A. HIGHLIGHTS

- Science & Technology faculty and staff provided over 2120 FTES (full time equivalent students) of instruction across biology, chemistry, computer science, engineering, geology, kinesiology, mathematics & statistics, nursing and physics & astronomy disciplines. This includes lecture, laboratory, field, clinical, online and other instructional settings as well as courses for general education, major and supporting requirements, and electives.
- Science & Technology are outstanding teachers as evidenced by Student Evaluation of Teaching Effectiveness aggregate scores that report SST faculty are rated as “Very Effective” across all evaluation criteria. With more than 4800 student responses (Spring 2016) and on a 5 point scale, SST faculty averaged scores well above 4.0 (very effective) and amongst the highest rated were: “displayed competence in course topics” (4.56/5.0), “displayed enthusiasm for teaching the course” (4.55/5.0), “enabled students to participate actively in learning” (4.43/5.0) and “my instructor provides opportunities to question ideas in class” (4.44/5.0).
- Science & Technology faculty continue to actively seek funding from external and internal funding sources to further our vision and mission. Science & Tech Principal Investigators have 33 active sponsored projects totaling nearly $15M in external state and federal funding. Of these, 19 awards totaling $3.86M are new (start dates in 2015 and 2016). Of the continuing awards, Lynn Cominsky’s FERMI award has been ongoing (since 2000) with total funding of $8,209,203.
- Science & Technology faculty continue as leaders in their fields as evidenced be the following standout achievements:
  - Lynn Cominsky (Physics & Astronomy, SSU Education & Public Outreach Group) is part of the team of scientists that detected gravitational waves in February 2016. Dr. Cominsky has been part of LIGO (Laser Interferometer Gravitational-wave Observatory) since 2007, first as a member of LIGO’s program advisory committee and now as the chair of the LIGO Scientific Collaboration’s education working group. LIGO’s observation confirmed a key component of Albert Einstein’s theory of general relativity by detecting gravitational waves emanating from the collision of two black holes.
  - Dan Crocker (Biology) was elected a Fellow by the California Academy of Sciences. This reflects Dr. Crocker’s distinguished contributions to the natural sciences – particularly in the fields of Ecology and Physiology. He joins Academy Fellow Matt James (SSU Geology).
  - Lynn Cominsky (Physics & Astronomy, SSU Education & Public Outreach Group) received the CSU Wang Family Excellence Award. The Wang Award recognizes four outstanding faculty across the system who have distinguished themselves by exemplary contributions and achievements.
  - Martha Shott (Mathematics & Statistics) received the Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member award from the Mathematical Association of America's Golden Section. February 2016. Award honors beginning university faculty whose teaching has been extra ordinarily successful and whose effectiveness in teaching undergraduate mathematics is shown to have influence beyond
their own classrooms. Shott is the first recipient of this award from the MAA Golden Section, which consists of Northern California, Nevada, and Hawaii.

- The 4th Annual SSU Science Symposium was held on May 4, 2016 as part of the campus wide SSU Symposium on Research and Creativity. The Symposium featured talks by talks by freshmen in the SCI 120: A Watershed Year Learning Community and a poster session showcasing the scholarship and achievements of students in the School of Science and Technology as well as collaborations across disciplines and with community partners as part of the WATERS Collaborative. Over 100 posters representing the work of over 200 students were included. See the program and poster abstracts at: http://www.sonoma.edu/scitech/symposium/SciSympoProgram16.pdf

### B. SUMMARY OF ACCOMPLISHMENTS

The national call to spur innovation by strengthening the STEM talent pool is being heard loud and clear by the School of Science & Technology (SST) along with the call to address the changing healthcare landscape. SST is committed to student success defined most broadly as attracting, retaining, and graduating well-prepared students in SST disciplines. This commitment translates into initiatives encompassing teaching excellence and curriculum innovation, impactful student experiences, strong SST student communities, and a vibrant research environment. This summary of accomplishments provides insight into the many efforts taken across all departments in Science & Technology in 2015-16 to meet this vision and mission.

### C. PUBLICATIONS

#### 1. Biology

dolphins contributes to avoiding accumulation of non-recyclable purines Frontiers in Physiology (in press).


z. N. Christie and N. R. Geist. Temperature Effects on development and phenotype in a free-living population of western pond turtles (Emys Marmorata). (in review, Physiological and Biochemical Zoology)


2. Chemistry


3. Computer Science


4. Engineering Science


5. Geology


c. Mookerjee, M. NSF funded Research Coordination Networks (RCN) project as part of Earthcube (NSF geosciences effort); two articles published by The Geological Society of America (http://www.geosociety.org/gsatoday/archive/25/11/article/1052-5173-25-11-34.htm) and EOS: Earth & Space Science News (https://eos.org/project-updates/field-data-management-integrating-cyberscience-and-geoscience)

6. Kinesiology


7. Mathematics & Statistics


8. Nursing


9. Physics & Astronomy


D. PRESENTATIONS

1. School level

   a. The 4th Annual SSU Science Symposium was held on May 4, 2016 as part of the campus wide SSU Symposium on Research and Creativity. The Symposium featured talks by talks by freshmen in the SCI 120: A Watershed Year Learning Community and a poster session showcasing the scholarship and achievements of students in the School of Science and Technology as well as collaborations across disciplines and with community partners as part of the WATERS Collaborative. Over 100 posters representing the work of over 200 students were included. See the program and poster abstracts at: http://www.sonoma.edu/scitech/symposium/SciSympoProgram16.pdf


2. Biology


   g. Place, S. "Epigenetic regulation and local adaptation in marine mussels". Rosenberg Institute Seminar Series at Romberg Tiburon Center, San Francisco State University CA, April 6, 2016.

   h. Place, S. “Molecular and physiological response of fishes in the Southern Ocean to ocean acidification and ocean warming”. CSU East Bay, Hayward, CA, Feb. 5 2016.

   i. Place, S. “Synergistic effects of ocean acidification and elevated temperature alter the energy landscape of an extreme stenotherm, Trematomus bernacchii”. American Fisheries Society, Portland, OR, Aug. 16-20, 2015.

   j. Rank, N. Research seminar given to entomology graduate students at the University of California-Berkeley. "Mitonuclear interactions and evolutionary physiology of montane leaf beetles along environmental gradients." April 1, 2016


   m. Rank, N. Society of Integrative and Comparative Biology annual meeting in Portland Oregon (co-


r. St. John, W. "Animals of Our Creeks, Rivers, and Marshes" given as part of the Sonoma Land Trust's 40th anniversary speakers' series, Petaluma, May 11, 2016

