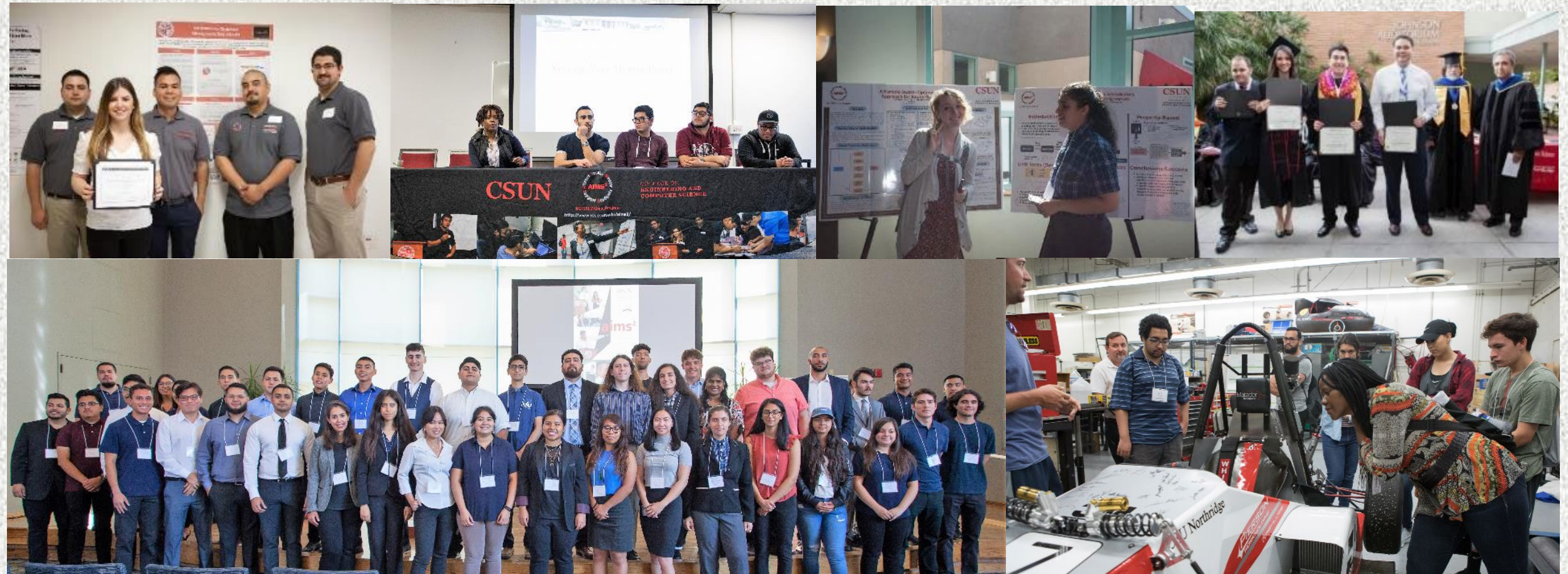




Welcome to AIMS²(HSI-STEM Grant) Meeting # 98

CSUN
COLLEGE OF
ENGINEERING AND
COMPUTER SCIENCE

HSI STEM Grant Program



September 09, 2021, 1 PM – 2:30 PM

Photos-Courtesy: Armando Tellez



AGENDA

- Welcome and Information Items – Ramesh
 - 2020 UEDA Awards of Excellence Finalist
 - Meetings Calendar – Fall 2021
- Supplemental award (AIMS² Future Teachers in STEM) report – Angela Carpenter
- Project Assessment and Evaluation update – Nathan Durdella

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Virginia Tech

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August 11, 2021

Congratulations!

On behalf of the UEDA Awards of Excellence Committee, I am pleased to inform you that your project has been selected as a finalist in our awards process.

We received a great number of outstanding submissions from across North America, and our Committee selected your project as one of the top finalists in your category. As you know, this UEDA initiative represents the leading awards program for higher education economic development.

The competition, needless to say, is tough. All projects submitted represented significant and important initiatives in the areas of innovation, talent, place, and the intersections of these areas. Each submission warranted recognition as a finalist for our award, however, your project stood out in your category – truly the cream of the crop.

Your project team must present your selected project during our Summit on September 19 – September 21, 2021. Each finalist is given time to present their project and we recommend that you choose 1-2 persons from your team (however more are welcome and encouraged to attend) to present given the time constraints. At the Summit, UEDA members and other Summit participants will have a chance to hear about the good work and outstanding results of your project alongside other category finalists. Those in attendance will then vote for the category winner best exemplifying their category in the areas of originality/creativity, impact, leadership/collaboration, and replicability/sustainability. Instructions on how to register can be found in this packet. If you have any questions throughout this process, please contact Barbara at events@universityeda.org.

