

**Meeting Call for Regular Meeting of the Santa Cruz Division
Friday, May 20, 2022 at 2:30 p.m.**

ZOOM LINK:

<https://ucsc.zoom.us/j/99701678845?pwd=Z0N4ZEZqcThRTmdYSStXaWpSMjBZQT09>

ORDER OF BUSINESS

1. Approval of Draft Minutes
 - a. Draft Minutes of March 9, 2022 (AS/SCM/331)
 - b. Draft Minutes of May 17, 2019 (AS/SCM/323)
2. Announcements
 - a. Chair Brundage
 - b. Chancellor Larive
 - c. CPEVC Kletzer
3. Report of the Representative to the Assembly (none)
4. Special Orders: Annual Reports
CONSENT CALENDAR:
 - a. Committee on Faculty Research Lecture 2021-22 Annual Report (AS/SCP/2024) p. 1
5. Reports of Special Committees (none)
6. Reports of Standing Committees
 - a. Committee on Research Faculty Research Grants Change for 2022-23
 - b. Committee on Committees Senate Roster 2022-23 (AS/SCP/2027) p. 3
 - c. Committee on Faculty Welfare (CFW) Resolution to Mitigate UCSC's Housing Crisis (AS/SCP/2025) p. 6
 - d. Senate Executive Committee Resolution on Black Experience (AS/SCP/2026) p. 9
7. Report of the Student Union Assembly Chair
8. Report of the Graduate Student Association President
9. Petitions of Students (none)
10. Unfinished Business (none)
11. University and Faculty Welfare (none)
12. New Business
 - e. Discussion of Fossil Fuel Combustion Memorial to the Regents p. 11

5/13/2022

Academic Senate
Santa Cruz Division

Dear Colleagues,

I write to invite you to the Spring Senate meeting on Friday, May 20, from 2:30 to 5:00pm, via ZOOM. The agenda for the meeting may be viewed on the [Academic Senate website](#).

As always, both the Chancellor and CP/EVC will offer remarks, followed by Q&A. We also are expecting remarks from the Student Union Assembly and the Graduate Student Assembly.

The Committee on Research (COR) plans to provide an update on the planned changes to the Senate-coordinated faculty research grant programs, which COR allocates using a directed allocation from the CP/EVC. We also have two resolutions which have been proposed by standing committees of the division. First, the Committee on Faculty Welfare has prepared a resolution on steps it recommends the campus should take to mitigate UCSC's housing crisis, and second, Senate Executive Committee has prepared a resolution in solidarity with both the Black Student Union and the Student Union Assembly's statements condemning bigotry and hateful acts on our campus.

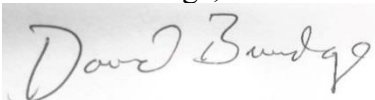
We have also added time under New Business for the discussion of the [Fossil Fuel Combustion Memorial to the Regents](#), for which the voting deadline has been extended to May 27. There are no planned remarks, but we have provided this time for members of the division to speak on the memorial.

We are also excited that the May 20, 2022 consent calendar includes the Committee on Faculty Research Lecture 2021-22 Annual Report, which announces the nomination of **JJ Garcia-Luna-Aceves, Distinguished Professor of Computer Science and Engineering, as the 57th Faculty Research Lecturer.**

In case you missed it, there are also quarterly updates on Senate priorities and review materials in the [spring edition of the Senate newsletter](#), which was circulated earlier this week.

I look forward to seeing you next Friday at the meeting!

Sincerely,
David Brundage, Chair



Academic Senate
Santa Cruz, Division

SUBMISSION OF PROPOSED CORRECTIONS TO THE MINUTES**March 9, 2022 Senate Meeting****May 17, 2019 Senate Meeting**

The draft minutes from the March 9, 2022 Senate meeting were distributed via email on April 20th, 2022 and will be presented for approval at the Senate Meeting on May 20, 2022. After being approved, these minutes will be posted on the Senate web site (<http://senate.ucsc.edu/senate-meetings/agendas-minutes/index.html>).

Also distributed on April 20th, 2022 were the draft minutes from the May 17, 2019 Senate meeting, which were previously lost due to an error. We have consulted with 2018-19 Senate Secretary Roger Schoenman to produce these minutes for the permanent Senate record.

Senators are asked to submit any proposed corrections or changes to these draft minutes to the Senate Office in advance of the next meeting, via EMAIL or in WRITING. All proposed changes will be compiled in standardized format into a single list for display at the next meeting.

This approach gives Senators an opportunity to read and review changes before being asked to vote on them, provides the Senate staff and the Secretary with time to resolve any questions or inconsistencies that may arise, and minimizes time spent on routine matters during meetings. While proposed changes may be checked for consistency, they will not be altered without the proposer's approval. This approach complements, but does not limit in any way, the right of every Senator to propose further changes from the floor of the meeting.

To assist the Senate staff, proposed changes should specify:

1. The location of the proposed change (e.g., item, page, paragraph, sentence);
2. The exact wording of existing text to be modified or deleted;
3. The exact wording of replacement or additional text to be inserted;
4. The reason for the change if not obvious (optional).

Please submit all proposed changes to arrive in the Senate Office **no later than 12:00 noon, Thursday, May 19, 2022**. They should be addressed to the Secretary, c/o Academic Senate Office, via email to senate@ucsc.edu.



Grant McGuire, Secretary
Academic Senate
Santa Cruz Division

COMMITTEE ON FACULTY RESEARCH LECTURE
Annual Report 2021-2022

To: Academic Senate, Santa Cruz Division

The Committee on the Faculty Research Lecture (CFRL) enthusiastically nominates JJ Garcia-Luna-Aceves, Distinguished Professor of Computer Science and Engineering, as the 57th Faculty Research Lecturer.

Professor Garcia-Luna-Aceves' work addresses computer networks, and in particular, the protocols that are used to route packets in these networks. Computer networks are so fundamental to modern life that they are considered a utility, perhaps as necessary as water and electricity. One of the early insights at the core of the internet was to divide the information to be transmitted into "packets" of standardized size, which could be independently routed to their destinations. Dividing the information into packets made it possible to share the communication links among large numbers of tasks and users, rendering possible the internet as we know it today – with email, messaging, video, audio, web, all coexisting. What remained as a problem was how to route these packets: how to decide whether to send them this or that way in a complex web of connections to efficiently reach their destinations.