3. Computer Science


4. Engineering Science


c. Farahmand, Global City Team Challenge: Advanced Flood Warning and Environmental Awareness System for the City of Rohnert Park (AFWEAR) – IoT Based (City of Rohnert Park), Washington DC, 2016 https://www.us-ignite.org/globalcityteams/actioncluster/. For the first time, a team of SSU faculty and students participated in the The Global City Teams Challenge (GCTC) Tech Jam and presented their project proposal within the Internet-of-Things (IoT) Enabled Smart City Framework.


e. Farahmand, GCTC Expo, Demonstrating a working prototype of an Advanced Flood Warning and Environmental Awareness System, Austin, TX, June 2016


5. Geology

6. Kinesiology


7. Mathematics & Statistics

a. Math Festival Poster Session: more than 20 student teams presented posters on advanced mathematics topics at the annual Math Festival in April 2016. Several students also presented at the science symposium in May 2016.


d. Lahme, B. MAA Committee on Professional Development Panel Discussion: Mid-career faculty - Charting the next half of your career, Joint Mathematics Meetings, Seattle, January 2016 (invited panelist).

e. Lahme, B. Panel Discussion: “Work in Mathematics Education in Departments of Mathematical Sciences,” Joint Mathematics Meetings, Seattle, January 2016 (invited panelist).


g. Shott, M. "A Watershed Year in STEM Education at Sonoma State University." Presented as a part of the Themed Contributed Paper Session entitled: Curriculum and Course Development to Support First Year STEM Students. MAA MathFest, Washington, DC. August 2015.


8. Nursing

a. Kelly, M. Teacher Technology Showcase: steps to implement audio/video assignments in online courses.


c. Kindy, D. FYE Wednesday lecture, Sex and Identity 12/15

d. Roberts, D. 2016 Nursing Education Conference "Barriers to a Permanent Medical Home"


9. Physics & Astronomy


c. Severson, S. USF Colloquia Presentation "A Sharper view of the Universe" 2015-09-17

d. Severson, S. PhysTEC Annual Conference, "Building the Sonoma State University Physics Teacher Pipeline" 2016-02-11

e. Shi, H. "Fabrication and Structural Characterization of Highly Ordered Titania Nanotube Arrays" by Hongtao Shi and Rosita Ordonez, presented at the 2016 American Physical Society March Meeting with about 9200 attendees in Baltimore, MD from 3/13/16-3/18/16.


E. NEW FUNDING AWARDED IN 2015-16

Science and Technology continues to actively seek funding from external and internal funding sources to further our vision and mission. SSU Sponsored Programs reports that as of July 10, 2016, Science & Tech Principal Investigators have 33 active projects totaling nearly $15M in external state and federal funding. Of these, 19 awards totaling $3.86M have start dates in 2015 and 2016.
1. **Campus Funding Awards** *(some duplicate listings under departments)*

   a. SSU Office of Undergraduate Research (SOURCE) Research Awards to Faculty - $28,000 awarded to Science & Technology faculty to fund 28 different projects engaging 40 student researchers mentored by 19 faculty.

   b. SSU Office of Undergraduate Research (SOURCE) Research Awards to SST Students - $11,350 awarded to 21 projects supporting the research of 27 undergraduates working with 13 different faculty mentors.

   c. In 2015-16, SSU Instructionally Related Activities (IRA) funds were awarded to 11 Science & Technology programs for a total of ~$70,000. The programs are: Biology Colloquium, Biology Curatorial Fellowship Program, Chemistry Seminar Series, Computer Science Colloquium, Engineering Lecture Series, Entomology Education & Outreach, Health Professions Advisory Program, Kinesiology Health and Wellness Program, Math Colloquium, Observatory Viewing Nights, and Physics Seminar Series.

   d. SSU Watershed Academics to Enhance Regional Sustainability (WATERS) Collaborative funding to support faculty in their work with students on regional watershed management projects in the Russian River watershed. Totals to SST faculty: $4970 for Fall 2015 and $3710 Spring 2016.

2. **Biology**

   a. **Cohen, M.** SSU Undergraduate Research (SOURCE) Faculty Award, $1,000

   b. **Cohen, M.** SSU RSCA Mini Grant (2016-17), $4,435

   c. **Cushman, J.H.** SSU Undergraduate Research (SOURCE) Faculty Award, $1,000


   e. **Crocker, D.** SSU Undergraduate Research (SOURCE) Award, $1,000

   f. **Geist, N.** Reintroducing Western Pond Turtles in the Golden Gate National Recreation Area (co-PI); National Parks Service, $40K.

   g. **Geist, N.** Keeping Western Pond Turtles SAFE in Mountain Lake: A Community Collaboration (co-PI), Association of Zoos and Aquariums Conservation Endowment Fund, $20K


   i. Transcriptome analysis of marine mammal stress responses and tissue energy usage. NSF Extreme Science and Engineering Discovery Environment (XSEDE), 50,000 service units at Texas Advanced Computing Center resources, 2015–2016. PI: **Khudyakov JI**.

   j. **Lin, J.** Two SSU Undergraduate Research (SOURCE) Faculty Awards, $2,000.


   l. **Place, S.** CSU Council on Ocean Affairs, Science and Technology (COAST) Undergraduate Student Research Support Program: $778 (PI). 1/1/16 – 05/31/16. Profiling the methylation status of the innate immune response gene, MPEG1"

   m. **Place, S.** RSCAP Summer 2016 Fellowship Award, “The Energetic Cost of Acclimating to Changing Environments,” $3,000

   n. **Rank, N.** 2016-17 Wenner-Gren Foundation for Stockholm University in Sweden. 80,000 Swedish kroner for housing and living costs from Sept 15 2016 to Jan 15 2017 during my sabbatical. Work with Professor Christopher Wheat, Department of Zoology at Stockholm University

   o. **Rank, N.** 2016-18 NSF. Division of Integrated Organismal Systems. Physiological and genetic basis of responses to winter in a Sierra willow leaf beetle. Collaborative proposal with C. Williams of UC-Berkeley; coPIs J. Stillman (UC-Berkeley), N.E. Rank and E.P. Dahlhoff. $750,102,
with $48,995 to SSU

p. **Zippay, M.** 2016 NSF; Integrative Organismal Systems; Project Title: Collaborative: Using an energetics framework to forecast the interactive effects of abiotic and biotic stressors on intertidal mussels (total award amount: $575,704).

