



32ND ANNUAL
**CSU STUDENT
RESEARCH
COMPETITION**

University Union, Sacramento State
May 4-5, 2018

Competition Winners,
Friday May 4, 2018

Session 1 - Graduate session in Behavioral and Social Sciences

2nd place Winner: Gerald Young, San Francisco State

1st Place Winner: Arlene Sagastume, CSU Los Angeles

Session 2 – Undergraduate session in Behavioral and Social Sciences

2nd place Winner: Jazzmyn Martinez, CSU Channel Islands

1st Place Winner: Isabelle Elias, Sonoma State

Session 3 – Graduate session in Biological and Agricultural Sciences

2nd place Winner: Kristen Hosek, Sonoma State

1st Place Winner: Daniel Haro, Cal Poly San Luis Obispo

Session 4 - Undergraduate session in Biological and Agricultural Sciences

2nd place Winner: Emily Egusa, CSU Chico

1st Place Winner: Tina Nguyen, CSU Long Beach

Session 5 – Graduate session in Engineering and Computer Science

2nd place Winner: Paulo Yu and Vibhav Durgesh, CSU Northridge

1st Place Winner: Israel Juarez Contreras, San Jose State

Session 6 – Undergraduate session in Engineering and Computer Science

2nd place Winner: Matthew Brown, CSU Northridge

1st Place Winner: Chloe Zirbel, San Francisco State

Session 7 - Graduate session in Health, Nutrition, and Clinical Sciences

2nd place Winner: Madison Kirkpatrick, Humboldt State

1st Place Winner: Mara Hernandez, Stanislaus State

Session 8 – Undergraduate session in Health, Nutrition, and Clinical Sciences

2nd place Winner: Christopher Hatch, Cal Poly San Luis Obispo

1st Place Winner: Kathryn Johnston, CSU Bakersfield

Session 9 - Graduate session in Humanities and Letters

2nd place Winner: Yollette Merritt, CSU Monterey Bay

1st Place Winner: Jeanette Adame, CSU Chico

Session 10 – Graduate session in Physical and Mathematical Sciences

2nd place Winner: Sommer Casady, CSU Chico

1st Place Winner: Raphael Monroy, CSU Long Beach

Session 11 – Undergraduate session in Physical and Mathematical Sciences

2nd place Winner: Kathryn Uchida, CSU Los Angeles

1st Place Winner: Mark Samuel Abbott, Sacramento State

**Competition Winners,
Saturday May 5, 2018**

Session 12 – Undergraduate session in Behavioral and Social Sciences

2nd place Winner: Caitline Castillo, CSU San Marcos

1st Place Winner: Sarah Chaffins, CSU San Marcos

Session 13 – Undergraduate session in Behavioral and Social Sciences

2nd place Winner: Conner Whitten, CSU San Marcos

1st Place Winner: Leah Thomas, Cal Poly San Luis Obispo

Session 14 - Graduate Session in Biological and Agricultural Sciences

2nd place Winner: George Jarvis, CSU Northridge

1st Place Winner: Mitchell Coleman, CSU Bakersfield

Session 15 - Undergraduate session in Biological and Agricultural Sciences

2nd place Winner: Janam Dave, Cal Poly Pomona

1st Place Winner: Francisco Fernandez, CSU San Marcos

Session 16 - combined Graduate and Undergraduate session in Business, Economics, and Public Administration

2nd place Winner: Marcel Jacquot, CSU Fullerton

1st Place Winner: F. Michael Chua, CSU East Bay

Session 17 - combined Graduate and Undergraduate session in Creative Art and Design (only 1 winner)

1st Place Winner: Thomas Trudgeon, CSU Long Beach

Session 18 - combined Graduate and Undergraduate session in Education

2nd place Winner: Laura DaSilva, Nguyen Nguyen, Michael Ramirez, Cheyenne Romero, Cal Poly Pomona

1st Place Winner: Rebekah Newman, CSU Monterey Bay

Session 19 - combined Graduate and Undergraduate session in Engineering and Computer Science

2nd place Winner: Vivek Anand Menon, CSU Fullerton

1st Place Winner: Tobias Bleisch, Cal Poly San Luis Obispo

Session 20 – Undergraduate session in Humanities and Letters

2nd place Winner: Parveena Singh, Devon Mier, Cal Poly Pomona

1st Place Winner: Cambria Rodriguez, CSU Dominguez Hills

Session 21 - combined Graduate and Undergraduate Interdisciplinary session

2nd place Winner: Wyatt Kozelka, Cheyenne Burrows, Jenna Kelmser, Humboldt State

1st Place Winner: Daniel Parsons, CSU Northridge



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“Today, as we gather together from across the Golden State to share our findings, breakthroughs and perspectives garnered from our diversity of backgrounds and academic disciplines, we also come together to celebrate our common drive – and innate curiosity – to explore, question and progress in our understanding of the world...”

*Dr. Timothy P. White, Chancellor
The California State University*



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COMPETITION**

Table of Contents

Message from Dr. Timothy P. White <i>Chancellor, California State University</i>	2
Message from Dr. Robert S. Nelsen <i>President, California State University, Sacramento</i>	3
Message from Dr. Ching-Hua Wang <i>Provost and Vice President for Academic Affairs, California State University, Sacramento</i>	4
Keynote Address, Biography	5
Sessions Overview	6
Schedule of Presentations by Sessions	8
Schedule of Presentations by Campus Delegations	29
The California State University System	32
Acknowledgments	38
Maps	41



**A Message from
Dr. Timothy P. White, Chancellor**
California State University

It is my great pleasure to join President Robert S. Nelsen in welcoming you to California State University, Sacramento and the 32nd Annual CSU Student Research Competition.

For over three decades, the CSU Student Research Competition has featured an incredibly diverse breadth of people and pedagogies that have embodied the CSU since its founding. Indeed, this year's competition – and the students and projects highlighted – represents the very best that our dynamic, inclusive and rigorous university has to offer.

Certainly, this competition stands as further recognition of the incredible work that you and your CSU colleagues do each day in the classroom, lab, studio, field and community to solve the greatest challenges facing California and the world.

Powered by the CSU's unique research, scholarship and creative activity opportunities, you and your colleagues bend and break the boundaries of knowledge, uncover new and unforeseen truths, explore the richness of the human spirit and unlock the secrets of Earth and the cosmos.

Today, as we gather together from across the Golden State to share our findings, breakthroughs and perspectives garnered from our diversity of backgrounds and academic disciplines, we also come together to celebrate our common drive – and innate curiosity – to explore, question and progress in our understanding of the world.

Congratulations on all you have accomplished, and best of luck in this year's competition.

Dr. Timothy P. White



**A Message from
Dr. Robert S. Nelsen, President**
California State University, Sacramento

It is my honor to welcome you to the 32nd Annual California State University Student Research Competition at Sacramento State. We are privileged to host this event, and we are proud of all of the students participating today. These students will transform our state as well as the world. Their innovative research in

STEM fields, in the management and protection of natural resources, and in the creative arts will secure the future of a better tomorrow.

Research and scholarly and creative activities provide a foundation for independent thinking, entrepreneurship, and innovation that will ensure their success after their undergraduate education is completed – whether in graduate school or in their careers. Today's competition reflects the ambition, talent, and persistence of the talented students of the California State University system. My deepest appreciation goes out to the faculty and staff who have nurtured and inspired our students in their research and their creative endeavors.

I hope that you enjoy your time here at Sacramento State, and that the conference will be a transformational experience. Thank you to everyone who has made today possible, and best of luck to all of the competitors. As we say at Sac State, Stingers Up!

Dr. Robert S. Nelsen



**A Message from
Dr. Ching-Hua Wang,
Provost and Vice President for Academic Affairs
California State University, Sacramento**

On behalf of the university, I wholeheartedly welcome all of you to the Annual CSU Student Research Competition at Sacramento State. This is the 32nd year of the event, during which time many faculty and students from across the CSU system join together to celebrate the accomplishments of research and creative endeavors. This event showcases the importance of research and creative activities as part of the mission of the CSU and the students' learning experiences. It highlights the intellectual drive and commitment of our students in the pursuit of knowledge, expression, and its applications.

To ensure student success in their hands-on learning and research activities, many a faculty and staff worked tirelessly and provided students with guidance, mentorship and support in conducting research and creative activities. These opportunities are allowing our students to develop into critical thinkers, lifelong learners, creative professionals, and engaged citizens. At Sac State, we value engagement of students in research, scholarly, and creative activities in all disciplines and fields. We intentionally build research and creative activities and other high impact practices into the curriculum and we provide learning experiences that are rigorous, challenging and fun in order to enrich students' educational experiences and transform them intellectually and personally.

Research has repeatedly shown that students benefit from experiential learning opportunities tremendously through engagement in research, scholarly, and creative activities. Having such experiences make students want to stay in their program of study and graduate in a timely manner. Through these high impact practices, students become more confidence and resilient. They are transformed into independent and self-directed learners. They develop a strong sense of satisfaction from their learning experiences and are more competitive in the job market and gaining admission to graduate school once they graduate from their academic programs. Further, through these research and creative endeavors, our students are contributing to the community and society by making our communities better and healthier, by more efficient and effective management of natural resources, by solving important problems via using knowledge and technical skills deployed in their projects, and by their creative and artistic expressions. These outcomes are not only good for the students for their long-term outlooks, but also good for the communities we live in, the regional economy, the State of California and beyond.

Thank you all for being involved in these valuable and impactful research and creative endeavors. Congratulations to all participants!

Dr. Ching-Hua Wang

**Clayton Visger, PhD, Assistant Professor, Department of Biological Sciences
California State University, Sacramento**

Clayton Visger followed a non-traditional career path, dropping out of a local community college before enlisting in the United States Air Force for four years as a Loadmaster. Visger served on over 20 sorties into Iraq and other hazardous regions, and was awarded an Air Medal for meritorious service. During his service time, he developed a renewed interest in returning to college and spent countless in-flight hours completing assignments for online community college courses. Once released from service, he attended Sacramento State and graduated with a degree in Biology before continuing on to earn his PhD from the University of Florida, where he was awarded both a Graduate Research Fellowship and Doctoral Dissertation Improvement Grant from the National Science Foundation for his work on the transcriptomic consequences of genome duplications. In fall of 2017, he returned to Sacramento State as an Assistant Professor in the Department of Biological Sciences. He is currently building genomic and bioinformatics curricula to provide students with the tools needed to enter the biotech workforce in an era of Big Data. He is also beginning to develop a program aimed at increasing the participation of other Veterans in undergraduate STEM research experiences.

Friday, May 4, 2018

Session 1 Behavioral and Social Sciences

Graduate

Auburn Room | 12:10 p.m. – 4:30 p.m.

Session 2 Behavioral and Social Sciences

Undergraduate

Folsom Room | 12:10 p.m. – 4:30 p.m.

Session 3 Biological and Agricultural Sciences

Graduate

Miwok Room | 12:10 p.m. – 4:30 p.m.

Session 4 Biological and Agricultural Sciences

Undergraduate

Maidu Room | 12:10 p.m. – 4:30 p.m.

