



California State University, Dominguez Hills

CSI³ NEWS

CA STEM Institute for Innovation & Improvement, CSI³



“Building on the Past, Engineering and Designing the Future”

STEEAM WEEK

“Whether fishing, swimming, or playing, our parks symbolize bringing family together.”

-STEEAM Week Student

All throughout Judith F. Baca Arts Academy's quad, dozens of architects gathered to showcase their ideas and solutions for restoring historic monuments and legendary parks. No, you have not accidentally stumbled into a colloquium of city planners, though the mistake would be understandable – You are witnessing the culmination of a week-long project-based learning celebration. Young students from Graham Elementary School, Dr. Lawrence Moore M.S.T. Academy, and Judith F. Baca Arts Academy gathered together on the latter's campus and collaborated to critically think and to apply Science, Technology, Engineering, English Language Development, Art, and Mathematics in order to creatively implement modern design sensibilities into both local and international parks and monuments. Brick by brick, stone by stone, each element of the models and restorations were presented and communicated with appropriate foresight and enthusiastic glee.

Students from the three schools could not contain their energy as they hastily sought out the judges and passersby. They had learned that the future would be built on communication and the exchange of ideas, so the students ensured that any listener received a full presentation, each one replete with ideological foundations and visual aid. Clearly, they had locked onto their purpose, and their motivation and inspiration could be felt throughout their exhibitions.

Strikingly, during the actual presentations, bubbling energy swiftly shifted to measured and analytical speech - Fun is fun, yes, but for these students, it seems, business is business. One young student, tracing their fingers across the design of their project (whose materials were 3D printed and crafted on-site, courtesy of the CA STEM Institute for Innovation & Improvement's revolutionary Mobile Fab Labs) spoke about their team's intent behind the intricate layout of their park: “Whether fishing, swimming, or playing, our parks symbolize bringing family together,” said the team's speaker. “We want to foster a sense of peace in the community.” The middle school student deftly explained the placement of the park's fields, rivers, and family facilities to underscore their words.

In a similar vein, another student and their team demonstrated their plans for the Venice Canals. “I was inspired by my childhood,” the student intimated, “My grandpa and I used to watch the water pass through the rocks near my home. I wanted to bring that feeling to the Venice Canals, so that others could experience what I have.” No one could doubt the sincerity of their words, and their excitement for bringing communities together could only be matched by their careful analysis of the methodologies by which their successes could be realized. Happy and confident, the students were demonstrating their mastery of the lessons that they had learned.



Students from Dr. Lawrence H. Moore MST Academy showcasing their rendition of Mullhollan Park.

“Our students now realize that they can make things real, and the connections they form with each other and their teachers directly lead to success.”

-Tracey McWhorter, Principal

How had they come by their eloquent understanding so quickly? Tracey McWhorter, principal of the hosting school, Judith F. Baca Arts Academy, confidently explained the precise reasons. “This technology is their world,” said McWhorter, “and these kids are ready to navigate their futures. Look at them: They’re so invested, and they are begging to be asked questions.” When asked to comment on the dazzling yet mature displays of park-planning, McWhorter dispelled any notions that the results were due to any arcane trickery, “We are gathered here to demonstrate that we are committed to a practical approach for urban schools. Our teachers are very grounded, and we want Science to come to our students, not just through pictures and books, but in a tangible way. That’s why this week was so crucial: Our students now realize that they can make things real, and the connections they form with each other and their teachers directly lead to success.” She added, smiling from ear to ear, “It was an awesome week. My only question is, ‘When are we doing this again?’”



STEAM Week students working on 3D designs for their parks.



STEAM Week students designing their parks.

Any casual observer could see that the students had internalized McWhorter’s principle of connections and collaborations. During the STEAM Week’s closing ceremony in the school’s auditorium, the expected and usual chatter was replaced with students musing on their projects and their excitement at the prospect of working together again. In just a week, theories had been tested, and friendships had been built. The students had taken on the roles of engineers and artists, and they had seen the fruits of their collaboration. Even the harshest of cynics could feel confident that these students would construct an outstanding society.

