# Welcome to AIMS<sup>2</sup>(HSI-STEM Grant) Meeting # 44 Orange Grove Bistro 12 PM – 3:30 PM, June 9, 2016



COLLEGE OF
ENGINEERING AND
COMPUTER SCIENCE





### Luncheon

- Welcome and Introductions External Advisory Committee
- Overview of grant
  - Program News and Year 5 Activities—Ramesh
- Project Evaluation and Progress to date Nathan
- Project Activities/Academic Progress of Cohorts
  - Glendale Community College Jan Swinton, Scott Rubke, and Richard Cortes
  - College of the Canyons David Martinez and Eric Lara
  - CSUN Bob Ryan
- Feedback and Discussion External Advisory Committee
- Adjourn



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## External Advisory Committee

- Ms. Rupa Dachere, Codechix
- Ms. Roslyn Soto, JPL
- Dr. Vaughn Cable, JPL
- Mr. Luis Carbajo, IEEE LA Council Vice Chair
- Ms. Linda Friedman, Northrop Grumman, Woodland Hills
- Mr. Neal Gaborno, Raytheon
- Mr. Bill James, Avery James Inc.,
- Prof. Miguel Macias, Emeritus faculty CSUN
- Mr. Tony Magee, PWR
- Mr. Michael Medina, Hill International, San Diego



# OMPUTER SCIENCE

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# Meeting Calendar for Fall 2016

- Aug 18, 2016\*
- Sep 14, 2016\*\*
- Oct 13, 2016\*
- Nov 10, 2016\*
- Dec 08, 2016\*

\*Monthly meetings above are scheduled from 2 PM – 4 PM in JD 1568.

\*\* Annual Research Symposium at the University Union: 4 PM – 8 PM



The AIMS<sup>2</sup> Project Team Attract, Inspire, Mentor, and Support Students



Faculty and Staff from the College of the Canyons, Glendale CC, & the College of Engineering and Computer Science, CSUN





- Cohort based model
- Collaboration between CSUN and CCC's
- High Transfer Achievement
- GPA, Persistence, and Graduation
- Served over 200 transfer students (approximately 67 % Latino/a).

### For more information

Visit www.ecs.csun.edu/aims2





White House Initiative

on EDUCATIONAL EXCELLENCE for HISPANICS 25 Years of Fulfilling America's Future

### CAHSI SUMMIT - SAN JUAN, PR



COLLEGE OF

RING AND SCIENCE







Dear Colleague,

On behalf of the White House Initiative on Educational Excellence for Hispanics (Initiative), thank you for answering the call for Bright Spots in Hispanic Education.

I am pleased to notify you that the Bright Spot nomination you submitted has been accepted for recognition through the Initiative's Anniversary Year of Action. Your Bright Spot will be publicly recognized on Tuesday, September 15, 2015 and will be included in the Initiative's first-ever National Bright Spots in Hispanic Education online catalogue. We will be in touch by the end of this week with amplification tools and resources, but please hold off in publicly announcing the acceptance of your Bright Spot (i.e., emails, press, social media) until we provide additional guidance.

Congratulations and thank you for your leadership, dedication and steadfast commitment to the Hispanic community. I look forward to celebrating the tremendous progress Hispanic students have made in education over the last 25 years and recognize the leaders, parents and educators who have supported them along the way.

Thank you,

/s/

Alejandra Ceja Executive Director White House Initiative on Educational Excellence for Hispanics

# AIMS<sup>2</sup> Featured on White House Google Hangout – March 16, 2016

CSUN

COLLEGE OF
ENGINEERING AND
COMPUTER SCIENCE

https://www.youtube.com/watch?v=aflmTdQ3DOk





- To increase the number of Hispanic and low-income students who successfully transfer from Glendale Community College (GCC), and College of the Canyons (COC) to California State University, Northridge, to pursue majors in Engineering and/or Computer Science.
- To increase the number of Hispanic and low-income students who join CSUN as upper division transfer students and graduate with degrees from one of the undergraduate programs in the College of Engineering and Computer Science.
- To develop a model, seamless and sustainable transfer program to assist Hispanic and low-income students to successfully transfer from GCC and COC to California State University, Northridge where they will complete their studies in Engineering and/or Computer Science.