Session 5 Engineering and Computer Science

Graduate

Oak Room | 12:10 p.m. – 4:10 p.m.

Session 6 Engineering and Computer Science

Undergraduate

Walnut Room | 12:10 p.m. – 4:30 p.m.

Session 7 Health, Nutrition, and Clinical Sciences

Graduate

Orchard Suite I | 12:10 p.m. – 3:10 p.m.

Session 8 Health, Nutrition, and Clinical Sciences

Undergraduate

Orchard Suite II | 12:10 p.m. – 3:10 p.m.

Session 9 Humanities and Letters

Graduate

Orchard Suite III | 12:10 p.m. – 4:30 p.m.

Session 10 Physical and Mathematical Sciences

Graduate

Capital Room | 12:10 p.m. – 3:30 p.m.

Session 11 Physical and Mathematical Sciences

Undergraduate

Hinde Auditorium | 12:10 p.m. – 4:30 p.m.

Saturday, May 5, 2018

Session 12 Behavioral and Social Sciences

Undergraduate

Auburn Room | 8:00 a.m. – Noon

Session 13 Behavioral and Social Sciences

Undergraduate

Folsom Room | 8:00 a.m. – 11:40 a.m.

Session 14 Biological and Agricultural Sciences

Graduate

Miwok Room | 8:00 a.m. – 11:00 a.m.

Session 15 Biological and Agricultural Sciences

Undergraduate

Walnut Room | 8:20 a.m. – 10:00 a.m.

Session 16 Business, Economics, and Public Administration

Graduate and Undergraduate

Orchard Suite I | 8:00 a.m. – Noon

Session 17 Creative Art and Design

Graduate and Undergraduate

Orchard Suite II | 8:00 a.m. – 9:00 a.m.

Session 18 Education

Graduate and Undergraduate

Orchard Suite III | 8:00 a.m. – 11:20 a.m.

Session 19 Engineering and Computer Science

Graduate and Undergraduate

Oak Room | 8:00 a.m. – 11:20 a.m.

Session 20 Humanities and Letters

Undergraduate

Capital Room | 8:00 a.m. – Noon

Session 21 Interdisciplinary

Graduate and Undergraduate

Maidu Room | 8:00 a.m. – 9:40 a.m.

Session 1

Behavioral and Social Sciences

Graduate

Auburn Room | 12:10 p.m. – 4:30 p.m.

12:10 - 12:30 Gerald Young, San Francisco State, Abstract Thinking During Depressive Rumination? It Might Depend on Your Ethnicity

12:30 - 12:50 Ian Klinger, CSU Dominguez Hills, Age Matters: Differences in Correlates of Self-Reported HIV Antiretroviral Treatment Adherence Between Older and Younger Black Men Who Have Sex with Men

12:50 - 1:10 Cassidy Owen, CSU Northridge, It's Almost a Trap: Homelessness and Predatory Financial Exclusion

1:10 - 1:30 Jeffrey Tseng, San Jose State, Radiology Resident Selection and Performance Prediction: Can We Do Better?

1:30 - 1:50 Rebecca Bettencourt, Stanislaus State, The Social and Educational Factors Impacting Attitudes About Technology for Female Students in the Fifth and Eighth Grades

1:50 - 2:10 Laurelyn Memmott, Humboldt State, Reading the Stones: Lithic Use-Wear Analysis of Aztec Macuahuitl Blades

2:10 - 2:30 | Break

2:30 - 2:50 Marianne Lacsamana, CSU Los Angeles, Social Support During Forensic Interviews with Children

2:50 - 3:10 Arlene Sagastume, CSU Los Angeles, Cultural Values Conflicts and Gender-related Experiences of Latina Young Adults

3:10 - 3:30 Yessenia Zepeda, San Diego State, Identifying Coping Strategies in Young Cancer Survivors: A Principal Components Analysis

3:30 - 3:50 Petrona Gregorio-Pascual, CSU San Marcos, The Theory of Planned Behavior Applied to Decreasing Sugar-Sweetened Beverage Consumption

3:50 - 4:10 Ray Jaquez, CSU Dominguez Hills, Design Your Life

4:10 - 4:30 Jamie Renna, San Diego State, Bilingual Recruitment of Inhibitory Control while Translating

Session 2

Behavioral and Social Sciences

Undergraduate

Folsom Room | 12:10 p.m. – 4:30 p.m.

12:10 - 12:30 Evelyn Sarsar, CSU San Marcos, The Association Between Cultural Adaptation Factors and Infant Birth Outcomes in Mother/Child Dyads of Mexican Descent

12:30 - 12:50 Grace Remboldt, Rebecca Neal, Stephen Phillips, Adam Holm, Eric Whetstone, Emily Benny, Sonoma State, Curved Emotions: A New Angle on Decision-Making

12:50 - 1:10 Isabelle Elias, Sonoma State, Pom-Poms and Pacifiers: Student Athletes at the Intersection of Gender Norms, Family Values, and Sport Participation

1:10 - 1:30 Terra Rosten, Sonoma State, Examining Behavioral Health Practices within Palliative Care: A Series of In-Depth Interviews with Hospice Social Workers in Northern California

1:30 - 1:50 Melissa Vargas, Sonoma State, From IRL to URL: How Latinx Activism is Transforming Contemporary Media Spaces

1:50 - 2:10 Maria Lara Cordova, CSU Channel Islands, ¿Y Tú Quién Eres? Racial Self-Identification Among Latinos in Ventura County

2:10 - 2:30 | Break

2:30 - 2:50 Ericka Magana, CSU Channel Islands, Comparing Latinos' Early Childhood Education Enrollment in the Golden and Tar Heel States

2:50 - 3:10 Maegen Segura, CSU Channel Islands, Investigating Ethnic Differences in Living Arrangements Among California's Aging Population

3:10 - 3:30 Jazzmyn Martinez, CSU Channel Islands, When Adulting Gets Real: Examining Parenthood and Marital Status Among Young Adults in Ventura County; 1990-2015

3:30 - 3:50 Hannah Liska, CSU Long Beach, The Impact of Work Values on Science Career Interest in Undergraduate STEM Students

3:50 - 4:10 Andrew Luu, CSU Dominguez Hills, Life History Theory on Gratification, Education, and Socioeconomic Status

4:10 - 4:30 Tyler Caffee, CSU Fresno, The Visalia Soccer Project: Documenting and Preserving the History of Soccer in Visalia

Session 3

Biological and Agricultural Sciences

Graduate

Miwok Room | 12:10 p.m. – 4:30 p.m.

12:10 - 12:30 Christina Collins, Sonoma State, Does Stress Come in Cycles? Physiological Performance of an Invasive Mussel

12:30 - 12:50 Benjamin Steiner, Cal Poly Pomona, Tertiary Complexes through Maillard Conjugation of Sodium Caseinate, Dextran, and Resveratrol to be Used as Emulsifiers

12:50 - 1:10 Devan Shah, San Francisco State, Endoderm Nitric Oxide Focally Elevated “Hotspots” at the Heart Fields Signals in Early Cardiogenesis in Chicken Embryos

1:10 - 1:30 Rachel Brewer, Humboldt State, The Developmental Implications of the Regulatory Relationship Between Cjun And Oct4 in Murine Embryonic Stem Cells

1:30 - 1:50 Daniel Haro, Cal Poly San Luis Obispo, How Cool can Lizards Be? An Investigation with Two Populations of the Italian Wall Lizard (*Podarcis siculus*)

1:50 - 2:10 Kristen Hosek, Sonoma State, Under Pressure: The Physiological Effects of Multiple Stressors on a Key Intertidal Organism, *Mytilus Edulis*

2:10 - 2:30 | Break

2:30 - 2:50 Megan Gaitan, Sonoma State, Using Trait-based Ecology to Understand Shifts in Community Assembly in a Long-term Forest Plot

2:50 - 3:10 Shuchi Kakkad, CSU Fresno, Assessing the Species Specificity of Nanobodies ALB1 and ALB23 and their Interaction with Serum Albumin

3:10 - 3:30 Rebecca Belmonte, CSU Chico, The Role of SON in Blood Development

3:30 - 3:50 Sosse Kendoyan, Fresno State, Chalcones Control Plant Parasitic Nematodes but are Harmless to Soil Microorganisms: Better Crops for All

3:50 - 4:10 Christine Parisek, Stanislaus State, Who’s that on my rock? The Ecological and Evolutionary Dynamics of Aquatic Insects Crossing Lotic-lentic Boundaries in the Sierra Nevada, California

4:10 - 4:30 Negar Keramati, CSU East Bay, Population Genetics Study on *Tritonia tetraquetra*

Session 4

Biological and Agricultural Sciences

Undergraduate

Maidu Room | 12:10 p.m. – 4:30 p.m.

12:10 - 12:30 Taiga Yamaguchi, Stanislaus State, Effects of Acanthocephalan Parasitism on The Fecundity of the Pacific Mole Crab, *Emerita analoga*

12:30 - 12:50 Shannon Chou, CSU Fullerton, Effects of Low Tide Exposure on Photosynthetic Performance of *Silvetia compressa*

12:50 - 1:10 Emmanuel Flores, CSU Fresno, The Effects of Non-Potable Water on the Gut Microbiota of Herbivores in the African Adventure Exhibit of the Fresno Chaffee Zoo

1:10 - 1:30 Raquel Elias, Kelly Muller, Maryori Hernandez, Maryam Badoella, CSU San Bernardino, Effects of Glyphosate-based Herbicide Roundup® on *Drosophila melanogaster*

1:30 - 1:50 Brittany Cook, CSU Fullerton, A Comparison of Pollination Ecology in Native *Calystegia Macrostegia* and Non-native *Convolvulus Arvensis*

1:50 - 2:10 Jazmin Garcia, CSU San Bernardino, Development of a High Throughput *Drosophila melanogaster* Assay to Identify the Toxicity Potential of Organophosphates

2:10 - 2:30 | Break

2:30 - 2:50 Dontrel Hairston, Sacramento State, Cytotoxic Compounds of Oshala Root Extract

2:50 - 3:10 Tina Nguyen, CSU Long Beach, Transcytosis of Apolipoprotein AI in Bovine Aortic Endothelial Cells

3:10 - 3:30 Bryan Sierra-Rivera, CSU Monterey Bay, The Role of Antibiotics in Modulating Secondary Metabolite Production of *Streptomyces* Grown in Co-culture

3:30 - 3:50 Emily Egusa, CSU Chico, Characterization of Bacterial Degradation of Polyhydroxybutyrate

3:50 - 4:10 Nicole Rodrigues, San Francisco State, The Search for Mitochondria in Stentor

4:10 - 4:30 Morgan Wonderly, Cal Poly San Luis Obispo, Improvement of Chilling Efficiency and Product Quality of Broiler Carcasses Using Sub-zero Saline Solution

Session 5

Engineering and Computer Science

Graduate

Oak Room | 12:10 p.m. – 4:10 p.m.

