

Group	Entry	Team Members	Project name	Advisor	Major Concentration
UP	121	Aaron Miller and Bader Alroqi	Automated Door Lock	Dr. Tom Holton and	Mechanical and Computer Engi
GL	40	Abdul Azeez	A STUDY OF THE REACTION MECHANISM OF ARSENIC (III) WITH ZEROV	Dr. Bruce Mannin	Chemistry
GL	41	Adam Leung	High-Throughput Screening and Quantitation of Pesticide Residues on Food C	Dr. Pete Palmer	Chemistry
UL	81	Agni Naidu and W. Cameron Jasper	DNA Methylation in the Red Harvester Ant	Dr. Christopher S	Physiology
UP	110	Alejandro Samaniego	Using Knot Theory to Identify and Enumerate Knots of Circular DNA Molecules	Dr. Maria Elena V	Mathematics
GP	56	Alex Broley	Domains of Best Approximation	Dr. Yitwah Cheun	Analysis Mathematics
UL	87	Alexandra Koba and Laura Johnson	ANATOMY EDUCATION THROUGH DISSECTION: A REGIONAL APPROACH	Dennis Schulz and	Physiology
UP	111	Alexandra Miller	Unusual Beam Dynamics in 3-Dimensional Photonic Lattices	Dr. Zhigang Chen	Physics
GP	73	Amber Jean Kuss	Effects of Climate Variability on Recharge in Regional Aquifers of the United St	Dr. Jason Gurdak	Geosciences
GL	1	Andrew Core	A New Honey Bee Threat- the Parasitizing Phorid Fly <i>Apocephalus borealis</i>	Dr. John Hafernik	Ecology and Systematics
GP	77	Andrew Fittingoff	Light Curves of Kuiper Belt Objects and the Search for Kuiper Belt Binaries	Dr. Joseph Barrar	Physics
GP	74	Anita Engelstad	Wave damping across the Louisiana shelf	Dr. Tim Janssen	Oceanography
GL	17	Anithah Pillai	Histone acetylation profile changes in IFN-beta promoter region due to A	Dr. Steve Weinste	Cell and Molecular Biology
UL	95	Anna Batt	The role of a second shell hydrophobic interaction in trypsin-fold serine proteas	Dr. Teaster Baird	Biochemistry
GL	18	Anna Marie Tuazon	Characterization of Genome Instability in <i>cdc24</i> Mutants in <i>S. pombe</i>	Dr. Sally Pasion	Cell and Molecular Biology
UP	123	Antoine Griffin, Henry Slonsky, Haris Alijagic	HydroJet RC	Dr. Thomas Holto	Mechanical and Electrical Engir

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UL	88	Ariel Aveo	Ecdysis Triggering Hormone Induces Motor Patterns During the Intermolt Period	Dr. Megumi Fuse	Physiology
UL	89	Armbien Sabillo and Vanja Krneta-Stankic	Tracking Cell Migration during Muscle Formation in the <i>X. laevis</i> Embryo	Dr. Carmen Domi	Physiology
GL	19	Arthur Chase	RNAi Screen for Mitotic Spindle Matrix Components	Dr. Blake Riggs	Cell and Molecular Biology
GP	63	Ashley A Shimabuku	Cohen-Macaulayness of Initial Ideals of Normal Toric Ideals	Dr. Serkan Hoster	Mathematics
GP	52	Avissa Tehrani	ANONYMOUS COMMUNICATION IN MOBILE AD HOC NETWORKS	Dr. Hamid Shahn	Embedded Electrical & Comput
GL	20	Beatriz Alvarado	The synergistic effect of spindle assembly checkpoint activity and inhibition of r	Dr. Blake Riggs	Cell and Molecular Biology
UP	104	Brianne Mack, Shirin Usmani, and Diana Ma	Low Temperature Synthesis of {001} Oriented Anatase Films	Dr. Andrew Ichim	Chemistry
UL	82	Camila Teng	Frizzled10 Is Required For Cell Survival In the Chick Neural Tube	Dr. Laura Burrus	Cell and Molecular Biology
GL	3	Carol Umanzor	Investigating the Experiences of Graduate Women of Color in Biology	Dr. Kimberly Tann	Cell and Molecular Biology
GP	64	Catalina Betancourt	Extension of the Frobenius Coin Problem	Dr. Matthias Beck	Mathematics
GL	4	Celeste Dodge	Is a deadly disease causing the decline of another amphibian in the Sierra Nev	Dr. Vance Vreden	Ecology and Systematics
UL	96	Charles Bupp	Designing and Evaluating Portable X-Ray Methods for Counterfeit Pharmaceut	Dr. Peter T. Palm	Chemistry
UL	83	Chaundra Cox, Travis Siapno, Jessica Van	Cataloging Arthropod Biodiversity through DNA Barcoding at the California Aca	Dr. Christopher S	Physiology, MARINE BIO/LIMN
GP	65	Chris Chan	Evaluation of Tame Automorphisms	Dr. Joseph Gubel	Mathematics
GL	9	Christina Buck	SEASONAL FLUCTUATIONS IN PHYTOPLANKTON COMMUNITIES AND NU	Dr. Frances Wilke	Marine Biology
UP	112	Clarence Li, Linh Ly, Nathan Miao, Misty Ha	Double Arched Bridge	Dr. Cheng Chen	Civil Engineering

