Santa Rosa Junior College

Program Resource Planning Process

Agriculture 2024

1.1a Mission

The mission of the Santa Rosa Junior College Agriculture/Natural Resources Department is to increase the knowledge, improve the skills, and enhance the lives of those served by its programs, preparing leaders in agriculture, food systems, and natural resources who are equipped to address the diverse food, fiber and fuel needs of society. The department has diverse curriculum in Agribusiness, Animal Science, Equine Science, Environmental Horticulture, Floral Design, Sustainable Agriculture, Natural Resources, Veterinary Technician, Viticulture, and Wine Studies.

1.1b Mission Alignment

The Santa Rosa Junior College Agriculture and Natural Resources Department's mission reflects the college's mission statement fundamental purpose. The Agriculture and Natural Resources department provides lower division academic education, prepares students for transfer to four-year institutions, provides current career education in eleven programs, and supports local economic development and job growth. The Ag/NR department has supported the environmental stewardship of Sonoma County and California through the Natural Resources, Sustainable Agriculture, and Environmental Horticulture programs.

1.1c Description

Curriculum

The SRJC Agriculture and Natural Resources Department has 10 certificate and/or degree programs in:

- Agribusiness

- Animal/Equine Science
- Environmental Horticulture
- Floral Design
- Hemp Agriculture
- Natural Resources
- Sustainable Agriculture
- Veterinary Technology
- Viticulture
- Wine Studies

In addition, Shone Farm supports the Wildfire Resilience project. Though it does not grant a certificate at this time, the project incorporates classes from several Ag & NR programs to train students in wildfire mitigation.

The Ag/NR Department has continued with major curriculum work in each of its program areas to meet the California Community College Agriculture Core Course Model Programs. SRJC Agriculture & Natural Resources program coordinators and instructors meet annually with Community College, CSU, and UC instructors to collaborate on curriculum. These courses follow a statewide articulation numbering system with CC, CSU, and UC agriculture courses statewide. Many of these courses also satisfy General Education requirements and UC/CSU numbered status.

Facilities

Shone Farm

Shone Farm is a 365-acre outdoor learning laboratory for the Santa Rosa Junior College's Agriculture/Natural Resources Department. The farm provides students with hands-on experience that cannot be duplicated in the classroom. The farm is located about 12 miles from the Santa Rosa Campus, between the towns of Forestville and Windsor, in the heart of the Russian River Valley AVA (American Viticulture Area). It was named in honor of Robert Shone, a very active leader in Sonoma County agriculture, in addition to being a Santa Rosa Junior College trustee and President of the Sonoma County Farm Bureau. Ag Mechanics, Animal Science, Equine Science, Hemp Agriculture, Natural Resources, Sustainable Agriculture, Viticulture, and Wine Studies programs use the diverse farm entities extensively within their programs.

In Fall 2022, three new classrooms, one computer lab classroom will be operational at Shone Farm for classes. In addition to the classrooms, a new office suite will be added to Shone. Program coordinator and classified staff offices will move from Lark hall to Shone Farm.

Lark Hall

The majority of the Agriculture and Natural Resources will no longer be using the classroom spaces in Lark Hall. The Floral Design program will continue to be in Lark.
The computer laboratory in room 2060 of Lark Hall is used primarily for Agribusiness courses and the Natural Resources course in GIS. More Ag/NR programs are now using computer classrooms elsewhere on campus due to the lack of computers, correct ergonomic desk setup, and adequate staffing.

1.1d Hours of Office Operation and Service by Location

The Agriculture and Natural Resource Department is open Monday through Friday, from 8:30am-5:00pm. Ag/NR classes are taught on the Santa Rosa Campus, Petaluma Campus, and Shone Farm Campus, typically Monday through Thursday from 9:00am-9:00pm.

1.2 Program/Unit Context and Environmental Scan

AGRICULTURE BUSINESS MANAGEMENT

Agribusiness accounts for nearly one-fifth of the United States (U.S.) Gross National Product (GNP) and employs close to one-fourth of the labor force. This sector includes firms in the value chain system such processing, marketing, sales and distribution. In California, 53% of the total revenue in agriculture comes from the agribusiness industry (United States, Department of Agriculture, 2014). Agribusiness jobs account for 34 percent of the workforce in the value chain in California. Over the next five years, the Agribusiness industry is expected to grow by at least 18 percent (distribution-14% and processing-4.4%) in Sonoma County. Additionally, the average salary for Agribusiness industry employees is Sonoma County is approximately $51,000 per annum (Chancellors Office, California Community Colleges, 2014).

Although there has significant growth in the Agriculture Business sectors, the number of community college programs that train students in this major are not keeping up with the trend. In California, there are 591 agriculture programs at California Community Colleges, of which, only 37 (6.5%) offer certificates or degrees in agriculture business. As such, there is real need to increase enrollment in Agribusiness to meet industry needs. Graduates from Agribusiness programs are usually employed as loan officers, banker, lobbyists, sales/marketing managers, farm managers, distribution managers, personnel specialists, labor contractors and public relations specialists.

Most of the students enrolled in agribusiness courses intend to transfer to one of the following institutions: California State Polytechnic University, San Luis Obispo, California State University, Fresno, California State University, Chico, California State University Stanislaus, California State University, Sonoma and University of California, Davis. There are active articulation agreements between our program and the aforementioned institutions. In developing the new Associate Degree for Transfer (AST) in agribusiness, courses were designed and sequenced to ensure that students who complete the requirements for the AST would also meet the prerequisites to transfer as juniors to California State Universities. Although a larger number of students enrolled in agribusiness transfer to four-year institutions, there is a sizeable number of students that complete our certificate or degree programs to return to the workforce. In order to meet the needs of both pathways of students (career and transfer), courses have been designed to provide a wide range of skills that are required for both industry and four-year institutions. The structure and content of

agribusiness courses will be continually updated to meet both industry needs and transfer requirements for four-year institutions.

ANIMAL SCIENCE

World food demand for food of animal origin will double in the next 25 years in order to feed an expected population of 9.1 billion. Trends in the animal science industry show an increase in vertical integration with a decrease in the number of producers, but larger sized operations; increased specialization to improve efficiency; increased geographic concentration. The above needs will need to be achieved while minimizing the costs to animals, environment and humans. While consolidation continues to be a trend in agriculture across the country, Sonoma County is home to many niche livestock production enterprises that offer opportunities to students locally. Animal agriculture products accounted for the top four out of the top five agricultural products in Sonoma County in 2017. While the dairy industry continues to struggle nationwide, market milk alone accounted for $137 million of agricultural products in Sonoma County. The equestrian industry was valued at $613 million in 2014 and contributes an estimated 7,700 jobs to the local economy. Current SRJC courses, certificates, and majors have been refined to meet both of these trends.

Employment trends show an average increase in the need of Animal Science graduates by 12.9%. Currently, 6.4% of all animal scientists have a professional degree, 23.5% have a doctoral degree, 21% have a master's degree, and 35% have a bachelor's degree. Effective Fall 2019, Santa Rosa Junior College students will be able to choose one of two tracks, either a certificate in Animal Science for students who wish to immediately enter the workforce or an Associate's Degree of Transfer which will guarantee admission into a four year university. Two California State Universities (Chico and Fresno), two California State Polytechnic Universities (San Luis Obispo and Pomona) and University of California, Davis have Animal Science programs. Equine Science is a program offered within Animal Science programs at most Fresno, San Luis Obispo, Pomona and Davis In order to offer students a clear path to transfer, the equine science program has come under the animal science program. Equine classes will be offered as part of the Animal Science certificate. Work began in 2018 to insure transferability of Santa Rosa Junior College into these programs.

Animal Science associates degree students Santa Rosa Junior College are helping to produce the increased value of animal agriculture production in California; between 2000 and 2010 there was a boost of more than $3.2 billion in total economic output from animal agriculture for the state. This growth increased household incomes by more than 17,000 jobs, according to a report funded by the United Soybean Board. At the national level, the study found that the rise in value of US animal agriculture production in the last decade resulted in more than $22 billion in total economic output. This produced a nearly $4 billion increase in household incomes and 128,700 jobs.