They are not alone in their hopes and dreams of their futures. Dr. Kamal Hamdan, executive director of CSI³, solemnly spoke to the student body with a respect that resonated with the young student audience, “At schools, there are only winners, and you are shining stars. Because of your hard work, you have succeeded. We cannot wait for you to graduate from this school.” He continued, warmly embracing each student with his heartfelt words, “We wait with open arms at CSU Dominguez Hills when you become college students.” The students cheered, triumphantly drowning out all other sounds and doubts.

STUDENT /TEACHER HIGHLIGHTS

As a continuous feature of this newsletter, the California Steam Institute for Innovation & Improvement and its program directors would like to offer our compliments and recognition of the students and teachers under our care. We are so proud of you all, and we cannot wait to see your talents fully realized in a world that so desperately needs your contributions. Stay tuned for future Student/Teacher Highlights as we introduce some of our members to the public!



"Definitely on Her Way to Something Amazing."

Written on behalf of Noemi Rodriguez, STEM Undergraduate Program Manager

I remember meeting Jennifer for the first time, and I have been continuously impressed by her fast development over just a year. She has had to overcome enormous challenges in her pursuit of excellence. Ever since I met her at the STEM Bridge program, she has become the leader of the CSI³ Leadership Club, and even though she may have initially been uncertain, she swiftly found her way. She always asks a lot of questions, as she is always seeking her next achievement.

I'm proud of our relationship and her active participation in all that she does. Honestly, she could be Department Chair one day, and I know she will inspire others to find Biology fun! You're a young Latina Bio Major! You did it. I'm so proud of you.



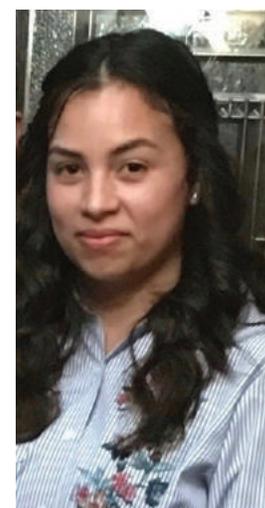
"Empowering Others, Even When Times Are Tough."

Written on behalf of Alexandra Mena, Undergraduate Recruitment & Admission Specialist

It is a true honor to serve Maria through the Women in STEM Education (WiSE) program: She is one of the most caring and dedicated people I've met. She always puts in that extra push to work harder in each class, and she excels beyond her comfort zones and what she previously thought possible. She tries new things, adapts well, and then incorporates that new



Jennifer Mitchell with Dr. Thomlinson at the Desert Studies field trip.



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knowledge into further mental and physical preparedness. She inspires those around her in our WiSE support network. Actually, her willingness and motivation inspires me, too. She continues to find ways to stay engaged and to gain experience through campus activities, groups, and internships. I know she is capable of anything that she sets her mind to, and as WiSE looks to expand, her example will help ensure that others are successful as well!



"Her Success Is My Excitement"

Written on behalf of Sandra Ramos, Contracts & Special Projects Program Manager

I have known Brenda since her Freshman year, and she has consistently demonstrated some of the best qualities I could want in a tutor. She demonstrates her leadership style, yet she is humble; She is big on asking questions. Those qualities will serve her well, because she is eager to work in Multiple Subject, K-2 teaching: Her curiosity always drives her to seek the best method and solutions to approach problems.

Since she started, Brenda has consistently worked hard, establishing rapport with both her students and her teachers. Not only is she entering the STEM Teachers in Advanced Residency (STAR) program, one of our most rigorous programs, but her expertise has reached the point where she is being shadowed by other trainers. She will absolutely get her credential and her Master's degree, and seeing her develop and evolve has been a true joy for me.