The original routing algorithms were developed on the basis of common sense, intuition, and simulation. This led to routing that mostly worked, but occasionally sent packets into loops, dropped them, or caused delays and congestion. Professor Garcia-Luna-Aceves' fundamental insight was that mathematical logic and formal methods could be used in proving the correctness of the routing protocols, ensuring that they satisfied their design goals under all conditions.

In a seminal 1988 SIGCOMM paper, Professor Garcia-Luna-Aceves showed how packets could be routed by having nodes propagate information on their shortest distance to destinations. Prior approaches suffered from several problems: in some, updates to the routing information could send packets into loops; in others, the computation would not necessarily converge; others yet required an impractical amount of information to be communicated. Professor Garcia-Luna-Aceves proposed the first provably correct protocol that was loop-free at all times. The protocol was adopted by CISCO for its routing protocol EIGRP, and was very widely used. In another seminal paper co-authored with Dr. Fullmer in 1995, Professor Garcia-Luna-Aceves presented a family of protocols for sharing wireless bandwidth to transmit information packets. The paper presented a provably correct implementation that corrected problems in an IEEE standard protocol, introducing ideas that underlie many common wireless protocols in use today.

Professor Garcia-Luna-Aceves' work has touched most areas of computer communications: from wired to wireless protocols; from fixed-topology to ad-hoc wireless networks in which nodes learn how to route information even as the nodes move and their connections are in constant change; from connection-based protocols, where information is sent in order to connectionless protocols that aim at the synchronization of knowledge across computing devices. Professor Garcia-Luna-Aceves has published over 500 peer-reviewed papers and book chapters. His work has been cited over 40,000 times in the scientific literature; and his h-index is over 100, meaning that he has

published over 100 papers each of which was cited over 100 times, a rare distinction. To add to these accomplishments, he holds over 60 patents on computer communications.

Professor Garcia-Luna-Aceves' distinguished research record has received wide recognition. He was elected a Corresponding Member of the Mexican Academy of Sciences (Academia Mexicana de Ciencias) in 2013. He was elected an IEEE Fellow in 2006, an ACM Fellow in 2008, and a AAAS Fellow in 2010. He is the recipient of several awards for his research contributions, including: The IEEE MILCOM Technical Achievement Award in 2016 for his sustained contributions to military communications; the IEEE Computer Society Technical Achievement Award in 2011 for pioneering contributions to the theory and design of communication protocols for ad-hoc wireless networks; the IEEE Communications Society Ad Hoc and Sensor Networks Technical Committee (AHSN TC) Technical Recognition Award in 2012 for fundamental contributions to the theory and design of communication protocols for routing and channel access in ad-hoc wireless networks; and the SRI International Exceptional-Achievement Award in 1985 and 1989 for his work on multimedia communications and adaptive routing algorithms.

Professor Garcia-Luna-Aceves received his BS in Electrical Engineering at the Universidad Iberoamericana, Mexico City, Mexico. He later studied at the University of Hawaii, receiving a MS and a Ph.D. in Electrical Engineering. From 1983 to 1993 he was at SRI International in Menlo Park, where he directed the Network Information Systems Center (NISC) from 1991 to 1993, the year in which he joined UCSC.

At UCSC, Garcia-Luna-Aceves is a Distinguished Professor, and holds the Jack Baskin Endowed Chair of Computer Engineering. He heads the Computer Communications Research Group, which to-date has graduated 42 Ph.D. students and 43 MS students, and where he has raised many millions in funding. In addition, Professor Garcia-Luna-Aceves is a stellar contributor to UCSC's administration. He currently serves as the UCSC director for CITRIS, the Center for Information Technology Research in the Interest of Society and the Banatao Institute, a multi-campus initiative focused on research and emerging technologies established in 2001. He also serves as the Chair of the Computer Science and Engineering Department, which holds the distinction of educating the largest number of our students. Professor Garcia-Luna-Aceves has also been a prolific entrepreneur, co-founding Adara Networks, Inc. San Jose, California in 2000, and SUNS-Tech Corp., in Milpitas, California in 2010.

We are proud to nominate JJ Garcia-Luna-Aceves as the 57th Faculty Lecturer.

Respectfully submitted,

COMMITTEE ON FACULTY RESEARCH LECTURE

Members

Luca de Alfaro

Carolyn Dean

Howard Haber

Barbara Rogoff

Ronaldo Wilson, *Chair*

COMMITTEE ON COMMITTEES
Committee Nominations for 2022-23

To: Academic Senate, Santa Cruz Division

Santa Cruz Division of the Academic Senate
2022-23 Committee Membership

OFFICERS

			Department
Senate Director: Matthew Mednick			
Patty	Gallagher	Chair	Theater Arts Department
Melissa	Caldwell	Vice Chair	Anthropology
Debbie	Gould	Secretary	Sociology

ASSEMBLY REPRESENTATIVES

Patty	Gallagher	Chair - ex officio	Theater Arts Department
Melissa	Caldwell	Vice Chair - ex officio	Anthropology
Rita	Mehta	Assembly Rep.	Ecology & Evolutionary Biology

EXECUTIVE COMMITTEE (SEC)

Cte Analyst: Matthew Mednick

Patty	Gallagher	Chair	Theater Arts Department
Melissa	Caldwell	Vice Chair	Anthropology
Debbie	Gould	Secretary	Sociology
Rita	Mehta	Assembly Rep.	Ecology & Evolutionary Biology
			Senate Equity Advocate
Alexander (Sasha)	Sher	(CFW)	Physics
Laura	Giuliano	(CAFA)	Economics
Tanner	Wouldgo	(CEP)	Writing Program
Kirsten	Silva Gruesz	(CAAD) F,W	Literature
Amy	Vidali	(CAAD) S	Writing Program
Jennifer	Derr	(P&T)	History
Michael	Hance	(COR)	Physics
Stefano	Profumo	(CAP)	Physics
Andy	Fisher	(GC)	Earth & Planetary Sciences
Dard	Neuman	(CPB)	Music
Catherine (Kate)	Jones	(COT)	History
Kent	Eaton	(CIE)	Politics
			(COC)