In 2010, the total economic impact of animal agriculture in California was more than $19 billion, compared to $289 billion nationally. The effect on household earnings was $3.6 billion in the state and $51 billion nationally. Animal agriculture contributed 101,178 California jobs and more than 1.8 million jobs to the US economy.

The average animal scientists has a starting salary of $31,540. The average salary earned is $53,230.

California community colleges that offer Animal Science programs include Modesto College, Merced College, College of the Sequoias, Reedley College, Shasta College, and Bakersfield College. California community colleges that offer Equine Science courses include Modesto College, Sierra College, College of the Sequoias, and Shasta College. Feather River College in Quincy offers a 2 year degree as well as a 4 year degree in Equine Science. There are no outside requirements for licensing/accrediting of Animal Science programs for SRJC or any other community college institutions

There has been minimal change in outside funding. Partnerships have been developed with community members for leasing of grazing animals as well as the use of horses for equine classes. Partnership with UC Cooperative Extension have increased the ability to offer programs such as grazing schools. A partnership with Gold Ridge Conservation District will also potentially fund renovations to pasture as well as increase the sustainability with Shone Farm.

ENVIRONMENTAL HORTICULTURE

In the last 3 years, the landscape and horticulture industries have benefitted from the strong economy and the local housing shortage. These factors have increased property values and resulted in a tight labor market. New and existing commercial and residential properties are increasingly worthy of significant investment in the landscape due to their higher property values, while workers have more opportunities and higher pay due to pent-up demand for their services. The rebuilding efforts in the aftermath of the 2017 fires only intensified this situation.
Continued interest and state and local legislation focused on improving the quality of the environment and increasing the number of sustainable landscape and construction projects have been another cause for increasing growth in the horticulture industry over the last decade.
Some examples of the legislative mechanisms that have increased demand for landscape and horticulture services include:

- California's Green Building Code (CALGreen) – requires storm water management
- Water-Efficient Landscaping Ordinance (WELO) – requires drought tolerant plant material, avoiding invasive species, determination and compliance with a site-specific water budget.
- California Public Resources Code §4291 – Requires defensible space and wildfire-resistant landscaping.

California's environmental horticulture industry leads the nation with 21.9% of total nursery production and 8.6% of lawn and garden retail sales. California represents over a quarter of U.S. wholesale nursery production and retail sales, creating a total of 192,065 California jobs. 74,940 jobs come from production, 76,225 jobs from lawn and garden retailing, and 40,900 result from indirect and induced effects. The total payroll exceeds $5.58 billion, with $2.52 billion from floral and nursery production and over $3.05 billion from lawn and garden retailing. (Economic Impact Report, 2008-2009 next census: 2015-2016). Combined, nursery and floriculture are California's #4 agricultural commodity, producing 8.0% of the state's total agricultural output. Nursery products, flowers and foliage are produced in 55 of California's 58 counties. California leads the country in potted flowing plants, and is a

dominate state in cut flower production as well as the production of bedding and garden plants. (California Agricultural Statistic Report 2013).

The strong economy and some of the factors mentioned above have made the current job market promising. EDD labor market information data projects a 9.6% increase in Landscaping and Groundskeeper Supervisor positions for 2016-2026 in California and a 9% increase in Sonoma County. For Landscape Groundskeepers and Workers, the projection is a 14% increase in California and a 14% increase in Sonoma County.

The employment outlook for the category of Farmworkers, Laborers, Crop and Nursery Workers in California is more modest with 4% project growth from 2016-2026. The 2018 Environmental Horticulture Industry Analysis confirmed the decreasing job market in the regional nursery industry. However, recent developments in micropropagation of plants for the nursery, hemp, cannabis, wine, and orchard crop industry have led to an increased demand for this skill. Our program is currently piloting micropropagation skills to integrate into existing classes.

Graduates who possess landscape construction & maintenance, landscape design, or nursery management skills are qualified to advance into supervisory and management positions within landscape contracting firms, design or landscape construction companies, municipal, state, county, and federal agencies, entrepreneurial landscape maintenance enterprises, and other occupations that require the application of plant knowledge, drafting/design, irrigation design, and landscape construction skills.

There are multiple areas that offer interesting employment options and starting pay to students who are prepared by SRJC's Environmental Horticulture program, including:

Wholesale nursery propagator ($15-40/hr.)

Wholesale nursery grower ($10-25/hr.)

Field Superintendent Manager ($30-45/hr.)

Sales Manager ($20-25/hr.)

Marketing Manager ($20-30/hr.)

Floral Designer ($35-50/hr.)

Landscape Contractor ($50-80/hr.)

Landscape Designer ($55-95/hr.)

Irrigation Designer ($75/hr.)

Private Horticulture Consultant ($50/hr.)

Certified tree worker ($25-40/hr.)

Park Superintendent ($35-50/hr.)

Project Supervisor ($20-30/hr.)

Landscape Estimator ($50/hr.)

Foreperson ($10-22/hr.)

Crew Leader ($10-22/hr.)

Landscape Gardener ($10-15/hr.)

Salesperson ($15-20/hr.)

Integrated Pest Management specialist ($50-70/hr.)

Salesperson retail florist ($20-35/hr.)

Instructor ($50-80/hr.)

Landscape Design Assistant ($15-23/hr.)

The variation of salaries is dependent upon the level of education, type of employment, specific job tasks and skills. Experienced workers typically earn $10-22 /hr. Management and supervisory positions have the greatest earning at $3,500 to $5,500 per month. Owners/operators of many landscape maintenance businesses earn between $4,500-8,500 per month. Many residential landscape contractors earn between $150,000 -500,000 per year, gross income.

Environmental Horticulture programs can be found at the following community colleges: Cabrillo College, Foothill College, Santa Barbara City College, Modesto Junior College, Diablo Valley College, Merritt College, Butte Community College, Shasta College, College of the Sequoias and Antelope Valley Community College.

Continued work to align SRJC's horticulture courses with the Course information descriptor (CID) curriculum is expanding the opportunities for transfer and articulation within the California Community College System as well as the CSU and UC systems.

EQUINE SCIENCE

Current estimates place 6.9 million horses in the United States involving 7.1 million Americans in diverse, sophisticated and high tech positions that annually employ 1.4 million full-time employees in all regions of the country. These people serve the industry, providing over $2.5 billion in goods and services annually. This relates to a total impact of $112.1 billion on the US Gross domestic product. In Sonoma County, the value of agricultural production and household horse-riding activities amount to 468 million dollars, almost one quarter of the value of Sonoma County farming. Horses are Sonoma County's #2 agricultural industry. Current production and market indicators suggest that the equine science industry will continue to experience growth. Areas for growth in the industry include breeding, training, and maintaining horses, operating tracks, show and recreational facilities as well as numerous ancillary activities. These include feed, tack, equipment, and real estate sales, legal services, art, photography and literature. Students who have earned a degree at Santa Rosa Junior College with a major in Equine Science are more than qualified for a wide variety of diverse careers in the equine industry.

California community colleges that offers Equine Science courses include Modesto College, Sierra College, College of the Sequoias, and Shasta College. These institutions, however, do not offer full certificates or majors in Equine Science, like SRJC. The only other California community college which offers a full degree in equine science is Feather River College in Quincy. This program offers a markedly different program than SRJC however, as it is geared towards competitive rodeo and backcountry horsemen. SRJC's program, in contrast, is a broad technical study of all phases of equine business and management practices, coupled with general studies to produce graduates that are well rounded individuals capable of entering all phases of the equine industry. Another thing that sets SRJC's Equine Science program apart from all other colleges in the nation, is our therapeutic riding program. Recognized as one of the most progressive forms of therapy, therapeutic riding offers students with disabilities the ability to control a horse as well as one's own body. The college offers courses for training in therapeutic riding, as well as courses for riders that work to increase balance, muscle control, strength, concentration, patience,

responsibilities, and teamwork. Only one other community college in the nation has a therapeutic riding program.

With the exception of the therapeutic riding program being certified by the North American Handicapped Riding Association, there are no outside requirements for licensing/accrediting Equine Science at SRJC or these other institutions.