"Impressive, Even to Educational Veterans"

Written on behalf of Sandra Ramos, Contracts & Special Projects Program Manager

Our time together was brief, but even a short time was enough for me to learn about Bryant's dedication to his English Language Development (ELD) students. He is the kind of tutor who has built his well-deserved reputation on his patience and his adaptability;

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he will restructure entire lessons, and he will do so tirelessly until his ELD students learn and internalize the lessons.

Bryant has advanced to the point where the teacher of record in the classroom will split the load of instruction with him, sometimes even dividing the class up 50-50. There is no way any teacher would allow that, unless you had proven yourself to be reliable and committed to student success.

Literally, the teacher chased me down as I was walking through the campus just to tell me, "Thank you! You did a great job selecting him." It just shows that, in order to be truly qualified for tutoring and teaching, like Bryant, you must have heart, and you must genuinely smile.



"Utterly Dependable and Dedicated"

Written on behalf of Sandra Ramos, Contracts & Special Projects Program Manager

Christina is a Math intervention tutor, and I am confident in saying that when she becomes a teacher herself, she will get hired quickly. She is a shy girl, yet her successes with the kids speaks volumes. I have been able to see her progress and skills personally, and those around her also have taken notice.

During monthly meetings with her coaches [trainers], the coaches cannot stop expressing how much they love and respect her abilities. Specifically, she creatively approaches her students, never relying on only one technique. Truly, she is aware of her students' needs, and in her area, where they experience a high turnover rate of teachers, Christina is a constant rock, a foundation for her students: They know that she will always be there for them. Her students know, with certainty, that she is committed to them and their education.

STUDENT /TEACHER HIGHLIGHTS



"Taking Care of Business"

Written on behalf of Xiomara Benitez, Director of Operations

First Impressions? Even when I first met her, I could tell that Qianna was both friendly and open, and she never hesitated to enthusiastically message me for questions and assistance. During our first meeting, I could perceive her kindness and warm demeanor, characteristics that have served her well as a teacher. She has a great rapport with the kids, and she is able to take her gratitude for anything and everything the Secondary Special Education Teachers Intervention (SSETI) program does and directly translate that into lessons for her students.

If I was allowed to be selfish, I would want to keep her with the kids, since she has had an amazing effect on them! But, I know that she should be free to grow and develop. Honestly, she could be a real leader and role model for other teachers, since she cheerfully approaches all of the hard work in front of her.



"Calm, Balanced, and Attentive"

Written on behalf of Xiomara Benitez, Director of Operations

Within a short time after meeting Michael, he surprised me with his calm and kind conduct, and I just knew that I had to find him a job. Since then, he has continued to amaze me with his clearly visible compassion and attention to detail. His classroom is beautifully decorated; I can tell that he has put serious thought into creating a class culture that makes students feel welcome and ready to learn. His patience seems endless, and his students know that they can rely on him to do what he needs to do.

He may not yet know that he has made an impression, and I hope that he discovers that. Even when I walk past his room, I can see his classroom conduct and management skills. Truly, he is a role model for his students.

TORO TUTORS

BY SANDRA RAMOS

The Toro Tutors program was established as a joint partnership with Compton Unified School District (CUSD) schools and the College of Education and California STEM Institute for Innovation and Improvement (CSI³) at California State University, Dominguez Hills. The program has three overall goals: 1) To help improve student learning and achievement in the District in core content areas; 2) To provide additional classroom support for teachers via tutor assistance; and 3) To create meaningful job opportunities for college students that they may also serve as relevant, valuable work experience for students interested in pursuing a teaching career.

The program recruits college students from primarily CSUDH and other community colleges and universities in the Los Angeles area to serve as tutors for elementary, middle and high school students in the core areas of Mathematics, English Language Arts, English Language Development, Science and Social studies. The recruitment of tutors is an ongoing process per semester to meet district needs. Once tutor candidates fill out an online application form and submit their resumes, they are invited to an hour-long information session to cover the history of the project along with project expectations and procedures. Candidates must go through a thorough interviewing and diagnostic exam process which is modeled on 12 Math-related and 12 English-related items, similar to the California Basic Educational Skills Test (CBEST). Candidates must score at least 65% on the exam to be considered as a hire, and they must maintain a minimum 2.75 GPA and content-area proficiency. However, no prior tutoring experience or training is required.

