

Annual Report (2019-2020)

Department of Food Science and Nutrition

June 1, 2020

1. Professional Accomplishments

a. Summarize your accomplishments addressing your goals set last year. State what goals you have for the following year.

- **Goal I. Program Review** – The department completed its undergraduate program (B.S. degree in Food and Nutritional Sciences) review in spring 2020. This was an undertaking since the self-study and onsite review of 2018. This year we submitted the final Action Plan based on the Undergraduate Academic Program Review Subcommittee’s comments. Subsequently, the university/college/department jointly approved the plan on May 22, 2020 for implementation. Overall, the review provided beneficial inputs and timely feedback to our department’s ongoing progress (including curriculum revision, option elevation, M.S. program reactivation, etc.). In the process, we received positive comments on the department’s notable transformation (e.g., faculty strength, program unity, scholarly activity, student success, and service to the community) since the program’s prior review of 2011.

Our 2020-2021 “Goal I. Program Review” is to prepare for a successful accreditation review of the department’s Didactic Program in Dietetics and Dietetic Internship Program by the Accreditation Council for Education in Nutrition and Dietetics (ACEND). The primary tasks will involve preparing and submitting each of the 2 programs’ self-study report by spring 2020 (or 12 weeks prior to the site visit).

- **Goal II. Program Elevation** – Currently, the three Options housed under FSN do not comply with Executive Order 1071. We have developed an Option elevation proposal to address the issue. The plan is to keep the Food Science Option and Culinary Science Option under a revised “Food Science” major and elevate the Dietetics & Food Administration Option to a new “Human Nutrition” major that will consist of a Dietetics (RDN-track) Option and a Nutritional Science Option. This year, the department has implemented its streamlined “Food Science Option” of the 2019-2020 catalog to maintain proper overlap with the “Culinology[®] Option” while eliminating two underutilized Specialties. Due to the unprecedented circumstances of the COVID-19 pandemic, our “Human Nutrition” program elevation proposal remains in the approval pipeline for inclusion likely by the 2021-2022 catalog.

Our 2020-2021 “Goal II. Program Elevation” is to prepare and implement the new “Human Nutrition” major effectively, once approved. The tasks will involve developing revised department information on the website, initiating major-based advisory boards, and guiding students to make successful adjustments during the transition.

- **Goal III. M.S. Program** – The department has received approval for reestablishing our M.S. Degree program by fall 2020 with Dr. Lisa Herzig as the program coordinator. This is a recovery from the program’s long suspension due to the lack of sufficient faculty, low enrollment, and the prior Program Review’s recommendation given in 2009. We are now at the stage of receiving and reviewing applications in hopes to restart the program by fall 2020. The graduate program eventually will allow for a seamless segue for undergraduate dietetic students to receive their master’s degrees and Registered Dietitian credentials conjointly. It will also elevate our Food Science program’s profile in the San Joaquin Valley for applied research and industry engagement.

Our 2020-2021 “Goal III. M.S. Program” is to reactivate the M.S. program in a highly selective mode to ensure the quality of students entering the program and to minimize the impact of added workloads to the already demanding faculty schedule.

- **Goal IV. Lab Fee** – The census within the department is to request lab fees for undergraduate Food Science (FSC) and Nutrition (NUTR) courses. To reach this goal, faculty and staff have been collecting lab supply data to help develop a realistic budget since 2019. In addition, the Dietetic Internship program is considering adding a lab fee and/or application fee requirement to cover its cost of name badges, poster presentation printing and boards, certification ceremony, proctor meetings, and professional travel of DI director to CAND conference and internship sites, etc. It is our understanding through administrative and faculty meetings that the Dean’s office has a team that is working on developing a template that will be used college wide. We are holding off our request until future instruction.

Our 2020-2021 “Goal IV. Lab Fee” is to work on the lab fee and application fee requests through the appropriate university channels in 2020-2021 for implementation by 2021-2022. However, due to the impact of COVID-19 on lab courses, we likely will have to consider the atypical situation and possibly reassess and/or postpone the lab fee request.

- **Goal V. IFT Approval** - The department continually aims to prepare and apply for Institute of Food Technologists (IFT) Approved Undergraduate re-approval. Our Food Science Program lost its approval in 2008 due to an insufficient number of faculty. We planned to submit an approval request to IFT this summer, but we have postponed the plan due to the COVID-19 situation and the pending major splitting.

Our 2020-2021 “Goal V. IFT Approval” aims to use the accumulating evidence (achievements/progress) of successful faculty hiring, program review, graduate program and student success to help us to pursue the voluntary IFT approval in accordance with our major name change from “Food and Nutritional Sciences” to “Food Science” in the coming year. Dr. Erin Dormedy, current Food Science Program Coordinator, is planning to lead the effort.