GENERAL AGRICULTURE

In 2022 with the end of COVID and the return of animals to the farm, plus the investment of farm infrastructure , funded by Measure H, the number of students attending classes and participating in work study programs at Shone Farm is quickly increasing. To accommodate the additional students, we have hired two SLIAs to assist. In addition, our general ag classes, AGRI 20, AGRI 60, AGRI 70, are increasingly in demand by students. With the attention to increase productivity, the department is looking to increase staffing and services further for General Ag.

NATURAL RESOURCE

The demand for education in Natural Resources (NR) is high and sorely lacking at the community college level in Northern CA. NR graduates work in an ever-expanding breadth of jobs related to the conservation and management of natural resources in the US and beyond. Academics in the NR program include a cross section of disciplines that focus on long-term health, productivity, diversity and quality of NR. Students learn practices in conserving and enhancing water quality, soil productivity, biodiversity and recreational opportunities. From urban, private and industrial lands to conservation easements and wilderness areas, NR practitioners are needed to guide the use and sustainability of our nation's natural resources.

There is a growing need for educational institutions to support, and facilitate, natural resource education for entry level and high level management positions. Currently, acceleration and an expansion of knowledge of the Natural Resource field is needed in the area of project based learning and student exposure to partnerships and cooperation and coordination with natural resource professionals including the U. S. Forest Service, other public and private researchers, and private NGO conservation organizations

The practical lab activities, included in the NR program at SRJC, compliment academic coursework and move students directly into transfer colleges and/or technical career positions. The program is aligned with newly updated curriculum including data collection and analysis and the hands-on implementation of natural resource practices.

Recent Program Review successes allow for students to receive their AS in Natural Resources from SRJC with courses articulating with CSU programs for transfer students. Articulation is established with four year institutions for transfer for a series of NR courses including: NRM 72, 60, 12, 51, 87, and 88. In addition, the Certificate in Natural Resources is designed for students interested in technician level employment or for those students interested in a career change. All changes represent NR Advisory Committee recommendations that mirror industry needs/demands.

Specific student learning opportunities/trends for the NR program include:

- Land management practices that show effective restoration techniques in sequestering CO2 and slowing climate change.
- Education in Sudden Oak Death (SOD) management
- Fire fuel reduction

- GIS/GPS mapping
- Enhancement and promotion of ecological corridors in and around our ag areas.
- Renewable energy technologies
- Demonstration areas for rainwater catchment, bioswale construction, etc.
- Assessment of economic, social and environmental values currently provided by forests, (ie: carbon capture/banking, water capture, etc.)

Jobs available to natural resource graduates is diverse and in a wide range of settings. The U.S. Bureau of Labor Statistics lists some of the tasks handled by these professionals as: Monitoring watershed, finding ways to preserve water supplies, writing policies for managing natural resources, consulting with companies to help them become more environmentally responsible, working with government entities to enforce regulations and write environmental documents.

The U.S. Bureau of Labor Statistics predicts the field of natural resources to grow at a much faster than average pace over the next few years. Example of anticipated career changes for natural resources include: Forestry Technicians: Expected growth of 9% over 2018-25 as more jobs are created by recent State and Federal legislation designed to prevent destructive wildfires by thinning the forests and by setting controlled burns in dry regions susceptible to forest fires. Parks and Recreation: Employment of recreation workers is projected to increase by 15 percent between 2018 and 2025. This growth is being driven by an increased interest in open space recreation and population increase and increased interest in the out of doors for recreational opportunities.

Partnerships or cooperative ventures existing with local employers include: Sonoma County Agricultural and Open Space District, Sonoma Land Trust, Sonoma County Regional Parks, U.S. Army Corps of Engineers, State Parks, National Park Service and CA Department of Fish and Wildlife to name a few.

SUSTAINABLE AGRICULTURE

Known for its abundance of organic farms, world class vineyards and wine, artisan food producers, great soil and mild climate, Sonoma County is one of California's most desirable agricultural areas. The Sustainable Agriculture Program at SRJC reflects this rich farming legacy. At the forefront of sustainable farming practices, SRJC's Sustainable Agriculture Program recognizes the significance and opportunities of organic and sustainable agricultural production in today's growing marketplace. Santa Rosa Junior College is one of the few California Community Colleges that offers an Associate in Science Degree and two certificates in sustainable agriculture.

Graduates are in demand now more than ever as entrepreneurs, innovative problem solvers, and producers of premium niche products. The curriculum's relevance is enhanced by faculty who are experts in the field, with input from an active industry advisory committee. SRJC's Sustainable Agriculture classes give students a foundation in plant and soil science, integrated pest management, diverse crop production, and direct marketing strategies while focusing on the ecological underpinnings of agriculture. Courses emphasize the "how-to" aspects of organic farming and gardening, including tillage, compost production, crop planning and production. Specialty areas include: organic viticulture, specialty crops for the culinary market, organic apple and olive production, sustainable landscapes, and direct farm-marketing. Students also have the unique opportunity to gain experience setting up and managing a community-supported agriculture (CSA) system. There's even a class on how to drive tractors!

Most Sustainable Agriculture courses are held at Shone Farm, SRJC's 365 acre outdoor lab, near Forestville. In addition to classroom instruction, students have the opportunity for real-world direct marketing experience through involvement in the Shone Farm CSA (Community Supported Agriculture) program, and through a weekly on-campus farm stand held during the growing season. Students can also participate in student enterprise projects, learning how to grow, market, and distribute an agriculture product of their own choosing.
With such a rapidly growing market in Sustainable Agriculture, there are multiple areas that offer interesting employment options to students who are prepared in SRJC's Sustainable Agriculture program. The Centers of Excellence for Labor Market Research shows an accelearation of need for Farmworkers and Laborers, Crop, Nursery, and Greenhouse workers. For Sonoma County, there are 3,760 Farmworkers and Laborers, Crop, Nursery, and Greenhouse jobs as of 2018. It is projected that there will be a substational increase for 2018-2028 total job openings to 6,410 with an annual job openings of 641.

Employment opportunities upon completion of the SRJC Sustainable Agriculture program may include:

- Farm owner
- Niche grower of specialty produce, flowers, herbs, fruits and nuts
- Farm or garden manager - field or office
- Faming / Gardening consultant - private or company employee
- Seasonal Farm intern / apprentice (plant, irrigate, weed, harvest)
- Farmer's Market manager / assistant and/or vendor
- Retail/Wholesale nursery production (greenhouse/sales)
- Farm Advisor and/or research assistant with County Ag Commissioner, Cooperative Extension or United States Department of Agriculture
- School Garden coordinator
- Compost production and sales
- Organic support/sales and services (fertilizers, seed, equipment, etc...)
- Sustainable livestock production / Range or ranch manager
- Chef/ restaurateur
- Pest control advisor
- Public garden / botanical garden employee
- Farm/Garden estate caretaker
- Agriculture teacher / public speaker/ company representative
- Value-added product creator (i.e. wreaths, jams, brewer, tincture, oils, etc...)
- Nursery grower/worker for container vegetables, herbs, bare-root fruit trees

VETERINARY TECHNICIAN

The demand for Registered Veterinary Technicians is nothing short of extreme. There are far fewer RVTs in Sonoma County than are required by the labor market. According to the California Department of Consumer Affairs, there are 272 Registered Veterinary Technicians residing in the Sonoma County as of April 2022.

The Centers of Excellence for Labor Market Research data shows an acceleration of need for RVTs, Veterinary Technologists and Technicians in California. For Sonoma County, there

were 360 Veterinary Technologists and Technicians jobs in 2018, 410 total job openings for 2018-2028, and 41 annual job openings for 2018-2028. There are the estimated 250 Veterinary Assistant positions in our county as of 2010.

Estimates for the 2018-2028 time frame include an anticipated 21.4 growth in technician positions (2,700 new jobs) for the state of California.

