

# ACADEMIC SENATE – Sustainability Committee

Spring 2023

Due: Friday, June 30, 2023

MEMBERS	
Name	College/Unit
Anderson, Paul	CENG
Dao, Linh	CLA
Elliot, Dennis	Admin
Hockert, Regina	ASI
Kathuria, Ajay	OCOB
Palazzo, Anthony	Admin
Pearse, Erin	CSM
Peters, Jason (CH)	CLA
Reich, Jonathan	CAED
Singh, Kylee	Admin
Telesetsky, Anastasia	CAFES
Winslow, Dianna	Admin
Vacant	PCS

CHARGES		
Charge	Complete?	Status/Notes
Review and modify committee procedures and bylaws as needed. <b>Ongoing</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>ASSC updated its approach to assessing courses for SUSCAT by integrating the SUSCAT submission and approval process into CIM</li> <li>This charge will be ongoing for AY 2023-24, as the integration of SUSCAT into CIM will require ASSC to revise its rubric-based assessment approach</li> </ul>
Implement AS-787-14 ("Resolution on Sustainability"). <b>Ongoing</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>ASSC is in the process of revising the Sustainability Learning Objectives. We held two mini-retreats in Spring 2023 to draft new SLOs and a new Sustainability Statement</li> <li>ASSC reps began a sustainability literacy assessment in collaboration with ICLR (presentation on preliminary data analysis attached).</li> <li>ASSC collaborated with Facilities and CTLT to develop a two-year faculty fellow position in CTLT focused on sustainability. That position has been filled and will serve in 2023-24 and 2024-25.</li> </ul>

		<ul style="list-style-type: none"> <li>• ASSC plans to develop a graduation requirement similar to USCP to accomplish the CAP 2.0 goals of infusing sustainability education into the curriculum</li> <li>• This charge will be ongoing for AY 2023-24 as we bring the revisions to committee for reading and discussion</li> </ul>
Implement AS-923-21 (“Resolution to Display Sustainability Courses in the Catalog”). <b>AY 2022-23</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• The first of the two “resolved” statement for this resolution is complete. The Catalog displays sustainability-related and sustainability-focused courses.</li> <li>• The second “resolved” statement is ongoing. Adding a sustainability course filter to Schedule Builder (or whatever the next iteration of Schedule Builder will be) is not currently feasible given Q2S time and resource constraints for the Registrar. However, once the sustainability graduation requirement is developed, this filter will be added by necessity, making this resolution moot.</li> </ul>
Discuss updating the Sustainability Learning Objectives. <b>Ongoing</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• ASSC is in the process of revising the Sustainability Learning Objectives. We held two mini-retreats in Spring 2023 to draft new SLOs and a new Sustainability Statement</li> </ul>
Work with ASI, Facilities, and other campus stakeholders to connect sustainability education with co-curricular activities and campus life. <b>Ongoing</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>• ASSC collaborated with Facilities and CTLT to develop a two-year faculty fellow position in CTLT focused on sustainability. That position has been filled and will serve in 2023-24 and 2024-25.</li> <li>• ASSC welcomed a guest presentation from ICLR director Dr. Erin Pearse to provide the committee with an overview of the numerous interdisciplinary projects underway across campus that are being facilitated by ICLR (presentation attached).</li> <li>• ASSC and SAC held their annual joint meeting to update each other on ongoing projects and connect sustainability with campus initiatives. Meeting presentations are attached.</li> </ul>

Assist university facilities staff and administrators in efforts to achieve a carbon-neutral, zero-emissions, AASHE-STARS platinum-rated campus. <b>Ongoing</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>ASSC and SAC held their annual joint meeting to update each other on ongoing projects and connect sustainability with campus initiatives. Meeting presentations are attached.</li> </ul>
Discuss impact of quarter-to-semester conversion on sustainability policy and draft revision plans as needed. <b>Ongoing through conversion</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>ASSC worked with Q2S Conversion Task Force to communicate how Q2S course proposals can be submitted to SUSCAT.</li> </ul>
Review and modify committee procedures and bylaws as needed. <b>Ongoing</b>	<input type="checkbox"/>	<ul style="list-style-type: none"> <li>This charge repeats charge #1</li> </ul>

**NOTES:**

Meeting minutes attached.

## Academic Senate Sustainability Committee

California Polytechnic State University, San Luis Obispo

Tuesday, April 4, 2023, 12:10-1:00pm

Zoom: <https://calpoly.zoom.us/j/81165854632>

Present: Jonathan Reich, Erin Pearse, Ajay Kathuria, Anastasia Telesetsky, Dianna Winslow, Dennis Elliot, Linh Dao (Toscani), Kylee Singh, Jay Peters (chair)

### Meeting Agenda - Minutes

- Approve meeting minutes from 3/2/23
  - M/S/P
- Reviewed AY 2022-23 charges—ASSC chair shared a slide deck showing 1) what progress has been made this AY toward the ASSC charges and 2) what work remains to be done
  - Charge #1: Implement AS-787-14 (“Resolution on Sustainability”)
    - Completed
      - SUSCAT workflow has been added to CIM and SUSCAT has been comprehensively revised and updated
      - CTLT faculty fellow position has been created and will be accepting applications soon
    - Remaining
      - Need to do one more round of SUSCAT course reviews for Spring and review broken course links
      - Discussion over whether a Q2S “sustainability checklist” is still needed, per Rachel Fernflores’s suggestion when she visited ASSC in fall—committee decided to table this checklist for now until work progresses on revising the SLOs
  - Charge #2: Implement AS-923-21 (“Resolution to Display Sustainability Courses in Catalog”)
    - Completed: SUSCAT updated/revised
    - Remaining: Adding a SUSCAT filter to Schedule Builder—ASSC chair has meeting scheduled with Registrar’s Office to work on this
  - Charge #3: Discuss Updating the SLOs
    - Completed: Established a general timeline for implementing new SLOs
    - Remaining: Approved SLOs to be forwarded to AS by end of AY
  - Charge #4: Work with ASI, Facilities, and other campus stakeholders to connect sustainability education with co-curricular activities and campus life
    - Completed
      - CTLT faculty fellow position created
      - Return of Zero Waste Ambassadors
    - Remaining
      - Fill the faculty fellow position