- b. Provide a one-page executive summary highlighting the top three challenges and opportunities you tackled this academic year.*

The Department of Food Science and Nutrition's performance is steadily improving. In 2019-2020, the department successfully completed its B.S. program review, submitted a Major/Option restructuring plan, and received approval for reactivating its M.S. program. The department has earned the university leadership's trust in their program. The Undergraduate Academic Program Review Subcommittee has commended our department as "a program of quality and promise" in its January 2020 program review report. Furthermore, the college has recognized the department as "well-positioned for moderate growth and greatly increased industry support and involvement" in its February 2020 memo response to FSN's Action Plan.

Clearly, the department's success in achieving their top three goals for 2019-2020 is the result of faculty and staff dedication and their professionalism and collegiality. Every single member of the department is a necessary contributing factor to the success. In addition, there is a surge in energy among faculty within this department due to recent hiring and the shared vision for improving program efficacy and student success. The current focuses of the department program on increasing student engagement in learning processes, maintaining a harmonious work environment, and integrating applied research and services fits well with the Jordan College's overall mission.

In terms of challenges, the department in the past year lost a 20-hour per week staff support position for our food-processing lab, despite demonstrated faculty efforts in using this facility to bring industry collaboration. Although a part-time student assistant is currently available to help, it has significantly diminished our students' hands-on learning opportunities as lab students, student employees, and/or summer interns at the facility. It also negatively affected our faculty's ability to continue our support in product development and production for the Gibson Farm Market. The ongoing COVID-19 pandemic further reduced our ability to offer adequate hands-on experience to students. Many lab sessions in spring 2020 were limited to virtual demonstrations that do not help real-world problem solving and critical thinking.

The COVID-19 pandemic also affected our efforts to bring our department's degree structure (major/options) into compliance with Executive Order 1071 and that has slowed down our attempt to update our "Human Nutrition" program to meet industry's current demand. Looking forward to 2020-2021, we anticipate that our "Human Nutrition" program faculty will face significantly increased workloads in handling reaccreditation for the Didactic Program in Dietetics and Dietetic Internship Program along with the unresolved curriculum revision and option elevation issues. Nevertheless, we are confident that we will be able to meet the challenges with the support of leadership from the College and University.

2. Unit Accomplishments

Provide a summary of the accomplishments of your unit for 2019-2020. As appropriate, include a brief narrative on each of the areas listed below.

a. Student Success: Graduation Rates, Retention Rates, Closing the Loop

Table 1. Tableau data on the retention and graduation rates of freshmen cohorts of the Department of Food Science and Nutrition (2007-2019)

First-time Full-time Freshmen Cohorts															
Entry Cohort	Cohort Size	Avg Entry GPA*	Avg. 1st Term GPA	Retention after 1st Term	Retention after 1 Year	Degree within 2 Years	Contin. after 2 Years	Degree within 3 Years	Contin. after 3 Years	Degree within 4 Years	Contin. after 4 Years	Degree within 5 Years	Contin. after 5 Years	Degree within 6 Years	Contin. after 6 Years
Fall 2007	14	3.38	2.90	100.0%	100.0%	0.0%	78.6%	0.0%	71.4%	14.3%	64.3%	57.1%	14.3%	71.4%	7.1%
Fall 2008	16	3.32	2.74	100.0%	75.0%	0.0%	68.8%	12.5%	62.5%	25.0%	50.0%	50.0%	31.3%	56.3%	12.5%
Fall 2009	22	3.28	2.90	100.0%	86.4%	0.0%	86.4%	0.0%	81.8%	9.1%	63.6%	40.9%	36.4%	63.6%	13.6%
Fall 2010	25	3.37	3.03	100.0%	80.0%	0.0%	68.0%	0.0%	68.0%	16.0%	56.0%	40.0%	28.0%	60.0%	8.0%
Fall 2011	22	3.32	3.11	95.5%	81.8%	0.0%	81.8%	0.0%	77.3%	22.7%	54.5%	54.5%	22.7%	68.2%	0.0%
Fall 2012	23	3.33	3.16	95.7%	87.0%	0.0%	87.0%	0.0%	87.0%	13.0%	73.9%	65.2%	21.7%	73.9%	8.7%
Fall 2013	26	3.27	2.96	96.2%	84.6%	0.0%	76.9%	0.0%	73.1%	26.9%	34.6%	38.5%	26.9%	46.2%	23.1%
Fall 2014	27	3.31	2.87	100.0%	77.8%	0.0%	63.0%	0.0%	63.0%	11.1%	48.1%	40.7%	18.5%		
Fall 2015	21	3.34	2.61	95.2%	81.0%	0.0%	61.9%	0.0%	66.7%	9.5%	57.1%				
Fall 2016	19	3.51	2.90	94.7%	73.7%	0.0%	73.7%	0.0%	68.4%						
Fall 2017	19	3.56	3.04	94.7%	73.7%	0.0%	73.7%								
Fall 2018	19	3.29	2.80	89.5%	78.9%										
Fall 2019	20	3.60	2.98	90.0%											
Grand Total	273	3.37	2.93	96.3%	81.4%	0.0%	74.4%	0.9%	72.1%	16.3%	55.1%	47.4%	25.1%	62.2%	10.8%