Santa Rosa Junior College is the predominant source for RVTs for Sonoma County. Over the last three years 84% (26/31) of new RVT licenses in Sonoma County were earned by SRJC students. The closest community colleges that offer a Veterinary Technician program are Consumnes River College in Sacramento (~2 hour drive) and Foothill College in Los Altos Hills (1hr 45 minute drive). There are also branches of the private school Western Career College in Pleasant Hill and San Leandro (about 1hr 15 minute drive). However, current Western Career College tuition is about $35,000 for the two-year program. All of the above programs are distinct from SRJC in that they are AVMA approved full time programs that include far more extensive hands-on component, maintain colonies of canine and feline patients, etc.

Over the last few years Dr. Famini has developed a google group for employment and other announcements. Over 300 current and former SRJC students are members and hospitals now routinely email job announcements to Dr. Famini in preference to Craigslist or other sources. Taking into account the usual sources (craigslist, etc.) and the google group listings there are over 300 jobs/year for veterinary support staff in the Sonoma/Marin county area.

Recent articles mentioning the strong job market for Registered Veterinary Technicians include:

“Eight secure jobs worth landing this spring and beyond” on Fox Business News posted 3/27/2013.

“Animals Need Health Care Too” in Community College Week from 2/22/2010.

“Vet Techs in Demand” in the Press Democrat on 8/23/2009. This was a reprint of a New York Times Article.

Veterinary Technicians were listed as Number 2 in “150 Best Recession-Proof Jobs” by Laurence Shatkin, Jist Publishing, November 2008.

The critical demand for Registered Veterinary Technicians locally, statewide, and nationally continues to fuel strong student enrollment in courses. Additionally, there is an overall trend towards larger specialty hospitals and corporate ownership of hospitals (Veterinary Centers of America and Banfield). The larger and corporate hospitals tend to better utilize Registered Veterinary Technicians. This is due to both to a need for more technically advanced veterinary assistants as well as the fact that RVTs are a cheaper alternative to perform many of the tasks reserved for veterinarians in smaller hospitals. This includes a greater role in client communication, veterinary dentistry, vaccine appointments, etc. Larger and corporate practices are also less likely to allow unregistered assistants to perform tasks legally reserved for RVTs such as inducing anesthesia and placing splints.

The SRJC Veterinary Technician Program fulfills the state Veterinary Medical Board requirements for students to sit for the state Registered Veterinary Technician board exam through the alternate route. There are three routes to be eligible to sit for licensure. 1)

Attend a full time American Veterinary Medical Association 2-year program (the closest program is ~100 miles from Santa Rosa) 2) Already have an equivalent license from another state and have a minimum number of clinical experience or 3) the Alternative Route. The alternative route consists of two basic requirements: Academic requirements and Clinical experience requirements. The Academic requirements consist of many specific areas of instruction within 20 semester units. The SRJC fulfills this requirement. The Clinical experience required is 4416 hours under the supervision of a veterinarian and includes a list of specific job tasks that must be completed. The SRJC program includes the Academic component only and it is up to the student to meet the clinical requirement.

The Veterinary Technician Program offers an annual seminar on the admissions requirements and pathways to Veterinary School. This is followed by a unique tour of the UC Davis School of Veterinary Medicine which includes touring the Anatomy Lab, Surgery Lab, the teaching Hospital, meeting the admissions staff and sitting in on a few veterinary school lectures. We are the only community college in the state offering this opportunity.

Several partnerships have been developed over the last few years.

- The Small Animal Emergency Medicine class is now offered every odd Spring Semester. This class is held at Animal Care Center, the largest veterinary emergency center in the county. This class included over a dozen guest speakers from both Animal Care Center and PetCare emergency veterinary hospitals. It has become the most popular elective in the program.
- In order to provide hands-on class activities with live animals the program now partners with several local rescue groups: Bergin University for Canine Studies (formerly Assistance Dog Institute), Pets As Loving Support therapy dogs, cats from two local non-profit rescue groups, and Reading Therapy Dogs from another group. Animals from Sonoma County Reptile Rescue are also used in a single class per semester.
- Through cooperation with Paws Are Loving Support and the Humane Society of Sonoma County we have put on a free vaccine clinic for the pets of AIDS patients. This is the capstone experience of the Small Animal Nursing (AnHlt120) course. This is a win/win/win situation where the SRJC students gain valuable experience, PALS and their pets get preventative medical care, and the Humane Society is provided with a labor force to make this event possible.
- Cooperation with the shelters in the county continues with students volunteering or working in 5 different animal shelters including the continued intern program at Sonoma County Animal Care and Control helping this municipal shelter and giving students hands on experience in a variety of capacities including animal intake, spay/neuter clinic support, etc.
- Since fall 2010, the SRJC program offers a job shadowing rotation where students are invited to observe and participate in a variety of different veterinary clinical settings. This semester long weekly rotation has exposed 12 to 15 students per semester to hospitals including: Eye Care Center for Animals, Humane Society of Sonoma County, Large Animal Hospital of Cotati, Memorial Beach Animal Hospital, Montecito Animal Hospital, PetCare, VCA Animal Care Center, VCA Forestville, and Bradner Veterinary Hospital among others.

There has been minimal change in outside funding. The Redwood Empire Veterinary Medical Association has pledged to contribute $500 year to fund an annual scholarship that

would allow a Veterinary Technician student to sit for their Board Exams. Additionally, the Association now holds their annual Continuing Education event for veterinarians at the SRJC Shone Farm. For the 2010-2011 year, Dr. Famini received $21,410 in CTEA funding and $7,000 in 2012-13 for Vet Tech instructional equipment.

Historically no local venue existed for working RVTs to communicate or gain a perspective of their profession outside the walls of their own clinic. Additionally, as of July 2011 there is mandatory CE requirement for RVTs. To remedy these two problems Dr. Dan Famini founded the Redwood Empire Veterinary Technician Association. Since July 2011 this organization has held monthly CE and networking meetings with 50-80 attending RVTs and veterinary support staff. Now there are 11 person Executive Board consisting of 10 RVTs and Dr. Famini, with an all RVT officer team taking this project forward.

VITICULTURE

Winegrape production in Sonoma County totaled over $357 million in 2020. There were 148,085 tons of winegrapes harvested in 2020. Winegrapes are by far the number one agricultural crop produced in Sonoma County. The number two crop is market milk, valued at just over $157 million in 2020. There are 57,380 total planted acres of winegrapes in the County; comprising 37,916 acres of red cultivars, and 19,464 acres of white cultivars. There are approximately 1,800 grape growers in Sonoma County. Producing qualified graduates to work in Sonoma County's number one agricultural industry is the primary focus of the SRJC Viticulture Program.

Shone Farm Vineyard, the teaching laboratory for the Viticulture Program, is a 90 acre commercial vineyard, comprised of Pinot noir, Chardonnay, and Sauvignon blanc. All the winegrape acreage is certified sustainable, and 8.5 acres are certified organic. These certifications, requiring inspection on a yearly basis, provide great opportunities for the Viticulture students to learn sustainable and organic farming practices, both new and traditional. The students also learn the business aspect of farming winegrapes; e.g., costs and contracts. The fruit from Shone Farm Vineyard is sold to high-end Sonoma County wineries, for example, Francis Ford Coppola, Sonoma-Cutrer, Hanna, La Crema, and Shone Farm Winery. When older vineyard blocks are pulled and new acreage planted, the Viticulture students are able to follow the operations and practices in order to learn how this is done efficiently and in compliance with County regulations.

The Viticulture Advisory Committee is comprised of 15 Sonoma County winegrape industry leaders. This group provides insight and recommendations for keeping the Viticulture Program vital and relevant. The group meets twice a year to discuss Shone Farm Vineyard and Viticulture Program curriculum. Sonoma County vineyard management companies, growers and wineries provide excellent resources to the students as guest speakers, field trip destinations, internships and eventual employment. One of the strengths of the Viticulture Program is its alliance and strong relationship with the Sonoma County winegrape industry.

Another certificate overseen by the Viticulture Program is the Pest Control Advisor (PCA) Preparedness certificate. Students earning this certificate qualify to take the PCA exam offered by the California State Department of Pesticide Regulation (DPR). Previously only available to students graduating from a four-year university, SRJC PCA Preparedness students meet the criteria to take the DPR PCA exam by working in vineyards and/or farm supply companies while earning their certificate. All the advantages that Shone Farm has to offer the Viticulture students are extended to the PCA Preparedness students. Some students earn both certificates to broaden their skill set and hire-ability.

