Performance Indicator 2: increased number of scholarly publications and presentations in targeted growth areas – water, air, health – co-authored or presented with students.

This section of the report includes information on Graduate Research Awards (working with faculty on research that should result in presentations and publications).

1. Industrial Technology: Sheenam (student) working with Dr. Prem Mahalik on the application of spectral analysis methods for the development of smart sensors to be used for automation and control applications (e.g., food manufacturing, processing). The result is to provide a cost effective integrative solutions. A publishable paper is also expected.

2. Linguistics: Keith Corona (student) working with Dr. Agbayani and Dr. Golston on hyperbaton in South Slavic languages. The goal of the project is to enhance understanding of cross-linguistic distribution of free word order phenomena. A publishable paper is expected.

3. Plant Science: Jaya Ram K.C. (student) working with Dr. Benes on a greenhouse study that is complementary to a current study being conducted. The study will strive to understand how selenium impacts foliage. A manuscript for publication is expected from this work.

4. Plant Science: Reshmi Ray (student) working with Dr. Bushoven on studying a variety of the Poplar plant as a potential crop given drought conditions and soil salinity in the Central Valley. This Poplar crop can ultimately be used as use as a biomass or biofuel.

5. Engineering: Mathew Graham (student) working with Dr. Ming Xiao on testing seismic vulnerability of slurry walls and investigating possible remediation measures to enhance the seismic resistance and integrity of slurry walls during earthquakes.

6. Kinesiology: Katie Williamson (student) working with Dr. Felicia Greer on investigating the physical and health of health care workers. The study intends to provide convincing data that will provide evidence for the need for a comprehensive worksite wellness program at a local hospital.

7. Computer Science: Bryant Cardwell (student) working with Dr. Ming Li on building a remote patient care center through body sensor networks. The project includes the delivery of various tools and a comprehensive system for remote patient care. The results will be used as the basis for a publishable paper as well as for preliminary results for an NSF/NIH funding proposal.

8. Psychology: Patricia Sanders (student) working with Dr. Martin Shapiro on examining how a new EEG tool developed by Neurosky corresponds with well-established physiological measures of stress such as heart rate, skin conductance and muscle tension in order to determine its efficacy as a neurological measure of stress and as a tool for stress relief. This work will result in at least one presentation at a scientific conference.
Performance Indicator 3: Increased number of students participating in faculty scholarship as coauthors or co-presenters.

This section of the report includes information for 4 areas: 1) Graduate Assistants (working with faculty on research and projects); 2) Graduate Equity Fellowships (working with faculty on research and projects); 3) Doctoral Program in Educational Leadership scholarly presentations and publications; and 4) Travel to present at conferences funded by Graduate Studies.

1. This year 58 Assistantships were awarded for graduate work in the amount of $95,500. The following is a breakdown of the awards by College:

- Jordan College of Agricultural Sciences and Technology - 4 awards totaling $4,500
- Arts and Humanities – 3 awards totaling $6,000
- Lyles College of Engineering – 2 awards totaling $2,000
- Health and Human Services – 9 awards totaling $18,000
- Science and Mathematics – 41 awards totaling $65,000

2. Graduate Equity Fellowships were funded by the Chancellor’s office this year in the amount of $49,550. The following is information about the fellowships awarded this year.

- Graduate Student in Public Health working as a Research Assistant on Teen Pregnancy Prevention
- Graduate Student in Counselor Education and Rehabilitation Counseling working as a Research Assistant on Adoption and Foster Care
- Graduate Student in Psychology working as a Research Assistant conducting interviews and data analysis
- Graduate Student in English working as a Research Assistant in preparation of the Book *The Normal School Administration*
- Graduate Student in Mathematics working as a Research Assistant in designing GeoGebra software

3. Doctoral students presented at major conferences this past year, and several students and graduates published their work this year.

Publications


Curtis, C. (2012). Why do they choose to teach and why do they leave? A study of middle school and high school mathematics teacher retention. *Education* (will be published this Spring 2012, don't have the specific journal information yet)


Presentations:

- Council for the Study of Community College Conference in Orlando, FL, April, 2012 (2 student presentations)
- American Educational Research Association (AERA) Vancouver, Canada, April, 2012 (5 student presentations)
- International Student Affairs Conference – China, 2011

2012 AERA Presentations

Harmon, T.B., & Tracz, S. M. Analyzing College Remediation Using Regression

Regression Discontinuity.