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UL	97	Conny Louridas	Electron microscope imaging of photo-dynamically treated LNCaP prostate cancer cells	Dr. Meden Isaac	Chemistry
UP	113	Daniel Aguirre, Ryan Oldham, Carlos Arias,	Geotechnical Home Development and Foundation Design	Dr. Tim D'Orazio	Civil Engineering
UP	125	Daniel Lake and Nathan Taylor	Thermoacoustic Refrigeration Test Unit	Dr. Morris Megeris	Mechanical Engineering
UP	114	David Cahill, Stephen Ramos, Melissa Ronc	Arch Nemesis Timber Bridge	Dr. Cheng Chen	Civil Engineering
UL	91	David Canio and Jared Geibig	Multiple Injections of Ecdysis Triggering Hormone Rescue Lost Ecdysis Behavior	Dr. Megumi Fuse	Physiology
GL	21	Deena Hassanein	Identification of a secreted osteoclastogenic factor in irradiated pre-osteoclasts	Dr. Steve Weinstein	Cell and Molecular Biology
UP	105	Devin Nelson	Alkali Metal Doped Zeolites as Solid State Reducing Agents	Dr. Andrew Ichimi	Physical and Materials Chemistry
GP	53	Di Lan	Design and Optimization of MEMS Implantable Passive Sensor for Biomedical Applications	Dr. Hao Jiang	Electrical Engineering
GP	66	Dido Salazar-Torres	Marked Poset Polytopes	Dr. Federico Ardila	Mathematics
GL	33	Diego Baptista	Developing a Cryogenic MCD Method to Study the Short-Lived Intermediates in the Reaction of Nitric Oxide with Ethanol	Dr. Raymond Esquerra	Biochemistry
UP	115	Dmitriy Lashkevich, Benjamin Zhang, and S	Geotechnical Analysis and Design, Senior Project Group 2	Dr. Tim D'Orazio	Civil Engineering
UL	98	Dug Mei and Leah Johnson	Effects of Sample Storage on Dissolved Organic Carbon Concentration in Marine Systems	Dr. Tomoko Komatsu	Biochemistry and Chemistry
GL	34	Eliot Morrison	Cofactor Recycling in Catabolic Metabolism of Styrene in <i>Pseudomonas putida</i>	Dr. George Gassner	Biochemistry
UP	108	Emilio Esposito and Richard Soss	Wave Rider Buoy	Dr. Tim Janssen	Oceanography
GL	25	Emily Tung	Ultrastructure of thermophilic Archaeon Nitrosocaldus yellowstonii	Dr. José de la Torre	Microbiology
UP	107	Enrique Maycotte	Mobile Device Controlled Robot	Dr. William Hsu	Computer Science