The Viticulture Program at SRJC is stalwartly supported by the local winegrape industry. Because of this strong support, the Viticulture and PCA Preparedness students are also reliably and firmly supported as well.

WINE STUDIES

In the world of wine, Sonoma County ranks among the premier wine production locations in the world. Sonoma County's winemakers and their products have dazzled consumers in the United States and around the globe as the wine industry has rapidly flourished in Sonoma County's renowned and spectacular wine country. There's no better place for students to immerse themselves in wine studies than at Santa Rosa Junior College (SRJC). The college is situated in the heart of the Sonoma County Wine Country. Wine Studies students enjoy hands-on learning at SRJC's Shone Farm, which includes 365 acres of vineyards, orchards, pasture, forest, and vegetable gardens. In this stunning outdoor laboratory overlooking the Russian River, students have an opportunity to harvest grapes in the Shone Farm vineyard and make wine at the Shone Farm Winery. To support Sonoma County's vital and successful wine industry, SRJC has developed a first class Wine Studies Program, delivered by highly skilled and well-known members of the wine industry. Click here to see the Wine Studies Faculty profile pages ag.santarosa.edu/staff. Santa Rosa Junior College has an outstanding reputation across the nation for its wine studies program. This can be attributed to exceptional students who have genuine interests in the sciences and solid academic backgrounds. Wine Studies majors may choose from four areas of concentration:

- Wine Cellar Worker: teaches students, through hands-on experience, the theory and practices used in the production of wine, including basic grape growing practices and vineyard decisions, steps in the winemaking process from harvest to bottling, basic wine lab analyses, and use of winery production equipment.

- Wine Marketing: In Wine Business and Marketing, students learn many aspects of wine business sales and marketing to effectively market and promote wine.

- Wine Hospitality and Direct Marketing: This concentration prepares students with skills such as serving wine according to professional standards, planning and effectively publicizing wine industry events, selling wine direct to consumers, and effectively using social media.

- Enology: The Enology concentration, the study of winemaking, offers students an intense, hands-on experience in fall and spring winery operations and the essential introduction to chemistry, organic chemistry, and wine lab analysis. SRJC's Enology concentration is an interdisciplinary academic/occupational program between the College's outstanding Chemistry and Agriculture/Natural Resources Departments.

The program prepares students for a variety of positions in the wine industry, such as: grower relations manager, viticulture wine quality specialist, winery laboratory assistants, cellar masters, assistant winemakers, winery education directors, wine quality control specialists, sensory evaluation personnel, wine sales specialist, wine club administrator, sales manager, public relations and marketing coordinator, and wine merchandiser.

2.1a Budget Needs

The Agriculture and Natural Resouces department consists of 11 programs:

1. Agribusiness
2. Ag Mechanics
3. Animal and Equine Science
4. Animal Health (Vet Tech)
5. Floral Design
6. Hemp Agriculture
7. Environmental Horticulture
8. Natural Resources
9. Sustainable Agriculture
10. Viticulture
11. Wine Studies

Each of these programs

- emphasizes hands-on instruction
- has extensive lab classes
- has a need for instructional and lab supplies and equipment comparable to those of a chemistry or biology department
- employes student workers
- conducts many field trips.

Examples of lab and instructional supplies include:

- syringes and fluids used to teach medication administration in Small Animal Nursing
- lab chemicals for wine lab assays
- disinfection supplies used for appropriate cleaning between a veterinary and wine class

Agriculture and Natural Resouces programs are all part of career eduction (CE). The primary purpose and motivation for CE programs is the direct work place relevance. The best way to learn work skills is by hands-on training, along with seeing these skills practiced in the real world and discussing them with working professionals. Given all this, we are requesting the following additions to our budget.

Students Employees ($44,000 increase): Agriculture and Natural Resouces frequently employs students in order to give students the opportunity for hands-on training. We also require employees because the the extensive preparation for diverse class activities requires more hands than we have in the department. In addition, the Agriculture and Natural Resouces department is moving to Shone Farm (in Janauary 2022). When instructors are situated at the farm it will facilitate supervision of student employees. We are requestin one student employee (at 25 hours per week) for eight programs. Each student costs approximately $6,500, thus the increase of the budget to $52,000.

Field Trips ($2,000 increase): In order to expose students to industry professionals and give opportunities for on-site observations, classes must travel to various work sites (farms, nurseries, veterinary hospitals, parks, wineries, vineyards, etc.). Thus, Agriculture and Natural Resouces programs go on many field trips. While entrance fees are passed on to students in the form of student fees, the costs of traveling to sites is covered by the department. Inflation in travel costs has especially impacted Natural Resources because this program takes long-distance trips to the Sierra Nevada mountains.

AGRI Supplies ($1,000 increase): The Ag/NR department recently added a Hemp Agriculture certificate and major. There has been great interest in the certificate and major. This has increased the demand for the Agriculture core courses (AGRI 20, AGRI 60, AGRI 70). The Ag/NR department is asking for an increase in Agriculture (0106) supplies budget to cover the growing costs of lab supplies.

Wine Studies Supplies ($800 increase): In the past, labs in the wine studies program often involved watching the instructor do demonstrations. Today, students are instead given the opportunity to practice procedures. This has increased our need for supplies such as grape juice concentrate for making wine (by each student) and reagents for enzymatic assays of wine.

Horticulture Plants ($1,000 increase): Increased plants are needed for beautification and development of 'living laboratory' at new Shone farm campus.

2.1b Budget Requests

Rank	Location	SP	M	Amount	Brief Rationale
0001	Shone Farm	02	01	$44,000.00	Increase the student worker budget for students workers in the department.
0001	ALL	03	06	$80,000.00	Explore and expand CCAP dual enrollment through paid faculty time to partner with HS counterparts, participate in professional development, and revise and align curriculum for CCAP.
0002	Shone Farm	02	01	$2,000.00	Increase cost of field trips due to inflation, especially for long-distance field trips in the Natural Resouces program.
0003	Santa Rosa	02	01	$1,000.00	Increase in instructional supply budget for AGRI (0106) to reflect increase in HEMP students enrolling in classes and lab costs for soils and plant labs.
0004	Santa Rosa	02	01	$800.00	Increase in instructional supply budget to reflect increased number of hands-on activities as well as increased cost for wine lab classes.
0005	Santa Rosa	02	01	$1,000.00	Increase in instructional supply budget to reflect increase in plant costs for Horticulture.

2.2a Current Classified Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Administrative Assistant III	40.00	12.00	Ag/NR office management, monitor department and program budgets, process invoices, creates BPOs, update website, enters and tracks curriculum, coordinates advisory committee meetings, composes meeting minutes, creates marketing materials for programs, coordinates department academic schedule.
Coordinator, Science Labs	40.00	12.00	Coordinates labs for Wine Studies, Environmental Horticulture, Natural Resources, Animal Science, Veterinary Technician, General Agriculture, and Sustainable Agriculture.

2.2b Current Management/Confidential Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Department Chair (81% release)	32.00	10.00	Chair AG/NR Department duties: scheduling, budget, coordination of faculty, staff, outreach, & administration. Based upon the Department Chair release formula, this position receives 81% release time. Each semester the chair farms out 5% of department chair load to each of the program coordinators in the department. Thus the chair retains only 58.5% of the load.
Dean, Agriculture/Natural Resources	40.00	12.00	Supervising administrator for the Ag/Natural Resources Department, including Shone Farm.

2.2c Current STNC/Student Worker Positions

Position	Hr/Wk	Mo/Yr	Job Duties

2.2d Adequacy and Effectiveness of Staffing

The Ag/NR department and Shone Farm does not have adequate classified staff or student workers to support the needs of 11 different programs within the department. **There is a critical need for more permanent classified staffing,** particular laboratory assistance and staff to support Shone Farm instruction. One unique aspect of the Agriculture/Natural Resources Department is the need to continually care for the living animals and plants that are part of student learning labs.

