Successful Structured Interventions
AIMS² Program at CSU Northridge
Supported by the US Department of Education HSI-STEM Grant Program
P031C110031

AHSIE 2014 - Ramesh

• AIMS² Cohort: Photo Courtesy Armando

03/17/14

S. K. Ramesh
Mar 17, 2014
AIMS\textsuperscript{2}  
Attract, Inspire, Mentor and Support Students  

Glendale Community College  

CSU Northridge, College of Engineering and Computer Science  

College of the Canyons  

HSI-STEM Advisory Board  

Program Assessment and Evaluation Committee  

Civil Engineering and Applied Mechanics  

Computer Science  

Electrical and Computer Engineering  

Manufacturing Systems Engineering and Management  

Mechanical Engineering
The AIMS² 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
### Students Served

3 Cohorts for a total of 180 students
90 Students from CC, 90 First Time Transfer Students at CSUN

<table>
<thead>
<tr>
<th>Year</th>
<th>GCC</th>
<th>COC</th>
<th>CSUN</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>15</td>
<td>15</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Year 2</td>
<td>30</td>
<td>30</td>
<td>60</td>
<td>120</td>
</tr>
<tr>
<td>Year 3</td>
<td>30</td>
<td>30</td>
<td>90</td>
<td>150</td>
</tr>
<tr>
<td>Year 4</td>
<td>15</td>
<td>15</td>
<td>90</td>
<td>120</td>
</tr>
<tr>
<td>Year 5</td>
<td></td>
<td></td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>90</td>
<td>90</td>
<td>330</td>
<td>510</td>
</tr>
</tbody>
</table>
Cohort 1
Cohort 2
Cohort 3
Cohort 4
Goals and Objectives

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.
Project Activities

• Tutoring to improve student performance in preparatory Math and Science courses.
• Advising and tracking of students in cohort
• Work closely with faculty and staff in feeder community colleges to develop seamless articulation agreements, especially for students transferring from 2 year colleges to CSUN.
• Create a mobile digital environment with Tablet PCs, iPad’s, and appropriate software, so that the project team can work with the cohorts to enhance communication, engagement, collaboration and creativity, and instant learning assessment.
• Expand Facilitated Academic Workshops (FAW) in required introductory courses and key upper division courses offered by the college’s programs
• Faculty/Peer mentoring and career advising of students in the cohort
• College wide events focused on careers and jobs such as the biannual Tech Fest events held in February and September.
• Provide students with opportunities to work on hands-on projects and research activities that encourage them to stay connected with their majors
Nuts and Bolts

- All cohort students meet regularly as a group with faculty mentor and peer mentor from their respective program.
- All cohort students maintain an online journal using Moodle with submissions required on a monthly basis – responses to prompts and additional information.
- All faculty mentors maintain an online journal with submissions required once/semester.
- Lead project faculty from GCC, COC and CSUN meet regularly to address gaps in articulation agreements and collaboratively develop curriculum to address gaps.
- Monthly meetings of the entire team to review progress on key project measures and activities.
- Annual meeting with External Advisory Committee.
- Bi-annual gathering of the cohorts at partner colleges to promote interaction.
Cohort participants achieved greater success compared to students in a comparable group.

- On average, cohort participants:
  - Completed 5.9 more units than students in the comparison group between Fall 2011 and Spring 2012.
  - Earned a cumulative GPA of 3.03 vs. 2.38 for students in the comparison group at the end of Spring 2012 (includes Fall 2011 and Spring 2012).
  - Experienced a 96.7% persistence rate vs. 78.7% rate for the comparison group (Spring 2012-Fall 2012).
Key Findings

- Student Learning: Faculty research prepared students academically by presenting students with typical problems and solutions in the field and concepts in class.
- Research, Skill Building and Career Readiness: Research competitions build career capital and practical skills marketable in career fields.
- Student-Faculty Interaction: Overall, students reported meaningful, fulfilling interactions with supportive CSUN faculty.
- Peer Mentoring: Peer tutors offered a learning support system.
Congratulations Melissa Flores!

Greetings!

On behalf of the Alliance of HSI Educators Scholarship Committee, we are pleased to announce the recipients of the inaugural conference scholarship. We received over sixty applications from well-qualified students from HSIs across the country. Due to the high number of submissions, the committee elected to award two recipients per tier. As you can imagine, it was a very difficult decision!

Congratulations to each of the following outstanding students for a job very well done!

**Tier # 1: conference travel, registration and iPad**
- Philip Joshua Mercado, Miami Dade College, Biotechnology
- Melissa Flores, CSU Northridge, Mechanical Engineering & Math (double major)

**Tier # 2: conference travel and registration**
- Julien Ekiaka-Oblazamengo, Texas A&M University, Bilingual Education
- Angelica Luna, University of Texas at Brownsville, Business Administration

**Tier # 3: iPad**
- Gabriela Solis, Loredo Community College, Biology
- Edgar Munoz, College of the Sequoias, Biology
Congratulations Leslie Pluma
College Bowl – HEENAC- Great Minds in STEM
Third Place Winner- Northrop Grumman
Top undergraduate students from colleges and universities throughout the U.S. and Puerto Rico will be active participants at HACU’s 27th Annual Conference in Chicago, IL, October 26-28, 2013. These students represent a wide range of academic disciplines. They arrive with resumes, eager to discuss career, internship, research and advanced education opportunities.

A limited number of scholarships are available to eligible students to attend the HACU conference. Student Track Scholarships will cover costs for: (1) conference registration; (2) travel and lodging for out-of-state students; (3) and conference-related meals (1 per day). Conference Scholarship recipients are required to attend ALL Student Track activities. Scholarships are provided to students by HACU’s corporate and federal sponsors.

Congratulations Stephanie Medina and Noe Hernandez on being selected amongst the 20 recipients nationally!
November 14, 2013: Maya Saad presenting her research on polymer coatings for biomedical sensors.
AIMS² Students are Leaders

Melissa Flores – President ASME Student Chapter 2014

Eric Gamoning – Secretary, IEEE-HKN 2014
Thank you on behalf of the AIMS$^2$ Cohorts
For more information please visit our project site at
www.ecs.csun.edu/aims2

AHSIE 2014 - Ramesh