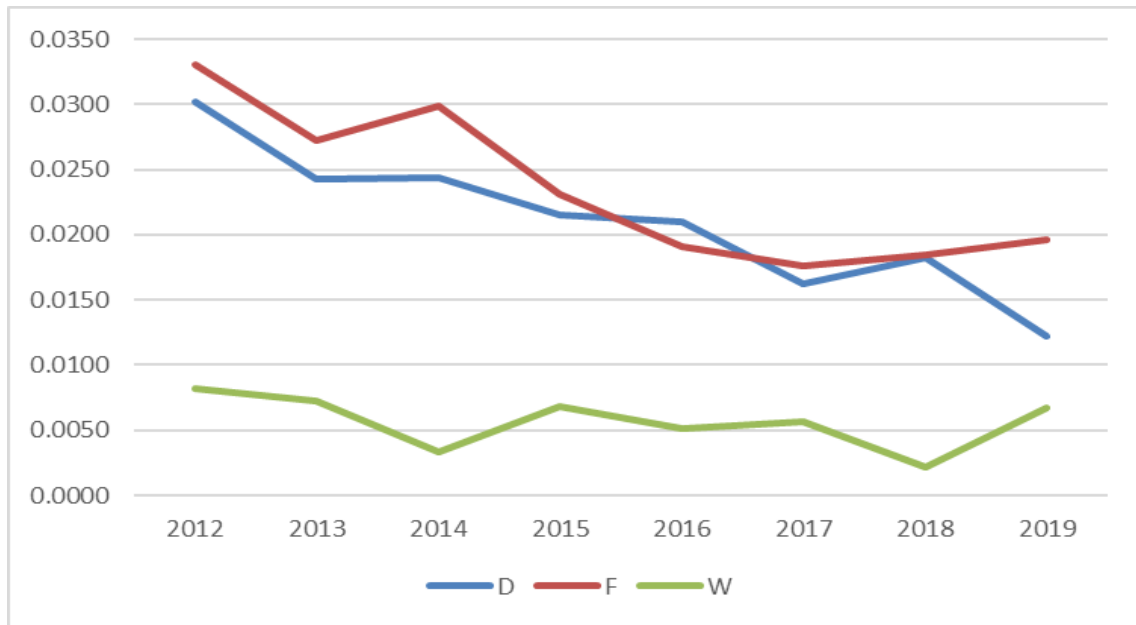
- FSN's entry cohort sizes peaked in 2014 and have remained stable in recent years with 19 and 20 entries respectively for 2018 and 2019 cohorts. The average entry GPA score increased to 3.6 from 3.3 over the past one year. The 2019 cohort's average entry GPA is at the highest level since 2007.
- FSN full-time first-time freshmen cohorts' average retention rates after 1, 3 and 5 years are 81.4%, 72.1%, and 25.1%, respectively, similar to the corresponding 81.6%, 71.5% and 25.2% based on 2006-2018 data range. The latest year retention rates after 1 and 3 are 5.2% and 1.7% and 5.2% higher (better) than the respective prior years. The average retention after 5 years is 6.2% higher than that of the college; and the latest 5-year retention rate is 3.2% higher than that of the college.
- FSN's average graduation rates for the freshmen cohorts within 4, 5, and 6 years are 16.3%, 47.4%, and 62.2% respectively; the data is comparable to the college's 19.9%, 48.6% and 60.2% from the same ranges of years. The latest year graduation rates within 4, 5, and 6 years (for 2015, 2014, and 2013 cohorts, respectively) are 9.5%, 40.7%, and 46.2%, respectively, significantly lower than the FSN and college averages. However, FSN's retention rate for the 2015 cohort after 4 years has increased to 57.1% from 2014 cohort's 48.1% and 2013 cohort's 34.6%. The 2016 and 2017 cohorts also show similar recovery trends.

Table 2. Tableau data on the retention and graduation rates of transfer cohorts of the Department of Food Science and Nutrition (2007-2019)