The Agriculture and Natural Resources department did an instructional support needs evaluation in 2021/2022. By documenting all the tasks for which instructional help is needed, we determined a need for 3.3 full time equivalent personnel to support instruction in all our programs. We present that need in three parts below

Staffing Requests

1. Natural Resources (Wildfire Resilience Program) Science Lab Instructional Assistant This new Science Laboratory Instructional Assistant (SLIA) has been approved by the Board in April 2022. It will provide instructional support for the Wildfire Resilience Program at Shone Farm. A full-time SLIA is critical to supporting hands-on learning for students studying Natural Resources, Environmental Horticulture, and Fire Resilient Landscaping (Adult Education). The annual budget impact for this new position is approximately $110,496 and will be fully reimbursed to the District by Wildfire Resilience Program grant funds held at the SRJC Foundation. There is no cost to the District Unrestricted General Fund. Funding after three years is contingent on identifying additional funding sources.

2. **Coordinator, Science Lab:** (Current: 90% grant funded) The current Coordinator, Science Lab is paid for by a Strong Workforce grant. There is a critical need to make this person a district-funded, permanent employee. This coordinator serves all our programs by helping buy, inventory, stock, and prepare chemicals and materials for lab classes. In addition, they provide oversight of safety practices for the department, supervise students during some lab sessions, and do lots of planning for changes in programs and facilities. This person does for the Agriculture and Natural Resources programs what stock room personnel do in chemistry and biology. In the case of chemistry there are two full-time stock room people while Agriculture and Natural Resources has just this one person to serve 11 programs. To allow our instructors to teach, rather than maintain inventory and set-up and clean-up labs, this position is critical.

4.Wine Studies Science Lab Instructional Assistant: (Currently none) 50% Science lab instructional assistant to support the Wine Studies program at Shone Farm.

2.2e Classified, STNC, Management Staffing Requests

Rank	Location	SP	M	Current Title	Proposed Title	Type
0001	Shone Farm	02	01	SLIA (80%, 10 month)	SLIA (100%, 11-month)	Classified
0002	ALL	02	01	SLIA, Science Lab, Grant Funded	Coordinator, Science Lab, District Funded	Classified
0003	Shone Farm	02	01	None	Science Lab Instructional Asst Wine Studies 50%	Classified
0004	Shone Farm	02	01	None	Science Lab Instructional Asst NRM/Wildfire	Classified

2.3a Current Contract Faculty Positions

Position	Description
Viticulture Instructor/Program Coord.	The full-time instructor has program coordination duties with disciplinary expertise in Viticulture. Supervises associate instructors and coordinates faculty and equipment needs for the Viticulture program. Solicits input from industry associations. Does student outreach and program publicity. Works with Shone Farm vineyard management personnel to coordinate the farming and development of a 92 acre vineyard.
Agribusiness Instructor/Program Coordinator	The full-time instructor has program coordination duties with disciplinary expertise in agribusiness. Solicits input from industry partners and advisory groups to align curriculum with needs of intersegmental institutions and employers. Does student outreach, student advising and program publicity. Coordinates equipment and program needs for the agribusiness program.
Natural Resources Instructor/Program Coordinator	The full-time instructor has program coordination duties with disciplinary expertise in Natural Resources. Supervises associate instructors and coordinates faculty and equipment needs for the Natural Resources program. Solicits input from industry associations. Does student outreach and program publicity. Works with the Shone Farm Manager to oversee 120 acres of forest, an outdoor student lab. Also is program coordinator for the SRJC Wildfire Resilience Program, overseeing four wildfire resilience specialists and over thirty paid student interns in pre-and-post-fire vegetation management at Shone Farm.
Veterinary Tech Instructor/Program Coordinator	Two full-time instructors have program coordination duties with disciplinary expertise in Animal Health. Coordinate closely with and solicits input from industry associations. Maintain currency with state regulatory agencies. Supervises associate instructors and coordinates faculty and equipment needs for the Animal Health program. Does student outreach and program publicity.
Wine Studies Instructor/Program Coordinator (dept	The full-time instructor has program coordination duties with disciplinary expertise in Wine Studies. Supervises associate instructors and coordinates faculty and equipment needs for the Wine Studies program. Solicits input from industry associations. Does student outreach and program publicity. Supervises the winery and tasting room facilities and the commercial wine production (Shone Farm label) at Shone Farm. Coordinates with the Shone Farm Foundation.
Gen. Ag./ Sustainable Ag./ Program Coordinator	The full-time instructor has program coordination duties with disciplinary expertise in Agriculture/Sustainable Agriculture. Maintains currency with state regulatory agencies. Supervises associate instructors and coordinates faculty and equipment needs for the General Ag and Sustainable Ag programs. Solicits input from industry associations. Does student outreach and program publicity. Works with the Shone Farm Manager to oversee an outdoor student lab.
Animal Science/Equine Science/Program Coordinator	The full-time instructor has program coordination duties with disciplinary expertise in Animal and Equine Sciences. Maintains currency with state regulatory agencies. Supervises associate instructors and coordinates faculty and equipment needs for the Animal and Equine Science program. Solicits input from industry associations, affiliated industries, ranchers, barn managers and producers . Does student outreach and program publicity. Works with the Shone Farm Manager and a Science Lab Instructional Assistant to oversee the Porter Barn, animals, pastures, and Animal/Equine Science lab facilities at Shone Farm.
Environmental Horticulture/Program Coordinator	The full-time instructor has program coordination duties with disciplinary expertise in Environmental Horticulture. Maintains currency with state regulatory agencies. Supervises associate instructors and coordinates faculty and equipment needs for the Environmental Horticulture program. Solicits input from industry associations. Does student outreach and program publicity. Works with the Shone Farm Manager and staff to manage the Rich Kunde greenhouse.

2.3b Full-Time and Part-Time Ratios

Discipline	FTEF Reg	% Reg Load	FTEF Adj	% Adj Load	Description
Agriculture Business SR	0.4800	101.0000	0.0000	0.0000	
Agriculture Mechanics SR	0.0000	0.0000	0.2800	101.0000	
Agriculture SR	0.9600	77.0000	0.2900	24.0000	AGRI 20 was overload
Animal Health Petaluma	0.3300	20.0000	1.3300	80.0000	
Animal Health SR	0.4100	68.0000	0.2000	24.0000	Animal Health is Petaluma program.
Animal Science SR	0.8400	1.0000	0.0000	0.0000	
Environmental Horticulture SR	0.8500	52.0000	0.8000	49.0000	HORT 8 was overload
Equine Science SR	0.0000	0.0000	0.0000	0.0000	EQSCI was not offered due to COVID
Floral Design	0.0000	0.0000	0.5500	98.0000	Adjunct is serving as the part-time coordinator.
Natural Resources SR	0.8500	62.0000	0.5300	38.0000	
Sustainable Agriculture SR	0.1800	31.0000	0.3800	68.0000	
Viticulture SR	0.6700	72.0000	0.2600	29.0000	
Wine Studies SR	0.4000	39.0000	0.6200	61.0000	

2.3c Faculty Within Retirement Range

Count of Age group Row Labels	Column Labels 50-54	55+	Under 49	Grand Total
Agriculture/Natural Resource	1	2	4	7
Petaluma/Agriculture-Nat Res.			1	1

2.3d Analysis of Faculty Staffing Needs and Rationale to Support Requests

Faculty Recruitment:

The Ag/NR department has many programs; some are extremely difficult to recruit for due to the specialty expertise required. Many program coordinators in the department interview individuals for the adjunct pool each semester. Disciplines which require extensive specialty expertise may only draw a handful of applicants to the pool.

Full Time Equivalent Faculty:

There are 11 program in the Ag & Natural Resources department. Nine contract instructional faculty manage their respective programs and one part-time adjunct faculty manages the floral design program.

Associate Faculty:

The Ag/NR department has 55 current associate faculty members. The majority of Ag/NR classes are extremely specialized resulting in only one or two associates who are able to teach the course.