12:10 - 12:30 Kyle Sipes, Humboldt State, Treatment Wetland Remediation Via In-situ Solids Digestion Using Novel Blue Frog Circulators

12:30 - 12:50 Alex David, San Francisco State, Integrating Mobile and Cloud Computing for Electromyography (EMG) - Based Gesture Recognition

12:50 - 1:10 Nicholas Dolan-Stern, CSU Channel Islands, Multimodal Central Place Foraging

1:10 - 1:30 Mason U'Ren, CSU Channel Islands, Obstacle Detection and Traversal with Noisy Range Sensors

1:30 - 1:50 Abhishek Gubbi Basavaraj, CSU Fresno, Unified Kalman Filter with CVC for PV Power Systems Based on Z Source Inverter

1:50 - 2:10 Shylesh Umapathy, CSU Fresno, Encircle Routing: An Efficient Deterministic Network on Chip Routing Algorithm

2:10 - 2:30 | Break

2:30 - 2:50 Paulo Yu, Vibhav Durgesh, CSU Northridge, Experimental Study on Impact of Flow Conditions on Flow Behavior in an Aneurysm

2:50 - 3:10 Israel Juarez Contreras, San Jose State, Expression of Snake Antivenom Peptide Chain in *Pichia pastoris*

3:10 - 3:30 Unnikrishnan Sreekumar, Revathy Devaraj, Qi Li, San Jose State, Real-time Traffic Pattern Collection and Analysis Model (TCPAM)

3:30 - 3:50 Vandana Kannan, San Jose State, Text-to-Image Synthesis

3:50 - 4:10 Vijay Lalith Cuppala, San Jose State, An Investigation into the Deformation Properties of Clamped Concrete Filled Steel Tubes

Session 6

Engineering and Computer Science

Undergraduate

Walnut Room | 12:10 p.m. – 4:30 p.m.

12:10 - 12:30 Jeovanny Reyes, CSU Los Angeles, Motion Learning Control for Robots with Differential Drive Systems

12:30 - 12:50 Joshua Gagan, CSU Long Beach, Three Dimensional Bioprinting of Hybrid Biomaterials Using a Low-cost Bioprinter

12:50 - 1:10 Alexander Wittmond, CSU Dominguez Hills, A Dataflow Game Engine Created in Haskell

1:10 - 1:30 Isidro Perez, CSU Fresno, Analytical Study of the Structural Response to Near-field Earthquake

1:30 - 1:50 Matthew Brown, CSU Northridge, Visualization of the Scattering of High-intensity Focused Ultrasonic Waves at Bone

1:50 - 2:10 Khiem Pham, San Jose State, An Approximation Algorithm to Spectral Clustering Based on the Bipartite Graph Model

2:10 - 2:30 | Break

2:30 - 2:50 Yucheng Yang, CSU Fullerton, Ultra-low Power Consumption, Fast Response and Robust Autonomous Vehicle

2:50 - 3:10 Chloe Zirbel, San Francisco State, Upper Limb Rehabilitation in Virtual Reality for Stroke Survivors

3:10 - 3:30 Joseph Lucey, CSU Los Angeles, Modeling Surface Water Inundation Using NASA Remote Sensing Data Products

3:30 - 3:50 Jeremy Ice, CSU Bakersfield, Space-time Coded Massive MIMO for Wireless Communication Systems

3:50 - 4:10 Zachery Walsh, Deepali Patil, Logan Gallegos, Cal Poly Pomona, Morphology of Aluminide Coatings on Mo-Si-B-Ti-Fe Alloy

4:10 - 4:30 Kevin Duong, Adrian Barcino, Cal Poly Pomona, Thermal Nitridation of Stainless Steel Bipolar Plates in Proton Exchange Membrane Fuel Cells

Session 7

Health, Nutrition, and Clinical Sciences

Graduate

Orchard Suite I | 12:10 p.m. – 3:10 p.m.

12:10 - 12:30 Katherine Simon, Thao Thai, CSU Dominguez Hills, A Photovoice Study Exploring Falls Among Older Adults

12:30 - 12:50 Trevor Short, Humboldt State, The Effects of Ladder Training on Speed and Agility Performance

12:50 - 1:10 Madison Kirkpatrick, Humboldt State, Effects of Active Versus Passive Recovery on Blood Lactate and Performance in Repeated Wingate Tests

1:10 - 1:30 Mara Hernandez, Stanislaus State, Genetic Counselors' Experiences with Non-Paternity in the Clinic

1:30 - 1:50 Kevin Yang, Sara Paik, Callie Woods, CSU Dominguez Hills, Immigrant Parents' Perception of Care: A Phenomenological Study

1:50 - 2:10 Parker Zak, Christine Quach, Nicole Mosser, CSU Dominguez Hills, "I am a Quilter:" An Ethnographic Study

2:10 - 2:30 | Break

2:30 - 2:50 Alexandra Rodriguez, CSU Long Beach, Exploring Social Comparison and Sociocultural Attitudes in Athletes with Physical Disabilities

2:50 - 3:10 Boram Lim, Humboldt State, The Effect of Stride Frequencies on Running Performance at the Velocity of VO₂ max

Session 8

Health, Nutrition, and Clinical Sciences

Undergraduate

Orchard Suite II | 12:10 p.m. – 3:10 p.m.

12:10 - 12:30 Rafael Alamilla, CSU San Bernardino, Physiological Profile of Special Weapons and Tactics Law Enforcement Team Members

12:30 - 12:50 Miranda Reid, CSU San Bernardino, The Effects of Motorized vs. Non-motorized Treadmill on Voluntary Oxygen Consumption, Heart Rate and Rate of Perceived Exertion in Collegiate Cross-country Females

12:50 - 1:10 Christopher Hatch, Cal Poly San Luis Obispo, Mechanisms of Reduced Vascular Tone Following Collateral Arteriogenesis

1:10 - 1:30 Chyann Richard, CSU Long Beach, Validation of Activity Monitor Methods in Classifying Sedentary Behavior by Distinct Activity Domains

1:30 - 1:50 Dotun Olubeko, CSU Chico, Effects of Sulforaphane on Intercellular Communication in the Tumor Microenvironment

1:50 - 2:10 Shelby Delcambre, Nathan Sanders, Rosalba Saavedra, Brian Bischoff, CSU Monterey Bay, 6th Vital Sign App: Testing Validity and Reliability

2:10 - 2:30 | Break

2:30 - 2:50 Julian Martinez, Cal Poly San Luis Obispo, Validation of Activity Monitor Methods in Classifying Sedentary Behavior in Distinct Activity Domains

2:50 - 3:10 Kathryn Johnston, CSU Bakersfield, Lysyl Oxidase in Cancer Inhibition and Metastasis

Session 9

Humanities and Letters

Graduate

Orchard Suite III | 12:10 p.m. – 4:30 p.m.

12:10 - 12:30 Kelly Cricchio, San Jose State, Invisible Women: The Casa Delle Zitelle and Female Patronage in Early Modern Venice

12:30 - 12:50 Ian Fetters, Cal Poly San Luis Obispo, Lovecraft's Dark Continent: At the Mountains of Madness and Antarctic Literature

12:50 - 1:10 Heather Simmons, Stanislaus State, New Thoughts on Old Maids: The Spinster Trope in Uncle Tom's Cabin and Who Would Have Thought It?

1:10 - 1:30 Juan Espinoza, Sacramento State, The Reluctant Ideologue and Tableaux Vivant in Nathaniel Hawthorne's The Blithedale Romance

1:30 - 1:50 Ariana Cano, CSU San Bernardino, Cultural Value in Instant Messenger: An Analysis between Mexico and the U.S.

1:50 - 2:10 Jeanette Adame, CSU Chico, Citing Divine and Human Law: Free and Enslaved African and Afro-creole Women in the New Orleans Cabildo, 1769-1800

2:10 - 2:30 | Break

2:30 - 2:50 Javier Etchegaray, San Francisco State, La Odiosa Esclavitud and La Deseada Libertad: The Language of Slave Litigation and the Evolving Political Landscape in Chile, 1805-1820

2:50 - 3:10 Krishna Narayanamurti, CSU Northridge, Universal Individuality: The Borderless, New Adult Poetry of Rupi Kaur

3:10 - 3:30 Estrella Amaro-Jepesen, CSU Bakersfield, #mexicanpeoplenames: An Onomastic Study of Twitter and Prime Time Television

3:30 - 3:50 Marwa Abdalla, San Diego State, Rhetorical Insights into Islamic Feminism

3:50 - 4:10 Amanda Schumaker, San Diego State, The Committee of Correspondence: American Women in Politics and International Relations, 1952-1969

4:10 - 4:30 Yollette Merritt, CSU Monterey Bay, The Unknown History of the 19th Century California Underground Railroad

Session 10

Physical and Mathematical Sciences

Graduate

Capital Room | 12:10 p.m. – 3:30 p.m.

12:10 - 12:30 Edward Sichel, CSU Fresno, On the Nature of Expansions on Totally Bounded Metric Spaces

12:30 - 12:50 Fred Fregoso, CSU Northridge, The Absence of Saw1 Attenuates Single-strand Annealing DNA Repair in *S. Cerevisiae* as a Function of Increasing 3' Non-homologous Tail Lengths

12:50 - 1:10 Sommer Casady, CSU Chico, Characterization of an Epithelial Deposit Within the Antelope Valley Volcanic Center, Sierra County, California

1:10 - 1:30 Alexandria Lagos, San Francisco State, Sea Surface Conditions in the Bay of Bengal from 0.8–1.3Ma

1:30 - 1:50 Jonathan Pistorino, Nicholas Hall, CSU East Bay, Uranium(VI) Sorption onto Montmorillonite Clay in the Presence of Calcite: Experimental and Modeling

1:50 - 2:10 Raphael Monroy, CSU Long Beach, The Effect of Superfluidity on the Oscillation Modes of Compact Stars

2:10 - 2:30 | Break

2:30 - 2:50 Sade Haake, CSU Bakersfield, Impacts of the 2016 Erskine Fire on the Physical Properties of Soils

2:50 - 3:10 Collin Quesenberry, CSU East Bay, Collecting New High Resolution Seismic Velocity Data Across the Hayward Fault Zone

3:10 - 3:30 Jeremy Armas, Cal Poly San Luis Obispo, Carbon Nanotube Fiber Induced Interfacial Crystallization of Conjugated Polymers

Session 11

Physical and Mathematical Sciences

Undergraduate

Hinde Auditorium | 12:10 p.m. – 4:30 p.m.

