON

BUILDING THE
FUTURE OF SCIENCE AT
FOLSOM LAKE COLLEGE

DISPLAY



SCIENCE WILL SHAPE THE FUTURE

It's an exciting time to work in science. New frontiers are opening up every day, as scientists make new discoveries that address the most pressing issues that impact society, on both a local and global level. The demand for a workforce with science competency is expected to increase, especially in our region. Earlier this year, the Sacramento Area Councils of Government (SACOG) projected that jobs in the Sacramento region through 2050 will outpace the state and nation in job growth, particularly in the areas of scientific research and healthcare. Science is at the core of innovation and our region needs a growing workforce to develop solutions to today's toughest challenges, yet the demand is outpacing the graduation rates of science students in our region.

Folsom Lake College is addressing tomorrow's workforce needs today with the construction of a new Science Building, and with your help, will foster the next generation of innovative thinkers, discovery makers, and scientists who will change the world.



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Upon completion, the 75,000 sq. ft. instructional building is on track to obtain a LEED Silver Certification and will be the largest science facility within the Los Rios Community College District. The instructional building is projected to be completed in January 2025, with classes beginning in August 2025. It will create a highly visible new entryway to the Folsom Lake College campus from East Bidwell Street, a main thoroughfare for the Folsom community.

And as science has provided our society with discoveries and innovations never dreamed of even at the turn of the century, we know that science will continue to progress in the future – the rate of change will not slow down. The new Science Building, state-of-the-art today, can remain so for generations because it was designed for adaptation and to be reconfigured to meet future needs.



ADDRESSING THE NEEDS OF STUDENTS AND THE COMMUNITY

Folsom Lake College is already a destination for students with high potential but limited resources who have been historically underrepresented in the sciences, and with your investment, we can do so much more to support their educational endeavors.

In the Fall 2022 semester, 1,468 students were in STEM-focused majors. Within these majors, 45% of the students were low-income, and 37% were either first-generation students or came from historically underrepresented racial or ethnic backgrounds.

The ability of all students to move quickly and efficiently through the education pipeline is crucial to address the science talent gap for local employers. Yet, the lack of lab space for biology and chemistry classes has constrained the number of Folsom Lake College course offerings, resulting in long waitlists and fewer graduates.

The construction of a new science building addresses the essential need for more lab space but also allows us to dream bigger on behalf of the students counting on Folsom Lake College for their STEM education.

SCIENCE ON DISPLAY

Science on Display is a philosophy of teaching and learning that integrates science studies into the simple experience of walking through the building. Windows into the workspaces and labs invite curiosity and create a sense of awe, inviting students to explore and try something new. Corridors will exhibit displays evoking the wonder of biology, from DNA to majestic ecosystems. Plants will soften the hardscapes, and aquaria viewable through windows into classrooms will nurture a connection to nature. Artwork in the hallways will recognize current students and notable scientists who have overcome adversity. This openness, visible activity, and unlocking of the mysteries of science will create energy and invite curiosity. It will welcome newcomers to take part in the scientific process and reinforce the idea that science is not only for science majors — it is for everyone.



We currently only have two labs and it's like a game of Tetris to sandwich in everything we need to do in those two spaces. Labs are broken down immediately after use and set up for the next class, with no time or space for extra study time or extended lab work with faculty and/or other students.

Linda Abraham, Professor of Microbiology

EXPANDING ACCESS NOW, AND FOR THE FUTURE

Additional labs and lecture rooms will help students get the classes they need when they need them. High demand currently causes some students to wait for class availability, which can impact their academic timeline and increase their financial burden. The building will meet current and foreseeable future demands for labs by expanding the number of labs from four to twelve. The increased number will fully support the biology and chemistry curriculum, including anatomy and physiology, microbiology, organismal biology labs, as well as organic and inorganic chemistry labs. All labs have been designed to meet the teaching needs of each of the specialties but have flexibility that will accommodate future curriculum adjustments. Additional areas include lecture rooms, multi-purpose rooms, an outdoor garden, as well as faculty and administration offices.



Collectively, the new Science Building elements are designed to promote community and send a clear message to students: we believe in you, you matter, and this building belongs to you.

— Sherry Rogers, Professor of Biology

TRAINING SCIENTIFIC MINDS THROUGH WELL-RESOURCED FACILITIES

Students will experience the depth and breadth of a rigorous curriculum, including training on current instrumentation and protocols. This helps students prepare to thrive in scientific inquiry upon transferring to some of the world's premier science programs at four-year universities. Likewise, training on current instrumentation and protocols creates opportunities for partnerships among students, faculty, and local businesses and organizations seeking specialized training for current and future employees. Whether students plan to transfer for further education or take their place immediately in local industries, the fundamentals of a robust science education coupled with a spirit of creativity afforded by the new Science Building will provide a transformational experience on their journeys toward rewarding careers in science.



Professor Zack Dowell and students in the Innovation Center



Studying literature here allowed me access to curiosity that I had never found anywhere else and when I studied chemistry here as well, I got to blend my interests in art and science, and I've been excited about both in a way that I have only felt here at FLC.

Savannah La Mers Nobel, Student

CREATING A SENSE OF PLACE AND BELONGING

Located prominently at the building entrance is the heart of the learning community, the Science Center, where students will access study materials and personalized academic support services from comprehensively trained tutors and mentors. There will be informal gathering areas throughout the common corridor to enable faculty and students to linger and collaborate. These welcoming spaces will help build community between students in various disciplines. In some lecture studio layouts, students will feel like they have wandered into a coffee shop where they can relax and lose track of time delving into the topic of the day with study groups.