First Time CCC Transfer Cohorts															
Entry Cohort	Cohort Size	Avg Entry GPA*	Avg. 1st Term GPA	Retention after 1st Term	Retention after 1 Year	Degree within 2 Years	Contin. after 2 Years	Degree within 3 Years	Contin. after 3 Years	Degree within 4 Years	Contin. after 4 Years	Degree within 5 Years	Contin. after 5 Years	Degree within 6 Years	Contin. after 6 Years
Fall 2007	15	2.85	2.62	93.3%	86.7%	6.7%	66.7%	26.7%	33.3%	26.7%	26.7%	46.7%	13.3%	60.0%	0.0%
Fall 2008	13	3.09	2.99	92.3%	69.2%	15.4%	61.5%	38.5%	23.1%	53.8%	15.4%	61.5%	15.4%	69.2%	7.7%
Fall 2009	18	3.08	2.60	94.4%	88.9%	5.6%	77.8%	27.8%	38.9%	61.1%	11.1%	66.7%	11.1%	66.7%	11.1%
Fall 2010	32	3.02	2.82	96.9%	84.4%	9.4%	75.0%	25.0%	59.4%	59.4%	21.9%	71.9%	6.3%	75.0%	3.1%
Fall 2011	29	2.98	2.87	89.7%	86.2%	0.0%	72.4%	20.7%	41.4%	51.7%	6.9%	55.2%	3.4%	58.6%	3.4%
Fall 2012	26	3.02	2.97	96.2%	84.6%	3.8%	73.1%	34.6%	30.8%	53.8%	7.7%	69.2%	3.8%	73.1%	0.0%
Fall 2013	46	3.03	3.03	91.3%	91.3%	0.0%	82.6%	37.0%	39.1%	60.9%	15.2%	71.7%	6.5%	76.1%	0.0%
Fall 2014	32	3.04	3.03	100.0%	93.8%	0.0%	81.3%	40.6%	40.6%	59.4%	15.6%	68.8%	9.4%		
Fall 2015	38	3.25	3.16	92.1%	86.8%	2.6%	78.9%	52.6%	23.7%	65.8%	13.2%				
Fall 2016	36	3.10	3.09	91.7%	91.7%	8.3%	80.6%	55.6%	27.8%						
Fall 2017	28	3.11	2.97	96.4%	82.1%	0.0%	75.0%								
Fall 2018	30	3.17	3.41	93.3%	90.0%										
Fall 2019	25	3.25	3.47	96.0%											
Grand Total	368	3.09	3.03	94.0%	87.5%	3.8%	76.7%	37.5%	36.5%	57.0%	14.5%	65.9%	7.6%	69.8%	2.8%

- FSN’s entry cohort sizes peaked in 2013 and decreased in recent years with 30 and 25 entries for the 2018 and 2019 cohorts, respectively. Average entry GPA scores are all in the range of 3.1-3.3 in the most recent five years.
- FSN full-time transfers cohorts’ average retention rates after 1, 3 and 5 years were 87.5%, 36.5%, and 7.6%, respectively; the data is similar if not better than the college’s corresponding rates (89.8%, 20.3% and 2.5%, respectively). The latest FSN retention rates after 1, 3 and 5 years (for cohorts 2018, 2016, and 2014, respectively) were 7.9%, 4.1%, and 2.9% higher than the respective prior years.
- FSN’s average graduation rates for the transfers cohorts within 2, 3, 4, 5, and 6 years are 3.8%, 37.5%, 57%, 65.9%, and 69.8%, respectively, significantly lower than the corresponding rates of Jordon College (22.3%, 61.1%, 74.6%, 78.3%, and 79.0%, respectively). However, the latest year graduation rate (for cohort 2016) within 3 years is 3.0% and 15.0% higher than that of the cohorts 2015 and 2014, respectively. The latest graduation rates within 4 and 6 years also are 6.4% and 3.0% higher than the respective prior years.

Figure 1. Average D, F, W Rates of the Courses Offered by the Department of Food Science and Nutrition (2012-2019)



- Figure 1 shows that there is a downward trend in D and F rates of the overall courses offered by the department. The W rate, however, is steady at around 0.5%. In the most recent three years, the FSN courses had both annual average D and F rates below 2.0%. The overall downward trend likely is a reflection of the elevated major entry GPA requirements due to impaction. Faculty also felt that the recent students are more academically ready for taking major courses. Possibly, it has positively influenced the earlier described recent increase of retention rates.
- In 2019, the range of D, F, and W rates of FSN courses in 2019 are 0.00-0.08, 0.00-0.29, and 0.00-0.10, respectively. In terms of specific 2019 courses, the “D” of FSM60, FSM131, NUTR53, and NUTR153 are over 5 times higher than the department average. Similar rates (>500% of average) are associated with the “F” for FSM60, NUTR53, and NUTR61 and the “W” for FSC1, NUTR61, NUTR156, and NUTR175. The chair will share this information and discuss the significance of the data toward student success in the coming faculty meeting(s) in fall 2020.
- We will continue to monitor the trends retention, graduation and D/F/W rates to find needs and ways for enhancement.

b. Operational performance

- *Workplace quality survey. Describe specific steps and efforts you’ve taken. Include steps you have taken to “not always do what we’ve always done.”*
 - The department’s classroom FFS 105 is in bad shape due to heavy usage over the years. Previously there were quotes for improvement of the projector and screens,

but due to budget limitation, no improvement was done. This year we discussed this issue with the Dean's office, Facility Management, and Technology Services about this issue.