- Charge #5: Assist university facilities staff and administrators in efforts to achieve a carbon-neutral, zero-emissions, AASHE-STARs platinum-rated campus.
  - Remaining
    - Upcoming Sustainability Charrette on 4/21, 8am-1pm
    - Upcoming SAC/ASSC Joint Meeting on 5/4, 11am-12:30pm

## **Academic Senate Sustainability Committee**

California Polytechnic State University, San Luis Obispo

Tuesday, April 27, 2023, 11:10-11:00am

Zoom: <https://calpoly.zoom.us/j/83229317234>

Present: Jonathan Reich, Erin Pearse, Ajay Kathuria, Anastasia Telesetsky, Dianna Winslow, Dennis Elliot, Kylee Singh, Chris Raynes, Sara Lopus (guest), Jay Peters (chair)

### **Meeting Agenda - Minutes**

- Approve meeting minutes from 4/4/23
  - M/S/P (7 approve, 1 abstain)
- Agenda Item #1 of 3: Update on ICLR activities (Erin Pearse)
  - Deferred to the next ASSC meeting for time
- Agenda Item #2 of 3: Debrief on Sustainability Charrette
  - Deferred to the next ASSC meeting for time
- Revised Sustainability Learning Objectives - first committee reading
  - Meeting opened with chair providing an overview of how revising the SLOs fits with the committee's vision and goals to implement sustainability into curriculum during Q2S process and to implement goals and strategies of CAP 2.0
  - Open discussion
    - Dennis Elliot provided rationale for the revised SLOs under consideration
      - Attempted to avoid being too detailed or prescriptive, to maintain concision, and to mirror the structure and tone of ULOs and DLOs
      - To incorporate 1) attention to the "triple bottom line" understanding of sustainability, 2) climate science and climate change, 3) articulations with DEI
    - Committee discussed overall process for drafting, revising, reading, and distributing new SLOs
  - Feedback on revised SLOs from invited guest (Sara Lopus, SOC)
    - Appreciated attention to unequal access and structural barriers to achieving sustainability for all
    - Didn't submit a migration course to SUSCAT even though climate is a major driver in migration because it didn't seem to fit existing SLOs
    - Draft of new SLOs aren't shifting entirely to social concerns, but have been made broader and more inclusive
  - Dianna Winslow: SLOs are incorporating definitions of sustainability—makes it possible to explain what sustainability principles are without separate statement, makes them assessable, and will enable the work of CTLT in professional development efforts

- Multiple committee members recommend combining SLO #3 and #4 but also expanding attention beyond climate change: add waste, distribution, production, consumption, all elements relevant to systems thinking
- Anastasia Telesetsky: Attention to human effects, impacts more explicitly: not just in terms of inequitable social impacts but in terms of global human impact on environment (e.g., Anthropocene); more precise description of more “bounded” disciplinary problems that are relevant to sustainability (e.g., civil engineering)
- Dianna Winslow: Will play around with terminology that can balance broad, campus-wide appeal with specificity/prescriptivism of specific disciplinary approaches
- Erin Pearse: Recommends a SLO that addresses solutions, resilience, and adaption (SLO #2’s reference to “mitigation” might be a useful starting place for revision)
- Sara Lopus: solutions can also include social movements and cultural change
- Multiple committee members recommend a longer meeting, in-person, with multiple possible documents to compare and revise

## Academic Senate Sustainability Committee

California Polytechnic State University, San Luis Obispo

Thursday, May 11, 2023, 10:10-11:00am

Zoom: <https://calpoly.zoom.us/j/81225169828>

Present: Erin Pears, Dennis Elliot, Ajay Kathuria, Hadley Willman (guest), Anastasia Telesetsky, Dianna Winslow, Linh Dao, Jonathan Reich, Kylee Singh, Jay Peters (chair)

### Minutes

- Approve minutes from 2023 04 27 Meeting
  - 5 approve/ 1 abstain
- Ongoing ICLR Projects - Presentation from Erin Pearse
  - See attached PowerPoint presentation
  - Climate Solutions Now! Conference planning is underway
    - ASSC reps encouraged to propose speakers – **deadline?**
    - Free tickets for students are available
  - Several additional projects are being sketched out but need leaders/participants
    - Example: EV conversion for gasoline vehicles; discussion about the possibility of partnering with the Car Club
  - Proposal to establish Initiative as an Institute is still waiting for Provost approval and has been for 18-24 months
- Sustainability Learning Assessment
  - Presentation from Hadley Willman (ICLR)
  - See attached PowerPoint presentation
- Update on SUSCAT in CIM
  - Chair briefly explained that there is a new FAQ sheet in the committee's shared folders (and attached here) to help college reps communicate with their colleges about the new SUSCAT field in CIM
  - Currently listed courses in the 2022-26 Catalog can still be added to SUSCAT; there are no Q2S limitations on editing an existing course for SUSCAT during the current Catalog cycle.
- Update on SUSCAT filter in Schedule Builder



# Initiative for Climate Leadership and Resilience

*Projects Portfolio*



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# ICLR Programs

<http://climate.calpoly.edu>

## College Corps Fellowship

CA Volunteers - an AmeriCorps program

Each fellow serves 450 hours with a local gov't or nonprofit working in climate action, K-12, or food security

Each fellow receives \$10,000 (\$7K stipend, \$3K at end)

Eligible: fully enrolled undergrad, any major

We need help:

Recruitment - spread the word

**Information / Applications (Feb):**

- [serviceinaction.calpoly.edu/](http://serviceinaction.calpoly.edu/)



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**<http://climate.calpoly.edu>**

## Climate Solutions Now conference (late Oct)

500 attendees & speakers; all-virtual; focus on SOLUTIONS

Goal: help students find a career track that uses their skills and centers sustainability

Multiple tracks: transportation, communications, buildings, energy, land use, materials

Speakers: government agencies, industry, academia

We need help:

Filling seats

Free tickets when assigned to students!