ACADEMIC FREEDOM (CAF)

Cte Analyst: Chad Silva

Roger	Schoenman	Chair	Politics
Chris	Chen		Literature
Ian	Garrick-Bethell		Earth & Planetary Sciences
Susana	Ruiz		Film and Digital Media
Hongyun	Wang		Applied Mathematics

ACADEMIC PERSONNEL (CAP)

Cte Analyst: Jaden Silva-Espinoza

Stefano	Profumo	Chair	Physics
Zsuzsanna	Abrams		Languages and Applied Linguistics
Maureen	Callanan (W,S)		Psychology
Greg	Gilbert		Environmental Studies
Susan	Gillman		Literature
Doug	Kellogg		Molecular, Cell, & Developmental Biology
Roberto	Manduchi		Computer Science and Engineering
Warren	Sack		Film and Digital Media
Maagy	Seif El-Nasr		Computational Media
Quentin	Williams		Earth & Planetary Sciences

ADMISSIONS & FINANCIAL AID (CAFA)

Cte Analyst: Chad Silva

Laura	Giuliano	Chair	Economics
Luca	de Alfaro		Computer Science and Engineering
George	Bulman		Economics
Juned	Shaikh		History
Zhu	Wang		Molecular, Cell, & Developmental Biology
Bruno	Sanso		Statistics
Marcella	Gomez		Applied Mathematics

AFFIRMATIVE ACTION & DIVERSITY (CAAD)

Cte Analyst: Rebecca Hurdis

Kirsten	Silva Gruesz	Chair (F, W)	Literature
Amy	Vidali	Chair (S)	Writing Program
Phoebe	Lam		Ocean Sciences
Juhee	Lee		Statistics
Adriana	Manago		Psychology
Matthew	Schumaker		Music

CAREER ADVISING (CCA)

Cte Analyst: Morgan Gardea

Steven	Ritz	Chair	Physics
Owen	Arden		Computer Science and Engineering
Melissa	Gwyn		Art
Kim	Helmer		Writing Program
Fernando	Leiva		Latin American & Latino Studies

COMMITTEE ON COMMITTEES (COC)

Cte Analyst: Matthew Mednick

Elizabeth	Abrams		Writing Program
Dean	Mathiowetz		Politics
Scott	Oliver		Chemistry & Biochemistry
Shelley	Stamp		Film and Digital Media

COURSES OF INSTRUCTION (CCI)

Cte Analyst: Morgan Gardea

EDUCATIONAL POLICY (CEP)

Cte Analyst: Rebecca Hurdis

Tanner	Wouldgo	Chair	Writing Program
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EMERITI RELATIONS (CER)

Cte Analyst: Jaden Silva-Espinoza

Judith	Habicht Mauche	Chair	Anthropology
Linda	Burman-Hall		Music
Diane	Gifford-Gonzalez		Anthropology
Lisbeth	Haas		History
Ingrid	Parker	non-emeritus	Ecology & Evolutionary Biology
Alexander	Sher	ex officio	Chair of CFW

FACULTY RESEARCH LECTURE (CFRL)

Cte Analyst: Morgan Gardea & Matthew Mednick

Barbara	Rogoff	Chair	Psychology
Regina	Langhout		Psychology
Jason	Nielson		Physics

FACULTY WELFARE (CFW)

Cte Analyst: Jaden Silva-Espinoza

Alexander	Sher	Chair	Physics
Madhavi	Murty		Feminist Studies
Sara	Niedzwiecki		Politics
Chen	Qian		Computer Science and Engineering
Gustavo	Vazquez		Film and Digital Media
Xi	Zhang		Earth & Planetary Sciences
Judith	Habicht Mauche	ex officio	Chair of CER

GRADUATE COUNCIL (GC)

Cte Analyst: Esthela Bañuelos

Andy	Fisher	Chair	Earth & Planetary Sciences
Lindsey	Dillon		Sociology
Camilla	Forsberg		Biomolecular Engineering
Marisol	LeBrón		Feminist Studies
Francois	Monard		Mathematics
John	Musacchio		Computer Science and Engineering
Laurie	Palmer (F,W)		Art
Rachel	Walker		Linguistics
Peter	Biehl	ex officio	Vice Provost and Dean of Graduate Studies

INFORMATION TECHNOLOGY (CIT)

Cte Analyst: Jaden Silva-Espinoza

Peter	Alvaro	Chair	Computer Science and Engineering
Jerome	Fiechter		Ocean Sciences
Mathis	Hain		Earth & Planetary Sciences
Dongwook	Lee		Applied Mathematics
Heiner	Litz		Computer Science and Engineering
Zac	Zimmer		Literature

INTERNATIONAL EDUCATION (CIE)

Cte Analyst: Esthela Bañuelos

Kent	Eaton	Chair	Politics
Anjali	Arondekar		Feminist Studies
Rebecca	Braslau (F, S)		Chemistry & Biochemistry
Zouheir	Rezki		Electrical and Computer Engineering
Slawomir	Tulaczyk		Earth & Planetary Sciences

LIBRARY AND SCHOLARLY COMMUNICATION (COLASC)

Cte Analyst: Morgan Gardea

Abraham	Stone	Chair	Philosophy
Martin	Devecka		Literature
Jeffrey	Erbig		Latin American & Latino Studies
Abhishek	Halder		Applied Mathematics
Cynthia	Ling Lee		Theater Arts
Kai	Zhu		Environmental Studies
Elizabeth	Cowell	ex officio	University Librarian

PLANNING & BUDGET (CPB)

Cte Analyst: Esthela Bañuelos

Dard	Neuman	Chair	Music
David	Cuthbert		Theater Arts
Carla	Freccero (F)		Literature
Raphael	Kudela		Ocean Sciences Department
Tracy	Larrabee		Computer Science and Engineering Department
Grant	McGuire (W,S)		Linguistics
Cameron	Monroe		Anthropology
Sriram	Shastry		Physics
Jessica	Taft		Latin American & Latino Studies
Daniele	Venturi		Applied Mathematics
Patty	Gallagher	ex officio	Theater Arts Department
Melissa	Caldwell	ex officio	Anthropology