Faculty Staffing Priorities:

General Agricultural/Sustainable Agriculture Instructor

From 2022-2023 SRJC Faculty Staffing Narrative Form:

The Agriculture/Natural Resources (AG/NR) department is requesting a replacement full-time faculty member due to the unexpected resignation of a full-time faculty member in Summer 2022. Even before this resignation, the continued growth of the Agriculture (AGRI) discipline led faculty to identify this position as a new faculty request 'growth position' in the PRPP (see criterion #2). The new faculty member's load will be grounded in AGRI's two core courses, AGRI 20 (Intro. to Plant Science) and AGRI 60 (Intro. to Soil Science). These courses are difficult to assign to associate faculty - they require a Master's degree, are high load, and are offered as multiple sections. Furthermore, it does not serve the department or its students well to pull other faculty members out of their respecive disciplines to teach these courses.

The AG/NR Department is based around nine academic programs, with average unduplicated headcount of over 1,500 students per year over the past 3 years. Over the same period, the Department had an average of 94 completers (unduplicated degrees plus certificates) per year. Even though the faculty member who resigned was technically the Program Coordinator for the Sustainable Agriculture (SUSAG) Program, most of their teaching load was in AGRI. By focusing this replacement position on AGRI, we are prioritizing the area of our Department which has a brightest future in terms of enrollment (see criterion #2), excellent articulation for transfer students, greater focus in addressing economic and educational inequity (see criterion #3), and broader relevance for career education students.

In addition to replacement of a departing faculty member, this position request is in direct response to strong enrollment growth in AGRI 20 and AGRI 60. Using 2015 as a baseline, combined enrollment (unduplicated headcount) in these two courses has dramatically exceeded the district average with enrollment in these two courses growing 61% from 2015 while district enrollment has decreased 28%. Average fill rate for both courses is over 100% across the past six years. Unmet demand (measured as unduplicated 'hits' on closed courses or sections) for both AGRI 20 and AGRI 60 indicates significant growth potential for both courses, beyond the multiple sections currently being offered, with 2021-2022 data indicating 55 and 6 students respectively; and 2020-2021 data indicating 74 and 39 students respectively. Productivity (FTES/FTEF) is also high in these two classes, with Fall 2019 to Spring 2021 productivity averaging 15.1 for both classes (compares to 12.7 for the Ag/NR department and 12.8 for SRJC in total).

In terms of faculty load, the Department has been offering and filling 2-3 sections of AGRI 20 and 2 sections of AGRI 60 per semester, for a total of 1.24-1.53 FTEF per semester. There are at least six related courses, totaling an additional 1.43 FTEF, that are currently taught by associate faculty and could also be offered to the new faculty member depending on subject matter expertise, faculty load, and student demand.

AGRI 20 and AGRI 60 serve a greater range of students than any other courses in the Department. At least one of these courses is required for 4 Associates of Science Degrees, 4 Career Education Certificates and 2 Associate Degree for transfer (ADTs). Both courses can also be used to fulfill GE science requirements for Associates Degrees in Option A, B, and C.

While the agricultural industry is becoming more diverse, inequity in education and wage attainment is a problem. The AG/NR Department's Career Education (CE) and Associate Degree for Transfer (ADTs) have a disproportionately large impact in addressing these inequities. ADTs ensure that units from community college successfully transfer, saving students time and money, and guarantee them enrollment into a California State University. SRJC's CTE Employment Outcomes Survey concluded that students who complete CE courses and certificates see an average wage gain of more than $10 per hour.

A large portion of SRJC students work and/or have family responsibilities- even more so in disproportinately impacted student groups. The AG/NR department's full-time faculty have been leaders in promoting a hybrid model for hands-on lab courses that allows maximum flexibility without sacrificing in-person learning. A review of 2021-2022 enrollment proportion reveals that Department enrollment for LatinX (46.6%) exceeds the district average of 42.5%. Success rates exceeded the 72% District average for LatinX (76%), White (87%), African American (100%), Asian (87%), Filipino (100%), and Native American (100%) ethnicities but were below average for Multi Ethnicity (44%), though low counts could skew results.

According to its vision statement, SRJC aspires to be an inclusive, diverse, and sustainable learning community that engages the whole person. We know the field of agriculture is diverse, but with this

comes inequity in education and wages. Investing in career education and degree attainment in agriculture is critical to addressing these challenges.

In addition to its integral part in serving the majority of the District's various student types and educational goals (see Criterion 3), this position is instrumental in supporting the Career Education for "social and economic mobility and state economic competitiveness" that underpin the CA Community College Chancellor Office's (CCCCO) Strong Workforce Program Initiative. The position is also essential in achieving the CCCCO's Vision for Success by increasing degree and certificate attainment, "making sure students from all backgrounds succeed in reaching their goals and improving their families and communities, eliminating achievement gaps once and for all."

Agriculture is critical for food security, natural resource conservation, climate change, and societal well-being. The SRJC Agriculture/Natural Resources Department is moving beyond sustainability, towards regnerative agriculture - a holistic approach to land management that sequesters more CO2 that in generates. As indicated in a 2021 New York Times article, Sonoma County is at the epicenter of regenerative agriculture. This position is integral to build on and continue this critical work to train the next generation of farmers and land stewards.

- Sustainable Agriculture and Shone Farm needs a full time faculty member with a background in professional farming to lead an excellent program in hands on training in food production
    - Teach hands on classes in vegetable production, fruit production, food safety and produce processing, small farm business planning, and agricultural mechanics and tractors at Shone Farm
    - Coordinate closely with farm staff to integrate farm operations and student experience.
    - Network with local and regional agriculture industry to develop employment and career opportunities for graduates.

Field Ag Instructor

- As our programs grow, and due to the addition of the hemp program, the current Sustainable Ag instructor is increasingly called upon to teach general ag classes. Thus a field ag instructor is needed.

Wine Marketing and Hospitality Faculty:

- The wine industry contributes $13 Billion in economic activity to Sonoma County
- Increasingly, the industry needs employees with basic vocational training in marketing and hospitality
    - A one- or two-year program at SRJC is ideal for the extent of training needed
- SRJC is building a tasting room at Shone Farm in order to give students hands-on hospitality training.
- The SRJC Wine Studies program coordinator is an expert in production and wine science, not marketing and hospitality
- The program needs a dedicated marketing, hospitality, and business expert to:
    - teach the tasting room classes and maintain the tasting room
    - meet industry demand for well-trained employees
    - integrate with the business program at Sonoma State University

anticipate trends and adjust program offerings accordingly.

2.3e Faculty Staffing Requests

Rank	Location	SP	M	Discipline	SLO Assessment Rationale
0001	ALL	01	01	Natural Resources *Replacement position	This person will routinely assess SLOs in any courses they are assigned.
0002	Shone Farm	02	01	Field Ag Instructor	This person will routinely assess SLOs in any courses they are assigned.
0003	Shone Farm	02	01	Viticulture	This person will routinely assess SLOs in any courses they are assigned.
0004	ALL	02	01	Agriculture/Engineering (small engines)	This person will routinely assess SLOs in any courses they are assigned.
0004	ALL	02	01	Marketing and Hospitality Management (Wine)	This person will routinely assess SLOs in any courses they are assigned.