We strongly encourage you to attend an informational webinar for all UEDA Awards finalists on August 23 at 12:00pm ET. During this webinar, the Awards Committee will provide insights into how to build an effective presentation and answer any questions you may have. Webinar information is enclosed.

Thank you for your submission to the 2021 Awards of Excellence, and we look forward to hearing more about your project at the Summit. Congratulations!

Sincerely,

Margo Fliss

Chair, Awards of Excellence Committee

Coldstream Research Campus P3

Development

Western Illinois University - IL, Institute

for Rural Affairs

Rural Fresh Markets

Place + Innovation

Georgia Southern University Business

Innovation Group

Innovation Incubator (I2)

University of Georgia

Georgia Broadband Map

University of Missouri - Kansas City

Building Bridges for Just-In-Time Small

Business Support

Wichita State University

FTRC and MRO Mod Facility

Talent

America's SBDC New Jersey (NJSBDC)

NJSBDC: The Pandemic & The Pivot

California State University Northridge

The AIMS^2 Program at CSUN

University of Kansas

Haskell Environmental Research Studies

Institute (HERS)

WiSys / UW System

The University as a Talent Engine: Fostering

Entrepreneurial Skills & Talent

Talent + Place

Georgia Southern Business Innovation

Group

Georgia Southern Fabrication Laboratory



The AIMS^2 Program at CSUN - x +

universityeda.org/knowledge-network/awards-of-excellence/2021-finalists/the-aims2-program-at-csun

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Network

The AIMS^2 Program at CSUN

Award Category:	Talent
Submitted By:	California State University, Northridge
Program Info:	Learn More

AWARDS OF EXCELLENCE

Awards Quick Links


- [About the Awards](#)
- [This Year's Finalists](#)

The AIMS^2 Program at CSUN - x +

universityeda.org/knowledge-network/awards-of-excellence/2021-finalists/the-aims2-program-at-csun

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Program Info



[This Year's Finalists](#)

[UEDA Summit Info](#)



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Meetings Calendar for Fall 2021

✓ *August 12, 2021*

✓ *September 9, 2021*

✓ *October 14, 2021*

✓ *November 18, 2021*

✓ *December 16, 2021*

All meetings on Zoom online for now

Monthly meetings above are scheduled from 1 PM – 3 PM



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AIMS Future Teachers to STEM (FT2STEM)

Fall 2021 Report



Overview

- Background
- Methods
- Results
- Program Recommendations



Background

- The AIMS FT2STEM supplemental award supports an increase in the number of under-represented minority students with degrees in STEM that pursue and attain a teacher certification to teach in STEM subject areas
- Grant term: 10/1/19 – 9/30/21
- FT2STEM provides scholarships for 10 participants. These participants attend workshops with NASA JPL and Discovery Cube, and co-lead, with a master teacher, an afterschool robotics club in a high-needs school



Background Continued

- Explore student experiences within the AIMS-FT2STEM supplemental program
- Research Questions:
 - How does participation in a STEM-focused elementary and secondary education teacher preparation program shape student experiences for Hispanic and low-income students?
 - How does pre-service teacher mentoring by in-service teachers shape Hispanic and low-income students in a STEM-focused elementary and secondary teacher preparation program?



Methods

- Case study design
 - Weekly structured journal prompts in Canvas
 - 30 total structured journal prompts were posted
 - Of the 11 total participants, 8 completed at least 1 journal entry
 - A total of 87 journal entries were recorded
 - One virtual individual interview
 - One 35-minute virtual interview included questions exploring general project participation, faculty mentors, and teacher preparation in STEM



Results – Thematic Categories

- Developing a Professional Identity and Learning to Teach: Pre-Service Student Teacher Experience with Career Preparation
- Grit and Attitude: Exploring Broader Meaning in Training to be a Teacher
- Gaining Knowledge and Support from Professionals: Mentor Teachers, Student Teaching, and Professors
- Virtual Experiences
- Focusing on the Program: Participant Feedback Participation



Developing a Professional Identity and Learning to Teach: Pre-Service Teacher Experiences with Career Preparation

- Confidence in Teaching Ability

The student teachers generally feel prepared to take what they are learning and use it in their own classrooms

- “I am **confident** that I will come out of the program **completely prepared** with the skills necessary to create a wonderful and educational classroom setting”

- Preparing for the Classroom Through Practice and Lesson Plans

A way student teachers are gaining confidence and preparing for the classroom is by learning to create lesson plans and rehearsing with their classmates



Developing a Professional Identity and Learning to Teach: Pre-Service Teacher Experiences with Career Preparation

- Learning Strategies to Diversify the STEM Pipeline

Student teachers are learning to teach children with different learning styles from different backgrounds

 - "If we can teach our students derived lesson plans from NASA or Discovery Cube it will make more students of color capture in [sic] interest in the sciences."
- Creative Instructional Strategies

From “messy science experiments” to “cross-department collaboration,” they generally plan to use creativity in the classroom to capture the attention of students



Grit and Attitude: Exploring Broader Meaning in Training to be a Teacher

- Broadening Horizons – Impacting What Students Think is Possible

Student Teachers understand the importance of their role for future generations and they generally want to help children expand what they think is achievable

- "I am thrilled to be apart of a program that is so necessary to the future of expanding and broadening of children's prospective of the world and what they can achieve."
- "I am glad to become a STEM scholar and present my students with opportunities that didn't seem like an option."