PRIVILEGE & TENURE (P&T)

Cte Analyst: Chad Silva & Matthew Mednick

Jennifer	Derr	Chair	History
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RESEARCH (COR)

Cte Analyst: Chad Silva

Michael	Hance	Chair	Physics
Nicolas	Davidenko	Chair (S)	Psychology
James	Doucet-Battle		Sociology
Katherine	Isbister (W,S)		Computational Media
Irene	Lusztig		Film and Digital Media
Gina Athena	Ulysse		Feminist Studies
Ali	Yanik		Electrical and Computer Engineering

TEACHING (COT)

Cte Analyst: Rebecca Hurdis

Catherine (Kate)	Jones	Chair	History
Noriko	Aso		History
Robin	Dunkin		Physical & Biological Science
Soleste	Hilberg		Education
Albert	Narath		History of Art/Visual Culture

RULES, JURISDICTION & ELECTIONS (RJ&E)

Cte Analyst: Chad Silva

Audun	Dahl	Chair (W,S)	Psychology
Eleonora	Pasotti	Chair (F)	Politics
Jennifer	Horne		Film and Digital Media
Maziar	Toosarvandani		Linguistics
Martha	Zuniga		Molecular, Cell, & Developmental Biology

DEVELOPMENT AND FUNDRAISING (CDF)

Cte Analyst: Chad Silva

Karen	Holl	Chair	Environmental Studies
Vilashini	Cooppan		Literature - Critical Race and Ethnic Studies
Jennifer	Taylor		Film and Digital Media

Senate Staff

Office: 125 Kerr Hall

Matthew	Mednick	Director	mmednick@ucsc.edu
Esthela	Bañuelos	Cte Analyst	esthela@ucsc.edu
Michele	Chamberlin	Executive Assistant	michambe@ucsc.edu
Morgan	Gardea	Cte Analyst	mgardea@ucsc.edu
Rebecca	Hurdis	Cte Analyst	rhurdis@ucsc.edu
Chad	Silva	Cte Analyst	csilva67@ucsc.edu
Jaden	Silva-Espinoza	Cte Analyst	jadense@ucsc.edu

Fax: 9-5469

May 13, 2022

**Committee on Faculty Welfare
Resolution to Mitigate UCSC's Housing Crisis**

To: Academic Senate, Santa Cruz Division

Background

The housing situation for UCSC employees and students is extremely dire. Housing prices continue to rise in Santa Cruz County with an approximate increase of 57% in median home prices from Quarter 1 2020 (pre-pandemic) to Quarter 1 2022 (present).¹ Compounding this problem for home buyers is the parallel increase in interest rates, which has increased monthly overall home payments by an estimated 69% during this same two-year time frame. The median price of a house in Santa Cruz County as of April 2022 is \$1,450,000 (see source in footnote 1). The median cost of a condo in the same area is \$725,000. The average rental price for a 707 sq. ft apartment (generally a 1 bedroom) is \$3,080.² The inventory for both buying and renting remains low, driving prices up as witnessed by the reluctance of many students to return to campus for in-person instruction this academic year.

Given this state of emergency, the campus would have needed, at the very least, to press on and move fast with building new housing on campus. Instead, the culmination of the last four years of housing planning and consultant input yielded no viable plans to build new housing with no concrete alternative plans of any kind.

From 2018 to 2022, the Employee Housing Advisory Workgroup (EHAWG) initiated by former Vice Chancellor of Business and Administrative Services (VCBAS) Sarah Latham was charged with discussing and providing feedback related to the development of additional employee housing opportunities at UCSC. A representative from CFW, as well as members from other faculty senate and staff advisory committees, served on the housing workgroup which primarily reviewed scenarios for the proposed Ranch View Terrace Phase II (RVT2) housing project. RVT2 housing scenarios were identified at the end of the 2020-21 academic year. EHAWG reconvened this academic year with the understanding that planning would continue for building additional housing on campus land. However, VCBAS Latham left UCSC for another job opportunity in December 2021 and the EHAWG was disbanded in April 2022 after two companies contracted by UCSC (JLL, a global commercial real estate services company, and TEF Design) revealed an insurmountable gap between development costs, expected project revenues, and estimates of necessary subsidized home purchase prices. This conclusion was communicated in the EHAWG recommendations of the Employee Housing Advisory Workgroup 2018-2022 Report, which was sent to CP/EVC Kletzer on May 12, 2022³. Alternative plans for housing construction were not proposed.

¹ See charts for "Santa Cruz County House Price Appreciation" and "Santa Cruz Housing Affordability":

<https://www.bayareamarketreports.com/trend/santa-cruz-real-estate-prices-trends-news>

² <https://www.rentcafe.com/average-rent-market-trends/us/ca/santa-cruz-county/santa-cruz/>

³ Employee Housing Advisory Workgroup, 2018-2022 Report, May 12, 2022

The decision to disband the EHAWG and scrap the RVT2 project is drawn into sharp relief by another campus initiative. The UCSC Faculty 100 initiative is interrelated with the need to increase faculty to meet the needs of our growing student body. Importantly, this significant initiative is intended to advance diversity at UCSC.⁴ Before moving forward with this important plan, however, UCSC must seriously consider its options for housing the influx of new employees as well as the pressing needs of its current employees, both faculty and staff. Our campus risks not having the structural capacity to build the kind of community necessary to recruit and retain new employees who will be looking for a diverse, supportive, and affordable place to live and work. According to United States Census Bureau statistics,⁵ Santa Cruz is not that place, and our campus has done little to address the severe lack of affordable housing in our area.

Given current plans to recruit 100 new faculty to UCSC over the next ten years, the lack of equitable and affordable access to housing in Santa Cruz (city and county) raises serious concerns about how UCSC plans to implement this hiring initiative. A burgeoning housing crisis and the small pool of affordable rental and for-sale housing options on and off campus likely will undermine efforts to recruit diverse applicants, especially those who are in a single-income family, are first-time homebuyers, and/or lack inter-generational wealth. This should also be cause for alarm when considered in combination with other impacts to the quality of life for current and future UCSC staff and faculty (e.g., salary that does not align with local cost-of-living, deteriorating access to medical and dental services under UC health plans, and no clear indication of when a campus child daycare facility will be built). Simply put, the housing crisis casts doubt on both the successful recruitment of new employees and the retention of existing employees at UCSC.