12:10 - 12:30 Evan Nunez, Cal Poly Pomona, A Sensitive Methods for Age-Dating Stellar Birthplaces

12:30 - 12:50 Marvin Pena, CSU San Marcos, A Mathematical Approach to Optimal Scheduling in Call Centers with Abandonment: The Case of Concave Costs

12:50 - 1:10 Erick Ochoa, CSU San Marcos, Reducing Charge Offset Drift in Si/SiO₂ Single Electron Devices Using a Poly-Si Top-Gate

1:10 - 1:30 | Open

1:30 - 1:50 Tavis Price, CSU Bakersfield, One-pot Synthesis of Isoxazolines in SDS Using DIB as an Environmentally Benign Oxidizer

1:50 - 2:10 Kathryn Uchida, CSU Los Angeles, Thread-based Electrodes in Microfluidic Chips for the Detection of Glucose

2:10 - 2:30 | Break

2:30 - 2:50 Jack Luong, CSU Fresno, On Convergence of Recursively Defined Series

2:50 - 3:10 Theron Sowers, Sacramento State, Isotopic Lapse Rates in the South Fork of the American River

3:10 - 3:30 Rene Padilla, Stanislaus State, Muon Veto for Direct Dark Matter Experiment

3:30 - 3:50 Carlos Osco Huaricapcha, San Francisco State, Using Lower Binomials to Approximate Roots of Trinomials

3:50 - 4:10 Linda Beverly, CSU East Bay, LLE Based Image Hashing of Video

4:10 - 4:30 Mark Samuel Abbott, Sacramento State, Optimizing the HH->bbtau Analysis to Measure the Strength of the Tri-linear Higgs Self-coupling

Session 12

Behavioral and Social Sciences

Undergraduate

Auburn Room | 8:00 a.m. – Noon

8:00 - 8:20 Megan Rossoni, Stanislaus State, Music Teacher and Classroom Teacher Burnout: A Comparative Survey

8:20 - 8:40 Sarah Chaffins, CSU San Marcos, Using Social Normative Feedback to Increase Recycling Behavior

8:40 - 9:00 Caitline Castillo, CSU San Marcos, Developing STEM Identities Among Latino and White Science Students

9:00 - 9:20 Jennifer Hatch, CSU Monterey Bay, Cognitive Symptom Trajectories among Forensic Inpatients Diagnosed with Psychotic Disorders

9:20 - 9:40 Nicholas Prew, CSU Monterey Bay, The Impact of Temperature on Public Service Announcement Message Effectiveness

9:40 - 10:00 Emily Treat, CSU Chico, Does Size Really Matter: Influence of Inaccurate Perceptions of Body Size on Eating Attitudes

10:00 - 10:20 | Break

10:20 - 10:40 Kristin Vierra, CSU Chico, Exploring the Feminist Identity Development of Girls Ages 8-12

10:40 - 11:00 Ryan Juan, CSU Fresno, Small Talk and Active Listening: What Verbal and Non-Verbal Techniques California Police Officers Use to Build Rapport and Their Effectiveness

Graduate

11:00 - 11:20 Katherine Nager, San Diego State, The Importance of Social Capital in Microfinance

11:20 - 11:40 Stephanie Perez, CSU Los Angeles, Restorative Justice for the Women of Sepur Zarco: From Testimonios to Reparations and Beyond

11:40 - noon Carolina Santillan, CSU Los Angeles, Rosario Ibarra and Politicized Mothering during Mexico's Dirty War

Session 13

Session 13 Behavioral and Social Sciences

Undergraduate

Folsom Room | 8:00 a.m. – 11:40 a.m.

8:00 - 8:20 Ashley Bonilla, CSU San Marcos, Interventions for Early Career Scholars in STEM

8:20 - 8:40 Katrina Conen, CSU Monterey Bay, Impact of MMPI-2 versus MMPI-2-RF Booklet Administration on the Internal Structure and Predictive Utility of MMPI-2-RF Scales in a Forensic Inpatient Setting

8:40 - 9:00 Grecia Alfaro-Ruiz, Humboldt State, Outcomes of a Disconnected Society: Tough on Discipline and the School to Prison Pipeline

9:00 - 9:20 William Atienza, Cal Poly Pomona, Reframing Vulnerability - a Critical Analysis of Institutional Conceptions of Vulnerable Populations

9:20 - 9:40 Conner Whitten, CSU San Marcos, Pup Retrieval across the First Week in Lactating Dams: Relevance for Maternal Motivation

9:40 - 10:00 Leah Thomas, Cal Poly San Luis Obispo, Meta-analysis on Internalizing Outcomes in Neurofibromatosis Type 1

10:00-10:20 | Break

10:20 - 10:40 Jessica Goldman, CSU East Bay, The Mediating Roles of Perceived Social Support & Attachment Style on Collectivism & Resilience

10:40 - 11:00 Susanna Villarreal, CSU Bakersfield, Effect of a High Fat Diet on Dopaminergic D2 Antagonist-Induced Hypokinesia and Agonist-Induced Stereotypies in Rats

11:00 – 11:20 Dayne Gradone, CSU Chico, Herbs, Herbalists and Healing in the Western Highlands of Kenya

11:20 – 11:40 Jennifer Jones, CSU Los Angeles, The Relationship Between Openness and Eyewitness Performance

Session 14

Session 14 Biological and Agricultural Sciences

Graduate

Miwok Room | 8:00 a.m. – 11:00 a.m.

8:00 - 8:20 Niveditha Ramadoss, CSU Northridge, Development of Flood-tolerant Transgenic *Arabidopsis Thaliana* Plants by Overproduction of Ethylene

8:20 - 8:40 Hessam Ghanimi, Cal Poly Pomona, The Transpacific Species *Berthella californica* is a species complex

8:40 - 9:00 Davina Sin, Mark Bongay, CSU East Bay, Development of a Magnetic Imaging Agent for Antioxidant Glutathione

9:00 - 9:20 Mitchell Coleman, CSU Bakersfield, Factors Affecting Seedling Recruitment of *Atriplex Polycarpa* Shrubs in the San Joaquin Valley of California

9:20 - 9:40 Tyler Davis, Sacramento State, Common Skin Commensals *Cutibacterium acnes*, *Staphylococcus Aureus*, and *Staphylococcus Epidermidis* Alter Lipid Synthesis by Human

9:40 - 10:00 George Jarvis, CSU Northridge, Evaluating the Effects of Predation Risk on Prey Reproduction in a Temperate Reef Fish

10:00 – 10:20 | Break

10:20 - 10:40 Madison Kennedy, San Diego State, Characterization of the Receptor Tyrosine Kinase Tie2

10:40 – 11:00 Nicole Hack, Cal Poly San Luis Obispo, Using Insulin-like Growth Factor 1 (Igf1) as a Physiological Biomarker in Wild Rockfish (*Sebastes spp.*)

Session 15

Biological and Agricultural Sciences

Undergraduate

Walnut Room | 8:20 a.m. – 10:00 a.m.

8:00 - 8:20 Mallory Harmel, Cal Poly San Luis Obispo, How does a Rattlesnake's Color Affect Detection by Predators?

8:20 – 8:40 Janam Dave, Cal Poly Pomona, Aerosolization of Liposomal Amphotericin B (AmBisome) Maintains Antifungal Drug Concentrations in Lungs for up to Five Days Post-Treatment

8:40 - 9:00 Maylin Caldwell, CSU San Marcos, Defining the Role of the *Arabidopsis Thaliana* Alternative Oxidase Gene Family in Mitochondrial Production of Reactive Oxygen Species

9:00 - 9:20 Jazmine Munoz Mejia, CSU Bakersfield, Potential Use of Museum Samples for Tetrodotoxin Quantification

9:20 - 9:40 Francisco Fernandez, CSU San Marcos, Functional Characterization of Nitrate-induced Glutaredoxins in *Arabidopsis Thaliana*

9:40 – 10:00 Melissa Meredith, CSU Monterey Bay, Effects of Ocean Acidification and Hypoxia on Larval Brown Rockfish Transcriptomes

Session 16

Business, Economics, and Public Administration

Graduate

Orchard Suite I | 8:00 a.m. – Noon

8:00 - 8:20 Olga Petrovska, San Francisco State, Student Loan Debt in the U.S. and Net Worth: A Deferred American Dream?

8:20 - 8:40 Shukurat Sanni, Sacramento State, An Analysis of Walkability's Value in the City of Sacramento

8:40 - 9:00 Prasanna Nattuthurai, Tianyi Deng, Maria Boldina, Vrunda Shah, CSU Los Angeles, Developing an Internal Currency System for Colleges Using Blockchain

9:00 - 9:20 Kimberly Reyes, Philip Cole-Regis, CSU East Bay, Affordable Care Act (ACA): Impact on U.S. Emergency and Preventive Healthcare

9:20 - 9:40 F. Michael Chua, CSU East Bay, Bitcoin, A Protector of Property Rights and Privacy? A Game Theoretical Analysis

9:40 - 10:00 Rabia Sohail, CSU Bakersfield, The Glass Ceiling: Is it Self-Imposed?

10:00 – 10:20 | Break

10:20 - 10:40 Erin Stumpf, CSU Sacramento, What is the Impact of a Homeowners Association on Property Value?

10:40 - 11:00 Mahayla Slackerelli, Humboldt State, Ownership Structures and Financing Options for Solar Energy Generation in the Redwood Coast Energy Authority Service Area

11:00 – 11:20 Zahra Aghababa, CSU Long Beach, The Impact of Immigration on U.S. Wage Rates

Undergraduate

11:20 - 11:40 Ivory Parker Jr., Alex Rishch, CSU Bakersfield, The Effects of Golf Course Location on Housing Value in Kern County, CA

11:40 - noon Marcel Jacquot, CSU Fullerton, All Talk or Some Walk: The Relationship Between Stock Movements and Investor Attention on a Social Media Platform

Session 17

Creative Art and Design

Graduate

Orchard Suite II | 8:00 a.m. – 9:00 a.m.

8:00 - 8:20 David Watson, San Diego State, There Goes War Like a Dream of Love: Directing Trojan Incident in 2018 America

8:20 - 8:40 Thomas Trudgeon, CSU Long Beach, The Art of We

Undergraduate

8:40 - 9:00 Gillian Tatreau, CSU Fullerton, Getting to the Pointe: A Socio-historic Approach to the Performance and Progression of Ballet Styles

Session 18

Session 18 Education

Graduate

Orchard Suite III | 8:00 a.m. – 11:20 a.m.

8:00 - 8:20 JC Lugo, CSU Dominguez Hills, Troubling Masculinities: Implications for Engaging Male Students of Color

8:20 - 8:40 Carina Gutierrez, Carmina Vital, CSU Chico, Evaluating Mindful Lessons

8:40 - 9:00 Luangchee Xiong, Stanislaus State, Negotiating Two Cultural Worlds: The Development of Career Aspirations

9:00 - 9:20 Qi Guo, Tong Feng, Lu Jia, CSU San Bernardino, The Effects of Mobile Learning Course for English Speaking Learners

9:20 - 9:40 Nathalie Nann, CSU Long Beach, Mental Health and Well-being of University Students in Germany

9:40 - 10:00 Tseng Vang, Sacramento State, Have Charter Schools Out-performed Traditional Public Schools in California?

10:00 - 10:20 | Break

10:20 - 10:40 Roam Romagnoli, San Francisco State, Decarcerating California: A Critical Approach to Expanding Incarcerated Students' Access to Upper-division Coursework

Undergraduate

10:40 - 11:00 Laura DaSilva, Nguyen Nguyen, Michael Ramirez, Cheyenne Romero, Cal Poly Pomona, Innovative Classroom Assessment

11:00 - 11:20 Rebekah Newman, CSU Monterey Bay, Increased Citizenship and Professional Development: Undergraduate Psychology Students' Experiences with Service Learning

Session 19

Engineering and Computer Science

Graduate

Oak Room | 8:00 a.m. – 11:20 a.m.