Grit and Attitude: Exploring Broader Meaning in Training to be a Teacher

- Exploring an Identity and Interest in the Teaching Profession
 - Beyond the Subject Matter – Helping Students Learn More About Themselves
 - “I want to teach STEM in my own classroom because...students learn now to be determined and **try until they reach their goals**, they **learn to collaborate** with their team members, they must be reflective on their choices and they **learn how to push themselves** to try new and different things.”
 - Creating a Safe Space to Learn
 - They desire to create a nurturing and encouraging learning environment
 - "STEM learning can **push students out of their comfort zone** and that can cause frustration and discomfort, so I want to make sure that I can **provide support and guidance** that makes this learning process painless and fun!"



Gaining Knowledge and Support from Professionals: Mentor Teachers, Student Teaching, and Professors

- Mentor Teachers

- Trouble Establishing the AIMS FT2STEM Mentor/Mentee Relationship

There was some initial confusion as to the expectations of the mentor program. Also, there was some difficulty in gaining access to mentor teacher virtual classrooms

- Examples of Professionally Meaningful AIMS FT2STEM Mentor/Mentee Relationships

Student teachers mostly achieved a beneficial relationship by the end of the program

- "...he's constantly **sharing little tips** of um you should get Google certified. That'll make you stand out on your resume. ...if you need a **letter of recommendation**, I got you. "
 - "I feel so grateful to be working with my mentor teacher. She has great rapport with her students and **I've learned so much** from her already."



Gaining Knowledge and Support from Professionals: Mentor Teachers, Student Teaching, and Professors

- Leading by Example: Supportive Examples Provided by Professors
Their professors lead by example in the classroom and modeled positive behavior and support
 - "...this one professor in particular truly showed me how much of an ally she really is. She did not need to tell me that her behavior was to be modeled, it was obvious that utmost of care was how I should proceed with my students."
 - "I cannot wait to cheer on my students the way that she has for me. This is what education is all about - helping and guiding others towards their successes."



Virtual Experiences

- Speaking from the Perspective of a Student

Learning in the virtual environment is challenging but overall the student teachers are generally satisfied with their classroom experience

- From Engaged Student to Effective Teacher

Pulling from their own classroom experience in their graduate level education courses, the student teachers are generally able to create a supportive online environment for the younger students they work with.

- “In my Mathematical Curriculum and Methods class, we learned about certain websites that provide online manipulatives and so I was able to use a website with some of the fifth graders online. We used a virtual number line to compare decimals and that visual representation really helped the group I was working with.”



Virtual Experiences

- Challenges and Concerns

Even with new resources, learning and teaching in a virtual environment has challenges in creating an engaging learning environment. There was also concern about student teaching in an online environment and later transitioning into a face-to-face classroom

- “I have yet to work in a classroom and feel as if student teaching via **Zoom will not be great enough access** to get all of the preparation and understanding I will need to manage a real life classroom, myself.”
- “Online learning has been a difficult transition and several of our students are still learning how to transition to a different style of learning. My mentor teacher and I are **struggling with student engagement** and we continue to work together to create engaging lessons for our students.”



Focusing on the Program: Critical and Constructive Participant Feedback Participation

- How to Navigate Teaching as a Career: Requirements, Graduate School, and Other Professional Options

Request for more assistance in navigating teaching credential requirements as well as professional and graduate school options

- Complimentary Feedback and Experiences

Student teachers are generally satisfied with the program

- "...the existence of **the program is vital** to helping us educators be the teachers we're meant to be."
- "I'm also a huge **fan of this weekly journaling**. It reminds me to reflect on specific aspects of being a credential candidate that are not normally asked or reviewed in the classes currently required."



Focusing on the Program: Critical and Constructive Participant Feedback Participation

- Recommendations to Strengthen the AIMS-FT2STEM Student Teacher Experience
 - Contact information and resource list from STEM-Integrated Learning Workshop
 - “...I found myself scrabbling for scratch paper because there were so many useful resources.”
 - “I felt the workshop brought in some great speakers and resources...I wrote down a could [sic] names and emails, but would **benefit from an official list of contacts.**”
 - More cohort interactions
 - “Yes, there was an orientation at the start of the semester, but meeting at least one more time and seeing what other students are doing - like **a check-in - would be nice.**”
 - “Some sort of meeting in which we all touch bases with other participants within the AIMS-FT2STEM could be beneficial.”