- Another older facility issue that we have reported in 2019 is related to the lack of a dedicated men's restroom on the first floor of the FFS building. Previously, Plant Operations converted the men's restroom on the first floor of the FFS building for all gender use. Unfortunately, the renovation removed all three urinals in the restroom and only left one toilet for usage. The change has caused significant congestion and confusion in this high-traffic area. The only one toilet in the restroom seems to be occupied constantly and is often unsanitary since no urinal is available. The nearest urinal is on the 3rd floor of the building. We are raising this issue again since we might open the building again under COVID-19 threat.
- The department is preparing to gain its own department office (with the relocation of the Department of Child and Family Science) and designated DAA. We anticipate that this change will help the department office focus better on department needs. Also, the reclaimed space will help to generate an office for Harriet Tom, Instructional Technician, to organize her instructional materials and supplies.
- *COVID-19. Document any efforts you took to mitigate its impact*
 - The department quickly converted lecture and lab activities into virtual modes, mostly through Zoom meetings, to reduce the impact of campus closure.
 - The department faculty and staff continually met throughout the semester on a weekly basis to address the challenges and questions related to coping with COVID-19 disruptions. In a very short timeframe, we identified essential courses that must meet face-to-face as well as needed equipment for teaching virtually next semester.
 - The department hosted a Celebration Party by Zoom for all graduates. The meeting was organized by department staff and all faculty members participated, with J. Levitt as the MC.
 - To support the Gibson Farm Market operation, Harriet Tom continually worked in the department kitchen to generate bakery products to meet community demand. She is also involved in making face masks to cover the needs on campus.
 - J. Levitt received training and approvals in spring 2020 for teaching online course at Fresno State. The certification will help him guide the department in their efforts to convert classes to online and digital teaching methods.
 - *Event Cancellation/postponement:*
 - Reaccreditation activities for both The Didactic Program in Dietetics and Dietetic Internship Program have been postponed for a year by the accreditation agency ACEND. The agency requires our programs to report information on the

adjustments made to the programs due to the COVID-19 pandemic and the expected timeframe for resuming normal operations.

- Due to COVID-19, L. Herzig and E. Ireland were not able to attend the Nutrition and Dietetic Educators and Preceptors (NDEP) area 1, annual conference in Albuquerque, New Mexico in March 2020. The purpose was to learn more about future practice education models that all candidates hold a master's degree by Jan 1 2024, to sit for the examination for dietitians, and to promote the reestablishment of our Fresno State M.S. degree program.
- S. Griffin and C. Licon made preparation steps to attend the IFT College Bowl and RCA convention with student leaders and club members. Both activities were cancelled due to COVID-19.
- C. Licon's speaking event for Phantom Aromas and Taste Perception. Central California Research Symposium (accepted March 2020); cancelled.
- C. Licon's speaking event for "The influence of soil and sun exposure affects the quality of mandarins grown at the Fresno State Farm." Central California Research Symposium (accepted March 2020); cancelled.
- C. Licon was invited to participate as an Instructor in a 5-day workshop "The art and science of artisanal cheesemaking," organized by the University of the Azores. The workshop was planned to take place from May 19th to May 24th at The University of Azores, at the Azores. Unfortunately, the event has been postponed until further notice.
- S. Griffin and C. Licon partnered with Ma Linda Davis to develop a jackfruit jam recipe in one course (CULG 151) and determine the logistics to produce it in another (FSC 41). This project was delayed due to COVID-19.
- J. Levitt was to attend the 2020 ICHRIE conference in Phoenix and he planned to work with S. Griffin to organize the 2020 Field to Meal program between University of Arkansas, TU Graz, and us. We planned to take students and faculty to relevant destinations throughout California.
- USDA - Cal-Fresh Healthy Living Grant – S. Griffin and H. Tom are facilitators for this grant received by Jessica Medina, Fresno State's Food Security Coordinator. This grant is to provide university students with direct and indirect education on nutrition and healthy living using established curriculum. Modifications to curriculum delivery will be made in accordance with COVID-19 health safety guidelines provided by CSU. Grant will provide two students with employment that will provide experience applicable to their career paths.

- S. Griffin had planned on attending CA ProStart Cup + College and Career Fair to recruit students from high school culinary competitive teams in Pomona. The event was cancelled due to COVID-19.

c. Broadening and deepening relationships with external audiences

- *What did you do to expand or deepen relationships on and off campus?*
 - Training Service:
 - **E. Dormedy** hosted 20 participants for a food safety certification workshop “Developing and Implementing Hazard Analysis and Critical Control Point System (HACCP)” during May, 2020. The workshop, accredited by the International HACCP Alliance, is organized annually by the San Joaquin Valley IFT to support regional food processing companies to meet current practices and regulatory requirements. The workshop (and her leadership) helps to maintain good relationships with food industry partners and generates scholarship funds for multiple students each year.
 - **S. Griffin** and **C. Licon** were the faculty champions for the Advanced Olive Oil Milling Seminar hosted and organized by IFA in spring 2020. Forty-five industry partners attended the 2-day seminar.
 - **C. Licon** hosted an intern from the University of Azores in February 2020. Daniela Borges worked on the formulation of a cream cheese from cow’s milk using fermented cream and milk.
 - **L. Herzig** and **S. Pooya** hosted a Nutrition Focused Physical Exam (NFPE) workshop for dietetic interns on September 21, 2019.
 - **L. Herzig**, Winning with a Healthy Lifestyle is a weight management program that is offered to Fresno State faculty and staff. 2019-2020 was the 9th annual offering of Winning. The program is supported by the Fresno State Professional Development program. September 2019-May 2020. Annual program. Initiated a novel approach with developing online recorded modules for employees.
 - **L. Herzig** and the NUTR149 students completed the 8th annual Bulldogs in the Kitchen program. A total of 43 athletes completed the needs assessment. Given the changes of virtual instruction, BIK has been shifted to an online teaching component. An extensive playbook was developed, thereby providing them with a unique teaching tool. Due to the ongoing changes and challenges with the training schedule, the teaching module may be saved till the summer.
 - **L. Herzig** continued to collaborate with the new California Health Sciences University – College of Osteopathic Medicine providing a Culinary Medicine Program between medical students and Fresno State nutrition and dietetic