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GL	22	Farzad Ghamsari	Myotome Pioneers Cells (MPs) Not A First Myogenic Wave in Somites of Chick	Dr. Wilfred Denet	Cell and Molecular Biology
GP	75	Forrest Horton, Willie Hassett, and John So	Geochronology and zircon geochemistry of Greater Himalayan leucogranites, N	Dr. Mary Leech	Geosciences
GL	10	Hayley A. Carter	Effects of Ocean Acidification on the physiology of porcelain crab <i>Petrolisthes</i> c	Dr. Jonathon Still	Marine Biology
UP	126	Heather Esposito	Human-Powered Forward-Propelled Rowing Mechanism	Dr. Morris Megeri	Mechanical Engineering
GL	26	Hope M. Gray and Robert M. Theis	Evolution at the Origin: Comparative Genomics of the Archaea	Dr. Jose R. de la	Microbiology & Computer Scien
GP	76	Isaac Jones	Observations of wave-driven surf-zone dynamics on a high-energy beach, Oce	Dr. Tim Janssen	Oceanography
GL	5	Issam Jadrane and Mikhail Kornievsky	Colletotrichum causes green island formation in white <i>Phalaenopsis</i> petals	Dr. Zheng-Hui He	Cell & Molecular Biology and Bc
GP	67	Jack Love	Polytope theory: Mapping the square to the line segment	Dr. Joseph Gubel	Polytope Theory
UL	84	Jainee Lewis and Mina Mostafavi	Regulatable gene expression in the plant symbiont <i>Sinorhizobium meliloti</i>	Dr. Joseph Chen	Cell and Molecular Biology
GP	78	James A. Osborne	"Duality Violations in QCD"	Dr. Maarten Golte	Theoretical Particles
GP	57	James Phillips	On Carmichael numbers with three distinct prime factors	Dr. Neville Robbin	Mathematics
UL	90	Jared Geibig and David Canio	Profiles of cGMP are Altered During Artificially-Induced Ecdysis Behaviors in D	Dr. Megumi Fuse	Physiology
GL	27	Jason Liu	MicroRNAs, miR-302 and miR-372, promote human fibroblast reprogramming i	Dr. Carmen Domi	Cell and Molecular Biology
UL	99	Jessica Angat, Megan Montgomery, Philip S	Effects of chronic β -blocker infusion on wild-type C57BL6/J mouse strain	Dr. Teaster Baird	Biochemistry
UL	100	Jessica Shealor	Improved Method for Screening Leachable Elements in Tableware	Dr. Peter Palmer	Biochemistry
GL	42	Jicheng Zhang	Synthesis and evaluation of urearetics: a novel class of urea-transport targetin	Dr. Marc Anderso	Chemistry

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GP	54	Jimmy Zhang	A High-Power Versatile Wireless Power Transfer for Biomedical Implant	Dr. Hao Jiang	Electrical Engineering
GL	43	Jing Xiao	A New Bafilomycin with HDAC Inhibitory Activity from a Marine-Derived <i>Strepto</i>	Dr. Taro Amagata	Chemistry
UP	127	Joachim Pedersen, Heather Esposito, and M	Rapid Plasma-Assisted, Ambient-Pressure Deposition of Conformal Nanocryst	Dr. Kwok-Siong T	Mechanical Engineering
UP	116	Jonathan Potter, Ghazal Oshagi, Daniel Kw	Geotechnical Home Development Settlement Analysis and Foundation Comp	Dr. Tim D'Orazio	Civil Engineering
UP	124	Jose Herrera, Santee Hernandez, and Rayn	Smart Irrigation System	Dr. Thomas Holto	Mechanical and Electrical Engin
GL	44	Juri Fukuda	Organic synthesis of IGF-1R inhibitor analogs for breast cancer therapy	Dr. Marc Anderso	Chemistry
UL	101	Kate Markham, Dr. Christian Gaertner, and	A Novel Tandem Intramolecular Cyclopropylnitron Cycloaddition-Cycloreversi	Dr. Ihsan Erden	Biochemistry
GP	58	Katrina Wono	Analyzing TnpI Site-Specific Recombination at Hybrid Sites Using the Tangle M	Dr. Maria Elena V	Mathematics
GL	11	Kristine Okimura	Physiological responses to ocean acidification in multiple strains of <i>Emiliana h</i>	Dr. Ed Carpenter	Marine Biology
GL	6	Lakisha Witzel	Investigating Elementary School Students' Perceptions About the Benefits of In	Dr. Kimberly Tann	Conservation Biology
GL	28	Lidia Tekie	Cell therapy as a novel myopia treatment: determining a directed differentiation	Dr. Carmen Domi	Cell and Molecular Biology
GL	12	Lina Ceballos-Osuna	Developmental effects of ocean acidification porcelain crab of the genus <i>Petro</i>	Dr. Jonathon Stillr	Marine Biology
GL	23	Linda Szabo and Lydia Li	Analysis of the Role of Wntless in Formation of the Wnt Gradient in the Chick N	Dr. Laura Burrus	Cell and Molecular Biology
GL	45	Lisa van Diggelen	Synthesis of Amino Acid-Substituted Tetraphenylporphyrins for the Use in Pho	Dr. Ursula Simon	Biochemistry
GP	68	Logan Godkin	Extension of Graph Polynomials to Signed Graphs	Dr. Matthias Beck	Mathematics
UL	92	Louie Ramos	Characterizing the Hormone Signaling Pathway of Damage Induced Developm	Dr. Megumi Fuse	Physiology