Attracting More Students to Pursue Science

The well-resourced new Science Building provides a venue to expand science program offerings, providing both increased curricular options and scheduling flexibility now and into the future. Students (majors and non-majors) studying biology, chemistry, math, physics, astronomy, engineering, and health sciences, among others, will come together with faculty in this new space to innovate, collaborate, and learn, and can begin to see themselves as scientists.

We are on a precipice of change with this building, which will allow us to attract new students and grow programs with outstanding career paths.

Max Mahoney, Professor of Chemistry

Top-Notch Faculty

It's not only the innovative new building that will attract more students to the sciences. Folsom Lake College Science faculty are highly educated, with advanced degrees from top research universities but, equally important, have real-world experience in their respective fields. They know first-hand that scientists must collaborate and communicate with those in other disciplines if they want their work to make an impact on the world.

Faculty choose Folsom Lake College because they are student-focused and love to teach. They can provide personalized mentoring because class sizes are small and both lectures and labs are taught by the same faculty member. The new Science Building with its student-centric design and equipment normally found only in four-year institutions, will help Folsom Lake College continue to attract top-notch faculty.



Biology and Chemistry faculty and staff members: Dr. Eric Wada, Dr. Linda Abraham, Sayna Jahangiri, Kalee Christensen, Dr. Christa Oberth, Jeanne Hintze-Lab tech, Dr. Steve Hölzberg, Greg McCormac, Dean of Science, Dr. Sherry Rogers, Casie Sugie, Dr. Ami Rose.

Making as a Science

Faculty engagement with student learning extends beyond the traditional classroom. An important student resource dedicated to collaboration is the Innovation Center Makerspace. Through a combination of “Makerships,” short internships designed to introduce students to real-world work experiences, and a strong culture of experimentation, students can learn, create, and connect in collaborative ways. Guided by faculty and student staff, projects range from simple sculptures made on the laser cutter to the fermentation process (brewing beer) and are supported by an array of technology found in the workplace. An example of the types of impactful cross-collaboration that the Innovation Center provides is the ongoing partnership between the Innovation Center, the Geosciences Department, and the UC Davis Bodega Bay Marine Laboratory where students recently deployed a wind and wave data buoy to gather environmental data in Richardson Bay, a protected eel grass preserve near San Francisco. Students will use those data in a variety of ways, from sonification (i.e., creating music from data) to “big data” analysis as part of Folsom Lake College’s innovative Artificial Intelligence curriculum.



Madison Thompson, Alumna

Madison knew in high school that because of financial circumstances she would need to attend a community college. Hesitant at first, Madison ended up loving FLC and found lots of opportunities, especially in the sciences. Looking back, she says, she learned so much more at FLC because the professors care about teaching. Madison said she got a very strong understanding of the basics – and feels that when she matriculated to UC Davis, she had a leg up in terms of learning thanks to FLC faculty who take a personal interest in students.

An FLC faculty member encouraged her to apply for a “bridge” position in the Organic Chemistry lab at UC Davis, a position she got and held for two years. There, she and some of her classmates, through a fellowship with Pfizer, researched and wrote a paper that was published by the Journal of Organic Chemistry. Madison was accepted into UCSF Medical school and will start in fall 2023. Madison says that she is proof that “you don’t have to start at a UC to become a doctor.”

AN INVITATION

TO BUILD THE FUTURE OF SCIENCE AT FOLSOM LAKE COLLEGE

The cost of the building was funded through state facility funding and generous taxpayer support through local Measure M bonds. Yet, these dollars cover only construction-related expenses and not the enhanced equipment necessary to make the facility state-of-the-art.

To bridge this gap, Folsom Lake College and the Los Rios Colleges Foundation are embarking on a campaign to bring

together private support and sponsorships to pay for the transformational equipment and technology not typically available to community college students.

Once the Science Building is completed, the funds will support the renovation and expansion of the Innovation Center Makerspace to accommodate the increasing number of students interested in exploring new avenues of learning and

Examples of equipment to be purchased with private dollars

Chemistry

- Gas Chromatograph/ Mass Spectrometer
- Olfactory detector
- Fourier Transform Infrared Spectrometer (FTIR)

Biology

- New microscopes for each lab room
- Plasticized cadaver
- Anatomical models



expanding their cross-disciplinary skills and knowledge.

We invite you to partner with Folsom Lake College to create this bold investment in our community's future that will bring significant dividends—to our students, to our region and to society.

Every donation to the campaign makes a meaningful, lasting difference to the future of STEM at Folsom Lake College, but more importantly, to our region. Your gift will help prepare the next generation of doctors, teachers, scientists, engineers, and tech industry leaders, who will live, work, and invest in this region. Only with the help of donors like you will we be able to offer the world-class education students

deserve, while also meeting the needs of employers in high-tech, high-demand fields. There are many ways to give, and we can work together to help you make an impact, while also meeting your financial and philanthropic goals.

Gifts can be pledged for up to five years. Legacy gifts, such as charitable gift annuities, bequests, and other planned gifts are another way to help make this project a reality while meeting your long-term planning needs. Naming opportunities are available for donations of \$5,000 or more, and all donations of \$2,500 or more will be eligible for a commemorative plaque on the donor wall.

For more information, including naming opportunities, contact Kirsten DuBray, CFRE, Regional Director of Philanthropy at (916) 484-8175 | DuBrayK@losrios.edu



The Los Rios Colleges Foundation is a 501(c)(3) non-profit organization that partners with generous individuals, businesses, and foundations to raise private philanthropic support to remove barriers for Los Rios students and to provide resources to Folsom Lake College and the other colleges in the Los Rios Community College District.

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