students. The goal was to provide a detailed process of what and how the RDN can contribute to the overall lifestyle intervention strategies for the physician's patients.

- **L Herzig** completed the mentoring process with Kaitlynn Watson, undergraduate student: Jordan College Honors Program.
- **S. Pao** and **L. Herzig** visited Shaoguan University in June 2019 to teach Food Safety and Elementary Nutrition, respectively, to students in their Food Science and Nutrition Department in Guangdong province, China.
- **S. Pao**, a Lead Instructor for Foreign Supplier Verification Programs (FSVP) training course, has successfully implemented this newest FSMA training program at Fresno State. During spring 2020, 17 students completed training and received certifications from the Food Safety Preventive Controls Alliance (FSPCA).
- As part of the new Nutritional Science option requirement, **S. Pooya** is working with Dr. Susan Pheasant and Allyson Baldus to establish a basic science lab space in the FAR lab.
- Food safety certificates are necessary evidence of professional qualification in the food industry. Our department has incorporated 1) ServSafe Food Protection Manager training into FSM60 Food Safety for Foodservice Professionals, 2) HACCP training into FSC125 Food and Dairy Microbiology, 3) FSMA Preventive Controls for Human Food training into FSC178 Food Laws and Regulations, and 4) FSMA Foreign Supplier Verification Program training in FSC120 Quality Assurance into the Food and Dairy Industries. These certification courses are recognized/offered in collaboration with the National Restaurant Association, the International HACCP Alliance, and the Food Safety Preventive Controls Alliance.
- Advisory Service:
 - **E. Dormedy** continues to serve as Public Member, Milk Inspection Advisory Committee, California Department of Food and Agriculture, Milk and Dairy Food Safety Branch.
 - **E. Dormedy** continues to serve as Public Member, Administrative Committee for Pistachios, USDA Agricultural Marketing Service, Fruit and Vegetable Programs.
 - **L Herzig** collaborated with several of the high schools and middle and elementary schools in the Washington Union School District. Worked with the principals to provide nutrition education focused programs that highlighted the importance of macronutrients and micronutrients.
 - **L. Herzig** served as the nominating committee chair for the Diabetes Practice Group for The Academy of Nutrition and Dietetics.

- **E. Ireland** and **L. Herzig** attended the Federal Communications Commission (FCC) Advisory Board Virtual Zoom meeting for the food and nutrition department on April 30, 2020. This is a vital piece of outreach and aids in the positive transition of transfer students and development of curriculum updates from both programs.
- **C. Licon** has served on the Steering Committee to support the California Milk Advisory Board to create a Dairy Innovation Center.
- Honorary Reorganization:
 - **S. Griffin** honored at Most Valuable Professor Recognition from Claire Brooks swim team at Fresno State, December 2019.
- Professional Meeting:
 - **Griffin, S.** and **C. Licon** attended the California League of Food Producers' annual meeting in Santa Clara in February 2020. Their attendance also supported student clubs' activities at the convention. An alumni event was organized where the students were able to discuss and connect with alumni.
 - Goins, A., **S. Griffin** "Development of A Nutritionally Dense Quiche Crust Using Alternative Flours to Provide Healthy Convenience Food for Elderly Adults." Poster Presentation, October 2019, ARI Principal Investigators Meeting.
 - **L. Herzig**, G. George, and K. Watson presented the results "Weight and body image perceptions in nutrition and dietetics university students" at FNCE meeting.
 - **Ireland, E.** and **L. Herzig** attended the Annual Food and Nutrition Conference Exhibition (FNCE) on October 25-29, 2019 in Philadelphia, PA.
 - **Levitt, J.** traveled to China, ROC, and HK in Summer 2019 to develop partnerships for a future FSN study abroad program.
 - **Levitt, J.** traveled with two Fresno State students to Graz, Austria in summer 2019 to present at and attend an international program focused on food going from "field to meal."
 - **Levitt, J. A.**, Taylor, S. T., & Shinn, S. (2019, July). Do Local Beverages Taste Better? An Investigation into the Halo Effect. Poster presented at the 2019 Annual ICHRIE Summer Conference, New Orleans, LA.
 - **Levitt, J. A.** & Taylor, S. T. (2020, January). Do Local Beverages Taste Better? An Investigation into the Halo Effect. Paper presented at the 2020 Annual WesternCHRIE Conference, Pomona, CA.
 - **Levitt, J.** attended the Fancy Food Show in San Francisco in spring 2020 as a means of developing new relationships and contacts.