## Students served to date

 Since January 2012 we have served a total of over 200 students in three cohorts (approximately 67 % Latino/a). This includes first-time transfer students at CSUN, and students who transferred from our partner institutions at GCC, and COC.



Year 🔼	Proposed <b>T</b>	<b>Awarded</b>	Difference	% Difference
Year 1	\$1,096,856	\$1,096,856	\$0	
Year 2	\$1,140,998	\$1,134,630	(\$6,368)	-0.56%
Year 3	\$1,132,511	\$1,128,888	(\$3,623)	-0.32%
Year 4	\$1,129,743	\$1,075,169	(\$54,574)	-4.83%
Year 5	\$1,062,659	\$1,003,681	(\$58,978)	-5.55%
To Date	\$5,562,767	\$5,439,224	(\$123,543)	-2.22%



Budget Expended to Date	\$4,371,185	80.36%
Budget Available	\$1,068,039	19.64%
Total Allocated	\$5,439,224	

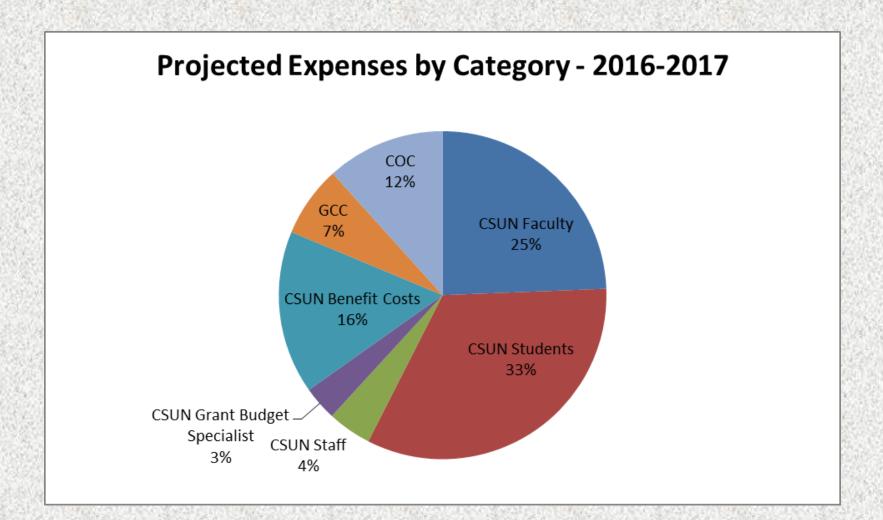


# Projected Expense by Category

Projected Expenditures- No Co	ost Extension	2016-17
CSUN Faculty	\$260,640	24.38%
CSUN Students	\$354,000	33.11%
CSUN Staff	\$46,200	4.32%
CSUN Grant Budget Specialist	\$36,109	3.38%
CSUN Benefit Costs	\$172,129	16.10%
GCC **	\$75,000	7.02%
COC	\$125,000	11.69%
	\$1,069,078	100.00%



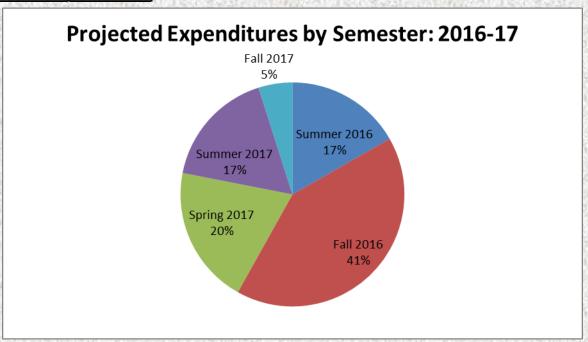








Projected Expenditures	s by Semester: 2016-17
Summer 2016	\$179,001
Fall 2016	\$442,219
Spring 2017	\$213,376
Summer 2017	\$182,042
Fall 2017	\$52,440
<b>多种爱思斯的</b>	\$1,069,078