The halt to construct new employee housing on our campus (e.g. Ranch View Terrace Phase II), as well as the delay of Student Housing West, exacerbates the problem of abysmal inventory for faculty and staff. Current for-sale housing options at UCSC have hovered at 98% occupancy for the past five years. Those who are in University housing are often unable to purchase off-campus due to the prohibitive costs of housing in Santa Cruz County. With a growing campus housing waitlist, the chances of purchasing a home on campus are infinitesimally small and shrinking each year, particularly for staff. A proficient University cannot function without adequate and well-qualified staff. Yet many of our valuable staff members are unable to afford living in this area.

In sum, there are no plans for building additional employee housing on campus, no concrete plans for acquiring additional existing properties to house current and future UCSC staff and faculty, and no models to create emergency short-term housing for unhoused employees in direst need. There are thus no short-term solutions nor a long-term vision for treating the festering housing crisis affecting UCSC. In this context, the idea of expanding the body of students and the body of faculty at UCSC under the Faculty 100 initiative in the next few years seems unfeasible.

The housing crisis is a crisis that cannot be ignored and continues to worsen. Yet UCSC has not made the issue a priority. This crisis has direct and negative effects on the quality of our campus, our ability to carry out our institutional mission, and accessibility to education for students. It is

⁴<https://news.ucsc.edu/2022/02/faculty-expansion.html>

⁵ <https://www.census.gov/quickfacts/fact/table/santacruzcountycalifornia/RHI125220#RHI125220>

also sure to hinder well-intentioned efforts to embolden diversity, equity, and inclusion at UCSC now and in the future. We cannot continue to ignore the issue, or fail to move forward with appropriate and immediate remediations.

Whereas: the local housing crisis directly affects UCSC faculty, staff, and students, and the overall mission of the University;

And whereas: cost of living and access to affordable housing has a direct effect on both the overall value of total remuneration for UCSC employees and the ability of the University to recruit and retain exceptional and diverse faculty;

And whereas: the ability of UCSC to build housing alternatives for our faculty who are already here as well as for those we plan to hire as part of the Faculty 100 initiative is absolutely crucial;

And whereas: the UCSC administration currently has no concrete short, mid, or long term plans to address the housing crisis and/or increase employee housing;

Therefore be it resolved:

The Academic Senate calls on the administration to identify affordable housing options for faculty, staff and students as a top campus priority and to propose concrete short, mid, and long term solutions to ensure new and existing employees are able to live and work in our community.

Respectfully submitted,

COMMITTEE ON FACULTY WELFARE

Tsim Schneider

Alexander Sher

Yihsu Chen

Gustavo Vasquez

Su-hua Wang

Judith Habicht Mauche, *ex officio*

Nico Orlandi, *Chair*

May 13, 2022

**Senate Executive Committee
Resolution on Addressing Black Institutional Experience**

To: Academic Senate, Santa Cruz Division

Whereas: The Academic Senate stands in solidarity with the [Student Union Assembly](#) (SUA), Black Student Union (BSU), the Jewish Student Union (JSU), and the African American Theater Arts Troupe (AATAT) in their commitment not only to condemning bigotry and hateful acts on our campus but also to demanding that the entire campus take action to make UCSC “a place where marginalized people may not only find refuge from and critique the lagging and hateful world, but foster imaginations that can help us change that world.” The SUA’s recent communication (“[Condemnation of Anti-Black & Anti-Semitic Vandalism](#)” (March 2022) and BSU’s “[Unrelenting Anti-Blackness Demands](#)” (May 17, 2020; revised May 17, 2021)) invite the university to develop spaces, practices, and policies that can begin doing the hard work of making our stated commitments to inclusion and diversity a reality our students can inhabit.

Therefore be it resolved:

The Academic Senate calls on the administration to convene a meeting with representatives of these groups to provide clear communication on the university’s progress on responding to the demands laid out in these communications, documenting where progress has been made, establishing a timeline for future actions, and providing clear explanations of areas where action does not appear to be possible from the administration’s point of view.

The Academic Senate further calls on the administration to respond to the demands for transparency and accountability in the policies governing the police on campus. As a step toward informing the university community about the state of the reform measures previously proposed, we ask the administration to commit to open and ongoing dialogue and genuine engagement with key UCSC communities, including discussion of policy, providing data, and answering questions. In particular, this dialogue should involve arranging discussions specifically for student stakeholder groups, affording them significant control over the agenda and invitation list and providing them with opportunities to share their unique stakes and perspectives.

Respectfully submitted,

SENATE EXECUTIVE COMMITTEE

Gina Dent
Andy Fisher
Patty Gallagher
Julie Guthman
Jorge Hankamer
Catherine (Kate) Jones
Tracy Larrabee
Kim Lau

Aims McGuinness
Grant McGuire
Dard Neuman
Nico Orlandi
Stefano Profumo
Kirsten Silva Gruesz
David Smith
Susan Strome
David Brundage, *Chair*

From: UC Academic Senate
To: President of the University of California, for transmission to the Regents
Re: Memorial to the Regents

The University of California Academic Senate petitions the Regents for investments in UC's infrastructure that will reduce on-campus fossil fuel combustion by at least 60% of current levels by 2030 and by 95% of current levels by 2035.

EXPLANATION OF THE PROVISIONS OF THE MEMORIAL TO THE REGENTS

The Memorial states: *The University of California Academic Senate petitions the Regents for investments in UC's infrastructure that will reduce on-campus fossil fuel combustion by at least 60% of current levels by 2030 and by 95% of current levels by 2035.*

This Memorial is concerned with Scope 1 emissions, i.e., carbon that is actually released into the air at UC. Scope 2 emissions, which are those that were emitted by power plants generating electricity sold to UC, and similar sources, are already decreasing. This is due to efforts by UC to purchase renewable power from the state power grid, as well as the overall rapid electrification of that grid. Scope 3 are emissions by UC students, faculty and staff in their UC roles, such as UC-reimbursed flights, or commuting. While UC needs to do more to reduce these, much depends on actions beyond its control, such as the development of public transport.