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GP	46	Manori Thakur and Gary Ng	" DeBugger" - The MultiPlatform Educational Game	Dr. Ilmi Yoon	Computer Science
GP	47	Marc Sosnick	Efficient Finite Difference-based Sound Synthesis using GPUs	Dr. William Hsu	Computer Science
UL	93	Marie Danica Obligacion	Michael and Conjugate Additions onto Fulvenes and 6-Vinylfulvenes	Dr. Ihsan Erden	Physiology
GL	29	Mariela Pauli	Suppression Assay Development: Treg's role in suppressing anti-donor T cells	Dr. Frank Bayliss	Cell and Molecular Biology
UP	109	Matthew Kassouf and Alexandria Andonian	Vertical Profiling of the Surface Boundary Layer Using the CSU-MAPS Vaisala	Dr. Andrew Oliphant	Atmospheric Science
GP	69	Mela Hardin	A new two-variable chromatic polynomial for signed graphs	Dr. Matthias Beck	Mathematics
GL	30	Michelle Wray	Manufacturing Donor-specific Regulatory T cells	Dr. Qizhi Tang (UC)	Microbiology
GL	35	Mie A. Lansang	Partial Activity Restoration of an Engineered Threonine Trypsin by Substitution	Dr. Teaster Baird	Biochemistry
GL	31	Miyuki Suzuki	Multi-organ segmentation with missing organs; atlas-guided approach	Dr. Kazunori Okada	Computer Science
GP	60	Mousa Rebouh	Analysis of breast cancer data using topological and geometrical methods.	Dr. Maria Elena V	Mathematics
GP	48	Nandeesh Channabasappa Rajashekar, Ian	Android Debugger Game with features like treasure hunt, weapons and ammuni	Dr. Ilmi Yoon	Computer Science
UP	117	Nicholas Schulz, Lisette Berumen, Corey W	SFSU Steel Bridge Team	Dr. Cheng Chen	Civil Engineering
UL	94	Nicholas Silva and Sayed Miry	The immediate responses of imaginal discs and hemocyte population to irradiation	Dr. Megumi Fuse	Physiology
GP	70	Nick Dowdall	A new Two variable Chromatic Polynomial for signed graphs	Dr. Matthias Beck	Mathematics
GP	79	Patrick Dunn	Center vortices and quark confinement	Dr. Jeff Greensite	Physics & Astronomy
GL	36	Pooncharas Tipgunlakant, Daniel Asarnow,	The effect of magnesium on nitric oxide synthase activity	Dr. Raymond Esquivel	Biochemistry

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GL	37	Priyanka Chandrasekaran	Preparation and biochemical characterization of mutants of Styrene Monooxygenase	Dr. George Gassner	Biochemistry
UP	118	Randy Leonard, Oskar Garcia, Qi Ming Zeng	SFSU 2011 EERI Seismic Design Competition Team	Dr. Cheng Chen	Civil Engineering
UL	102	Ronald Tan	A Study of the Effect of Polarity in the Orotidine 5'-Monophosphate Decarboxylase	Dr. Weiming Wu	Biochemistry
GL	13	Roth Ea, Laura Mendoza, Adrian Chase, Abigail	The Role of GABA as an Inhibitory Neurotransmitter during Ecdysis in <i>Manduca sexta</i>	Dr. Megumi Fuse	Behavioral Biology and Physiology
GL	7	Sam McNally	Retrospective Survey of an Amphibian Pathogen in the Sierra Nevada	Dr. Vance Vredenburg	Conservation Biology
GL	14	Sarah Blaser	Effect of diuron and imazapyr herbicides on phytoplankton in the San Francisco Bay	Dr. Frances Wilke	Marine Biology
UP	122	Sean Carrington and Lorenzo Were	Internet Alarm Clock	Dr. Thomas Holter	Electrical Engineering
UP	128	Shifteh Shannon and Thomas Jimenez	The walker robot	Dr. Morris Megeris	Mechanical Engineering
GL	38	Sindy Liao	Biochemical Characterization of an N-terminally Histidine Tagged Styrene Oxidase	Dr. George Gassner	Biochemistry
GL	24	Stephanie Hyland and Lilia Torres	Developing a real-time Taqman PCR assay to detect violacein from <i>Janthinobacterium</i>	Dr. Vance Vredenburg	Cell and Molecular Biology
GP	61	Steven Li	Identifying Avian Vocalizations Through the Gabor Transform	Dr. Shidong Li	Mathematics
GP	80	Suzanne Hayward	A Search for Helium-Core White Dwarfs in Omega Centauri	Dr. Adrienne Coolidge	Physics and Astronomy
GP	62	Tatsiana Maskalevich	TESTING CHROMOSOME PROXIMITY HYPOTHESIS USING LOG-LINEAR MODELING	Dr. Serkan Hosteller	Mathematics
GP	49	Teague Sterling and Cassidy Kelly	WICE — An Extensible Web Interface for Scientific Computation Chains	Dr. Ilmi Yoon	Computer Science
GP	50	Teague Sterling and Trevor Blackstone	FEATURE 2.0 - A Software Collaboration Between Stanford and SFSU	Dr. Dragutin Petkovic	Computer Science
UL	85	Thais Cintra, Dr. Jui-ching Wu, Aiza Go, and	Defining Roles of Evolutionary PP1 Phosphatases in Sperm Function and Male	Dr. Diana Chu	Physiology

