

# Earth & Environmental Science

Skyline College Comprehensive Program Review 2022

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# Alignment With Our College Values

- We educate students about the processes and issues facing our natural world
- We contribute to the mission of the college by making students more informed and responsible global citizens
- We help students understand issues of environmental justice and give them tools to encourage positive change in their communities
  - Environmental Science examines lead in drinking water in communities like Flint, Michigan
  - Geology learns about human impact on climate change and wildfires



# Campus Climate Counts!

- Valuing a campus-wide climate reflecting a 'students first philosophy'
- Paid fellowships to provide students with avenues to success in environmental science and sustainability
  - Energize College program
- Innovative Climate Professional Certificate Program in collaboration with Strategic Energy Innovations.
- Campus wide events
  - Earth Day
  - Environmental Racism



**ENERGIZE  
COLLEGES**

A PROGRAM OF SEI  
& SKYLINE COLLEGE





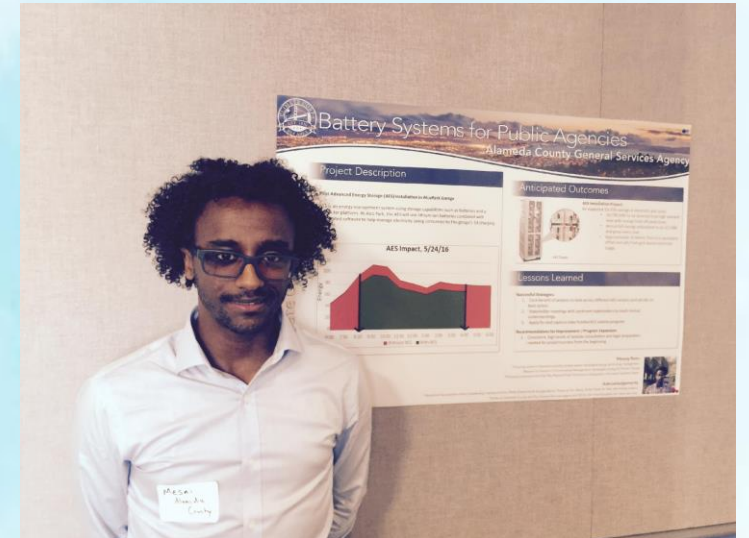
# Student Success and Equity

*We would like to:*

- Increase students from African American, Native American, and Pacific Islander groups
- Market our courses to high school students
- Build a successful number of graduates from our program.
- Connect with our counselors to guide and promote Earth and Environmental science degrees.

*We are proud that:*

- Our Energize College interns are intentionally recruited with a diversity lens; over 85% are people of color.
- Our Climate Corps Fellows in 2021 were 40% people of color.





# Community Partnership:

## Climate Corps Fellows Program

Partner w/various profit  
and non-profit  
community  
organizations

Hire a Climate Corps  
Fellow for 10 months to  
implement  
sustainability projects.

100 fellows in our 2021-  
2022 cohort

## Elementary School Sustainability Programming

Dr. Carla Grandy and Dr.  
Carina Anttila-Suarez  
implemented sustainability  
and environmental projects  
and studies in various  
grades (2019 & 2020)



## Participatory Governance

- **Sustainability**- We value an institutional culture that is committed to environmental sustainability and justice.
- **Earth & Environmental Science** are committed to the tenet of sustainability

*“To meet present needs without compromising the ability of future generations to meet their needs”*





# Participatory Governance...

- ENVS 100 students look at the impact of the waste stream produced by their peers on campus.
- Energize College Interns have looked at the amount of water generated by fog on campus.
- Oceanography seeks to teach students about complexities of the aquatic environment and the impact of acidification and pollution on our planet.
- Environmental justice is fully embraced in our diverse courses.