The Memorial requests the Regents to reduce on-campus carbon combustion. Carbon combustion varies widely across campuses with the top 6 campuses accounting for >90% of total UC emissions. The 7 campuses with highest emissions use co-generation plants which burn methane to produce electricity, heat and cooling, and these plants are responsible for most of their emissions. Thus, addressing on-campus carbon combustion will eventually require replacing these plants. Other emissions come from single-building boilers, which will probably also need to be replaced by 2035 to meet the goals of this Memorial.

Practically, reducing on-campus carbon combustion will first require financial and engineering evaluation of different options. The Academic Senate is committed to facilitating faculty participation in this process to maximize its breadth, rigor and creativity, including consideration of hydrogen and on-site solar, as well as grid electricity as power sources. After choosing the global solutions on each campus, detailed planning and fund raising, and finally execution will occur. The entire process might take 5 to 10 years.

PROPOSED MEMORIAL TO THE REGENTS

DESCRIPTION

Senate Bylaw 90.B. authorizes the Assembly to initiate “Memorials to the Regents on matters of Universitywide concern to be submitted to The Regents through the President ...” The Memorial would petition the Regents to make investments in UC’s infrastructure that will reduce on-campus fossil fuel combustion by at least 60% of current levels by 2030 and by 95% of current levels by 2035.

A vote in favor is a vote to instruct the President to transmit the Memorial to the Regents. A vote against is a vote not ask the President to transmit the Memorial to the Regents.

PROCEDURAL HISTORY OF THE MEMORIAL

At a meeting on December 15, 2021, the Academic Council approved a motion to ask the Assembly to initiate a Memorial to the Regents that would petition the Regents to make investments in UC’s infrastructure that will reduce on-campus fossil fuel combustion by at least 95% of current levels by 2030. The proposal was placed on the agenda for the Assembly’s February 9, 2022 meeting as Item VII.A.2 and on its April 13, 2022 meeting as Item III.A.1, together with the proposed text and arguments for and against, as required by Bylaw 90.B.

The Assembly engaged in debate and further amendments. In the course of vigorous discussion, a compromise was proposed that would create a hybrid between the arguments for and against the version of the Memorial passed by Academic Council. The Assembly ultimately voted (46 in favor, 1 against) to distribute a ballot to all Senate faculty members in accordance with the procedures stipulated in Senate Bylaws 90 and 95. The amended Memorial asks the Regents to make investments in UC’s infrastructure that will reduce on-campus fossil fuel combustion by at least 60% of current levels by 2030 and by 95% of current levels by 2035.

ARGUMENTS IN FAVOR OF MEMORIAL TO THE REGENTS

The climate crisis is an existential threat to human civilization and our biosphere that requires a “rapid, deep and immediate” cut in CO₂ emissions.¹ California in 2017 passed Senate Bill 100, requiring the state to reduce 1990-level emissions by 40% by 2030.² The University of California responded to the crisis by announcing a Carbon Neutrality Initiative in 2013.³ It also declared a Climate Emergency in 2019.⁴ UC scientists are leading research and scholarship about the crisis and how to respond.⁵

However, the University’s response to the crisis has been inadequate:

- The Carbon Neutrality Initiative does not require campuses to cut Scope 1 emissions (CO₂ from burning fossil fuels on campus).
- UC emissions, which have barely changed since 2013, are increasing for some campuses, and now exceed 1 million tons per year systemwide.⁶ (Figure 1)
- The Carbon Neutrality Initiative focuses on purchasing carbon offsets, but the emerging global consensus is that offsets should not be a strategy to reduce emissions. Effectiveness of the offset approach is undercut by concerns about credibility, additionally (that is, the ability to establish that the offset project wouldn’t have happened without UC’s purchase) and verifiability. Essentially, offsets are a dodge by which an institution pays to avoid having to reduce its own fossil fuel consumption.⁷
- UC policy also includes higher targets for ‘directed biogas’ (i.e., we continue to burn fossil-methane on campus and buy credits for waste-methane capture in other states). Apart from the ethical problem, this approach is riddled with problems including a lack of scalability.⁸
- UC burns fracked-methane, which contributes to pollution and environmental injustice across the state (including in the Central Valley where many of our students’ families live), and sustains the economic and political power of fossil gas companies and utilities that oppose a renewable energy transition.

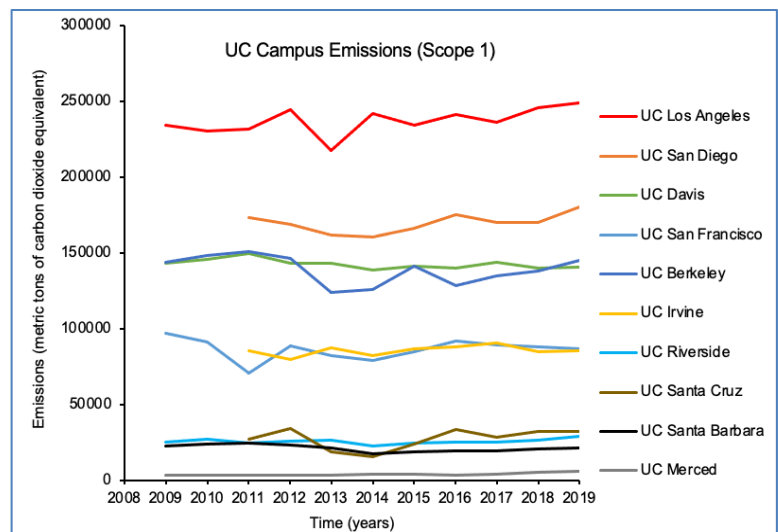


Figure 1. Total CO₂ equivalents emitted by each UC campus 2008-19.

