

Warren J. Baker Endowment

for Excellence in Project-Based Learning

Robert D. Koob Endowment for Student Success

FINAL REPORT

*Final reports will be published on the Cal Poly Digital Commons website
(<http://digitalcommons.calpoly.edu>).*

I. Project Title

Army/National Guard Sport Nutrition Project: Dietary Assessments and Nutrition Education

II. Project Completion Date

March 11, 2017

III. Student(s), Department(s), and Major(s)

- (1) Sofia Sanchez Porush, FSN, Applied Nutrition
- (2) Selena Sharpless, FSN, Nutrition Science

IV. Faculty Advisor and Department

Scott Reaves, FSN

V. Cooperating Industry, Agency, Non-Profit, or University Organization(s)

California Army National Guard

VI. Executive Summary

The Army/National Guard Sport Nutrition Project was designed to address poor health status amongst soldiers of the 49th Military Police Brigade of the California Army National Guard. National Guard soldiers are on reserve duty so their physical health and dietary choices are dependent solely upon personal effort. A nutrition knowledge deficit has been identified in this particular group of 22 soldiers as they lack the basic skills necessary to choose and create balanced meals to maintain optimal physical health.

The focus of this intervention was designed to identify any areas of weakness related to nutrition. Analysis of 3-day food records using ESHA Food Processor allowed us to establish baseline data regarding dietary choices while baseline data regarding nutrition knowledge and physical activity was acquired through the use of quizzes and questionnaires.

A basic nutrition lecture was delivered by Dr. Scott Reaves and followed up by two hands-on cooking lessons performed by the Nutrition Team. Soldiers were educated on basic nutrition concepts/cooking skills and learned how to prepare two dinner recipes as well as “on-the-go” healthy snacks. We then used the nutrition knowledge quiz again to measure improvement in understanding of basic nutrition concepts taught to the group.

Our 22 participants made profound strides of improvement regarding nutrition knowledge, cooking skills/creativity, and self-efficacy. Initial nutrition knowledge assessment and dietary intake indicated that soldiers lacked foundational nutrition knowledge reflecting in poor lifestyle choices. The purpose of this project was to provide an educational experience for the soldiers and motivate

them to adopt positive and lasting lifestyle changes. With the gracious funding granted from the Warren J. Baker and Robert D. Koob Endowments, our Nutrition Team was able to make a lasting impact and form invaluable relationships with these 22 men and women who serve and protect our country.

VII. Major Accomplishments

(1) Development and procurement of a comprehensive nutrition knowledge and skills intervention designed to positively impact lifestyle factors of at-risk California National Guard soldiers.

(2) Research experience gained by undergraduate students imparting values of responsibility, integrity, and leadership.

(3) Advancement in the sports nutrition focus of Cal Poly's Nutrition Program, with future intention to solidify a foundation of research, experience, and educational implementation.

VIII. Expenditure of Funds

Please see attached spreadsheet for expenditure of funds.

IX. Impact on Student Learning

In personal reflection, this project ended up being much more involved than I could have predicted. Initially, we considered the application for this endowment as an exceptional opportunity that could not be missed—it would call for the determination and commitment of us as undergraduate students to work alongside our Nutrition faculty and design a sound pilot study inspired to meet the need of this very valuable group of subjects. Our approach to the application for this grant was aimed to fulfill the Cal Poly institutional motto, *Learn By Doing*—something that our course curriculum sets us up to succeed in. As nutrition students, we have so much potential to change and inspire, and that potential is materialized through personal interaction, collaboration, and education. To our humble surprise, we were granted the exceptional opportunity to carry out this research project due to the generous award of the Warren J. Baker and Robert D. Koob Endowments.

This project demanded a lot of time and dedication in order to organize a reliable team focused on providing the most professional and beneficial learning experience for both our Nutrition Team as well as for our participants. We invested ourselves in hours of planning and preparation in order to make the soldiers feel welcome and comfortable. The funding of the Baker-Koob Endowment allowed us to instate a novel nutrition intervention, encompassing hands-on education, subject-student interaction, collection of data, and overall unmatched contribution to student success. With such support, our team was able to actualize an envisioned representation of the kind of health intervention we hope to be able to instill on a marked number of individuals. This is just the beginning, and it could not have been accomplished without the Baker-Koob Endowments.