q. **Zippay, M.** SSU Undergraduate Research (SOURCE) Faculty Award, $1,000

### 3. Chemistry

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<tr>
<td>a.</td>
<td><strong>Farmer, S.</strong> SSU Undergraduate Research (SOURCE) Faculty Award, $1,000</td>
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<td>b.</td>
<td><strong>Lares, M.</strong> SSU Undergraduate Research (SOURCE) Faculty Award, $1,000</td>
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<td>c.</td>
<td><strong>Lares, M.</strong> SSU RSCA Mini Grant (2016-17), $4,407</td>
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<tr>
<td>d.</td>
<td><strong>Perri, M.</strong> SSU Undergraduate Research (SOURCE) Faculty Awards, $2,000</td>
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<tr>
<td>e.</td>
<td><strong>Sharrett, Z.</strong> RSCAP Summer 2016 Fellowship Award, “Quantification &amp; Analysis of Locally Grown Hops in Sonoma County,” $3,000</td>
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<td>f.</td>
<td><strong>Whiles-Lillig, J.</strong> Three SSU Undergraduate Research (SOURCE) Faculty Awards, $3,000</td>
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<td>g.</td>
<td><strong>Works, C.</strong> CSU Course Redesign with Technology (CRT) Proven Adopting Faculty program grant (2016-17), $17,000</td>
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<td>h.</td>
<td><strong>Works, C.</strong> Four SSU Undergraduate Research (SOURCE) Faculty Awards, $4,000</td>
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### 4. Computer Science

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<tr>
<td>a.</td>
<td><strong>Gill, G.</strong> RSCAP Mini-grant awarded for Spring semester 2016 for the amount of $3000</td>
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<tr>
<td>b.</td>
<td><strong>Ravikumar, B.</strong> Application of Machine learning for FMRI and EEG data analysis (RSCAP) jointly with Gurman Gill.</td>
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<tr>
<td>c.</td>
<td><strong>Ravikumar, B.</strong> SSU Undergraduate Research (SOURCE) Faculty Awards, $1,000.</td>
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### 5. Engineering Science

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<tr>
<td>a.</td>
<td><strong>Farahmand, F.</strong> Global City Team Challenge Expo - Travel Grant, Austin TX, June 2016, Provided by National Institute of Standards and Technology (NIST), USIgnite, and IBM, $3,000</td>
</tr>
<tr>
<td>b.</td>
<td><strong>Kassis, S.</strong> CSU Course Redesign with Technology (CRT) – Virtual Labs program grant (2016 – 2017), $20,000</td>
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<tr>
<td>c.</td>
<td><strong>Farahmand, F.</strong> Environmental Sensor Network for Academic Programs (IRA) Grant (S’16 – S’17), $7000</td>
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<tr>
<td>d.</td>
<td><strong>Farahmand, F.</strong> and <strong>Cohen, M.</strong> WATERS Grant (S’16 – S’17), $2500</td>
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<tr>
<td>e.</td>
<td><strong>Farahmand, F.</strong> Underground Wireless Sensor Network (S’15) – supported by Lawrence Berkeley Laboratory (S’16 – S’17), $5000 in kinds</td>
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<td>f.</td>
<td><strong>Farahmand, F.</strong> Smart Cane: recording and analyzing walking patterns (S’16) – Funded by NSF-I-CORPS, $2500</td>
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<td>g.</td>
<td><strong>Farahmand, F.</strong> SSU RSCA Mini Grant, SSU (2016 – 2017), $4,378</td>
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### 6. Geology

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<tr>
<td>a.</td>
<td><strong>Anfinson, O.</strong> Paleozoic history of the Yreka Terrane Eastern Klamath Mountains, SSU SOURCE Faculty Award. $1000</td>
</tr>
<tr>
<td>b.</td>
<td><strong>James, M.</strong> SSU Undergraduate Research (SOURCE) Faculty Award, $1,000</td>
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<td>c.</td>
<td><strong>Mookerjee, M.</strong> Received a new NSF award for the 2016 Structural Geology and Tectonics Forum, $16,517.</td>
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### 7. Kinesiology

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<tr>
<td>a.</td>
<td><strong>Sollanek, K.</strong> Project title: Trials to assess the beverage hydration index of oral rehydration solutions. Funding agency: Entrinsic Health Solutions, LLC (Enterade ®). Funding: Total costs not to exceed $25,000.</td>
</tr>
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### 8. Mathematics & Statistics
**9. Nursing**

a. Kelly, M. SSU Undergraduate Research (SOURCE) Faculty Awards, $1,000  
b. Roberts, D. SSU Undergraduate Research (SOURCE) Faculty Awards, $1,000.  
c. Wilkosz, M.E. Distance Rural FNP Program/Song Brown Office of Statewide Planning and Development $185,000  

**10. Physics & Astronomy**

a. June 2015, Fermi and Swift Communications and Outreach, NASA, L. Cominsky, Principal Investigator, $300,000 for 6/1/2015 – 5/31/2018  
b. Qualls, J. "Water Harvesting" SSU SOURCE Faculty Award $1000.  
c. Qualls, J. "Quantifying Risks of Douglas Fir Encroachment at Fairfield Osborn Preserve" SSU Norwick Award $1000.  
d. Severson, S. SSU Undergraduate Research (SOURCE) Faculty Award, $1,000  
e. Shi, H. Three SSU Undergraduate Research (SOURCE) Faculty Awards, $3,000  
f. Targett, T., RSCAP Summer 2016 Fellowship Award, “An ALMA 1.3-mm Image of the Ultra Deep Field,” $3,000  

**F. CONTINUED FUNDING**

Science and Technology continues to actively seek funding from external and internal funding sources to further our vision and mission. SSU Sponsored Programs reports that as of July 10, 2016, Science & Tech Principal Investigators have 33 active projects totaling nearly $15M in external state and federal funding. Of these, 19 awards totaling $3.86M have start dates in 2015 and 2016. Of the continuing awards, Lynn Cominsky’s FERMI award has been ongoing (since 2000) with total funding of $8,209,203.

**1. Science & Technology School Level**

a. 2011-17. NSF. Division of Undergraduate Education. S3: STEPPing up STEM at SSU. Pls: L. Stauffer, L. Cominsky, C. Luke, J. Qualls, and N. E. Rank. $994,826. Grant seeks to increase the retention and graduation of STEM majors thru the offering of SCI 120, an interdisciplinary STEM First Year Experience program, increased student support programming, and undergraduate research opportunities for rising-stars in STEM.  
b. Brannen, NS. Louis Stokes Alliance for Minority Participation (LSAMP). Continued funding $25,000 University Enterprises, Inc. – Sacramento State University.  
c. Brannen, NS. LSAMP. Continued funding $15,000. University Enterprises, Inc. – Sacramento State University.  
d. Mathematics, Engineering, Science Achievement (MESA) MEP Award, PI Stauffer, L. $10,000, Office of the UC President.  