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UP	120	Thomas Pedersen and Shaun Dern	Smart Chessboard	Dr. Tom Holton	Computer Engineering
GP	71	Tia Baker	Poset simplification of reconfigurable systems	Dr. Federico Ardil	mathematics
GL	8	Tina Cheng	COINCIDENT MASS EXTIRPATION OF NEOTROPICAL AMPHIBIANS WITH	Dr. Vance Vreden	Ecology and Systematics
GP	51	Tingting Sun	Automatic Lesson Planner	Dr. Kazunori Okai	Computer Science
GL	15	Tracy Wadsworth	Establishing the Presence of a Circadian Rhythm Regulating Ecdysis Behavior	Dr. Megumi Fuse	Behavioral Biology and Physiolo
GL	32	Trevor Gokey	<i>In silico</i> prediction of enzymatic activity of threonine protease variants.	Dr. Anton Guliaev	CCLS
GP	72	Tu Trung Pham	Enumeration of Golomb Rulers	Dr. Matthias Beck	Mathematics
UL	86	Tyler Curran and Seung Jong Lee	Ectoderm Periderm Cells Undergo Major Morphological Changes at the Neural	Dr. Wilfred Denet	Cell and Molecular
UL	103	Vedud Purde	How Cargos Move Towards the Microtubule Minus Ends in Plant Cells	Dr. Ahmet Yildiz (Biochemistry
UP	119	Vincent Diep, Omid Masoui, José E. Pérez,	Construction Scheduling and Estimating	Dr. Timothy D'Ora	Civil Engineering
GL	16	Xi Chen	Is there a synergistic effect of thermal and osmotic stress on metabolic perform	Dr. Jonathon Stillr	Marine Biology
GP	55	Xu Zhou	Reliability Enhancement of Power Gating Transistor under Time Dependant Di	Dr. Hamid Mahm	Electrical Engineering
GL	39	Zahira Begum	Investigation of Rat Anionic Trypsin's Catalysis by Mutation of Phenylalanine 4	Dr. Teaster Baird	Biochemistry

D	2	John Youngblood	Unlocking the Cage: The Effect of a Y39F Substitution on Serine Protease Acti	Dr. Teaster Baird	Biochemistry
D	1	Leah Johnson	Determination of natural 14C abundances in dissolved organic carbon in organ	Dr. Tomoko Koma	Applied Geosciences

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Withdrew		Emelia Halog Padilla, Lea Lough, and Dr. R	Monitoring effect of ligand binding to myoglobin using Magnetic circular dichroism	Dr. Raymond M. E	Biochemistry
Withdrew		Kathryn Danielson	Investigating Undergraduates' Conceptions & Misconceptions of Ocean Climate Change	Dr. Kimberly Tanr	Marine Biology
Withdrew		Shreyas Kumar Krishnappa	Comparative BTI Reliability Analysis of SRAM Cell Designs in Nano-Scale CMOS	Dr. Hamid Mahm	Embedded Electrical and Comp
Withdrew		Rabab AbdulAziz Khodary	The role of Arf1 in mitotic chromosome segregation	Dr. Blake Riggs	Cell and Molecular Biology
GP	77a	Pariskeh Hosseini	EBSD analysis of eclogites rocks from the Marun-Keu complex, Polar Urals	Dr. Mary Leech	Geosciences
GL	2	Carla DiGennaro	Balancing Act: How does the male maritime earwig (<i>Anisolabis maritima</i>) balance	Dr. Andrew Zink	Ecology and Systematics
UP	106	Diana Mars	Hydrothermal Synthesis of Pyrite Thin Films on Gold Substrates	Dr. Andrew Ichim	Chemistry
GP	59	Mike Steiner	Homological analysis of signaling pathways	Dr. Javier Arsuaga	Mathematics

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