Organizing tracks

Prerecorded guest lecture



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# ICLR Programs

## Research Collaborative

EPIC model for service learning:

One contact on campus for local agencies

Project is sourced from client agency, divided into tasks that align with existing courses, executed as contract

Students complete project as coursework, get a meaningful educational experience, resume builder

Faculty get a project; may need support for course adaptation and completing deliverable

Client agency gets work done more cheaply and quicker

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## Example Projects

### Current

- Phillips 66 Santa Maria Refinery
  - Power plant conversion
- Sustainable Land Initiative
  - NSF Engine, QSBS
- Community outreach: heat pumps & DEI
- Groundwater Management
- Freshwater Sourcing

### Forthcoming

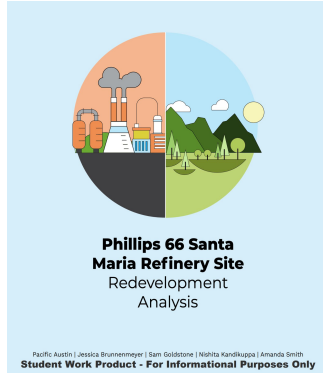
- EV Conversion
- Direct-DC Heat Pump
- Cal Poly Microgrid / VOR
- EV Readiness Plan
- Nonprofit solar panel
- Microgrid GBI



# ICLR Programs

<http://climate.calpoly.edu>

## Project highlight Phillips 66 Santa Maria Refinery



## Client Agency CC Economic Recovery Initiative

### precedent: komopogas facility, san luis obispo

- The Komopogas Facility is a high heat, dry anaerobic facility that started converting organic waste into carbon-neutral biogas and high-grade natural compost in San Luis Obispo, on November 18, 2018.
- Zurich-based Hitachi Zosen Inova (HZI).



### precedent: carbonLITE recycling



#### step 1: bale breaking

Used plastic bottles are collected from municipal curbside systems and deposit centers and are compressed into half-ton bales for delivery to the CarbonLITE process facility in Merced, CA. A bale-breaking machine decompresses the bales back into single bottles.



#### step 2: bottle cleaning

The single bottles are separated from any trash and debris and washed to not cause water.



#### step 3: bottle sorting

Automatic sorting equipment segregates the bottles into three streams: clear PET, green PET, and non-PET. The non-PET stream is re-baled and sold to others for subsequent processing into various plastic products.



#### step 4: washing

The clear and green streams of bottles are ground into confetti-like flakes. These flakes are intensively washed, rinsed, and dried.



#### step 5: solid state polycondensation

The dried clean flakes are heated to remove any contaminants that may exist. The system of it is recognized by the FDA as acceptable for subsequent use in direct food packaging. The purified flakes are melted and extruded into pellets as the final product.

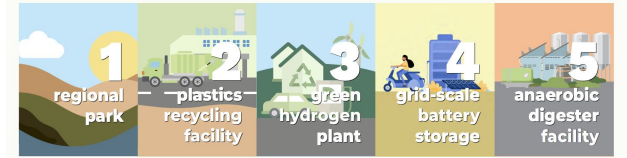


#### step 6: final packaging

Automatic sorting equipment segregates the bottles into three streams: clear PET, green PET, and non-PET. The non-PET stream is re-baled and sold to others for subsequent processing into various plastic products.

## Jonathan Reich

**EDES 408. Implementing Sustainable Principles.** A primarily project-based course, intended to aid students who wish to collaborate with the purpose of implementing sustainability principles by developing tools, process or designs, for community-based projects



Evaluation Criteria	Explanation
Technical Feasibility	Rating based on the feasibility of transformation to a different potential use. Are the materials and techniques used to implement known? Is the concept technically possible? What is the feasibility of deploying, managing, and operating the potential use? <i>Low Rating [1] = Not Technically Feasible; High Rating [10] = 100% Technically Feasible</i>
Jobs Creation	Rating based off the number of jobs created through transformation of site, construction of new infrastructure, and long-term operation of potential use. <i>(Low Rating [1] = &lt;50 Jobs; High Rating [10] = &gt;1,000 Jobs)</i>
Relative Cost	Rating based on the basic estimation of the financial cost to transform site, construct new infrastructure, and long-term operation of potential use. <i>Low Rating [1] = High Financial Cost; High Rating [10] = Low Financial Cost</i>
GHG Emissions	Rating based on the amount of Green House Gas (GHG) emissions created during transformation of site, construction of new infrastructure, and long-term operation of potential use. <i>Low Rating [1] = High Amount of GHG Emissions; High Rating [10] = Low Amount of GHG Emissions</i>
Energy Usage	Rating based on the energy (electricity, fossil fuel, etc.) used during transformation of site, construction of new infrastructure, and long-term operation of potential use. <i>Low Rating [1] = High Energy Use; High Rating [10] = Low Energy Use</i>
Effect on Biodiversity	Rating based on the amount of destruction, degradation and fragmentation of habitats as well as the reduction of individual survival and reproduction rates of local species as a result of the transformation, construction of new infrastructure, and long-term operation.

## ranking matrix

Required Status For Site	Importance Value (1-10)	Technical Feasibility											
		Site Creation	Relative Cost	GHG Emissions	Energy Usage	Effect on Biodiversity	Water Quality	Water Quantity	Public Health	Community Impact	Value to Community		
Site Modifications	8	8	4	10	9	8	7	6	9	7	8	5	5
Infrastructure Construction	8	8	5	6	7	7	8	8	7	9	-	10	-
Material Transportation	8	6	8	6	6	8	7	8	8	7	-	10	-
On-Going Maintenance	9	8	9	10	9	9	10	10	9	10	8	7	9
Economic Score		75%					74%			78%		59%	
WEIGHTED SCORE OUT OF 100:		68%											

Public Health	Rating based on the impact of potential use on community. Does it add value to the community? Is it an asset to the community? <i>Low Rating [1] = Low Positive Impact on Community; High Rating [10] = High Positive Impact on Community</i>
Public Interest	Rating based on the degree of risk (uncertainty) that the result will differ from the estimate of the transformation of site, construction of new infrastructure, and long-term operation of potential use. <i>Low Rating [1] = High Degree of Risk; High Rating [10] = Low Degree of Risk</i>
Appropriateness	Rating based on the appropriateness of potential use in regards to site, location, community needs, etc. <i>Low Rating [1] = Not Appropriate Potential Use; High Rating [10] = Very Appropriate Potential Use</i>



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# ICLR Programs

<http://climate.calpoly.edu>

Project highlight

## Phillips 66 Santa Maria Refinery

Client Agency  
**CC Economic  
Recovery Initiative**

**Sarah Spann**

**NR 425. Applied Resource Analysis and Assessment.** Environmental impacts in responses to resource management, projects, programs and activities. Preparation, implementation, and coordination of environmental plans.