- **Licon, C.** has been involved with SJFT to identify potential equipment donations for the Food Processing Lab as well as help with the organization of a golf tournament that offers five scholarships to Food Science and Culinology students each year.
- **Licon C.** was invited to participate as a speaker in a cheese and wine pairing session organized by the Wine Club at Fresno State in September 2019.
- **Licon C.** was invited by Dr. Alija Mujic (Biology Department) as a guest speaker to talk about the microflora and aroma development in different types of cheeses.
- **Licon C.** participated in several sensory analysis demonstrations at the Jordan Agricultural Research Center during the year including a group of Welsh farmers, Fresno-Clovis Convention Center, Agrian, and a group of High School Students. These visits were organized by the Institute of Food and Agriculture.
- **Licon, C.** was invited by Dr. Amanda McKeith as a guest speaker for the Honors Program Cohort 5 for AGRI 1H class.
- **Licon, C., S. Griffin** and **J. Levitt** were invited to be part of the first active learning group at the Jordan College, with the intention to receive training to later train the faculty at the department.
- **S. Pao**, Good Manufacturing Practices, Citrus Food Safety Workshop, California Citrus Quality Council, August 6, 2019, Visalia, CA.
- Corona, L., K. Condrón, **S. Pooya**, R. Ward, C. Ho, H. Abdulhaq, and A. Fathi, Association of Creatinine and BUN on BMI and Survival Among Colorectal Cancer Patients at Clovis Community Cancer Institute, Poster presentation at CVD virtual meeting SP2020.
- Garcia, L., R. Manzo, **S. Pooya**, R. Ward, C. Ho, H. Abdulhaq, and A. Fathi, Obesity and the Association with Liver Cancer at CCCI, Poster presentation CVD virtual meeting SP2020.
- Burke, J., R. Wallace, **S. Pooya**, R. Ward, C. Ho, H. Abdulhaq, and A. Fathi, The Impact of Obesity on Survival Rates Post-Pancreaticoduodenectomy at CCCI, Poster presentation CVD virtual meeting SP2020.
- Alcazar, A., V. Arias, **S. Pooya**, R. Ward, C. Ho, H. Abdulhaq, and A. Fathi, Association of Tobacco Use with Survival in Patients with Stomach Cancer at CCCI, Poster presentation CVD virtual meeting SP2020.
- Villasenor, L. and **S. Pooya**, Prevalence of non-alcoholic fatty liver disease in school-age children in Central Valley and the effect of nutritional intervention on the disease trajectory. JORDAN COLLEGE HONORS PROGRAM Cohort 5 presentation, Monday, May 4, 2020.

- Editorial Service:
 - **J. Levitt** served as a reviewer for Current Issues in Tourism, Journal of Foodservice Business Research, International Journal for Hospitality and Tourism Administration, and Journal of Quality Assurance in Hospitality and Tourism.
 - **C. Licon** was an external reviewer for doctorate thesis entitled: Advances in the quality and use of *Crocus sativus* L. from University of Castilla-La Mancha, Spain.
 - **C. Licon** was invited to be part of the editor's review board for the journal FOODS (https://www.mdpi.com/journal/foods/submission_reviewers).
 - **C. Licon** participated as a reviewer for the National IFT Association abstracts to be presented in their annual meeting in July 2020.
 - **C. Licon** was invited as a reviewer for the ARI Seed and Campus Proposals for Cal Poly.
 - **S. Pao**, Associate Editor, Quality Assurance and Safety of Crops & Foods, Codon Publishing. 2020-current.
 - **S. Pao**, Editorial Board Member, Journal of Food Processing and Preservation, Blackwell. 2008-current.
 - **S. Pao**, Reviewer, Journal of Culinary Science and Technology, Taylor & Francis Group. 2019.
- Fundraising Activity:
 - **E. Ireland** received \$1,325 in donations by participating in the fall session of Crowdfunding in October with the help of Amanda Hall in the Alumni Association. <https://crowdfunding.fresnostate.edu/project/16549>.
 - **E. Ireland** received a donation for the dietetic internship, for the interns to attend public policy day. The donation was from Nutrition Therapy Essentials (NTE) for \$600.00 December 18, 2019.
 - **J. Levitt** received a \$600 grant for successfully completing the Richter Center's service learning certification program.
 - **J. Levitt** and **H. Tom** led students of FSM 133 to create several hundred Zongzi. They were then used as part of a fundraiser for the First Chinese Baptist Church of Fresno to distribute medical and dental care in the developing world.
 - **C. Licon** and **S. Griffins** received the donation of a double-diaphragm pump from Pumping Solutions (Mr. Bret Bookhamer) and Wilden pumps (the manufacturing company) with an approximate value of \$8,000.