With this experience, I can proudly remark my research background and affirm my confidence in moving forward as I continue on as a graduate student at Cal Poly. I was not ready to leave Cal Poly following the completion of my undergraduate career, and given the plethora of research opportunities similar to this one, the idea of pursuing graduate education at this prestigious institution was unquestionable. I have been fortunate to have four years of exceptional undergraduate research experience and I know that will only continue throughout my time as a graduate student. The ability to execute a program that is supported by our faculty who want to provide their students with every possible kind of research, professional, and educational

experience is what makes Cal Poly so unique. It is the combination of our dedicated faculty who encourage their ambitious, wide-eyed students, and the support of donors like Warren J. Baker and Robert D. Koob who recognize that ambition and provide the means for our student body to pursue each endeavor they seek.

CAL POLY CORPORATION

CHECK REQUEST

Date: <u>5/18/17</u> Pay To: <u>Scott Reaves</u> <input type="checkbox"/> 1099 Taxpayer ID: _____ <input checked="" type="checkbox"/> W9 on File (no ID # required) <input type="checkbox"/> Tax ID on file (no ID # required) Address: _____ _____ CP Email (required): <u>sreaves</u> @calpoly.edu (Faculty, Staff, or Student only)	THIS SECTION MUST BE COMPLETED BY REQUESTER <input type="checkbox"/> CSU Student <input checked="" type="checkbox"/> CSU or State Agency Employee <input type="checkbox"/> CPC Employee <input type="checkbox"/> None of the Above <input type="checkbox"/> Company Owned in whole or part by CSU or State Agency Employee or Retiree
Effective January 1, 2004: Public Contract Code prohibits California State University employees (except for those with teaching or research responsibilities) from contracting with, or being employed by Cal Poly Corporation if the source of the funds for the goods or services comes from CSU funds or a CSU contract, unless required by his/her CSU employment determined by the CSU. PCC 10831	

Description <i>(ex. Purpose of expenditure(s), Vendor Name, Invoice Number, Date for each item)</i>	Amount	Org Key (5 digit)	Object Code (6 digit)
Food for soldiers while at Cal Poly for testing, CA Fresh Market (date of receipt 3-10-17)	10.61	65054	824000
Food for soldiers while at Cal Poly for testing, Lassens (3-11-17)	45.62	65054	824000
Carb powder for soldier's smoothies while at Cal Poly for testing, Vitamin Shoppe (6-4-16)	37.79	65054	824000
Food for soldier's cooking lesson while at Cal Poly, Costco (6-13-16)	88.52	65054	824000
Food for soldier's cooking lesson while at Cal Poly, Ralphs (6-13-16)	15.51	65054	824000
Food for soldier's cooking lesson while at Cal Poly, Ralphs (6-13-16)	45.16	65054	824000
Food for soldier's cooking lesson while at Cal Poly, Smart&Final (6-14-16)	67.39	65054	824000
Food for soldier's cooking lesson while at Cal Poly, Costco (6-14-16)	117.02	65054	824000
Pregnancy tests for female soldiers prior to DXA scan, CVS (6-12-16)	51.81	65054	824000
Binders for organizing data, Staples, (6-12-16)	75.35	65054	824000
Binders, Staples (6-13-16)	25.92	65054	824000
polo shirts for soldiers participation, Left Coast (3-24-17)	117.70	65054	824000
ATTACH ORIGINAL INVOICES/RECEIPTS/PACKING SLIPS	TOTAL:	698.40	

Date Check Needed: <u>July 1 2017</u> Requester: <u>Scott Reaves</u> Requester Phone #: <u>756-6126</u> Requester E-Mail: <u>sreaves@calpoly.edu</u>	Department Approval: _____ Printed Name/Title: _____ CPC Approval: _____
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CHECK DISTRIBUTION: To be completed by requestor-CHOOSE ONE	
<input checked="" type="checkbox"/> MAIL TO: <input checked="" type="checkbox"/> ADDRESS SHOWN <input type="checkbox"/> OTHER: <u>5441 Righetti Rd</u> <u>San Luis Obispo, CA 93401</u> _____	<input type="checkbox"/> PICK UP AT CAL POLY CORPORATION RECEPTION DESK BLDG 15 Name: _____ Phone# _____ (or) Email: _____

Internal Office use only: Accounts Payable Invoice: _____	Vendor #: _____ <input type="checkbox"/> PYR? <input type="checkbox"/> 1099? <input type="checkbox"/> Accrue Sales Tax? <input type="checkbox"/> W@S
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