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# ICLR Programs

Project highlight

## Sustainable Land Initiative

Climate-Smart Agriculture:  
How to get to implementation?

**Collaboration.** ICLR provides technical and economic expertise, manufacturing facilities, and extra capacity. US-LT RCD provides practical expertise, and existing relations with the local agricultural community.

Client Agency  
**US-LT RCD**



UPPER SALINAS-LAS TABLAS  
**RESOURCE**  
CONSERVATION DISTRICT



<http://climate.calpoly.edu>

SLI operational phases:

- **Intake.** RCD develops carbon farm & conservation plans, and CSA strategies, and adds them to an inventory of local needs.
- **Funding.** Via jointly-developed grants.
- **Equipment.** ICLR provides design and manufacture of specialized tools (e.g., biochar kilns, compost spreaders, keyline plows) through Cal Poly courses that already exist for this purpose. RCD leases this equipment to farmers.
- **Deployment.** RCD and ICLR instruct farmers on CSA, incl. by peer-to-peer learning.
- **Monitoring.** ICLR monitors effectiveness of practices with regard to water use reduction, water retention, economic yield, soil health and uses data to develop economic models demonstrating effectiveness and attracting more participants.



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# ICLR Programs

## Project highlight Sustainable Land Initiative

Client Agency  
**US-LT RCD**



**Matt Haberland**

**BRAE 421-422 Equipment Engineering.**  
Design and fabrication of specialized  
agricultural components and equipment.

<http://climate.calpoly.edu>

Farmshare Equipment Program:  
Biochar Generators

Supported in part by  
Vineyard Professional Services



## Future Plans (Contingent on Funding)

Monitoring Program:

- Charlotte Decock: soil chemistry
- Yamina Pressler: ecosystem services
- Yiwen Chiu: LCA analysis
- Mike McCullough & Lynn Hamilton: agribusiness

Education Program:

- Nick Babin
- Claire Balint
- Carbon Cycle Institute

Permitting:

- Sarah Spann
- Michael Larcher



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# ICLR Programs

<http://climate.calpoly.edu>

Project highlight

## Sustainable Land Initiative

Client Agency

US-LT RCD

## Future Directions

Farmshare Equipment Program:

- Biochar generators
- Compost spreaders
- Roller-crimpers
- Keyline plows
- Waterjet stingers
- No-till drills

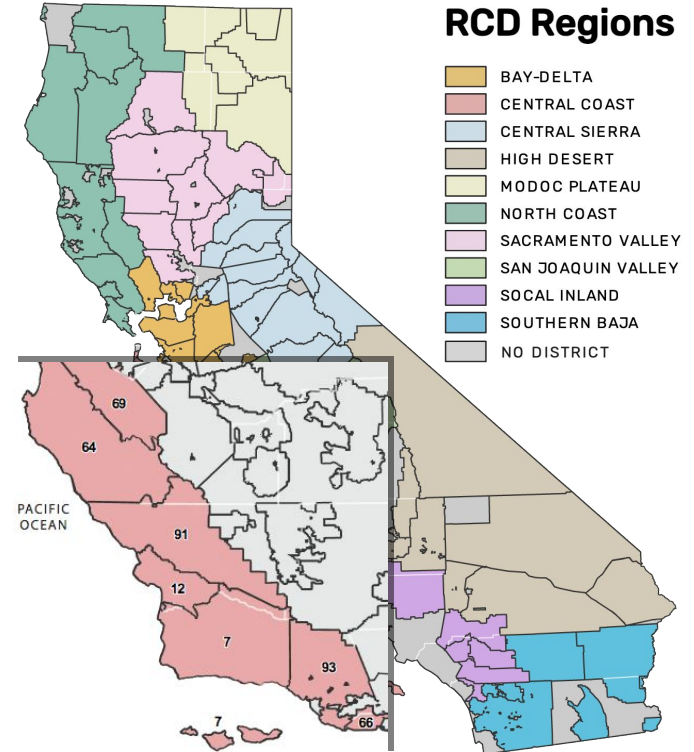
Statewide expansion through RCDs

- Cachuma
- Ventura

Quantitative sustainability as a business service

- Food production
- Hospitality

## RCD Regions



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# ICLR Programs

<http://climate.calpoly.edu>

Project highlight  
**CCA Scorecard**

Client Agency  
**SLO Climate Coalition**



## **Mission:**

- Develop a scorecard for California CCAs
- Collect data and develop scores, especially for 3CE

## **Notes:**

- Project is being carried out by SEI interns



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# ICLR Programs

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Project highlight



## Electrification Outreach

Client Agency

## SLO County Climate Justice Alliance

### Launching soon

Climate Justice Alliance:

- Diversity Coalition
- RACE Matters
- CCCUSS
- BlocPower
- GALA
-  SLO Climate Coalition
- ECOSLO
- Ecologistics
-  ICLR

**Mission:** Test messaging on heat pumps, clean energy, energy bill saving tips

**Dates:** Mar 2023 - Aug 2024

### **Deliverables:**

- 12 outreach events
- Assessment of what methods work best for reaching BIPOC, low- and medium-income, underserved populations
- Assessment of grassroots outreach as a communication method
- Assessment of particular messages and strategies
- Development of a communication network for future outreach