**2. Biology**

b. Place, S. National Science Foundation – Polar Programs: PLR-1447291/ ANT-1040945 $628,673 05/01/11 – 04/30/16. “Identifying adaptive responses of polar fishes in a vulnerable ecosystem”.  

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**Nick Dowdall**, RSCAP Summer 2016 Fellowship Award, “Transformational Geometry Book Initiation,” $3,000
3. **Computer Science**

   a. **Rivoire, S.** $72,144 awarded in new funding for "Towards Automatic Task Classification," Department of Energy subcontract through Oak Ridge National Laboratory

4. **Mathematics & Statistics**

   a. The California Mathematics Project: North Coast, a collaboration between the Mathematics and Statistics Department, the SSU School of Education, and the Sonoma County Office of Education, continues to work with districts throughout the north coast region to provide teacher professional development in mathematics. 2015-16 grant activity includes regular annual Math Project funding of $50,000, plus a 3-year California Math-Science Partnership grant to the Santa Rosa City Schools for $1.8 million ($600,000 in 2015-16, including $277,000 to SSU). PI **B. Ford**

5. **Nursing**

   a. **Wilkosz, M.E.** Advance Practice Clinical Education Certificate, Song Brown Special Projects, Office of Statewide Planning and Development $145,000

6. **Physics & Astronomy**

   
   b. October 2013, Teaching Einstein’s Universe at Community Colleges, National Science Foundation, **L. Cominsky**, Principal Investigator, $210,000 for 7/1/14 – 6/30/17
   
   c. **Severson, S.** PhysTEC PhysicsTeacher Education Grant, PhysTEC (NSF, APS, AAPT) $9,963

G. **PROFESSIONAL DEVELOPMENT ACTIVITIES**

1. **Biology**

   a. **Geist, N.** Western Pond Turtle Symposium at SSU, Sept 2015
   
   
   c. **Rank, N.** WRPI (Water Resources and Policy Initiatives) meeting at CSU-Fresno. Meeting centered on water resource issues during the California drought. Invited group of students who spoke at the meeting to come to SSU and give a talk to Science 120 students in May 2015.
   
   d. **Rank, N.** Attended the Seattle meeting of the AACU on how to enhance student writing skills and improve student performance in first year experience courses. November 2015.
   
   e. **Rank, N.** Participated in a National Science Foundation grant review panel to evaluate proposals for improving educational outcomes in biology. April 2016.
   
   f. **Zippay, M.** Participant, SSU Redefining the College Lecture Faculty Learning Program, Sonoma State University, 2015-16.

2. **Chemistry**

   a. **Farmer, S.** Gave a public outreach talk to students from Piner High and Northwest Prep. Charter School.
   
   b. **Lares, M.** Participant, SSU Redefining the College Lecture Faculty Learning Program, Sonoma State University, 2015-16.
   
   c. **Works, C.** Faculty Lead for the SSU Redefining the College Lecture Faculty Learning Program 2015-16. Developed through the Lawrence Hall of Science at UC Berkeley to change STEM undergraduate faculty’s instructional practices and improve students' learning gains in STEM lecture courses.

3. **Computer Science**

   a. **Gill, G.** Participant, SSU Redefining the College Lecture Faculty Learning Program, Sonoma State University, 2015-16.
b. **Ravikumar, B.** Participate in SIAM Conference on Discrete mathematics, Atlanta, Georgia, June 2016.

### 4. Geology

| b. | Anfinson, O. Participant, SSU Redefining the College Lecture Faculty Learning Program, Sonoma State University, 2015-16. |

### 5. Kinesiology

| a. | Carlton, E. Attended WSPECW: A National Organization for Women in Kinesiology; CFA Faculty Rights conference |
| b. | Sökmen, B. American College of Sports Medicine annual conference May 2016 in Boston, MA. |
| c. | Sökmen, B. Southwest Chapter of the American College of Sports Medicine October 2015 in CA. |
| d. | Sollanek, K. American College of Sports Medicine annual conference May 2016, in Boston, MA. |
| e. | Sollanek, K. Southwest Chapter of the American College of Sports Medicine October 2015 in CA. |
| f. | Sollanek, K. Participant, SSU Redefining the College Lecture Faculty Learning Program, Sonoma State University, 2015-16. |

### 6. Mathematics & Statistics

| a. | The Department holds pedagogy workshops at the start of each semester. This year they were held on August 21, 2015 and January 22, 2016. This year the Dept Chair, B. Lahme organized. |
| b. | Simulation and Bootstrapping in Elementary Statistics (Coordinators: S. Herring, E. Newman) The department continues to offer professional development workshops for statistics instructors to learn about the effective use of simulation and bootstrapping methods in teaching elementary statistics (Math 165). The new pedagogy is supported by national recommendations on teaching statistics. In the 2015/16 academic year the department organized two workshops, one lead by J. McLean (visiting professor) in Fall 2015 and the other by S. Herring and E. Newman in May 2016. Several faculty also took at MOOC together on teaching statistics using simulation methods in fall 2015. Starting in fall 2016 all sections of Math 165 will be using the new teaching approach. |
| c. | Brannen, N.S. Mathematical Association of America's annual Northern California section meeting at UC Davis on February 27, 2016. |
| e. | Lahme, B. Project Make-the-Way conference and share-case, April 2016, Santa Rosa City Schools. |
| f. | Shott, M. Simulation and Bootstrapping in Elementary Statistics workshop, May 2016. The SSU math department continues to offer professional development workshops for statistics instructors to learn about the effective use of simulation and bootstrapping methods in teaching elementary statistics (Math 165). The new pedagogy is supported by national recommendations on teaching statistics. |
| g. | Shott, M. Attended the WRPI (Water Resources and Policy Initiatives) meeting at CSU-Long Beach, April 2016. Talks during this meeting focused on water resource issues throughout the state with a particular emphasis of how these issues have changed as a result of the California drought. The meeting served as an excellent opportunity to network with state agencies and educators about our Science 120 Watershed Year program as well as possible student research projects and internships. |
| h. | Shott, M. Participant, SSU Redefining the College Lecture Faculty Learning Program, Sonoma |
State University, 2015-16. Developed through the Lawrence Hall of Science at UC Berkeley to change STEM undergraduate faculty's instructional practices and improve students' learning gains in STEM lecture courses.

- **Shott, M.** Mathematical Association of America's Mini-Course "Mobile Mathematics: Interactive Apps for Teaching and Learning." Joint Mathematics Meetings, Seattle, WA. January 2016. Lila Roberts of Clayton State University and Andrew Bennett of Kansas State University presented this mini-course. The four-hour course provided tutorials on several mobile device apps and demonstrated ways that they could be integrated in the mathematics classroom in order to engage students in mathematical exploration.