# Fog Catcher





# Faculty and Staff

- FT Faculty FTE: .2 Carina Anttila Suarez
- Adjunct Faculty FTE: 2.34 (5 part timers)
- Classified Professionals FTE: 0
- Manager/ Director FTE: 0
- Dean FTE: .05



# PROGRAM ENROLLMENT? Details...

- 52.7% Female vs. 42.1% Male, a slight increase in females which is consistent with overall college enrollment trends.
- Slight increase in Filipino/a/x enrollment: went from 12% in 2015 to 15% in 2020
- Slight decrease in Asian enrollment: down 1 percentage point,
- Black & non-Hispanic students of color enrollment is still low at 2.4%.
- Breakdown between full-time students and part-time students is about 50:50 (higher than the College overall FT/PT ratio of 40:60).
- 72% of our students are seeking a degree to transfer.
- 68% of our students are between 18 and 28.

# EQUITABLE ACCESS? Our Program..

- Hispanic students -29% of our program, consistent with the college
- Higher percentage of full time students based on course load; about 50:50 while vs. college overall is only about 40% full time.
- Higher percentage of transfer-degree students than the college overall; 72% vs. 55%
- Small percentage of under 18 students (Middle College) 10% vs 20% for college overall; however they have excellent course success rates of 93%, perhaps reflecting the importance of environmental issues to this generation.
- Unfortunately our program has had no graduates since 2016 according to PRIE data.







# ISLO Results

ISLO	Subcategory	Year Assessed	Method	# of students	Course	Met/Exceeded
Effective Communication	Fulfillment	F 2015	MC Question	33	ENVS 100	88%
Effective Communication	Comprehension	F 2015	MC Question	33	ENVS 100	85%
Effective Communication	Analysis/Audience	F 2015	MC Question	33	ENVS 100	85%
Effective Communication	Organization/Audience	F 2015	MC Question	33	ENVS 100	85%
Citizenship	Commitment via civic engagement	SP 2017	MC Question	15	GEOL 105	86%





# ISLO Results

Information Literacy	Source, Relevance, Quality, Credibility	F 2016	MC Question	27	GEOL 105	89%
Information Literacy	Use of Info Ethical and Legal	F 2016	MC Question	27	GEOL 105	64%
Effective Communication	Comprehension	F 2015	MC Question	29	GEOL 105	93%
Effective Communication	Analysis/Audience	F 2015	MC Question	29	GEOL 105	72%
Effective Communication	Organization/Audience	F 2015	MC Question	29	GEOL 105	86%



# STUDENT LEARNING OUTCOME RESULTS

Course	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	
ENVS 100	97%	87%	93%	89%	75%	
ENVS 101	75%	90%	85%	95%		
OCEN 100	84%	94%	94%	86%	94%	
OCEN 101	93%	93%	89%	80%		
GEOL 106	82%	86%	82%	96%		
GEOL 210	90%	100%	80%	75%	80%	





# Why do students take our courses?

- Geology: #1 reason was Skyline Counselors, (#2) closely followed by current/former students and (#3) other reasons.
- Environmental Science 100: the top reasons were 42% major requirements and 40% personal interest.
- ENVS 101: Personal interest #1 reason, over 41% of students, 48% for major requirements
- Counselor and internet were tied at 35% each, followed by current or former students at 22%
- Oceanography: the #1 reason was 55% from counselors, with 19% from current/former students, 25% from an internet search.

*Thank You To Our Counselors!*



# Our Course Content Met Student Needs!

## **Earth Science (Geology)**

- 97% felt content met their needs.
- 100% said they made environmentally responsible decisions based on the studies.
- 92% felt course met their needs (agree or strongly agree)
- 96% agreed that they took environmental considerations into account in personal decisions as a result of the course.

## **Environmental Science**

- 98% said the content met their needs.
- 95% agreed that they took environmental considerations into account in personal decisions as a result of the course.

# CHALLENGES AND CONCERNS ?

- Full-time Faculty needed to operate.
- Full-time Sustainability Coordinator desired.
- No Graduates = Great Concern
- Increase Recruiting of Students to our Program
  - high school students
  - students of color





# Goals for Earth & Environmental Science

- Increase Graduates in AST for Environmental Science & Geology
- Hire a new Faculty Member to support important work
- Create a Full-time Sustainability Coordinator
- Increase Teaching about the Workings of Campus as a Living Lab