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# ICLR Programs

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Project highlight

## Hydrocarbon Splitter

Client Agency

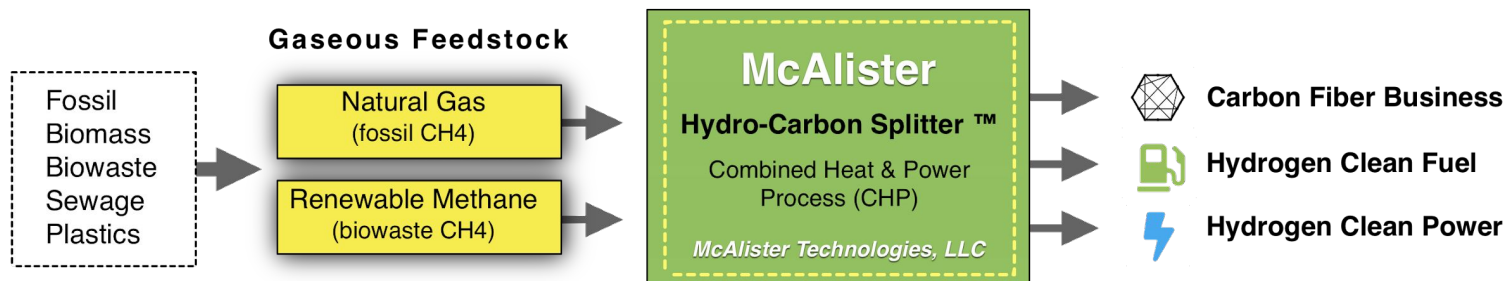
**Metrol Carbon Ventures**



**Mission:** Determine viable applications for solid carbon by-product

**Notes:**

- MCV may set up a lab at Tech Park
- Profs Eltahry Elghandour, Amro El Badawy, Shanju Zhang
- Tahry has a scanning electron microscope



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# ICLR Programs

<http://climate.calpoly.edu>

## Curriculum Development

### NR 310 Global Climate Change

Richard Cobb, Seeta Sistla

About 100 students/quarter (2-3 sec)

### BIO 476 Biology of Climate Change

Lars Tomanek

## Advancement

Morgen Marshall (CSM)

Tim Northrop (CAFES)

Brigette Olmos-Arreola (CENG)

- May 12: Mary Ann Beyster

## Elevating climate at Cal Poly

Media work:

- University Marketing
- Cal Poly Magazine
- Mustang News

Are you working in this area? TELL US

- ICLR can elevate your work
  - Web: [climate.calpoly.edu](http://climate.calpoly.edu)

Eventual goal:

- Faculty directory on [climate.calpoly.edu](http://climate.calpoly.edu) for faculty to find collaborators, students to find mentors



# Thanks!

## Contact us

- [epearse@calpoly.edu](mailto:epearse@calpoly.edu)
- [hwillman@calpoly.edu](mailto:hwillman@calpoly.edu)

## Climate listserv

- [climategroup@calpoly.edu](mailto:climategroup@calpoly.edu)

## ICLR web page

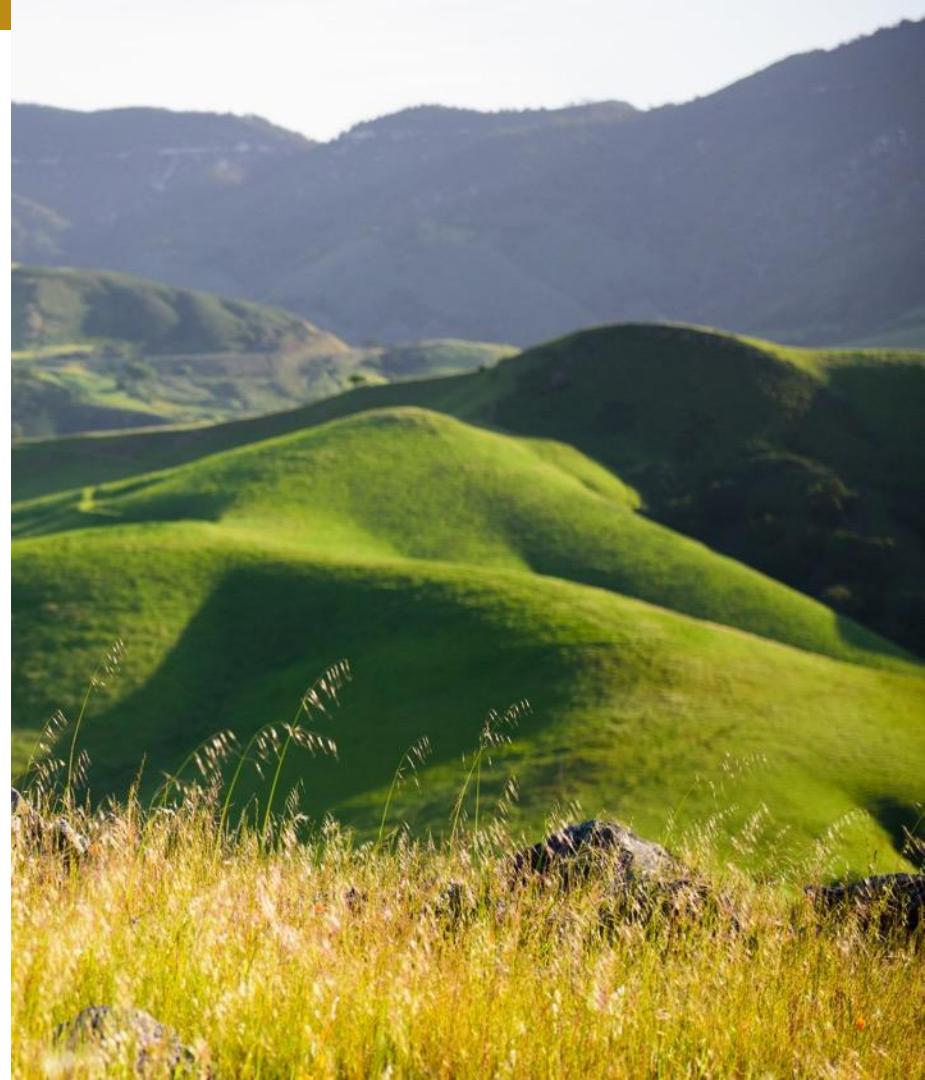
- [climate.calpoly.edu/](http://climate.calpoly.edu/)

## Sustainability Catalog:

- [suscat.calpoly.edu/](http://suscat.calpoly.edu/)