- Questions?

Thank you



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- Adjourn



Cohort Roster (1-5)

Ali Amini		
Mehdi	Miri	T-5
Ashley	Kuhnley	T-4
Sabrina	Motto	T-5
Elvis	Chino-Islas	F-3
Kimberly	Ortiz	F-3
Lavar	Watkins II	F-4
Javier	Valle	T-5
Mario	Giron	T-5
Suzanne	Fisher	T-5

Anwar Alroomi		
Alexis	Sierra	F-2
Leonard	Fitzpatrick	T-5
Oscar	Lopez Bahena	T-5
Iris	Guerrero Morales	F-4
Jonathan	Salcedo-Manriquez	T-4
Juan	Espericueta	F-3
Luis	Flores	F-4
Teny	Shahjahanian	F-2
Marleny	Lopez	T-5



Cohort Roster (2-5)

Ruting Jia		
Areesha	Hussain	F-4
George	Lopez	F-4
Jairo	Zelaya	T-4
Joshua	Alvarado	F-4
Meyer	Millman	F-3
Pedro	Moran	F-4
Tiffany-Ziba	Haghighi	F-3
George	Lopez	F-4
Kelvin	Martinez	T-5

Kay Hao		
Ezekiel	Castelo	T-5
Ariana	Oliva	T-5
Andrew	Langwald	F-2
Gerardo	Reyes	F-3
Peter	Messiha	F-3
Richard	Gomez	F-3
Alexander	Rivera	T-4
Elizabeth	Esquivel	T-4
Jennifer	De Avila	T-4
Richard	Rivas	T-4



Cohort Roster (3-5)

John Valdovinos		
Alan	Cruz	F-2
Armando	Herrera	F-2
Alyssa	Tompkins-Webb	T-5
Jozsef	Feher	T-5
Kyle	Rietta	T-3
Nuelbella	Sandoval	F-3
Jessica	Frederich	T-5
Rojelio	Bejar	T-4
Luis	Ochoa	T-5
Maria	Zinkewich	T-5
Robert	Salone	T-5

Kyle Dewey		
Briana	Pimentel	F-3
Eileen	Quiroz	F-2
Fernando	Vargas	F-3
Isaiah	Martinez	F-3
Jennifer	Glover	T-4
Kavya	Manohar	F-2
Miguel	Hernandez	F-4
Rocio	Zavala	F-2
Samantha	Ramirez	F-4
Victor	Pineda	T-3
Hanna	Zelaya	F-1



Cohort Roster (4-5)

Aram Khachatourians		
Armando	Briseno	F-2
Ashley	Frisch	F-4
Cristina	Rubalcava	T-4
Garabed	Simitian	F-3
Jason	Marroquin	F-4
Kathleen	Molina	F-3
Lesly	Custodio	T-4
Levi	Velasquez	F-2
Adrian	Santamaria	T-5
Daniela	Sanchez	T-5
Heather	Reyes	T-5
Matthew	Awad	T-5
Matthew	Culajay	T-5

Behzad Bavarian		
Anthony	De Leon	T-4
Emilio	Aguilar	T-4
Meroujan	Bagdadian	T-5
Jasmin	Ortiz	T-5
Stefany	Fuentes Melgar	T-5
Verania	Ceja Franco	F-2



Cohort Roster (5-5)

Bingbing Li		
Abraham	Meiszner	T-4
Andy	Sanchez	F-3
Anthony	Vasquez	F-3
Eswin	Amaya	F-3
Andrew	Ramirez	T-5
Deion	Shallenberger	T-5
Jason	Kim	F-3
Gerardo	Baron Diaz	T-5
Randy	Herrera	T-5
Tomothy	Tran	T-5
Megan	Ngo	F-3
Noe	Diaz	T-4

Bruno Osorno		
Beatriz	Acuna	F-1
Albert	Rivas	T-5
Erica	Garcia	F-4
Fernando	Landeros	F-3
Cesar	Villa	T-5
Hector	Mata	T-4
Faizan	Hussain	T-5
Jessirae	Bufford	T-5
Jose	Cervantes	F-3



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Fall 21: Current and Planned

- Tutoring/Study Groups/Academic Excellence Workshops
- Professional Development Workshops/Presentations
- Counseling
- Laptop/Graphing Calculator/Goggles/STEM textbook check outs
- MESA Lab Skills Program – analytical analysis, chemistry, biology, 3-D printing, soldering, circuits etc. (All hands-on materials and equipment.)
- MESA Mentor program
- Virtual conferences if available
- University Representatives/Transfer Information Sessions





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