8:00 - 8:20 Samarth Revanka, CSU Fullerton, Memory Based Fault Tolerant Reconfigurable Solar Cells with Embedded CMOS

8:20 - 8:40 Kin Li, CSU Los Angeles, Application of Non-integer Derivatives in Engineering Systems

8:40 - 9:00 Tobias Bleisch, Cal Poly San Luis Obispo, An Empirical Study of CSS Behavior in Web Frameworks

9:00 - 9:20 Vivek Anand Menon, CSU Fullerton, Molecular Dynamics Simulation Study of Liquid-assisted Laser Beam Machining Process

9:20 - 9:40 Sophia Do, San Diego State, Synthesis and Characterization of Polyurea Microspheres

Undergraduate

9:40 - 10:00 Justine Nguyen, Johnny Baradii, Thuan N. Nguyen, Cal Poly Pomona, Design and Testing of a Solar-driven Wastewater Treatment Unit for Off-grid Applications

10:00 - 10:20 | Break

10:20 - 10:40 David Story, Alyssa Wright, Sonoma State, Development of Embedded Sensor Board for Introductory Engineering Education

10:40 - 11:00 Liam Schroth, Sonoma State, PRNG Test Suite Visualizations and a Survey of Analysis Interpretation

11:00 - 11:20 Karan Monga, Walter Condori, Jr., CSU East Bay, Development of a Virtual Reality Educational Game for Waste Management: Attack of the Recyclops

Session 20

Humanities and Letters

Undergraduate

Capital Room | 8:00 a.m. – noon

8:00 - 8:20 Jennifer Bailey, Sacramento State, The American Soldier: Fitzgerald and Du Bois on Moral Liminality in Post-WWI America

8:20 - 8:40 Monica Gudino, Stanislaus State, Like a Virginal: The Intersection of Music and Gender in Renaissance Drama

8:40 - 9:00 Khadija Ashley Aguinardo, Sacramento State, Symphonic Metamorphosis: The Evolution of Women's Roles in American Orchestras, from the Late Nineteenth Century to the Present

9:00 - 9:20 Anastasia Nesbitt, CSU Long Beach, The Creation of Virtue: A Political Strategy in Reconstruction Era North Carolina

9:20 - 9:40 Juan Carlos Fermin, CSU Fullerton, The Ethics of Belief in a Turbulent Era

9:40 - 10:00 | Open

10:00 - 10:20 | Break

10:20 - 10:40 Cambria Rodriguez, CSU Dominguez Hills, The Bringing Wealth and Water to the City of Angels: Transforming Los Angeles' Physical Landscape into an Anglo Vision 1885-1930

10:40 - 11:00 Ivana Kurak, CSU East Bay, Divine Mothers, Earth Goddesses, and Wicked Harlots: Refuting the Stereotypes of Counterculture Women in Northern California and New Mexico Communal Societies

11:00 - 11:20 Parveena Singh, Devon Mier, Cal Poly Pomona, "Where Do I Belong, Here or Where You Are?": A Postcolonial Feminist Reading of "Wide Sargasso Sea" and "Corpse Song"

11:20 - 11:40 Elizabeth Calzada, CSU Northridge, Augustus: Architect of Empire

11:40 - noon Iris Ramirez, CSU Northridge, Refugees Seeking Asylum: Navigating Immigration Policy within Higher Education

Session 21

Interdisciplinary

Undergraduate

Maidu Room | 8:00 a.m. – 9:40 a.m.

8:00 - 8:20 Jocelyne Serrano, Tiona Sykes, Avery Lowe, Adriana Martinez,

CSU Channel Islands, An Interdisciplinary Project: The Perspectives of Students, Faculty, and Community on Multicultural Education

8:20 - 8:40 Wyatt Kozelka, Cheyenna Burrows, Jenna Kelmser, Humboldt State, Cannabis

Carbon Accounting & Modeling

8:40 - 9:00 Austin Cauwels, Madison Harden, CSU Channel Islands, Photo Point Analysis:

An Interdisciplinary Study of Ecological Restoration on Santa Rosa Island.

Graduate

9:00 - 9:20 Daniel Parsons, CSU Northridge, The Effects of Surf Therapy on Self-Determination and Quality of Life in Young Adults with Autism Spectrum Disorder

9:20 - 9:40 Manisha Davesar, Humboldt State, Comic Books and Cartoons: How Our Beloved Superheroes are Used as Mass Socialization Tools

CSU Bakersfield

Jeremy Ice – Session 6

Susanna Villarreal – Session 13

Kathryn Johnston – Session 8

Mitchell Coleman – Session 14

Estrella Amaro-Jeppesen – Session 9

Jazmine Munoz Mejia – Session 15

Sade Haake – Session 10

Rabia Sohail – Session 16

Tavis Price – Session 11

Ivory Parker Jr., Alex Rishch – Session 16

CSU Channel Islands

Maria Lara Cordova – Session 2

Mason U'Ren – Session 5

Ericka Magana – Session 2

Jocelyne Serrano, Tiona Sykes, Avery Lowe,

Adriana Martinez – Session 21

Maegen Segura – Session 2

Austin Cauwels, Madison Harden – Session 21

Jazzmyn Martinez – Session 2

Nicholas Dolan-Stern – Session 5

CSU Chico

Rebecca Belmonte – Session 3

Emily Treat – Session 12

Emily Egusa – Session 4

Kristin Vierra – Session 12

Dotun Olubeko – Session 8

Dayne Gradone – Session 13

Jeanette Adame – Session 9

Carina Gutierrez, Carmina Vital – Session 18

Sommer Casady – Session 10

CSU Dominguez Hills

Ian Klinger – Session 1

Kevin Yang, Sara Paik, Callie Woods – Session 7

Ray Jaquez – Session 1

Parker Zak, Christine Quach, Nicole Mosser – Session 7

Andrew Luu – Session 2

JC Lugo – Session 18

Alexander Wittmond – Session 6

Cambria Rodriguez – Session 20

Katherine Simon, Thao Thai – Session 7

CSU East Bay

Negar Keramati – Session 3

Davina Sin, Mark Bongay – Session 14

Jonathan Pistorino, Nicholas Hall – Session 10

Kimberly Reyes, Philip Cole-Regis – Session 16

Collin Quesenberry – Session 10

F. Michael Chua – Session 16

Linda Beverly – Session 11

Karan Monga, Walter Condori, Jr. – Session 19

Jessica Goldman – Session 13

Ivana Kurak – Session 20

CSU Fresno

Tyler Caffee – Session 2

Shylesh Umopathy – Session 5

Sosse Kendoyan – Session 3

Isidro Perez – Session 6

Shuchi Kakkad – Session 3

Edward Sichel – Session 10

Emmanuel Flores – Session 4

Jack Luong – Session 11

Abhishek Gubbi Basavaraj – Session 5

Ryan Juan – Session 12

CSU Fullerton

Shannon Chou – Session 4

Samarth Revanka – Session 19

Brittany Cook – Session 4

Vivek Anand Menon – Session 19

Yucheng Yang – Session 6

Juan Carlos Fermin – Session 20

Marcel Jacquot – Session 16

Gillian Tatreau – Session 17

Humboldt State University

Laurelyn Memmott – Session 1

Boram Lim – Session 7

Rachel Brewer – Session 3

Grecia Alfaro-Ruiz – Session 13

Kyle Sipes – Session 5

Mahayla Slackerelli – Session 16

Trevor Short – Session 7

Wyatt Kozelka, Cheyenna Burrows, Jenna Kelmser – Session 21

Madison Kirkpatrick – Session 7

Manisha Davesar – Session 21

CSU Long Beach

Hannah Liska – Session 2
 Raphael Monroy – Session 10
 Tina Nguyen – Session 4
 Zahra Aghababa – Session 16
 Joshua Gagan – Session 6
 Thomas Trudgeon – Session 17
 Alexandra Rodriguez – Session 7
 Nathalie Nann – Session 18
 Chyann Richard – Session 8
 Anastasia Nesbitt – Session 20

CSU Los Angeles

Marianne Lacsamana – Session 1
 Jennifer Jones – Session 13
 Arlene Sagastume – Session 1
 Stephanie Perez – Session 12
 Jeovanny Reyes – Session 6
 Carolina Santillan – Session 12
 Joseph Lucey – Session 6
 Prasanna Nattuthurai, Tianyi Deng,
 Maria Boldina, Vrunda Shah – Session 16
 Kathryn Uchida – Session 11
 Kin Li – Session 19

CSU Monterey Bay

Bryan Sierra-Rivera – Session 4
 Nicholas Prew – Session 12
 Shelby Delcambre, Nathan Sanders,
 Rosalba Saavedra, Brian Bischoff – Session 8
 Rebekah Newman – Session 18
 Melissa Meredith – Session 15
 Yollette Merritt – Session 9
 Katrina Conen – Session 13
 Jennifer Hatch – Session 12

CSU Northridge

Cassidy Owen – Session 1
 Niveditha Ramadoss – Session 14
 Paulo Yu, Vibhav Durgesh – Session 5
 George Jarvis – Session 14
 Matthew Brown – Session 6
 Elizabeth Calzada – Session 20
 Krishna Narayanamurti – Session 9
 Iris Ramirez – Session 20
 Fred Fregoso – Session 10
 Daniel Parsons – Session 21

California State Polytechnic University, Pomona

Benjamin Steiner – Session 3
 Hessam Ghanimi – Session 14
 Zachery Walsh, Deepali Patil, Logan Gallegos – Session 6
 Janam Dave – Session 15
 Kevin Duong, Adrian Barcino – Session 6
 Laura DaSilva, Nguyen Nguyen, Michael Ramirez,
 Cheyenne Romero – Session 18
 Evan Nunez – Session 11
 Justine Nguyen, Johnny Baradii,
 Thuan N. Nguyen – Session 19
 William Atienza – Session 13
 Parveena Singh, Devon Mier – Session 20

Sacramento State

Dontrel Hairston – Session 4
 Shukurat Sanni – Session 16
 Juan Espinoza – Session 9
 Erin Stumpf – Session 16
 Theron Sowers – Session 11
 Tseng Vang – Session 18
 Mark Samuel Abbot – Session 11
 Jennifer Bailey – Session 20
 Tyler Davis – Session 14
 Khadija Ashley Aguinaldo – Session 20

CSU San Bernardino

Raquel Elias, Kelly Muller, Maryori Hernandez,
 Maryam Badoella – Session 4
 Qi Guo, Tong Feng, Lu Jia – Session 18
 Jazmin Garcia – Session 4
 Rafael Alamilla – Session 8
 Miranda Reid – Session 8
 Ariana Cano – Session 9

San Diego State University

Yessenia Zepeda – Session 1
 Katherine Nager – Session 12
 Jamie Renna – Session 1
 Madison Kennedy – Session 14
 Marwa Abdalla – Session 9
 David Watson – Session 17
 Amanda Schumaker – Session 9
 Sophia Do – Session 19

San Francisco State University

Gerald Young – Session 1
 Alexandria Lagos – Session 10
 Devan Shah – Session 3
 Carlos Osco Huaricapcha – Session 11
 Nicole Rodrigues – Session 4
 Olga Petrovska – Session 16
 Alex David – Session 5
 Roam Romagnoli – Session 18
 Chloe Zirbel – Session 6
 Javier Etchegaray – Session 9