### AIMS<sup>2</sup> Program: Implementation Challenges

- CSUN cohort peer mentoring of GCC/COC cohort fell below targets
- Challenges with cross campus collaborative effort
  - Scheduling
  - Asynchronous nature of process
  - Lack of a dedicated physical space for AIMS<sup>2</sup> on host campus
- Looking ahead: CHRONOS



# HSI STEM and Articulation

Pre-Application Workshop Hispanic-Serving Institutions Division

# Fiscal Year 2016 Grant Competition

- Application available: March 4, 2016
- Applications due: May 31, 2016
- Individual Development grants only
- Estimated available funds: \$91,773,000
- Estimated average size of awards: \$775,000 (per year)
- Estimated number of awards: 109





### Review and Evaluation Categories

- Quality of Project Design (30 points)
- Quality of Project Services (20 points)
- Significance (20 points)
- Quality of Management Plan (10 points)
- Quality of Project Evaluation (20 points)

### **Priorities**

### Absolute Priority 1

An application that proposes to develop or enhance tutoring, counseling, and student service programs designed to improve academic success, including innovative and customized instruction courses (which may include remedial education and English language instruction) designed to help retain students and move the students rapidly into core courses and through program completion

### **Priorities**

### **Absolute Priority 2**

An application that proposes activities to increase the number of Hispanic and other low-income students attaining degrees in the STEM fields and proposes to develop model transfer and articulation agreements between two-year HSIs and four-year institutions in STEM fields.



# Competitive Preference Priorities

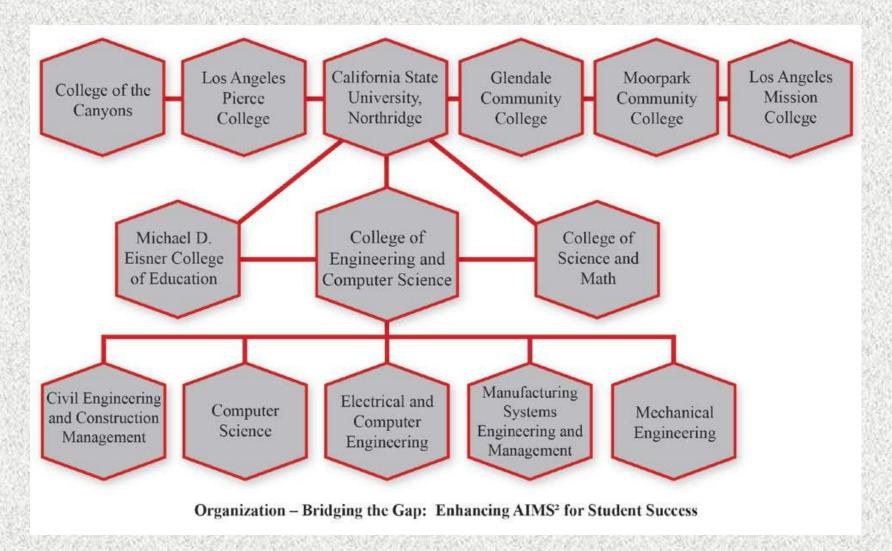
### Competitive Preference Priority 2

- Applications supported by evidence of effectiveness that meets the conditions set out in the definition of "moderate evidence of effectiveness."
- Worth three additional points.









#### LOGIC MODEL FOR BRIDGING THE GAP: ENHANCING AIMS2 FOR STUDENT SUCCESS

#### PROBLEMS

#### **Current Conditions**

- Students challenged to balance coursework, work, and family
- Students challenged by course management, time management
- Low math prerequisite course completion rates
- Pre-transfer students experiences disconnected from CSUN campus and CECS departments
- Transfer students challenged to navigate, negotiate campus services/processes
- Students lack connections to successful role models in business and industry

#### **Current Practices**

- Minimal student contact with faculty and between students outside of class
- Limited opportunities for students to develop meaningful relationships with faculty and peers
- Undergraduate research participation and academic support restricted to small group of students
- Few student careerrelated connections business and industry

#### RESOURCES/ INPUT

#### Financial Support

- Student incentives to participate in research
- Faculty and staff support for project activities