¹ From the latest report of the Intergovernmental Panel on Climate Change which notes that atmospheric CO₂ continues to rise, <https://www.ipcc.ch/>

² https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160SB32

³ <https://ucop.edu/carbon-neutrality-initiative/index.html>

⁴ <https://www.universityofcalifornia.edu/news/university-california-declares-climate-emergency>

⁵ <https://www.nature.com/articles/s41586-019-1364-3>

⁶ Based on data provided by UCOP to a Public Records Request, and excludes carbon offsets. Although the CO₂ emissions per student have decreased, the climate crisis requires an absolute decrease in emissions. Data available at <https://electrifyuc.org/data/>

⁷ <https://www.vox.com/2020/2/27/20994118/carbon-offset-climate-change-net-zero-neutral-emissions> Rare valid offset projects should be fully funded in any case, but not as alternatives to decreasing emissions. At current prices (~\$4.50/tonne), \$160B/year covers all worldwide CO₂ emissions per year, ~4 cents per gallon of gas covers its emissions. Studies by UCOP since ~2008 have recognized the necessity of electrification, mentioning offsets and waste-methane as ‘last resort’ ‘temporary’ measures, but due to their low cost they are now the main solutions. A petition by 3500 UC stakeholders requesting detailed implementation studies was presented to President Drake in October 2020, but it was rejected.

⁸ <https://www.nceas.ucsb.edu/tomkat-natural-gas-replacement-strategies>

The only way to reduce UC's carbon emissions is to stop burning fossil fuels, electrify campus operations, and purchase or generate renewable electricity. The Memorial asks the University to reduce emissions by 60% from current levels by 2030, and by 95% by 2035—clear, doable, and appropriately aggressive targets for eliminating campus use of fossil fuels.

The reduction targets are technically feasible. UC has many options to source clean electricity, including installing more on-site solar facilities, and purchases through the grid. The California electric grid is already mainly renewables during the day,⁹ and storage is being rapidly added¹⁰ that will make 100% renewable grid electricity available to meet the Memorial's goals.¹¹ During this transition period, the UC should wean itself from reliance on offsets, and only purchase offsets that conform to rigorous standards of quality.

Technology exists for replacing methane with electricity for heating-cooling and cogenerated electricity; such use accounts for ~95% of UC carbon combustion¹². Berkeley plans to electrify by 2028 and Davis soon thereafter; together they account for ~half of the 2030 goal. Other campuses, starting planning now, could finish by 2030.¹³ However, the optimal method and cost requires deep studies which will not take place without a serious commitment to a concrete goal. Other universities, including Stanford, have already retired their fossil fuel plants and transitioned to electric.¹⁴ This Memorial is not an engineering specification or a law; the targets are specific because a simple statement of good intentions is unlikely to change our current disastrous trajectory.

Some object to high opportunity costs associated with this Memorial. We say the cost of inaction is incalculably higher. The consequences of climate change have already encumbered the normal operation and core missions of UC, while aggressive action will gain UC co-benefits in terms of education, research, and reputation. Truly decreasing carbon emissions by UC may require hard choices and postponement of other goals. There are long-standing Administration-Senate consultative mechanisms for establishing priorities, allocating funds, and requesting support from the State and other sources. The Memorial does not replace this process, but urges that decarbonization of the UC energy system be among our highest priorities. UC has an opportunity to leverage its leadership and expertise toward greater public support and funding around these goals. The current state budget surplus includes opportunities for funding energy efficiency projects that the Regents can allocate to electrifying campuses.

Decarbonization is a serious obligation to humanity, other species, and future generations. UC, by virtue of its central role in discovering that carbon pollution causes climate change, has an obligation to lead by example by cutting actual emissions rather than validating greenwashing with 'carbon offsets.'

⁹ <http://www.caiso.com/Documents/California-ISO-Hits-All-Time-Peak-of-More-Than-97-Percent-Renewables.pdf>

¹⁰ ~60GW in the next half decade, <https://pv-magazine-usa.com/2021/07/15/california-breaks-1-gw-energy-storage-milestone-and-looks-to-a-future-1-21-gw-moment/>

¹¹ Legislation is currently being considered to target 90% carbon-free grid electricity by 2035 and require all state agencies to purchase 100% carbon-free electricity by 2030. <https://sd39.senate.ca.gov/news/20220419-senate-democrats-introduce-legislation-enhance-zero-carbon-goals-meet-needs-working>

¹² The rest is campus vehicles and special uses such as anesthetic gases. This memorial does not address emissions from commuting or aviation. Cogeneration plants burn methane to co-generate electricity, heating and cooling.

¹³ The Memorial would not interfere with individual campuses working out their own best approaches but facilitates: lobbying governments for funding; sharing information, ideas and experiences; and finding creative and optimal solutions, embedded in the University's core research and teaching missions.

¹⁴ Stanford's electrification cost \$485M but expected savings over 35 years is \$425M (https://sustainable.stanford.edu/sites/default/files/ZGF_Stanford_CEF.pdf). Immediate reductions of total emissions was 68%, potentially increasing to 81% by 2025 using scheduling and storage (<https://pubs.rsc.org/en/content/articlelanding/2019/ee/c8ee03706j>).

ARGUMENTS IN OPPOSITION TO MEMORIAL TO THE REGENTS

The scientific consensus is clear that increasing levels of atmospheric CO₂ are causing a severe and accelerating change in our climate with widespread consequences. However, we argue that this Memorial does not address this crisis effectively, but would impose massive costs that could be better spent advancing the University's core mission.

We all agree that the University of California, must do its part to accelerate our transition to a carbon-neutral future. Indeed, UC has played a central role in addressing the climate crisis, through its core missions of research, teaching, and service. UC has made significant progress in reducing campus emissions from electricity and heating, food production and waste, vehicle operation, and commuting. This progress (average 2% per year reduction in energy use intensity,¹ and absolute reduction of 25% in Scope 1 + 2 emissions over the pre-pandemic decade 2009-19, see Figure 1)² occurred even as UC's footprint grew to include essential new buildings and 26% more enrolled students over the same period.³ Nevertheless, the faculty need to support and promote much more change, which will likely include the eventual electrification of many campus operations.