As an institution, Toro Tutors mainly facilitates collaboration between teachers and tutors. The teachers' primary role is focusing on instruction with the whole group, while tutors work individually and/or in small groups with their students. Teachers are also encouraged to collaborate with their tutors on needed skills/strategies for their students. Tutors are responsible for providing academic support for students in both one-on-one and in small group settings during classroom hours. They are also available for before-school and after-school tutoring.

The communication structure between the tutor and school/district personnel is ongoing and frequent to ensure that student needs are effectively being met in the classroom. When tutors are evaluated, tutors receive reports on their roles, responsibilities, how well they performed their responsibilities and specific areas for improvement as reported by lead teachers.

If anyone has any questions as to how to join and/or contribute to Toro Tutors, please contact me at sramos@csudh.edu or at (310) 243-2790.

NGSS SUPER TRAINING

BY LAURA AVENDANO



From the moment that a person is accepted into one of our Teacher Preparation Programs, STAR or SSETI, the CSI³ team begins engaging them through monthly seven-day, paid-training seminars that provide advanced and accelerated training in Next Generation Science Standards (NGSS). Since our teachers commit to working in high-need, inter-city schools that have historically struggled in recruiting and retaining teachers, it is critical that we begin preparing our teachers for success immediately.

Our seminars address the realities of teaching at high-need schools and the qualities of an effective teacher. Each seminar introduces the participants to different community builders, seating arrangements, and instructional techniques that they can use in the future, with their own students! The last seminar included a Special Education overview and a discussion on equity as it relates to the classroom and instruction. Seminars also provide teacher candidates with an opportunity to ask questions and secure important information about their respective teacher preparation program.

Overall, the NGSS Super Training seeks to provide participants with tangible STEM applications to investigate and solve real-world challenges so they can, in turn, teach students to develop 21st century skills through project-based learning and to promote equity with the Southern California region. In addition to receiving a Beginner Level Fabrication Lab Technology Certification, participants will also enjoy the following benefits for their involvement in the training: 1) Lesson plans and a unit of instruction with the incorporation of 3D Printers, Vinyl Cutter, and their related software; 2) Access to the collaborative Google Drive that is replete with shared resources; and 3) Fabrication Lab Technology expertise.

For more information, be sure to contact CSI³ at website@csi3.org or (310) 243-2634. We eagerly await the opportunity to help train the next generation of teachers!

STEM UP BRIDGE

BY NOEMI RODRIGUEZ

Participating in the STEM Scholars program certainly has its benefits, but none can more easily ensure a STEM Scholar's academic success than the STEM Up Bridge. The STEM Up Bridge, a series of workshops exclusively reserved for STEM Scholars, provides a two-prong solution to common academic problems that many STEM Scholars face in their early college careers. Do you have difficulties with the more technical aspects of your General Education courses, the "gateway" courses, like Chemistry, Computer Science, Math, and Biology? The STEM Up Bridge provides outstanding professors who will impart inside knowledge, strategies, and tips to help you get the



grade you want and the skills you will need! Do you want to make connections with some of your respective departments in the STEM fields? Again, the STEM Up Bridge offers you a community of like-minded individuals led by willing advisors and instructors who would love to meet you and help induct you into their departments and communities. Make those connections, Scholars!

If you are a STEM Scholar and would like to participate in our intensive Bridge program, be on the lookout for offerings before the Fall and Spring semesters. Join your peers and colleagues; This last bridge, we had close to 40 Scholars attend, so do not let yourself miss out on this chance to be immersed into your discipline. We play games, learn, and yes, we will even provide food! For more information, please contact me at norodriguez@csudh.edu.