- **Shott, M.** Mathematical Association of America's Project NExT Fellows Workshop, MAA MathFest, Washington, DC. August 2015. Workshop/panel topics this year included Reducing Stereotype Threat in the Classroom, Learning and the Brain, Teaching Introductory Proofs Courses, and Developing a Strong Tenure Portfolio.

- **Shott, M.** Mathematical Association of America's Project NExT Fellows Mini-Course: "Mathematics and Effective Thinking." MAA MathFest, Washington, DC. August 2015. Michael Starbird of the University of Texas, Austin, presented this mini-course. The four-hour course focused on specific strategies for fostering critical thinking in mathematics classrooms, particularly in non-major courses.

### 7. Nursing

- **Kelly, M.** Attended Doctors Without Borders Returned Volunteer Support Network.
- **Kelly, M.** Obtained Wilderness First Responder and Mountain Bike First Responder Certification.
- **Kindy, D.** Summer 2015 NAMI National Convention, full program; 12/15 Understanding Difficult and Aggressive Behavior; ATI pharmacology update, 10/15.
- **Roberts, D.** Nursing Education Conference attendance and presenter.

### 8. Physics & Astronomy

- **Cominsky, L.** Provider of professional development activities for the Learning by Making teachers in June 2015 for 1 week and throughout the academic year.
- **Severson, S.** PhysTEC Annual Conference, Site Leader Meeting.
- **Severson, S.** American Physical Society meeting workshop on use of video in the classroom.

### H. TEACHING, SCHOLARSHIP, AND/OR SERVICE COLLABORATIONS

#### 1. School level

- The School of Science and Technology's Summer High School Internship Program (SHIP) 2016. This highly successful program is in its 9th year. The program is a collaboration between SST and the Sonoma County Office of Education. See http://www.sonoma.edu/scitech/hs for additional information including program objectives and project descriptions. Suzanne Rivoire (Computer Science) coordinates the program.
- Science & Tech sponsored the Celebrating International Faculty & Staff Reception, Nov 2015.

#### 2. Biology

- **Khudyakov, J.** Continued development of Biol 325 Molecular and Cell Biology Techniques Laboratory course, including addition of a new laboratory module on bioinformatics.
- **Place, S.** Worked with education specialists at Sonoma County Children’s Museum to develop education activities.
- **Zippay, M.** mentored undergraduate researchers who received research awards: Jack Arnold Award from SSU’s Biology Department, Undergraduate Research Award (E. Nazaren); SSU's
Office of Undergraduate Research and Creative Experiences (SOURCE), Undergraduate Research Award (K. Schwan); CSU’s Council on Ocean Affairs, Science and Technology (COAST), Undergraduate Research Award (K. Schwan).

3. Chemistry
   a. Farmer, S. Founding member of the SSU Open Educational Resources Group.

4. Computer Science
   a. Gill, G. Judge at the Sonoma County Science Fair on March 04, 2016.
   b. Ravikumar, B. Joint proposal submitted with Gurman Gill. A conference paper (listed above) was based on the work of student Jacob Combs supervised by Ravikumar.
   c. Ravikumar’s student N. Shively worked on a project (supported through RSCAP grant) and the work was presented at CSU research competition at Cal State, Bakersfield, Apr 2016.

5. Engineering Science
   a. Decker, D. Collaborating with a student, A. Marquez, to teach 3D design with Blender (a 2 hour workshop scheduled in April and 3D printing workshop in May.
   b. Kujoory, A. Organized two job-hunting sessions with the SSU Career Services Center for the electrical engineering students on Thursdays March 24 and April 14, 2016, at the Center.
   c. Kujoory, A. In acknowledging and recognizing the SSU Women’s History Month, the department invited two accomplished women professors to speak in the Engineering Science Lecture series: Prof. Audrey Bowden, Electrical Engineering, Stanford University and Prof. Jane Gu, Electrical and Computer Engineering, UC Davis. The title of their interesting talks were “Optical Coherence Tomography - Lighting the Path to Better Healthcare” on March 3, and “Terahertz Interconnect, the Last Centimeter Communication” on March 10, respectively.
   e. Farahmand, F. Program for Education and Research In Biotechnology (CSUPERB)- Poster Reviewer, October 2015.

6. Geology
   a. Anfinson, O. Involved research students in promoting SSU Geology at Piner High School, Santa Rosa.

7. Kinesiology
   a. Sökmen, B. Collaborated with MS. Judy Barcelon from Piner High School, a research project called “The effects of dietary habits, exercise habits, and body composition on antioxidant measures of healthy high school male and female students”.
   b. Winter, S. Professional Education Chair California Athletic Trainers' Association.
   c. Winter, S. Clinical Symposium Committee Member California Athletic Trainers' Assn.

8. Mathematics & Statistics
   a. Calculus Reform Committee. Chair: S. Brannen. A group of tenure track and adjunct math faculty met weekly during the 2015/16 academic year to evaluate and reform the content of the calculus sequence. The group reviewed recommendations by the Mathematical Association of America and consulted with service departments about their students’ needs. The group also developed documents that outline clear expectations for students and instructors and support them to meet the expectations.
   b. WebWork Free Online Homework System. Organizer: S. Tiwari. The department continues its efforts to utilize and develop low-cost instructional resources.
   c. Geometry Textbook. Organizer: N. Dowdall. In 2015/16 Nick and math major Travis Hayes rewrote the computer projects that are part of the Math 150 Modern Geometry course to use
the free dynamic geometry application and using an online platform for the textbook.

d. **Lahme, B.** California Math-Science Partnership grant ($1.8 million, senior personnel): Project Make the Way is a grant awarded to Santa Rosa City Schools in partnership with SSU. The goal of this project is to support 65 grade K-8 teachers as they transform their classrooms by incorporating Maker projects as central elements of mathematics instructional units, 2015–2018. Co-organized 1-week intensive workshop during summer 2015 and regular follow-up workshops throughout the school year. We also authored a collection of maker-activities with math follow-up lessons for use by teachers in the project.

e. **Lahme, B.** 2016 Expanding your Horizons, Sonoma State University.

f. **Shott, M.** Continued course development of Science 120: A Watershed Year. Our efforts in refining the curriculum as well as indicators of the program's success have led us to present on the course at an AAC&U meeting in Seattle (see above) and we have been accepted to present a similar poster at the CSU Teaching and Learning Symposium in October 2016.

g. **Shott, M.** Mathematical Contest in Modeling, February 2016. Advised a team of 3 undergraduate math students in a 4-day competition where student teams develop a model for an applied mathematics problem and submit a mathematical paper outlining their approach and solution. The team received a Successful designation for their submission.

h. **Shott, M.** Co-organizer, Project NExT Panel on Teaching Students of Mixed Abilities. MAA MathFest, Washington, DC. August 2015. The Project NExT panels focus on topics selected by current Fellows, and are open to two cohorts of Fellows during MathFest and/or JMM.

i. **Shott, M.** CSU Louis Stokes Alliance for Minority Participation (LSAMP) Global Awareness Program faculty mentor. Summer 2015. Traveled with a group of 8 CSU students to engage in small-scale research projects at Chiang Mai University, Thailand.