San José State University

Jeffrey Tseng – Session 1
 Khiem Pham – Session 6
 Israel Juarez Contreras – Session 5
 Kelly Cricchio – Session 9
 Unnikrishnan Sreekumar, Revathy Devaraj, Qi Li – Session 5
 Vandana Kannan – Session 5
 Vijay Lalith Cuppala – Session 5

California Polytechnic State University, San Luis Obispo

Daniel Haro – Session 3
 Jeremy Armas – Session 10
 Morgan Wonderly – Session 4
 Leah Thomas – Session 13
 Christopher Hatch – Session 8
 Nicole Hack – Session 14
 Julian Martinez – Session 8
 Mallory Harmel – Session 15
 Ian Fetters – Session 9
 Tobias Bleisch – Session 19

CSU San Marcos

Petrona Gregorio-Pascual – Session 1
 Caitline Castillo – Session 12
 Evelyn Sarsar – Session 2
 Ashley Bonilla – Session 13
 Marvin Pena – Session 11
 Conner Whitten – Session 13
 Erick Ochoa – Session 11
 Maylin Caldwell – Session 15
 Sarah Chaffins – Session 12
 Francisco Fernandez – Session 15

Sonoma State University

Grace Remboldt, Rebecca Neal, Stephen Phillips,
 Adam Holm, Eric Whetstone, Emily Benny – Session 2
 Kristen Hosek – Session 3
 Megan Gaitan – Session 3
 Terra Rosten – Session 2
 David Story, Alyssa Wright – Session 19
 Melissa Vargas – Session 2
 Liam Schroth – Session 19
 Christina Collins – Session 3

Stanislaus State University

Rebecca Bettencourt – Session 1
 Rene Padilla – Session 11
 Christine Parisek – Session 3
 Megan Rossoni – Session 12
 Taiga Yamaguchi – Session 4
 Luangchee Xiong – Session 18
 Mara Hernandez – Session 7
 Monica Gudino – Session 20
 Heather Simmons – Session 9

California State University is a leader in high quality, accessible, student-focused higher education. With 23 campuses, 484,000 students, and 52,163 faculty and staff, we are the largest, the most diverse, and one of the most affordable university systems in the country. We offer unlimited opportunities to help students achieve their goals. We prepare graduates who go on to make a difference in the workforce. We engage in research and creative activities leading to scientific, technical, artistic, and social advances. And, we play a vital role in the growth and development of California's communities and economy.

California State University, Bakersfield (1965)

Centrally located on a 375-acre site in the southern San Joaquin Valley, California State University, Bakersfield is a continuously growing comprehensive regional university that is committed to transforming the lives of its students and community through its established excellence in academia, diversity, service, and community engagement since its founding in 1965. The faculty across the Western Association of Schools and Colleges (WASC) fully accredited University is world-class, with nearly 75% holding terminal degrees in their respective fields. A NCAA Division I school, CSUB has competed successfully in the Western Athletic Conference (WAC) since 2012 and is but one important aspect of a growing and vibrant student-life experience. The University serves more than 10,000 students at either the main campus in Bakersfield or CSUB Antelope Valley and counts over 50,000 alumni from its four schools: Arts and Humanities, Business and Public Administration, Natural Sciences, Mathematics and Engineering, and Social Sciences and Education. The University offers undergraduate, graduate, post-graduate, and credential programs, and CSUB's Extended University serves the community by offering additional professional development, certificate, and degree programs. With over 70 percent of its alumni remaining and working within the central valley, CSU Bakersfield supports ongoing social, cultural and economic development in the region.

9001 Stockdale Highway, Bakersfield, CA 93311-1099 | Dr. Horace Mitchell, President | (611)654-2781 | www.csub.edu

This campus is on the semester system

California State University, Channel Islands (2002)

Nestled in a picturesque setting five miles from the Pacific Ocean, Channel Islands is the newest CSU campus. Offering a student-centered education, CSU CI is known for its interdisciplinary, multicultural, service learning, and international emphases. Undergraduate, credential programs, and graduate programs create a close-knit atmosphere in which students receive individual attention from dedicated faculty.

Opportunities for student research allow students to participate in faculty-mentored and independent research projects. Community based research and community service opportunities allow students to develop their personal, professional, and leadership skills.

One University Drive, Camarillo, CA 93012 | Dr. Erika D. Beck, President | (805)437-8400 | www.csuci.edu

This campus is on the semester system

California State University Chico (1887)

CSU Chico, the second oldest campus in the CSU, is one of the highest rated public universities in the West. It has excellent graduation and job placement rates and boasts a beautiful residential campus located in a college-town setting. Ninety percent of the students live within a one-mile radius. Many programs, including teacher education, nursing, social work, and recreation administration are known for their innovation and outreach to the university's primary service area and beyond. A distance education trailblazer, CSU Chico was the first university in the world to offer a graduate degree via satellite. Students have won national awards in business, engineering, construction management, journalism, political science, and speech.

400 West First Street, Chico, CA 95929 | Dr. Gayle E. Hutchinson, President | (530) 898-4636 | www.csuchico.edu

This campus is on the semester system

California State University, Dominguez Hills (1960)

More than half a century after its founding, California State University, Dominguez Hills serves as a conduit between the reality of today's America and a vision put forth by the CSU. In 1960, CSU Dominguez Hills was deliberately placed in Carson to serve as the intersection of promise and hope for a community in crisis. The university offers more than forty undergraduate majors, twenty master's degrees, and numerous certificate and credential programs. At CSU Dominguez Hills student success is our highest priority -- we offer a strong selection of academic programs reflecting today's high-demand fields. We create opportunities in and out of the classroom for students, faculty, and staff to work and learn together, promoting a student-centered atmosphere. We are a university where pride and purpose meet; where upward mobility begins; where public policy is created; where diversity is celebrated and where our students gain knowledge and skills that prepare them to live and work in a multicultural, global world. As a public state university, we are continually committed to transforming the lives of our students.

1000 East Victoria Street, Carson, CA 90747-0005 | Dr. Willie J. Hagen, President | (310) 243-3696 | www.csudh.edu

This campus is on the semester system

California State University, East Bay (1957)

Cal State East Bay serves the east side of San Francisco Bay with two scenic campuses, one in the Hayward Hills and the other in the Concord foothills, as well as professional development center in downtown Oakland. With an enrollment of more than 13,000, the university attracts students from throughout the region and from more than 80 countries. Named a "Best in the West" college by The Princeton Review, Cal State East Bay offers more than 100 fields of study, award-winning curricula, small classes, expert faculty, and a fast, flexible quarter system. It confers bachelor's and master's degrees, and well as an Ed.D. in educational leadership.

25800 Carlos Bee Boulevard, Hayward, CA 94542 | Dr. Leroy M. Morishita, President | (510) 885-3000 | www.csueastbay.edu

This campus is on the quarter system

California State University, Fresno (1911)

Fresno State is the premier university serving Central California's diverse, growing population. Faculty and students work with community partners on research focused on key regional challenges: water development and conservation, air quality, crop development, and child-obesity prevention. The campus is home to the nation's first university commercial winery, the Downing Planetarium, the ultra-modern Henry Madden Library and the Smittcamp Family Honors College, which admits 50 top high school graduates each year with full scholarships. Fresno State's beautifully landscaped academic campus (officially an arboretum since 1978) is near the Sierra Nevada Mountains, just two hours' drive from Yosemite, Kings Canyon and Sequoia national parks.

5241 North Maple Avenue, Fresno, CA 93740 | Dr. Joseph I. Castro, President | (559) 278-4240 | www.csufresno.edu

This campus is on the semester system

California State University, Fullerton (1957)

California State University, Fullerton (CSUF) offers the advantages of a dynamic, metropolitan university and a comfortable small-college atmosphere. Students flourish in mentoring relationships with outstanding professors who take pride in shaping a successful learning experience, including numerous opportunities for undergraduate research, hundreds of professional internships and prestigious competitions in the performing arts. With a vibrant, multicultural student population, CSUF ranks ninth in the nation in awarding baccalaureate degrees to Hispanics. The university is a top choice for future scientists, animation artists, educators, musicians, engineers, and also for studies in the humanities and behavioral and health sciences. Fifty-five undergraduate and 50 graduate degrees -- including a doctorate degree -- provide students the best of current practice, theory, and research and integrate professional studies with preparation in the arts and sciences.

800 N. State College Boulevard, Fullerton, CA 92834-9480 | Dr. Fram Virjee, President | (657) 278-2011 | www.fullerton.edu

This campus is on the semester system

Humboldt State University (1913)

Humboldt State University is a comprehensive, residential campus located on California's pristine north coast. The campus is distinguished by its emphasis on real-world learning. Opportunities abound for undergraduate fieldwork in both the natural and social science. With annual enrollment just over 8,000, Humboldt State is large enough to offer a lively campus with major research facilities, but small enough that students are not lost in a crowd. It is a tight-knit community where professors and staff are known for getting to know their students. Humboldt State is home to one of the strongest natural resource and environmental studies departments in the nation and is consistently ranked by national publications as among the top regional colleges.

1 Harpst Street, Arcata, CA 95521-8299 | Dr. Lisa Rossbacher, President | (707) 826-3011 | www.humboldt.edu

This campus is on the semester system

California State University, Long Beach (1949)

California State University, Long Beach (CSULB) is a diverse, student-centered, globally engaged university that provides highly valued degrees through superior teaching, research, scholarly and creative activity, and a commitment to service. With more than 37,500 students, it is one of the largest campuses among the CSU system's 23 campuses and one of the largest in the state of California. Student can choose from 82 baccalaureate degrees, 16 credentials, 65 master's degrees, and four doctoral degrees in engineering, physical therapy, nursing and educational leadership. CSULB has been consistently ranked

- Among the top five best public universities in the West by U.S. News and World Report in recognition of its high-quality education at an affordable price.
- A 'Best College Value' (Kiplinger's Personal Finance)
- Sixth in the nation in conferring bachelor's degrees to minority students (Diverse Issues in Higher Education)
- One of the top universities nationally in freshman applications

1250 Bellflower Boulevard, Long Beach, CA 90840 | Dr. Jane Close Conoley, President | (562) 985-4111 | www.csulb.edu

This campus is on the semester system

California State University, Los Angeles (1947)

California State University, Los Angeles is the premier public comprehensive university in the heart of Los Angeles. The University is part of the 23-campus California State University system, which is the largest public university system in the nation. Cal State LA promotes academic excellence, achievement, leadership and well-being to more than 28,600 students. The student population reflects the rich diversity of the Los Angeles region. The majority of students -- 23,440 -- are undergraduates who are taking courses in more than 60 majors, often in small classes where professors know them by name. The University has eight colleges that are recognized for outstanding programs and professors who are accomplished mentors and researchers. Cal State LA strives to provide a small-campus feel at a public university in a global city.