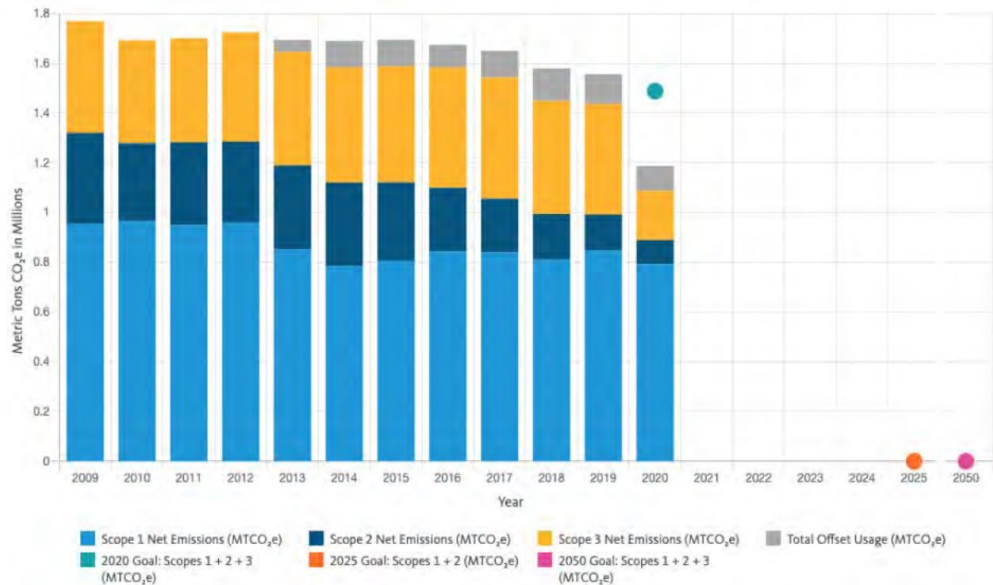


Figure 1. Total CO₂ emissions by UC 2009-2020. Note that the decrease in 2020 was due to COVID, and that the decrease in other years was due to offsets (gray) and increasing renewables in grid electricity (dark blue), not decreased on-campus methane burning, the issue addressed by this Memorial.

Let's first consider how much rapid electrification will cost. A 60% reduction in UC emissions by 2030 (and 95% by 2035) cannot be achieved without rapidly replacing UC's natural gas-fired cogeneration (electricity, heat and power) plants, all of which are integral to campus operations and grid resiliency, some of which are still operating very efficiently, and none of which can be replaced without considerable campus disruption. The Memorial places a premium on capital investment in new physical plant, without considering the impact this would have on other desperately needed capital investments.

The capital expenditures implied by the Memorial come at a time when the University has other pressing unmet needs. The State stopped supporting the University's capital needs directly through general obligation bonds in 2006. As a result, infrastructure projects are now financed mostly by campus-level borrowing. In 2021-22, a large budget surplus resulted in the State providing UC with a one-time allocation for capital projects of \$295 million. Given current economic conditions, the University may

¹ <https://sustainabilityreport.ucop.edu/2021/policy-progress/#energy>.

² <https://sustainabilityreport.ucop.edu/2021/policy-progress/#climate>

³ <https://www.universityofcalifornia.edu/about-us/informationcenter/historical-enrollment>

receive a similar allocation for 2022-23. By comparison, the estimated cost to reduce emissions to 5% of current levels by 2035 systemwide is \$5 billion. But even this large amount is dwarfed by the University's needs for deferred maintenance for its educational and research facilities, estimated at \$13 billion through 2026-27 with an additional \$11 billion for seismic safety retrofits.⁴ We will also need \$14 billion for new and renovated hospital facilities on UC's medical campuses.

An appreciation of the scope of the work required to electrify UC's energy systems can be derived by considering Stanford's electrification project, which started in 2011 and whose first phase involved installing massive thermal storage tanks, digging up a large fraction of the campus to install 22 miles of underground pipes, and retrofitting 155 buildings.⁵ The initial cost of \$485 million required an additional \$85 million investment when it became clear the project did not provide adequate cooling during heatwaves that are now part of the new climate normal in the South Bay. Furthermore, that project reduced CO2 emissions by only 68% (far from the 95% ultimately requested by this Memorial). The proposed Memorial would require many projects this size or larger to begin immediately just to reduce UC's carbon emissions by a similar amount. Getting to 95% by 2035 may not be technically feasible, even if it were possible to replicate the Stanford project on each UC campus, some of which have very different heating/cooling requirements, weather, and space availability. Moreover, this approach will inevitably mean less investment over the next decade to repair and maintain the buildings we desperately need to support our core missions, let alone construct new classrooms, laboratories, studios, and housing to accommodate President Drake's commitment for an additional 20,000 students by 2030.

Overall, the goals embodied in this Memorial do not recognize the many financial and practical constraints that each of our campuses must navigate to fulfill our missions. While each campus has a moral obligation to prioritize replacing its most obsolete energy infrastructure components with climate resilient and low- or zero-emission systems, on some campuses this may involve retiring aging energy systems immediately; on others, it might entail building more energy-efficient buildings now and replacing well-functioning energy systems at a later date. Conversion of serviceable, highly efficient university infrastructure with a long useful lifespan is wasteful and will lead to stranded investments in existing electricity and heating facilities. It will not be the best use of resources on our campuses: we may achieve emissions reductions in one sector, at the expense of higher energy consumption in a different sector. In addition, it may not be the best use of State resources. For example, the State may deem that mitigating the climate crisis would be better achieved by investment in projects to replace even less efficient infrastructure outside of the University. It would be irresponsible for UC to insist that its own goals take precedence.

Rather than rush to comply with rigid goals, a staged approach based on local campus decision-making, will lead to the most efficient use of resources to achieve the greatest emissions reduction while enhancing UC's mission as the country's best and most accessible public institution of higher education. Replacing the most obsolete campus systems first will also allow UC to learn by doing, and to use its scarce capital resources to maximize emission reductions per dollar invested. We urge the faculty to reject this largely symbolic Memorial in favor of a practical and strategic approach that incentivizes effective campus-based decision-making.

⁴ https://www.ucop.edu/capital-planning/2021-2027_capital_financial_plan.pdf

⁵ <https://news.stanford.edu/features/2015/sesi/>