Marcellin, J., & Tracz, S. Teacher and School Practices as Predictors for Reading Proficiency and Language Acquisition.

McGee, C. Harnessing the Power of Extrinsic Motivation for Student Achievement: An Urban High School Improvement Effort.


Soria, M., & Tracz, S. The Impact of Collaboration in After-school Programs on Student Achievement and Attendance.

Yergat, J., & Tracz, S. The Augmented Efficacy of PBS (Positive Behavior Supports) Implementation.

4. Scholarly work was presented this year by graduate students at the following major conferences and their travel was funded by Graduate Studies.

- Higher Ed. Web Conference in Austin Texas
- National Communication Association 2011 Convention in New Orleans
- National Communication Association 2011 Convention in New Orleans
- 2012 SICB Annual Meeting and Exhibition being held 1/3 - 7/2012 in Charleston, SC
- 2012 WSSA Annual Meeting in Waikoloa Hawaii between Feb. 6-9, 2012
- Association of Writers and Writing Programs Annual convention from February 29 - March 3, 2012 in Chicago, Illinois
- 219th Meeting of the American Astronomical Society between January 8 - 12, 2012 in Austin, Texas
• 22nd Annual Graduate and Professional Symposium on Hispanic and Luso-Brazilian Literature, Language and Culture to be held at the University of Arizona in Tucson, Arizona between 2/23-25, 2012
• Workshop on structure and Constituency in the Languages of the Americas 17 in Chicago, IL. between March 9 - 11, 2012
• American Physical Society April Meeting in Atlanta, Georgia between March 31 and April 3, 2012
• Midwestern Psychological Association in Chicago, Illinois between May 3 and May 5, 2012
• Western Psychological Association Convention in Burlingame, California between April 26 and April 29, 2012
• Conference on College Composition and Communication in St. Louis, MO between March 21 and March 24, 2012
• 243rd American Chemical Society National meeting in San Diego, California between March 25 and March 29, 20112.
• Astrobiology Science Conference in Atlanta, Georgia between April 15 and April 19, 2012
• Experimental Biology Meeting in San Diego, California between Marcy 21 and March 25, 2012
• Western Psychological Association in San Francisco between April 26 and April 29, 2012
Sampling of Undergraduate Research Titles 2011-12

A Candidate Gene Strategy to Identify Resistance Genes in Pepper to Phytophthora Capsici
Acclimatization of Douglas fir (Pseudotsuga menziesii) In Vitro Cultures
An examination of the needs and interests of health care workers in an employee wellness program
Assessing Social Work Student' Attitudes about Sexuality and Their Perceived Preparedness to Address Such Topics in Social Work Practice
Bibliotherapy in Psychosocial Development of Primary School Children
Blue Pigmented Soil Strains
Cell Death Profiles in Metastatic Breast Cancer Cells After Drug Treatment
Converting Diesel Engine to Run on Waste Vegetable Oil
Design Patterns for the Evolution and Extension of Compiler-Interpreter based Domain Specific Languages
Determining Effectiveness of the Fresno State FREAKS (Finding Responsible and Entertaining Activities on KamuS) program
Efficacy of Recycles Paper Mulch for Weed Control in Berries
Efficacy of the Fresno County Superior Court’s Behavioral Health Court
Empathy in South Asian and Arab American Literature
GIS Compilation of Spatial Data for Stanislaus Group, California
Ingenious Organizational Strategies for Clean, Inhabitable Environments of Women Living in Latin America and Lessons that can be Learned by Women Organizers in the Central Valley
Microgravity University Flight Program
Modern American Consumerism and the Evolution of "The Spectacle"
Phylogenetics of Bedbugs in the Fresno Metropolitan Area
Synthesis, Characterization, & Mechanistic Study of Isoprene Nitrate Aldehyde
The Analysis of the Effects of Deep Breathing on Anger and Task Persistence
The Effects of Manganese on Dopaminergic Neurons in the Drosophila Melanogaster
The High Speed Railway & Agricultural Real Estate in the Central Valley
Using TIMS System to Research Fourier Series
Valuation Impact of Consumer Litigation on Fresno Residential Transaction
Yokuts Word Oder

A Summary of Undergraduate Research Grants

<table>
<thead>
<tr>
<th>Year</th>
<th>Students</th>
<th>Intl</th>
<th>National</th>
<th>Regional</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>44</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>2010</td>
<td>71</td>
<td>3</td>
<td>9</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>87</td>
<td>7</td>
<td>8</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>