5151 State University Drive, Los Angeles, CA 90032 | Dr. William A. Covino, President | (323) 343-3000 | www.calstatela.edu

This campus is on the semester system

California State University Maritime Academy (1929)

Cal Maritime, which joined the CSU in 1995, is one of only seven degree-granting maritime academies in the U.S. and the only one on the West Coast. Its graduated cadets include the first woman to captain a commercial vessel. Cal Maritime graduates enjoy a very high job placement rate, thanks to a unique experiential learning curriculum that includes at least one international training cruise. Located in Vallejo on the shore of San Pablo Bay, Cal Maritime offers accredited degrees in business administration, marine transportation, facilities engineering technology, maritime policy and management, marine transportation, marine engineering technology, and mechanical engineering. A program of intellectual learning, applied technology, global awareness, and leadership development prepares graduates for positions of responsibility in the areas of maritime, business, logistics, intermodal, transportation, and engineering.

200 Maritime Academy Drive, Vallejo, CA 94590 | Dr. Thomas A. Cropper, President | (707) 654-1000 | www.csum.edu

This campus is on the semester system

California State University, Monterey Bay (1994)

Cal State Monterey Bay provides more than 7,600 students an extraordinary opportunity to learn on a residential campus on the beautiful Monterey Peninsula. The diverse student body receives personal attention in small classes while pursuing degrees in 25 undergraduate and 7 graduate majors. Founded in 1994 on former site of Fort Ord by educators and community leaders, Cal State Monterey Bay faculty and staff build on that legacy to explore innovative ways to meet the needs of a new generation of students while simultaneously powering the Monterey County economy.

100 Campus Center, Seaside, CA 93955-8001 | Dr. Eduardo M. Ochoa, President | (831) 582-3000 | www.csUMB.edu

This campus is on the semester system

California State University, Northridge (1958)

One of the largest universities in the country, California State University, Northridge (CSUN) is an urban, comprehensive university that delivers award-winning undergraduate and graduate programs to nearly 40,000 students annually and counts more than 330,000 alumni who elevate Southern California and beyond. Since its founding in 1958, CSUN has made a significant and long-term economic impact on California, generating nearly \$1.9 billion in economic impact and more than 11,700 jobs each year. The LAEDC recognized CSUN as its 2015 Eddy Award winner for its positive economic impact. Serving more students on Pell Grants than any other institution in California, CSUN is also a social elevator and one of the most diverse universities in the country. CSUN ranks 13th in awarding bachelor's degrees to underrepresented minority students and seventh in bachelor's degrees to Latino students, serves the 13th largest Jewish student population, and enrolls the largest number of deaf and hard-of-hearing students of any U.S. state university. The journal Nature recently named CSUN a Rising Star for scientific research, and the NSF ranks CSUN in the top five nationally among similar institutions for graduates who go on to earn doctorates in the sciences. CSUN is where individuals rise. And through them, so does Greater Los Angeles and beyond.

18111 Nordhoff St., Northridge, CA 91330 | Dr. Dianne F. Harrison, President | (818) 677-1200 | www.csUMB.edu

This campus is on the semester system

California State Polytechnic University, Pomona (1938)

Cal Poly Pomona is internationally recognized for its outstanding academic programs, including offerings in hospitality management, architecture, and engineering. One of only six polytechnic universities in the United States, Cal Poly Pomona champions an approach that places learning-by-doing at the center of every program, course, and activity. Millions of dollars in grants are helping the university make difference in its surrounding and academic communities, from advancing agricultural practice to improving teacher training. Additionally, U.S. News & World Report ranks Cal Poly Pomona as the fourth most ethnically diverse master's level university in the West.

3801 W. Temple Avenue, Pomona, CA 91768 | Dr. Soraya M. Coley, President | (909) 869-7659 | www.cpp.edu

This campus is on the quarter system

California State University, Sacramento (1947)

Sacramento State thrives as California's capital university by fostering intellectual curiosity and a passion for innovation. By inspiring students and developing them as leaders, the University prepares its graduates to communicate, collaborate, and innovate in the global marketplace. At the forefront of their education is a prowess in research. In 2016, Sacramento State established the Student Research Center to expand opportunities for undergraduates and graduates to collaborate with faculty, placing a premium on creativity. The University's more than 30,000 students are provided many avenues into public service and internships as a part of a well-rounded educational experience. U.S. News & World Report named Sacramento State the West's fourth-most-diverse university and one of the West's top public universities for 2018. Sac State also plays a vital role in the region's economics, generating an annual financial impact of nearly \$930 million.

6000 J Street, Sacramento, CA 95819 | Dr. Robert S. Nelson, President | (916) 278-6011 | www.csus.edu

This campus is on a semester system

California State University, San Bernardino (1960)

Cal State San Bernardino, at the foot of the San Bernardino Mountains, was named by students as the most beautiful campus in the CSU system. Serving the Inland Empire region, its nationally accredited College of Business and Public Administration offers an M.B.A. tailored for executives. In addition, the university has a nationally acclaimed writing program and highly respected offerings in computer science, geographic information and decision sciences, psychology, public health administration, and accounting and finance. The university has a leading state-accredited teacher preparation program that is one of the nation's largest. Courses are also offered at off-campus locations, including a permanent satellite campus in Palm Desert.

5500 University Parkway, San Bernardino, CA 92407-2397 | Tomás D. Morales, President | (909) 537-5000 | www.csusb.edu

This campus is on the quarter system

San Diego State University (1897)

San Diego State University is the oldest and largest higher education institution in the San Diego region. Since it was founded in 1897, the university has grown to offer bachelor's degrees in 85 areas, master's degrees in 76, and doctorates in 21 disciplines. SDSU's 31,000 students participate in an academic curriculum distinguished by direct contact with faculty and an increasing international emphasis that prepares them for a global future. SDSU is designated by the Carnegie Foundation as a research university with high research activity and is ranked among the top 150 public universities in research support, with \$145 million in 2010-11.

5500 Cavanaugh, San Diego, CA 92182 | Dr. Sally Roush, President | (619) 594-5200 | www.sdsu.edu

This campus is on the semester system

San Francisco State University (1899)

San Francisco State University, located in one of the world's most vibrant and beautiful cities, is a recognized leader in addressing issues both global and regional. With a diverse range of students from almost every state and nearly 100 countries, the University community is a perfect setting for learning to succeed in a pluralistic society and global community. The programs of study at SF State also address regional needs for advanced-placed professionals in the fields such as business, cinema, science, health sciences, social services and education. In addition to 115 undergraduate programs, 63 master's degree programs, and 14 credential programs, SF State offers two joint doctoral programs with the University of California and an independent Ed.D., in Educational Leadership. SF State's pioneering commitment to community, civic engagement, ethical thinking, and social justice values are woven throughout the curriculum. SF State prepares our graduates to see beyond the self, and to engage in research and evidence-based practice that is civic minded, and in service to organizations and people throughout the community and region. Active faculty and student scholars at SF State engage in vital research and creative endeavors that are changing the way we understand our world.

1600 Holloway Avenue, San Francisco, CA 94132 | Dr. Leslie E. Wong, President | (415) 338-1111 | www.sfsu.edu

This campus is on the semester system

San José State University (1857)

San José State University (SJSU), the oldest CSU and the only public university in Silicon Valley, has a long and proud history as a provider of excellent higher education, a contributor to the skilled workforce of the Bay Area, and an incubator for innovations that have local and global impact. SJSU offers an exceptional and affordable education to all students, enabling them to find success in their careers and become engaged citizens of California. Along with rigorous course work, SJSU provides research, scholarship, and creative activity (RSCA) opportunities to a diverse population of nearly 35,000 undergraduate and graduate students in seven colleges. The university is especially dedicated to enhancing the connection between RSCA and classroom activities to provide context for the curriculum while also engaging and inspiring students. These opportunities combine learning with discovery, mentoring with teaching, and knowledge with application. SJSU also recognizes the importance of RSCA to advance academic disciplines, improve quality of life on local and global levels, provide experiences for students that support retention, build the reputation of our institution, and bring in resources from outside agencies. Taking advantage of a location that places it in the heart of global innovation, the university is proud to partner with Silicon Valley through engagement with industry leaders, government agencies and nonprofits.

One Washington Square, San José, CA 95192-0001 | Dr. Mary A. Papazian, President | (408) 924-1000; www.sjsu.edu

This campus is on the semester system

California Polytechnic State University, San Luis Obispo (1901)

Cal Poly, San Luis Obispo,

is recognized by peer institutions and by U.S. News and World report as one of the nation's finest public, primarily undergraduate, institutions. The university is particularly well known for its outstanding programs in engineering, architecture, and agriculture. With over 6,000 acres, the campus is one of the largest in the nation and accommodates a working vineyard among other agricultural operations. With a recent completion of Poly Canyon Village, a spectacular sustainable living environment with a host of amenities, the primarily residential campus houses more than 6,300 students. Cal Poly's "learn by doing" philosophy permeates teaching, learning, and living as a campus community. Over 100,000 alumni and students have benefited from the Cal Poly advantage and have contributed to the state's and nation's intellectual and economic engines. Among its prominent alumni are Robert "Hoot" Gibson, five-time NASA astronaut, and Al Smith, founder of the Orchard Supply Hardware chain.

1 Grand Avenue, San Luis Obispo, CA 93407 | Dr. Jeffrey D. Armstrong, President | (805) 756-1111 | www.calpoly.edu

This campus is on the quarter system

California State University, San Marcos (1989)

Celebrating two decades of service, California State University, San Marcos (CSUSM) is a pioneer in providing broad access to quality instruction and a trail-blazer in hands-on education relevant to today's global and technology-rich society. The University is nationally recognized as a model of public accountability, institutional innovation and community engagement. CSUSM builds regional alliances that foster economic, social, and cultural development while inspiring student excellence and supporting faculty engagement in cutting-edge research and creative activities. At CSUSM, students graduate prepared to be tomorrow's leaders and equipped to solve critical 21st century problems.

333 S. Twin Oaks Valley Road, San Marcos, CA 92096-0001 | Dr. Karen Haynes, President | (760) 750-4000 | www.csusm.edu

This campus is on the semester system

Sonoma State University (1960)

Sonoma State University, founded as a teacher education center for the North Bay, is now a liberal arts and sciences university that provides high-quality undergraduate education and select graduate programs. Dedicated to the liberal arts and sciences and known for its active use of technology, the Sonoma State educational experience fosters intellectual, cognitive, social, and personal growth. The university's faculty and staff provide close mentoring relationships and an education that fosters ethical exploration, civic engagement, social responsibility, and global awareness combined with a solid foundation in an academic discipline.

1801 East Cotati Avenue, Rohnert Park, CA 94928-3609 | Dr. Judy Sakaki, President | (707) 664-2880 | www.sonoma.edu

This campus is on the semester system

Stanislaus State University (1960)

As the only public four-year university in the Northern San Joaquin Valley, Stanislaus State University serves a diverse student body of more than 9,200 on a beautiful 228-acre campus that is the region's largest urban forest. It has top programs in four colleges offering 42 undergraduate major programs, 23 master's programs, a doctoral program, seven credential programs, and eight certificate programs as well as an acclaimed executive MBA program. It is a federally-designated Hispanic-Serving Institution (HSI) that helps meet the workforce needs of the region with partnership programs in nursing, teacher education, business, and agriculture. The University is one of only two CSUs to offer cognitive studies and the forensic science concentration within the bachelor's degree in criminal justice. Stanislaus State was ranked the No. 1 public university in the nation for helping its students exceed expectations by Money. The University is designated with the Carnegie Foundation's Community Engagement Classification and has been named to the national President's Higher Education Community Service Honor Roll each year since its 2006 inception.