#### Intellectual Resources

- PI/Co-Pi training and disciplinary backgrounds
- Faculty mentor research and teaching expertise
- Student backgrounds
- Tech expert training
- Advisory Board member affiliations

#### Physical Resources

- Print/digital books
- Interactive material
- Social media
- iPads/tablets with engineering apps
- Student academic and social space

#### **Business Partners**

- Advisory board members
- Regional employers

#### ACTIVITIES

#### Faculty Mentoring

- Faculty mentoring students groups by site/ department
- Faculty-led student meetings, talks, workshops
- Faculty-student participation in professional events

#### Peer Mentoring and Tutoring

- Pre- and post-transfer peer-peer mentoring and tutoring
- Transfer-ready and senior-standing students mentor incoming students

#### Academic Support

- Programming fundamental crash course
- Calculus interactive materials/course section
- Academic advisors/ tech expert workshops
   Customized workshops
- in math and English
- Dedicated library books
- Online video tutorials

#### Student Research

 Faculty summer and academic term research

#### Career Preparation

- Student participation in career workshops and professional associations/events
- Summer job internships

#### OUTPUTS

#### Student-Faculty Mentoring Relationships

- Increased contact between faculty and students
- Weekly meetings with faculty mentors who guide/support students
- Faculty communication via email, LMS, etc.
- Student-faculty interaction in professional settings

#### Transfer Student Support

- Peer mentors associated with each faculty mentor student group
- Peer tutors assigned to each site/department
- Frequent/quality social interaction at events
- Support for calculus prerequisite course completion
- Transfer video resources

#### Student Design Projects

 Student development of Senior Design Projects and engineering projects across sites

#### Career and Pre-Professional Experiences

- Career workshops
- Professional association events/activities

#### OUTCOMES: SHORT-TERM

#### Student Attitudinal and Behavioral Changes

- Enrollment, next-year retention, gateway course success, and successful transfer
- Development of academic self-confidence, self-efficacy, and validation
- Development of course success skills

#### Transfer Student Socialization and Transfer Shock Mitigation

- Enrollment, gateway course success, on-track completion, and actual completion
- Skills and knowledge to successfully navigate transfer process
- Calculus course success

#### Student Research Skills

 Development of research skills and attitudes about research in engineering and computer science

#### Career Preparation Skills

 Development of skills and professional contacts to apply for and successfully secure entry-level employment

#### IMPACTS/OUTCOMES: LONG-TERM

#### Student Transfer. Completion, and Post-Graduation Success

- Development of long-lasting, meaningful relationships with faculty and students (transitioning to colleagues) to support successful student outcomes and graduate school/early career needs.
- Internalization of a suite of student success skills—cognitive and non-cognitive—that guide students into postgraduation career and/or academic activities
- Development of long-term support/ value for engineering and computer science education and research

#### オマス

#### Career Placement and Development

- Successful placement and promotion in careers in local and regional engineering and computer science fields
- Network of alumni who serve as role models for the next generation of students preparing for careers in engineering and computer science

#### Current Assumptions:

- Current AIMS<sup>2</sup> project model development
- 2. Partnership engagement and institutional interest and support

#### Context (External Factors):

- Disciplinary training/lesearch orientation of CSUN and community college faculty
   Institutional changes across collaborative partnership sites and CSU-HSI STEM network
- 3. Market specialization of local/regional businesses/nonprofit organizations

#### Assessment Date

- Pre- and post-test survey data of engineering majors
- Institutional data on enrollment, achievement, transfer, and completion
- 3. Interview data on student-faculty and peer interaction

#### **Assessment Dat**

- Pre- and post-test survey data of engineering majors
- Pre- and post-test survey data on undergraduate research participation
- Interview data on career placement/experiences



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- Welcome
- Project Assessment and Evaluation Nathan (20 minutes)
  - HSI-STEM Validation Study Presentation
- Academic Progress of Cohorts (10 minutes)
  - Glendale Community College Jan Swinton, Scott Rubke and Richard Cortes
  - College of the Canyons David Martinez and Eric Lara
  - CSUN Bob Ryan
- Review Draft Proposal for March 2016 Competition\* All (90 minutes)
- Upcoming events/Meeting Calendar
- Adjourn