### 9. Nursing

a. **Kelly, M.** with Noelia Frazen. Created on Outreach Zoom session for BSN Post Lic Applicants.

b. **Kelly, M.** Piloted use of VoiceThread with 50 students with Noelia Frazen and Martha Ezell.

c. **Kindy, D.** Sustainability Expo (graduate nursing research students presented posters of their work investigating aspects of primary care as they link to sustainable healthcare); ongoing relationship with NAMI and outreach specialist with Aurora hospital; Steering Committee for Compassionate Community Farm for those with serious and chronic mental illness. Created forum for psychiatric mental health students to investigate 8 different aspects of the CCF generating a 55 page paper presented to the steering committee 5/25/16; member of advisory committee for mental health week.

d. **Ritter, B.** North Bay Chapter California Association for Nurse Practitioners Board Member.

e. **Roberts, D.** Faculty Mentor for MSN students at USF.

f. **Roberts, D.** Faculty mentor for BSN.

g. **Roberts, D.** Transition into Practice Program for newly graduated nurses in North Bay area.

h. **Roberts, D.** Research on Chronic Disease Management with undergraduate nursing students.

i. **Wilkosz, M.E.** DNP Project Committee Member for CSU North Bay Consortium, Peer Reviewing, Journal Reviewer for Adolescent Health, Health Presentations at Village Chateau Senior Community - Breast Health, Diabetes Education, Heart Health, Blood pressure screening.

### 10. Physics & Astronomy

a. **Cominsky, L.** Advisory Board, NASA Aerospace Academy at CSUF, 2016 – present.


d. **Qualls, J.** Served as external adviser to the University of Texas Engineering Program.

e. **Qualls, J.** Worked with Goldridge RCD through Science 120 and Pocket Radar through Sci 220.
f. Qualls, J. Developed Galbreath freshman camping experience with SSU students.
g. Qualls, J. SSU Innovation initiative to link SST with School of Arts and Humanities to create cross course - Physics and Philosophy of Martial Arts.
h. Qualls, J. Ran a 3D Printing workshop for SSU Library faculty and staff.
i. Severson, S. Observatory renovation effort with Provost, Dean, faculty and staff.
j. Severson, S. What Physicists Do Speaker series, collaborate with student assistant.
k. Severson, S. Public Viewing Night, collaborate with student assistants, W. Fariss and T. Targett.
l. Severson, S. Capstone seminar event with Department of Physics & Astronomy faculty, staff, students and student families.
m. Severson, S. KAPAO Adaptive Optics Research with students and Dr. Phil Choi, Pomona College.
n. Targett, T. Served on the Gemini Telescope time allocation committee
o. Targett, T. Public presentation at Piner STEM Café, “Myths of Astronomy”
p. Targett, T. Presentation to the students at Piner Academy, “Myths of Astronomy”

I. MAJOR SERVICE CONTRIBUTIONS (e.g., committee memberships, organization of special events, new program design, new course design)

Members of Science & Technology service on a myriad of communities at the department, school, and university levels. These valuable contributions are not listed here separately; however, a full listing is available from the School Office.

1. School level

a. SSU piloted an experimental course in Spring 2016: SCI 220: Make, Dream and Innovate. The faculty lead, Jeremy Qualls (Physics) partnered with Kirsten Ely (Business) to offer the course intended for sophomores. Designed with a strong emphasis on skill building, team collaboration and off-campus community partners, the course successfully guided students through a meaningful sophomore year experience. The School of Business & Economics provided seed funding ($5K) along with funds from my NSF STEP grant ($15K – primarily for equipment). The Maker space was provided – and further equipped – by the Library. The piloted course informs further student success efforts in our school – and is a core initiative of the following grant submission and award.
b. SST Continued STEM Certificate Pathway project with Piner High and Santa Rosa Schools including fall kick-off event at Piner High and spring visit to SSU Science & Tech. Also facilitated faculty mentorship of Piner student projects culminating at the Piner High STEM Showcase in May.
c. The School of Science and Technology participated in the North Bay Discovery Day at Sonoma County Fairgrounds in October 2015. SST hosted the Walk Through the Watershed exhibit. This year there were over 10,000 visitors (see http://www.northbayscience.org for more information). SST has participated since the inaugural event in 2011.
d. The Expanding Your Horizons (EYH) Conference was held on campus in April. EYH seeks to nurture girls’ interest in math and science and to encourage them to expand their career visions to include STEM based careers. SST faculty and staff fill critical roles in the conference including organization (facilities, web services, volunteer coordination, etc.) and workshop leaders. Dean Stauffer serves on the EYH Board of Directors.
e. CSU Council on Ocean Affairs, Science and Technology (COAST) Representatives – Crocker, D., Place, S., (faculty representatives) and Stauffer, L. (administrative)
f. CSU Program for Education and Research in Biotechnology (CSUPERB) Representatives – Farahmand, F., Lillig, J., Lin, J., and Pillai, M. (Faculty Consensus Group), Stauffer, L. and Lillig, J. (Strategic Planning Council)
g. SST Engineering Taskforce – Cominsky, L., Farahmand, F., Kooshesh, A., Qualls, J., and Stauffer,
L. met regularly through 2015-16 to identify ways to support engineering at SSU; identified ways to work together, leverage resources, minimize barriers, and improve student success.

2. Biology
   a. **Crocker, D.** NRC Committee on Evaluation the Cumulative Effects of Anthropogenic Impacts on Marine Mammals.
   b. **Guilford, J.** The Internship in Water Field Research was first offered in the spring of 2016, supported by funding from WATERS and a Sustainability in the Classroom grant. Twelve interns from the ENSP and Geology Departments took part (including freshmen, sophomores, juniors, and seniors). They worked with collaborators from the Sonoma County Water Agency, the City of Santa Rosa, the Sonoma Resource Conservation District, SSU’s Center for Environmental Inquiry, and Owen Anfinson from SSU’s Geology Department to design and implement a plan for sampling sediments along Copeland Creek and the Laguna de Santa Rosa to measure levels of nitrogen and phosphorus. Results were presented at SSU’s Science Symposium, a presentation at Santa Rosa’s Laguna Water Treatment Plant, and the Water Resources and Policy Initiatives conference in Long Beach. It is planned to continue to offer this internship in future semesters.
   c. **Khudyakov, J.** Hiking club faculty advisor.
   d. **Place, S.** Faculty representative for the Central and Northern California Ocean Observing System (CeNCOOS).
   e. **Zippay, M.** Faculty Sponsor for University Club: "Biology Graduate Student Club".