- **C. Licon** received several donations from the California League of Food Processors including brushes for the Food Processing Lab with an approximate value of \$800 and lockers that will be installed in different laboratories to be used by students.
- **C. Licon** organized a crowdfunding campaign (Fresno State initiative) to raise funds to buy a cheese vat for the Creamery. She has raised \$2,500 so far.
- **C. Licon** participated in a tailgate organized by the Creamery (Mr. Daniel Avila) and CDAI to raise money to fund part of the student assistants' salaries at the Dairy and Creamery.
- **H. Tom** and **S. Griffin's** bread sales consistently brought in \$100+ per week to the department.
- **S. Pao** ended a USDA project "Multicultural Scholars Program in Food and Agriculture at Two Minority-serving Institutions (2005-2020, \$110,000)" with CSU Stanislaus in spring 2020.
- Research Development
 - **L. Herzig**, G. George, **J. Levitt** and K. Watson collaborated on a research study looking at the perceptions of body image amongst dietetic and non-dietetic students. The manuscript has been submitted to the California Journal of Health Promotion.
 - **C. Licon** is a Co-Pi in an ongoing project funded by ARI. The project studies wine aroma perception and physiological responses to wine odorants (we mainly use JARC facilities).
 - **S. Pooya** and **L. Herzig** started a new study with Community Regional Medical Center (CRMC) Hepatic Center to seek the prevalence of non-alcoholic fatty liver disease in school-age children in the central valley.
 - **S. Pooya** led several research projects under seminar class for Dietetic interns with collaboration with CRMC and the Central California Children Institute (CCCI). The projects were conducted on patients referred to the Cancer Center at CRMC or Clovis Cancer Center between 2009-2019.
- Journal Publications:
 - DiPietro, R. B., **Levitt, J. A.**, Taylor, S., & Nierop, T. (2019). First-time and repeat tourists' perceptions of authentic Aruban restaurants: An importance-performance competitor analysis. *Journal of Destination Marketing & Management*, 14.
 - Zhang, P., **Levitt, J. A.**, DiPietro, R. B., & Meng, F. (2019). An Analysis of Food Tourists' Behavior Among Unobserved Heterogeneous Groups. *Tourism Analysis*, 24(2), 177-192.

- **Levitt, J.**, Lankford, S., Oliveira, L., & Goggins, J. (2020). Tourism and Travel. Central California Business Review, 3. Retrieved from <http://www.fresnostate.edu/craig/ubc/cencalbusreview.html>.
 - **Licon, C.**, Armando Moro, Celia M. Libran, Ana M. Molina, Amaya Zalacain, M. Isabel Berruga and Manuel Carmona. 2020. Volatile transference and antimicrobial activity of cheeses made with ewe’s milk fortified with essential oils. Foods 9, 35: doi:10.3390/foods9010035 (open access).
 - Kim, C and **S. Pao**. 2019. Utilizing kitchen steamers to inactivate Listeria monocytogenes and Salmonella enterica on whole cantaloupe melons. Journal of Food Safety, 39:e12653.
- *How effective were you?*
 - We did well, considering all the internal transitions and external challenges we faced this year. The list above shows that members of the department were very active in professional industry associations in addition to their full teaching loads. We anticipate growth in the research arena. The newly approved graduate program is already attracting talented applicants and bringing new excitement and ideas for improving our research and academic standing.
 - *Provide an updated listing of the advisory committee membership and any changes made to the membership in 2019-20. Use the attached template.*
 - Members and their affiliations have not changed in 2019-2020; however, the appointments are expired in spring 2020. We plan to reestablish the board membership after department’s elevation/restructuring of its major/options. Likely we will have one board for “Human Nutrition” and one board for “Food Science” in the future. The expired membership in 2019-2020 were:
 - Shirley J. Brown, EdD, SNS (President); Director, Product Training, Rich Products Corporation
 - Carrie Der Garabedian, MBA, RD (Vice President), CFPM; Director of CBHC & CSTCC, Nutrition & Dining Services
 - Randy Moens, RD; Registered Dietitian/Operations Coordinator, Fresno County Economic Opportunity Commission
 - Scott Nichols, MS, MBA; Past President, San Joaquin Institute of Food Technologists (SJIFT); Senior Account Manager, The Horn Company
 - George Nikolich, MS; Vice President, Technical Operations, Gerawan Farming, Inc.
 - Gloria Pecina, MBA, RD (Recording Secretary); WIC Director
 - Scott Shehadey; President, Producers Dairy Foods, Inc.

- Siva Subramanian, MS; Vice President, Innovation & Quality, Olam Spices & Vegetable Ingredients
- Mary Vester-Toews, RD; President, Dietary Directions
- Quinn Zweigle, MS, CFS; Director of Research and Development, National Raisin Company