One University Circle, Turlock, CA 95382-0299 | Dr. Ellen N. Junn, President | (209) 667-3122 | www.csustan.edu

This campus is on the semester system.

We would like to acknowledge and thank all student presenters for sharing their amazing research, scholarship and creative activities during the 32nd Annual CSU Student Research Competition. It was an honor to showcase their outstanding work and talents. We are proud of all CSU students and honored to be the hosts for this statewide celebration of their accomplishments.

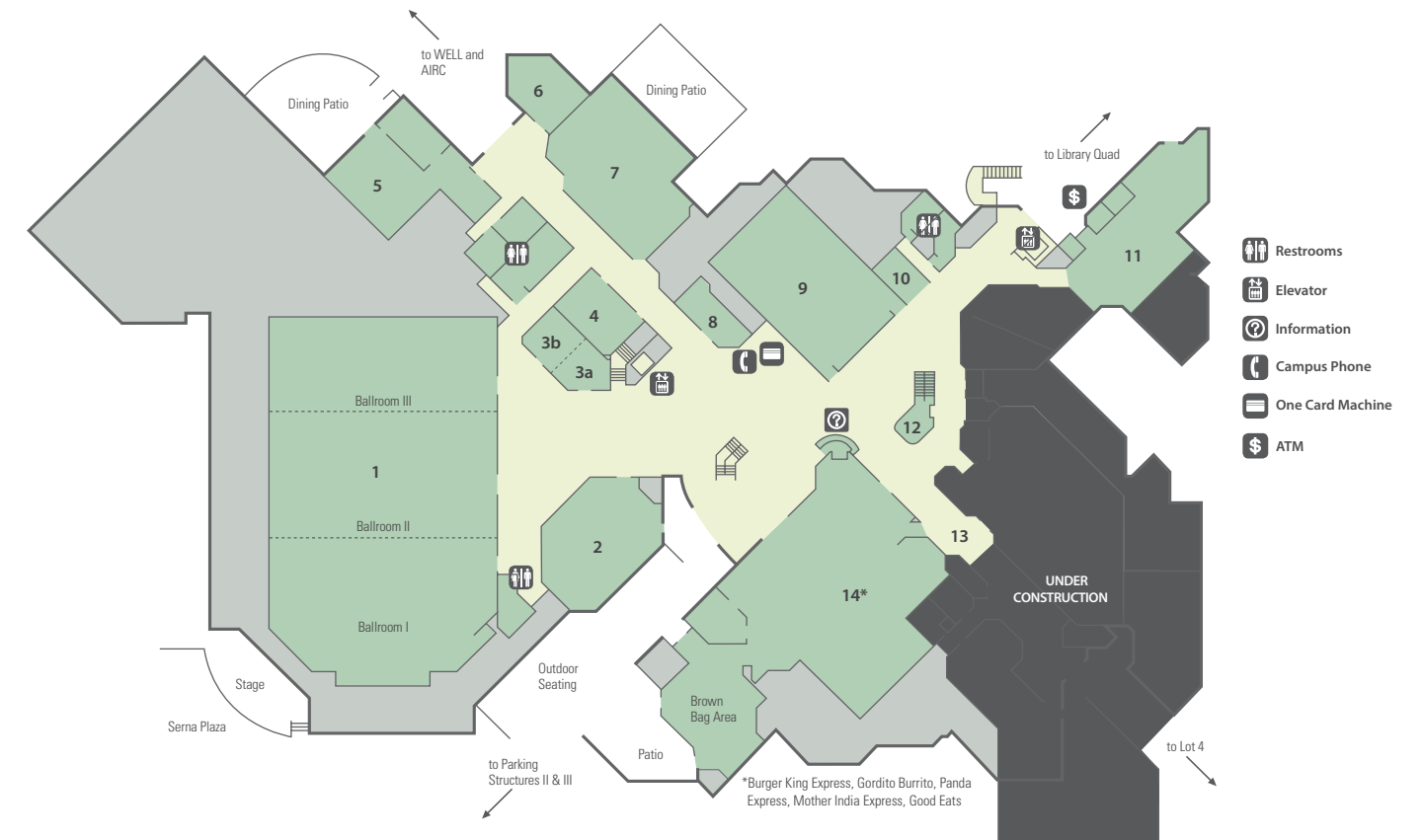
Many thanks to the outstanding faculty mentors of all CSU student presenters for supporting student projects and providing their guidance.

Thank you to all our community professionals for providing their diverse expertise to serve as jurors for our competition.

Thank you to all the moderators, volunteers, performers and staff. This event would not have been possible without your service.

This event would not have been possible without the collaboration of the outstanding staff, faculty and student assistants of the Office of Research, Innovation, and Economic Development and the Student Research Center. A special thank you to Julie McGinty and Hanh Tran for their help in coordinating and planning this event and to our event working group and planning committees that provided their input, expertise and time in making this event a success. We would also like to thank the University Union for providing the space, University Transportation & Parking Services for providing parking permits for our event participants, Reprographics for assistance with the program design, Epicure for catering, and Academic Affairs, ASI, Public Affairs and Advocacy, University Advancement, and the CSU Chancellor's Office for their support of this event.

Semarhy Quinones-Soto and Shannon Rexin
Sacramento State Campus Coordinators
 32nd Annual CSU Student Research Competition



01

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|--------------------------|----|----------------------------------|----|
| Eco Grounds | 12 | Police Service Center | 10 |
| Epicure Catering | 4 | Redwood Room | 9 |
| Epicure Restaurant | 5 | Round Table Pizza at the Hive | 7 |
| Hinde Auditorium | 2 | The Store | 11 |
| Hornet's Nest Food Court | 14 | University Union Ballroom | 1 |
| Jamba Juice | 8 | Vending Machines (food) | 13 |
| Lobby Suite | 3 | Women's Resource & PRIDE Centers | 6 |
| a Cypress Room | | | |
| b Sequoia Room | | | |

The following have been temporarily re-located during our expansion:

- ASI Hot Spot, KSSU Radio Station, & Saferides
- ASI Student Engagement & Outreach
- The Buzz
- Games Room
- State Hornet Newspaper
- Mother's Lounge
- Wellness Hub

For more info, please visit our Info Desk.

02



- Club Mailboxes 8
- Fireplace Lounge 7
- Forest Suite 3
 - a Oak Room
 - b Walnut Room
- Meditation Room 4
- Orchard Suite 2
 - a Orchard I
 - b Orchard II
 - c Orchard III
- Student Computer Lounge 10
- Student Organizations & Leadership 6
- Terminal Lounge 5
- University Union Gallery 1

03

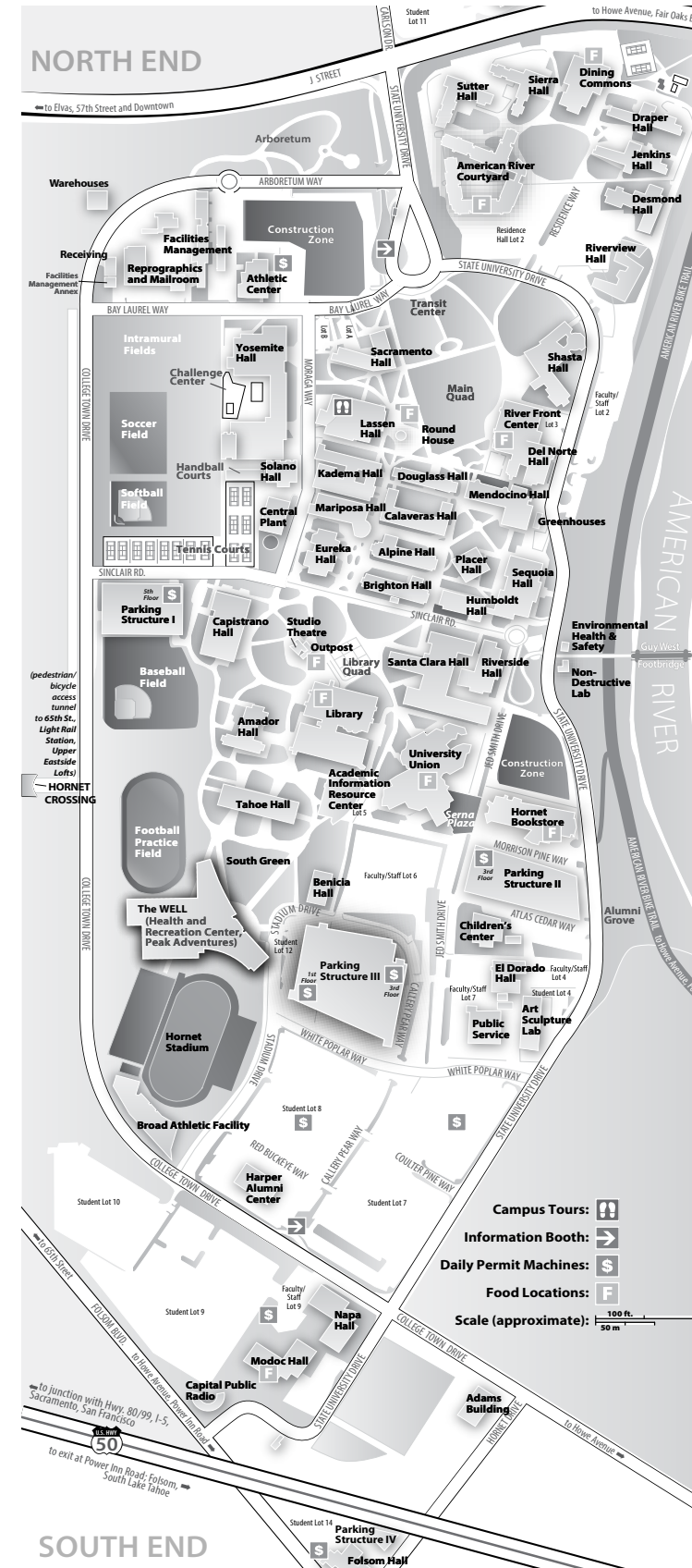


- California Suite 6
 - a Coastal Room
 - b Mountain Room
- Capital Room 2
- Event Services Office 9
- Foothill Suite 1
 - a Auburn Room
 - b Folsom Room
- Mother's Room 4
- Summit Room 5
- Union Administration 10
- UNIQUE Programs 7
- Valley Suite 3
 - a Miwok Room
 - b Maidu Room

The following have been temporarily re-located during our expansion:

- ASI Student Shop
- ASI Government Office
- ASI Business Office
- The Lab

For more info, please visit our Info Desk.



CALIFORNIA STATE UNIVERSITY SACRAMENTO

6000 J Street
Sacramento, CA 95819
www.csus.edu

SAC STATE

Parking is enforced 24 hours a day. Parking is \$6 and daily permits may be purchased at yellow kiosks marked **S** on map.

For specific parking information, there are information booths at both entrances to campus