3. Computer Science
   a. **Gill, G.** Re-designed CS330 (Game programming) that had the students employ a industry level game engine called Unreal.
   b. **Ravikumar, B.** Program committee member, Conference on Implementation and Application of Automata, Seoul, South Korea, August 2016.
   d. **Ravikumar, B.** Reviewer, of CIAA 2016 and LATA 2016 conferences
   e. **Rivoire, S.** Advisor to Women in Computer Science club.

4. Engineering Science
   a. **Decker, D.** Designed a new course that combines LabVIEW programming with hands on interfacing of electronics boards like Arduino.
   b. **Decker, D.** Assisted 10 graduate and undergraduate Engineering present their scholarly research projects at the first Nature!Tech Conference organized by SSU's Center for Environmental Inquiry.
   c. **Kassis, S.** Invited SSU members of Society of Women Engineering (SWE) to meet with two professional female engineers from the community (Leyla Hashemi, a Manufacturing Engineer from Keysight Technologies in Santa Rosa, and Neveia Chappell, an Applications Engineer from Parker in Rohnert Park) to hold discussions about the positive aspects and drawbacks that females experience in the engineering world.
   d. **Rahimi, S. & Farahmand, F.** Engineering Assistantship Gateway Experience (ENGAGE) Initiative: Mentoring JC students by EE senior students as a service to EE education and as a tool for recruiting high quality students. Six students from Santa Rosa JC were funded this year – Supported by funding from Dr. Saeid Rahimi ($3000)
   e. **Rahimi, S. & Farahmand, F.** Implemented Living-with-Lab initiative throughout the introductory engineering courses – Supported by funding from Dr. Saeid Rahimi ($6000)

5. Geology
   i. **Anfinson, O.** GEOL 102 and GEOL 311-New Course Design including technology in the classroom
ii. **Anfinson, O.** GEOL 309-New Course Design including research project development.

iii. **Murphy, M.** Designed new (currently experimental) course for Geology - Geol 215 - Global Climate Change.

### 6. Kinesiology

a. **Carlton, E.** CFA Faculty Rights chair; US Postal Service Scholarship committee.

b. **Sökmen, B.** Volunteer judge at the 2016 Sonoma County Science Fair.

c. **Sökmen, B.** Run Human Performance Laboratory part of the “Ticket to Success”.

d. **Sollanek, K.** Volunteer judge at the Bellevue Union School District Science Fair (January 2016).

### 7. Mathematics & Statistics

a. Developmental Math Reform. The department is investigating effective ways to support students who test below college math on the ELM. In 2015/16, the data from the 2014 and 2015 Early Start students was analyzed. Based on this data, recommendations are being developed. I. **Kanaana** researched developmental math models used at other CSUs and universities in the country and presented a summary to the department. A working group will develop a proposal for restructuring developmental math in fall 2016.

b. **Lahme, B.** 2016 – present, writer, MAA Instructional Resources Guide Writing Group, Mathematical Association of America.

c. **Shott, M.** Piner High School STEM Certificate Panel. May 2016. Panelists attend the level-three student research presentations and sign off on each student's project for the certification.

d. **Shott, M.** Sonoma County Girls on the Run Head Coach, Gravenstein Elementary School, August 2015 - December 2015. Girls on the Run is an international program for elementary school-aged girls. Its focus is on developing a strong sense of self and community in girls at a critical stage in their personal development. Program is 10 weeks, twice/week, and culminates with 5K fun run.

### 8. Nursing

a. **Kelly, M.** Major contributor to developing and implementing detailed Systematic Plan of Evaluation for ACEN accreditation.

b. **Kelly, M.** Major contributor to Board of Registered Nursing Self Study for re-credentialing.

c. **Kelly, M.** Obtained fellowship for Writing Intensive Course pilot (for WEPT equivalency) for BSN program track.

d. **Kelly, M.** Developing Mountain Bike Accident Response Training for community.

e. **Kelly, M.** Presented How to Use Moodle for Online Program and Course evaluations to SST Curriculum Committee to help colleagues improve their assessment activities.

f. **Kindy, D.** Developed new assignment for undergraduate nursing students to join efforts with the steering committee for a Compassionate Community Farm.

g. **Ritter, B.** FNP team meetings. FNP at Coastal Health Alliance a Community Health Center which serves an underserved population.

h. **Roberts, D.** CSU Statewide Academic Senator.

### 9. Physics & Astronomy

a. **Cominsky, L.** SSU Academic Foundation Advisory board member, Fall 2011 – present.

b. **Qualls, J.** Served as Director of Academic Planning and Resources for SST. In addition to the committees and duties that come with the position it also included Co-Organizing the Science Symposium, establishing SCI 120 First year experience course fee and long term stability, creation of a Sci 220 Sophomore year experience, continued development of Piner High School,
and STEM pathways into SSU.

c. **Severson, S. and Targett, T.** Organize and conduct Public Viewing Nights at SSU observatory.

d. **Targett, T.** Faculty advisor, Sonoma State eSports group (120 student members).

e. **Targett, T.** Faculty advisor, SSU Society of Physics Students (50 student members).

### J. ADDITIONAL IMPORTANT ACCOMPLISHMENTS

#### 1. School level


b. **L. Stauffer, Dean,** member Sonoma County Workforce Investment Board (WIB).

c. **L. Stauffer, Dean,** member (liaison) Sonoma County Career Technical Education Foundation.

d. The School of Science and Technology’s Summer High School Internship Program (SHIP) 2016. This highly successful program is in its 9th year. The program is a collaboration between SST and the Sonoma County Office of Education. See http://www.sonoma.edu/scitech/hs for additional information including program objectives and project descriptions. Suzanne Rivoire (Computer Science) coordinates the program.