WOMEN IN STEM EDUCATION

BY ALEXANDRA MENA



Sometimes, a community of shared perspective, background, and support are all you need in order to succeed. If you are a woman who is actively seeking a degree in the STEM fields, please consider joining the Women in STEM Education (WiSE) program. We are a fast-growing community and peer support group dedicated to ensuring that you will receive all of the support that your burgeoning career could require. We provide tutoring, advising, research and scholarship opportunities, field trips, and job placement in order to empower and enhance your college experience and your future career.

Essentially, we want to offer you a place in the WiSE academic support group to ensure that you will succeed, whether that be through personal or academic fulfillment in the STEM fields. We know that the journey can be difficult, especially if you are exploring educational territories to which you are not yet accustomed.

The best part? The WiSE program can be joined alongside any of our other fine programs. Let us help you adapt and give you the tools to help you achieve. Let us help inspire you, just as you will inspire other women in the future. For more information, please contact me at wise@csudh.edu.

TEACHER ASSISTANTS

BY KENESHA CARTER

You have a fresh credential, you are standing in your new class full of students, and your lesson plan for the day requires that you assess learning and divide the class into small groups to pursue the day's topics and curriculum. Do you know what to do? Do you know what would be most effective in your situation? If you are currently enrolled in a Credential program like the NOYCE Scholars Program (NSP) or the Math and Science Teacher Initiative (MSTI), then we can help you learn the tools of the trade. Please consider becoming a Teacher Assistant.

Teaching will often surprise you with its joys and hardships and its successes and its failures, especially if you have not yet received opportunities to experience the career first-hand. As you are gaining your credential, we want to offer you the unique opportunity to gain hands-on experience in real classroom settings, students, and classroom management situations. By pairing you with an instructor, we can deliver invaluable experience and teaching tools for when you have your own classrooms.

Schools and students need great teachers, and we want to help prepare you to overcome the challenges that await you. We offer a variety of resources like personal support and advice, on-site experience and instruction, and pedagogical strategies, so your future readiness to manage a classroom cannot be questioned or doubted. We want you to be ready, and we want to ease the tension between theory and practice.

We only ask that you be passionate about teaching, be open to learning, and be actively self-motivated. We want to hone your communication skills so that you, too, can fully enjoy the satisfaction of a well-run classroom. Do not let this opportunity pass you! Please contact me at kcarter45@csudh.edu for more information and for the chance to practice the skills you will need out in the field.



AWARDS AND SPECIAL ANNOUNCEMENTS

The California School Board Association (CSBA), now in its 39th year, consistently and successfully works to empower its members to advocate and to apply educational innovation for the sake of the student communities. In order to inspire and to promote excellence in education, the CSBA hosts its annual Golden Bell Awards, a ceremony through which outstanding institutions are recognized for their contributions to school advocacy and students' needs. A Golden Bell Award carries both recognition and encouragement for exemplary pedagogical programs that foster the development of students. In the CSBA's own words, a Golden Bell signifies that its recipients "have made a concrete, statistical difference for students, have innovated in an exemplary way, can be sustained over time, and have reflected the depth and breadth of education programs" in myriad categories of achievement.

We are pleased to announce that the CSBA has awarded a Golden Bell to CSI³'s Project Reach K-2 Literacy Initiative due to its innovative partnership, program design, and revolution in literacy advancement for Compton Unified School District K-2 students. Project Reach has "recruited hundreds of students" and "... has increased reading proficiency, improved student behavior, and enhanced interest in learning" throughout its alliance with Compton USD. As an exhibition of the tutors' technique and skill, the director of Project Reach nominated Brenda Rocha, one of the four top tutors, to showcase both her and the program's hallmark student interaction and educational conveyance for the CSBA's Golden Bell judging committee.

We would like to thank the CSBA for their kind consideration and recognition, and we accept the award as encouragement to pursue our mission. Thus, Project Reach will continue to work and innovate on behalf of student success through the efforts of its skilled staff and devoted tutors. We also wish to extend our congratulations to the other Golden Bell Award winners; Let us redouble our visions and work together to ensure that our students can achieve everything that their futures can offer.