## College Corps Applications:

- [serviceinaction.calpoly.edu/](http://serviceinaction.calpoly.edu/)



# Results of the 2023 Sustainability Literacy Assessment

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Hadley Willman, Assistant Director at Cal Poly ICLR  
Academic Senate Sustainability Committee - 5/11/23

# Basic Results and Statistics

- 725 responses
- Over 35 classes presented to
- Used for STARS reporting for credits AC-06 (4 points) and EN-06 (1 point)

27. During your time at Cal Poly, how many courses have you taken that address the topics presented in this survey?

[More Details](#)

● A. 0	181
● B. 1-2	314
● C. 3 or more	230

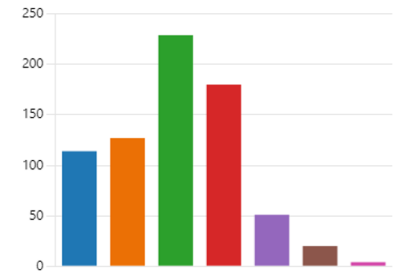


5. Year at Cal Poly

[More Details](#)

[Insights](#)

● 1	114
● 2	127
● 3	229
● 4	180
● 5+	51
● Masters	20
● Other	4

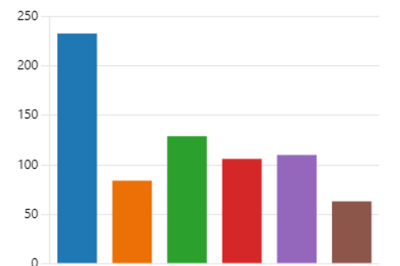


1. What college are you in?

[More Details](#)

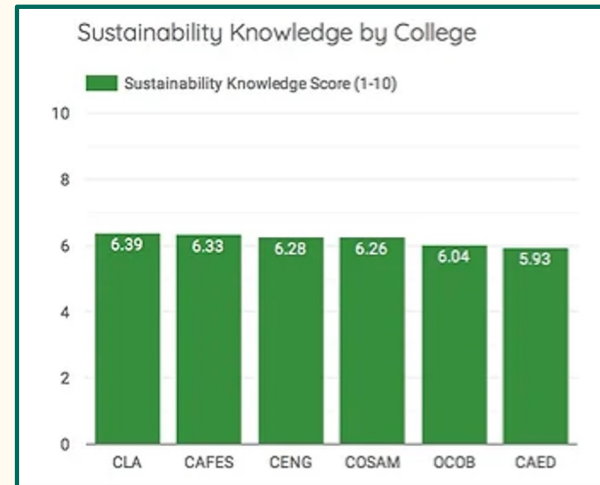
[Insights](#)

● College of Agriculture, Food, an...	233
● College of Architecture and Envi...	84
● College of Engineering (CENG)	129
● College of Liberal Arts (CLA)	106
● College of Science and Mathem...	110
● Orfalea College of Business (OC...	63





# Literacy Section



	2023	2018^
# of questions	13	10
Average score (#)	7.91 out of 13	5.93 - 6.39 out of 10 (see graph)
Average score (%)	60.85%	59.3-63.9%

# Literacy Section

- **9 questions** had an average correct response range of 60.4-91.57%
- **4 questions** had an average correct response range of 38.54% to 17.82%
  - **Questions:**
    - Which of the following countries has produced the most carbon dioxide emissions over time? (US vs. China)
    - Which of the following statements about greenhouse gasses is true? (CO2 vs. methane)
    - Which sector produces the most greenhouse gasses associated with the Cal Poly campus? (I don't know)
    - What is the source of drinking water at Cal Poly? (I don't know)
  - ***Students need more education on emissions and Cal Poly sustainability.***

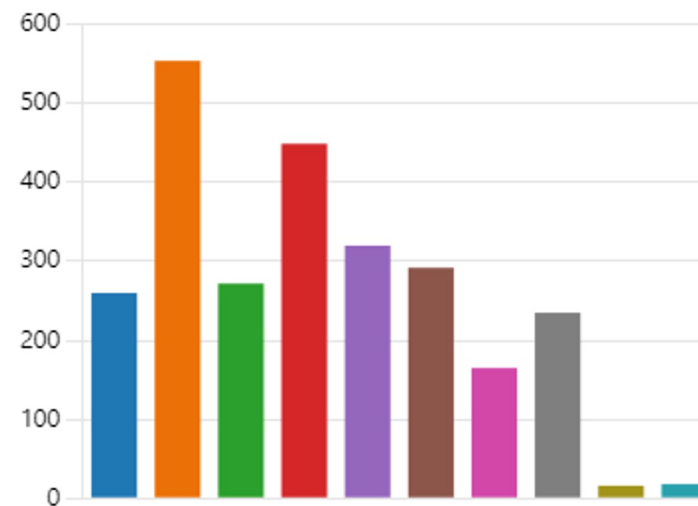
# Value Section

- 12 questions (2023) vs. 10 (2018)
- **One optional free response question (152 responses, 20.97%):**
  - In what way(s) might Cal Poly better engage students in discussion and making decisions about what sustainable practices might be promoted on campus?
  - Many responses elaborate on the GE idea.
- **How important do you think sustainability is?** Average of 4.72/5
- **How important do you think it is to include sustainability learning in the Cal Poly classroom?** Average of 4.46/5
- **How well does Cal Poly teach sustainability?** 2.85/5

25. What are some ways to infuse sustainability education in the classroom at Cal Poly? (Choose up to 3)

[More Details](#)

● A. Better marketing of sustainab...	260
● B. Integrate sustainability topics ...	554
● C. Offer more sustainability clas...	272
● D. Make sustainability a GE requ...	449
● E. Advise how sustainability edu...	320
● F. The university should make it ...	292
● G. Professors should allocate m...	165
● H. Add first year sustainability e...	235
● I. I don't think we should make s...	16
● Other	18