#### 2. Biology

a. **Crocker, D.** Elected Academy Fellow, California Academy of Sciences.

b. **Lin, J.** Recipient of the Excellence in Teaching Award for 2015-16.

c. **Rank, N.** Faculty coordinator for the Biodiversity Outreach program. This program is supported by the Instructionally Related Activities fund and spends c.a. $6000 per year visiting classrooms and museum and public events to teach members of the public and students about insects, plants, vertebrates, and other organisms. The program recruits students from the Biology Club and other groups to serve as outreach assistants and it supports an outreach coordinator, a graduate student (Kerry Wininger)

Since January 2015, this program has supported 31 events. Service learning students were involved in 17 events that reached 3385 schoolchildren or members of the public, outreach assistants lead 14 more events that reached 3665 people. Participating organizations include the California Native Plant Society, The Girl Scouts, the Hallberg Butterfly Garden, the Hopland Band of Pomo Indians, Bay Area Science Festival, Levi’s Gran Fondo, California Rare Fruit Growers, Sonoma County Farm Bureau, 5 school classrooms, Safari West, the Schulz Museum, and the Sonoma County Children’s Museum.

#### 3. Chemistry

a. **Farmer, S.** Received the SSU Educational Experience Enhancement Award for 2016-17.

b. **Perri, M.** Built a custom website to all student easy access to high quality computational chemistry programs. Successfully implemented a computational chemistry experiment into freshman chemistry class for the first time by using the website.

c. **Works, C.** Received the SSU Educational Experience Enhancement Award for 2015-16.

#### 4. Computer Science

a. **Rivoire, S.** Program committees (equivalent to editorial board membership) for:
   i. Workshop on High-Performance, Power-Aware Computing (HPPAC), 2016
   ii. ACM/SPEC Intl. Conf. on Performance Engineering (ICPE), 2016

#### 5. Engineering Science
a. **Decker, D.** Attended and supported SSU Engineering Students at the 2016 Sonoma County Make-A-Thon.

b. Engineering Department in the media (see http://www.sonoma.edu/engineering/news/#media)
   i. Petaluma leads Sonoma County in economic development, Press Democrat, May 22, 2016
   ii. Students’ Engineering Creativity on Display at SSU, KRCB North Bay Public, May 4, 2016
   iii. Engineering Students’ Solar Projects on Display, SSU NewsCenter, May 2, 2016
   iv. ’Smart' picnic table, ethics of bottled water and more, The Community Voice, Apr 21, 2016
   v. ’Smart' Picnic Table, Ethics of Bottled Water and More Presented at SSU Research Symposium, SSU NewsCenter, April 13, 2016
   vi. SSU Scores Big at Make-a-Thon, SSU NewsCenter, April 4, 2016
   vii. SSU and Davis grads take first place at the Make-a-Thon, Community Voice, Mar 11, 2016
   viii. Engineering Students Bring Numbers to Life with Data Visualization Tools, SSU NewsCenter, Dec 15, 2015

6. **Geology**

   a. **Anfinson, O.** Completed setup of SSU Geology Department, "Heavy Mineral Separation Facility." Included acquisition and extensive set up including: Camel Pro density separation water wheel, Bico disc mill rock pulverizer, LST heavy liquid density separator and Frantz Barrier magnetic separator.

6. **Kinesiology**

   a. **Carlton, E.** Visiting scholar at Beijing Sport University May 31-June 19, 2015.
   b. **Sollanek, K.** Served as a reviewer for the journal “Medicine & Science in Sports & Exercise.” Reviewed three manuscripts over the 2015-2016 academic year.
   c. **Sollanek, K.** Served as a reviewer for the journal “The Journal of Sports Medicine & Physical Fitness.” Reviewed two manuscripts over the 2015-2016 academic year.

7. **Mathematics & Statistics**

   a. **Brannen, N.S.** Continued to serve as the campus coordinator for the LSAMP program, and also serve on LSAMP’s Program Oversight Committee.
   b. **Lahme, B.** K-12 OER Project (2016 – present): Co-author of the grades 6-8 Open Educational Resources curriculum project. Through illustrativemathematics.org we are developing high-quality classroom materials for middle school grades that are standards aligned and will be freely available for teachers and schools to use.
   c. **Shott, M.** Henry L. Alder Award for Distinguished Teaching by a Beginning College or University Mathematics Faculty Member, Mathematical Association of America’s Golden Section. February 2016. Award honors beginning university faculty whose teaching has been extra ordinarily successful and whose effectiveness in teaching undergraduate mathematics is shown to have influence beyond their own classrooms. Shott is the first recipient of this award from the MAA Golden Section, which consists of Northern California, Nevada, and Hawaii.

8. **Nursing**

   a. SSU’s Nursing program has been ranked No. 21 in the Western United States, and No. 64 in the nation, according to Nursing Schools Almanac. See the SSU NewsCenter June 21, 2016 story at http://www.sonoma.edu/newscenter/2016/06/nursing-program-gets-high-ranks-in-new-survey.html
   b. SSU’s Nursing department completed and submitted nearly 2000 pages of documents to the CA Board of Registered Nursing as part of BRN reaccreditation approval. Led by Chair **D. Roberts**,
faculty and staff including **M. Kelly** (pre-licensure BSN program), **K. Rockett** (pre-licensure BSN) and **M.E. Wilkosz** (Family Nurse Practitioner program) were major contributors to the development of the self-study. BRN visit in late spring 2016.

c. Nursing’s Transition into Practice Certificate Program offered through Extended Education continues its success in summer 2016. The program, a partnership between SSU Nursing and Sutter Health places nursing students in internships with one of 8 local hospitals. After a successful internship and earning the certificate, participating hospitals must then offer a position to the student nurse.

d. **Kelly, M.** Mentoring new faculty.

e. **Roberts, D.** Submitted a follow-up ACEN Report for continued national Accreditation.

f. **Roberts, D.** Clinical Director Jewish Community Free Clinic.

g. **Physics & Astronomy**

a. **Cominsky, L.** Individual awards:
   i. CSU Wang Family Excellence Award, January 2016
   iii. American Astronautical Society Sally Ride Education Award, December 2015

b. **Cominsky, L.** Team awards:
   i. Gruber Prize in Cosmology to Rai Weiss, Kip Thorne and Ronald Drever and the LIGO Scientific Collaboration 2016
   ii. Breakthrough Prize in Physics to Rai Weiss, Kip Thorne and Ronald Drever and the LIGO Scientific Collaboration 2016

c. **Severson, S.** Lead on the SSU Observatory project underway with planned completion in Spring 2017; included extensive lobbying to secure $100K funding; future work to dismantle existing observatory, replace with pre-fabricated roll-off roof observatory, redeploy telescopes, etc.

d. **Severson, S.** An observing run at the Table Mountain Telescope with students Stephanie Church and Henry Arbaugh to image the surface of Jupiter’s volcanic moon Io with our KAPAO adaptive optics system. This work is ongoing and will lead to publication.