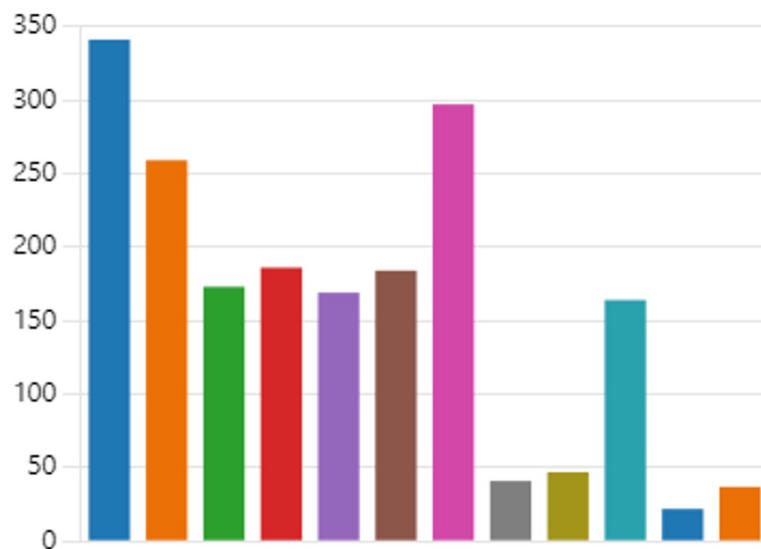
**2023:** 449/725 voted for a GE requirement, or 61.93%

**2018:** 432/867, or 49.83%

26. What prevents you from receiving more sustainability instruction at Cal Poly? (Choose up to 3)

[More Details](#)

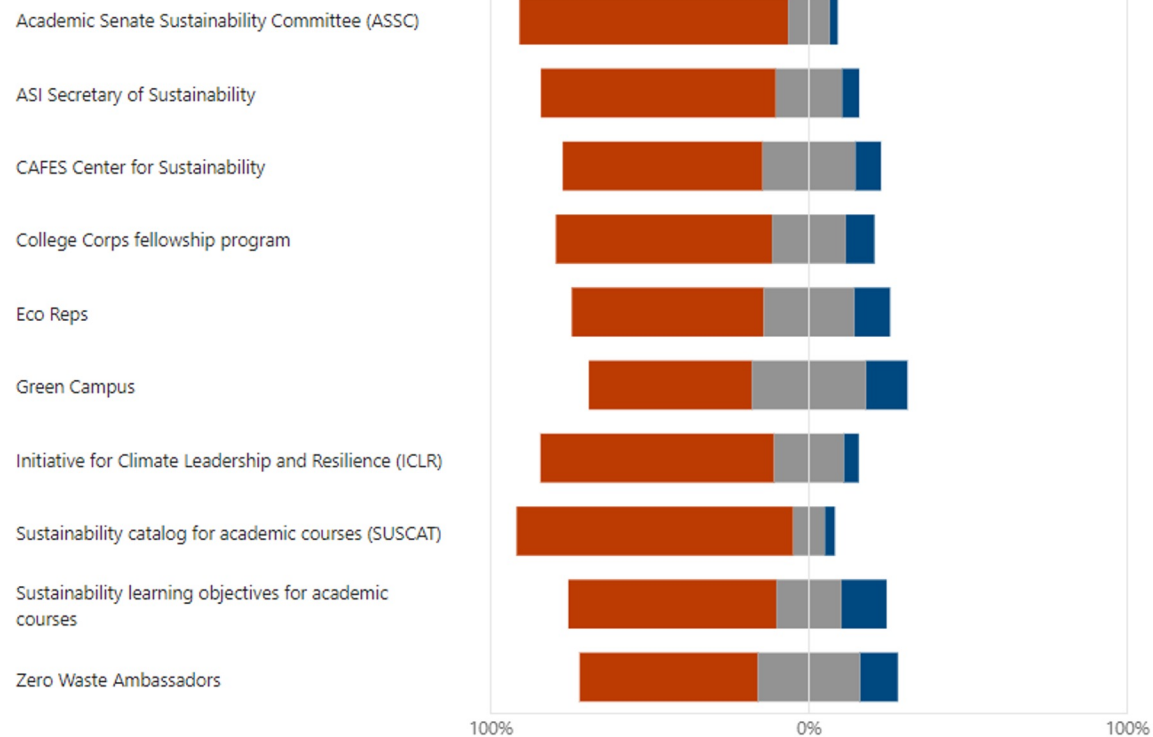
<span style="color: blue;">●</span> A. I don't have enough time	341
<span style="color: orange;">●</span> B. It doesn't fit with my major or...	259
<span style="color: green;">●</span> C. I don't know how to find the ...	173
<span style="color: red;">●</span> D. I don't have enough electives	186
<span style="color: purple;">●</span> E. Cal Poly does not offer enough...	169
<span style="color: brown;">●</span> F. Cal Poly does not offer enough...	184
<span style="color: magenta;">●</span> G. Courses are not well promoted	297
<span style="color: gray;">●</span> H. Professors lack motivation	41
<span style="color: olive;">●</span> I. Professors lack competency in...	47
<span style="color: teal;">●</span> J. The university does not priorit...	164
<span style="color: blue;">●</span> K. I don't care about sustainability	22
<span style="color: orange;">●</span> Other	37



30. Mark your familiarity for each of the following sustainability resources at Cal Poly:


[More Details](#)

■ I have never heard of this before   ■ I have heard of this, but never used or interacted with the resource  
■ I have used or interacted with this resource



32. Prior to this survey, were you aware of Cal Poly's sustainability website?

[More Details](#)


 Insights

- A. Yes, and I have visited it 87
- B. Yes, but I have never visited it 103
- C. No 535



33. Prior to this survey, were you aware of Cal Poly's sustainability newsletter?

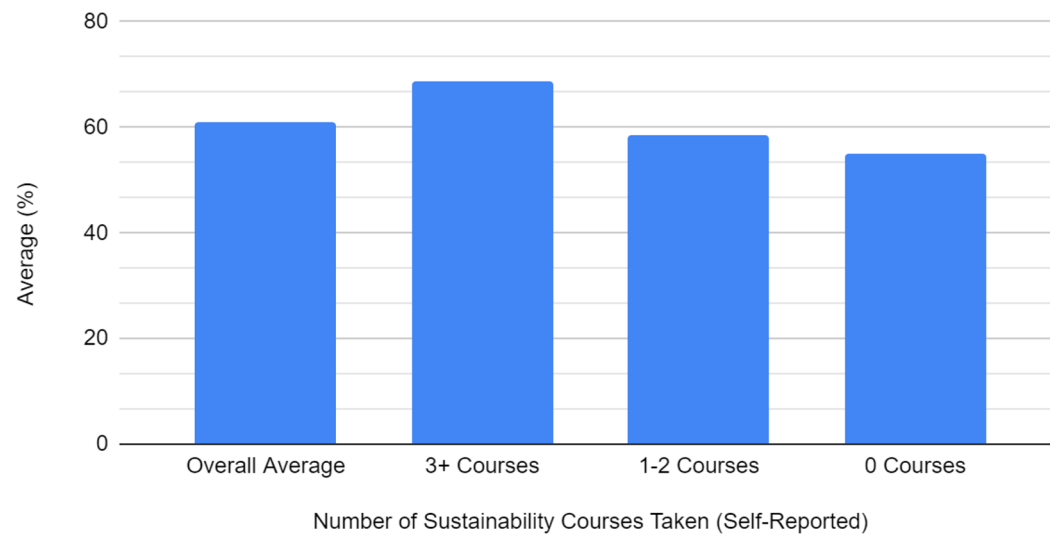
[More Details](#)

 Insights

- A. Yes, and I subscribed 61
- B. Yes, but I am not subscribed 94
- C. No 570



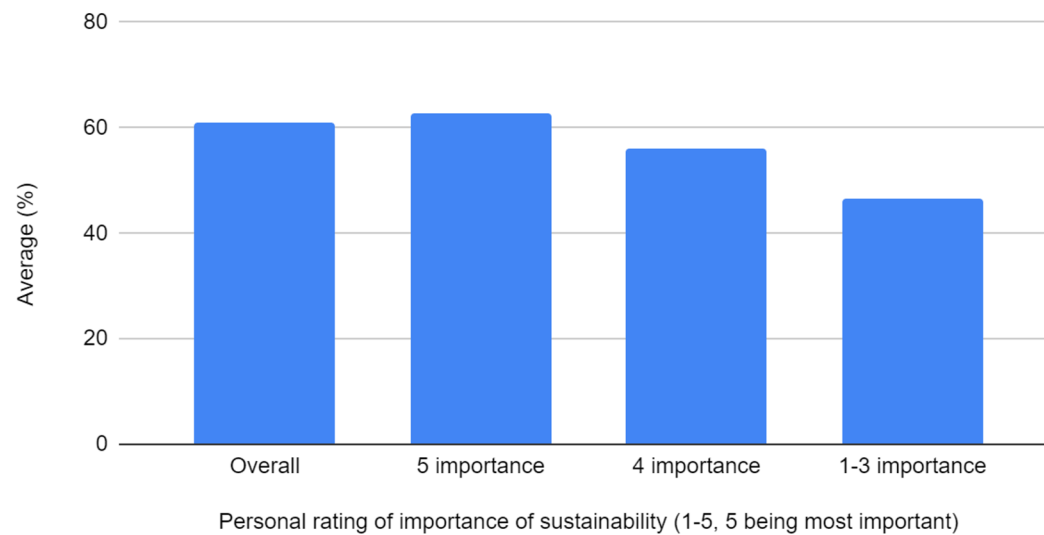
**Average Literacy Score by Number of Sustainability Courses Self-Reported**



Type	Average
Overall Average	60.85
3+ Courses	68.62
1-2 Courses	58.54
0 Courses	55

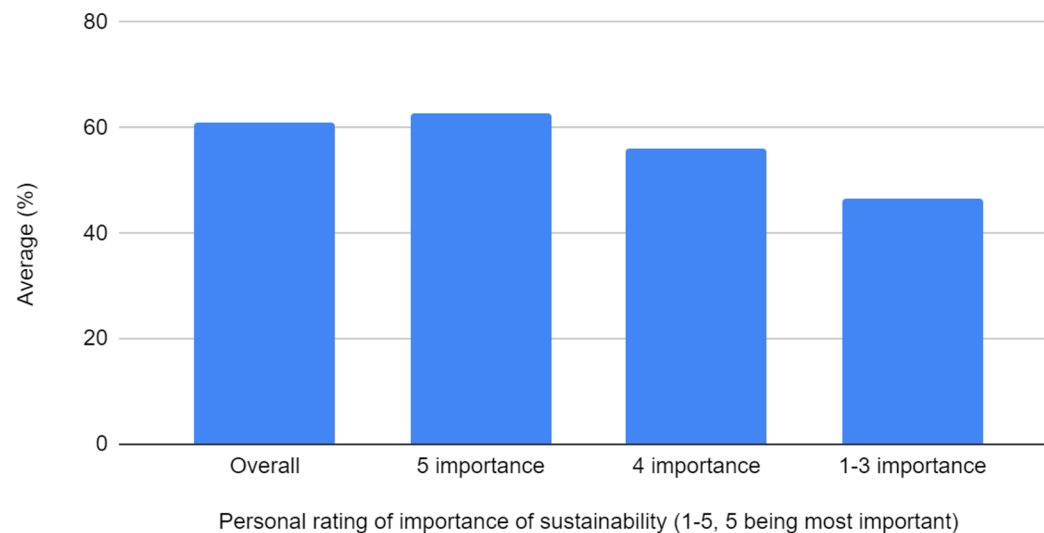


### Average Literacy Score by Personal Importance of Sustainability



Type	Average
Overall Average	60.85
5 importance	62.77
4 importance	55.92
1-3 importance	46.7

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Type	Average
Overall Average	60.85
5 importance	62.77
4 importance	55.92
1-3 importance	46.7

**Conclusion:** passion for sustainability is linked to a higher literacy (2% better than average), but it is not as significant a higher score than for those who have been more educated through curriculum (8% better). Thus, education plays a critical role in literacy.

# Next Steps

- Conduct more in-depth analysis of trends and correlations in 2023 data
- Compare 2023 data to 2018 data
- Faculty support: Yiwen will collect interested parties
- Web page development
- Presentation to provost?