2.4b Rationale for Instructional and Non-Instructional Equipment, Technology, and Software

The Agriculture and Natural Resouces department consists of 10 programs which together offer 14 degrees and 15 certificates:

Program	Degrees	Certificates
Agribusiness	1 Agriculture Business AS-T	
Animal and Equine Science	2 Agriculture Animal Science AS-T	1 Animal Science: Livestoc Management
Animal Health (Vet Tech)		2 Veterinary Technician
Floral Design	3 Floral Design (AA)	3 Floral Design
Hemp Agriculture	4 Hemp Agriculture (AS)	4 Hemp Agriculture
Environmental Horticulture	5 Environmental Horticulture: Landscape Construction and Maintenance (AS) 6 Environmental Horticulture: Landscape Design (AS)	5 Environmental Horticult Construction and Mainte 6 Environmental Horticult
Natural Resources	7 Natural Resources (AS)	7 Natural Resources
Sustainable Agriculture	8 Sustainable Agriculture (AS) 9 Agriculture Plant Science AS-T	8 Sustainable Agriculture 9 Agriculture Plant Science
Viticulture	10 Viticulture (AS)	10 Viticulture 11 Pest Control Adviser
Wine Studies	11 Enology (AS) 12 Wine Cellar Worker (AS) 13 Wine Hospitality & Direct Marketing (AS) 14 Wine Marketing (AS)	12 Enology 13 Wine Cellar Worker 14 Wine Hospitality & Direc 15 Wine Marketing

All the instructional programs in the Ag/Natural Resources Department are heavily dependant upon equipment and farm machinery which tend to be very costly. The equipment needs are diverse, ranging from wine cellar and wine lab equipment used in the Wine Studies program to machinery needed for large crop production by students in the Sustainable Agriculture program to anesthetic monitoring equipment needed in the Animal Health (Vet Tech) program. Students must learn using state-of-the art tools and machinery similar to equipment used in the Agriculture/Natural Resources industry. Accordingly, there is a need to continually replace and acquire new equipment whether it is used in the classroom or at Shone Farm. The lengthy Instructional Equipment Request list, outlined in 2.4c, is illustrative of the equipment intensive programs in the Ag/Natural Resources Department.

In a typical budget year, the rationale for all equipment requests is that existing equipment is worn out, out of date, or inadequate. In addition, the Agriculture and Natural Resouces department, with the exception of Animal Health and Floristry programs, is moving to Shone Farm (from Lark Hall). Therefore, extensive amounts of equipment are needed to supply the

new facilities at Shone Farm. In addition, the Animal Health program has recently moved to new space in Petaluma and is still equipping the Petaluma classroom.

Everything requested is necessary to continue to the Ag/NR Instructional programs at the caliber expected by our instructors, our students, and our industry partners.

2.4c Instructional Equipment Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Santa Rosa	01	01	Printer for Lark 2070 instructor station	1	$1,000.00	$1,000.00	FLORS	Lark 2070	Diane Dolan
0002	Shone Farm	02	01	Greenhouse lab equipment	1	$16,500.00	$16,500.00	Joel Grogan	Shone Hort Lab	Joel Grogan
0003	Petaluma	01	01	Cart-Mounted Ultrasound	1	$40,000.00	$40,000.00	Vet Tech	Petaluma Doyle 212	Pam Wittenberg
0004	Shone Farm	02	01	Outdoor Nursery lab Furnishing/equipment	1	$2,500.00	$2,500.00	Joel Grogan	Shone Hort Lab	Joel Grogan
0005	Petaluma	02	01	Veterinary Teaching Models	4	$4,000.00	$16,000.00	Vet Tech	Petaluma Doyle 212	Dan Famini
0005	Petaluma	01	03	Textbooks	105	$200.00	$21,000.00	Vet Tech	Petaluma Doyle 212	Angelica Tercero
0006	Shone Farm	01	01	iPads (and cases)	10	$360.00	$3,600.00	VIT	CAE 110	Merilark Padgett
0007	Petaluma	01	01	Multihead Teaching Stethoscope/Table	1	$35,000.00	$35,000.00	Vet Tech	Petaluma Doyle 212	Pam Wittenberg
0008	Petaluma	02	01	Patient Examination Equipment advanced	1	$9,150.00	$9,150.00	Vet Tech	Petaluma Doyle 212	Dan Famini
0009	Petaluma	02	01	Canine Dental Technician Models	1	$6,500.00	$6,500.00	Vet Tech	Petaluma Doyle 212	Dan Famini
0010	Shone Farm	02	01	Sentia Analysis instrument	1	$2,600.00	$2,600.00	Wine	Shone Farm	Kevin Sea
0011	Shone Farm	02	01	Pasture and vineyard fencing	1	$105,000.00	$105,000.00	ANSCI	Pasture	Connor Murphy
0012	Shone Farm	02	01	Electric garden vehicle	1	$25,000.00	$25,000.00	SUSAG	Shone	Connor Muprhy
0013	Shone Farm	02	01	Table top bagging scale	1	$13,000.00	$13,000.00	SUSAG	Shone	Connor Murphy
0099	Shone Farm	02	01	Mazzei Fertilizer Injectors	6	$200.00	$1,200.00	AGRI		Josh Beniston

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0099	Shone Farm	04	01	Laptop and portable projector	12	$1,000.00	$12,000.00	AGBUS		George Sellu
0099	Petaluma	02	01	Radiograph Machine - digital	1	$130,000.00	$130,000.00	Vet Tech	Petaluma Doyle 212	Dan Famini
0099	Shone Farm	02	01	Thermocycler for Veriflow Brett Sys. and centrifug	1	$11,000.00	$11,000.00	WINE	Pavilon	Kevin Sea
0099	Shone Farm	02	01	Soil Moisture sensors	1	$10,000.00	$10,000.00	SUSAG	SUSAG Greenhouse	Josh Beniston
0099	Shone Farm	02	01	Natural Resources Forestry tools	1	$5,000.00	$5,000.00	Kevin Sea	Shone Farm	Kevin Sea
0099	Shone Farm	02	01	Soil science lab equipment (auger)	1	$8,000.00	$8,000.00	AGRI	Shone	Josh Beniston
0099	Shone Farm	02	01	Valves and plumbing for wine tank glycol system	1	$1,500.00	$1,500.00	WINE	Pavilion	Kevin Sea
0099	Shone Farm	02	01	Check Stab Instrument (Potassium Bitartrate Stabil	1	$2,000.00	$2,000.00	WINE	Pavilion	Kevin Sea
0099	Shone Farm	02	01	Head house for propagation labs	1	$44,000.00	$44,000.00	HORT	Shone	Joel Grogan
0099	Shone Farm	02	01	CDR Food Lab	1	$15,000.00	$15,000.00	WINE	Winery	Kevin Sea
0099	ALL	00	00	Alcolyzer	1	$35,000.00	$35,000.00	Wine	Shone Farm	Kevin Sea
0099	Shone Farm	02	01	Tillage Implements	1	$4,500.00	$4,500.00	SUSAG	Shone	Connor Murphy
0099	Shone Farm	02	01	Plot Combine	1	$35,000.00	$35,000.00	SUSAG	Shone	Connor Murphy
0099	Shone Farm	02	01	Tractor blade	1	$6,500.00	$6,500.00	SUSAG	Shone	Connor Murphy
0099	Shone Farm	02	01	Gravity table base	1	$3,500.00	$3,500.00	SUSAG	Shone	Connor Murphy

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0099	Shone Farm	02	01	Fire resilient landscaping demo garden construction	1	$60,000.00	$60,000.00	HORT	Shone	Connor Murphy
0099	Shone Farm	02	01	Fire resilient landscaping demo garden materials	1	$25,000.00	$25,000.00	HORT	Shone	Connor Murphy
0099	Shone Farm	01	01	Microscope camera coupler	2	$225.00	$450.00	Ag/NR	Shone Farm	Joel Grogan
0099	Petaluma	01	01	Dental instruments	26	$200.00	$5,200.00	Vet Tech	Petaluma Doyle 212	Pam Wittenberg
0099	Petaluma	01	01	Dental instruments (14 piece set)	6	$350.00	$2,100.00	Vet Tech	Petaluma Doyle 212	Pam Wittenberg
0099	Shone Farm	01	01	iPads	12	$600.00	$7,200.00	Ag/NR	Shone Farm	Joel Grogan
0099	ALL	01	02	SWP FUNDED: Textbooks	105	$200.00	$21,000.00	Vet Tech	Petaluma Doyle 212	Pam Wittenberg

2.4d Non-Instructional Equipment and Technology Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Shone Farm	02	01	DUPLICATE OF SHONE REQUEST: Trailered generator and fuel tank for emergency	1	$60,000.00	$60,000.00	Shone Ag	Barn	Joel Grogan
0002	Shone Farm	02	01	OLD: Staff and student workstations	1	$7,200.00	$7,200.00	Shone Ag/NR Move	BLDG 2&3 - Central Supply	Kevin Sea
0003	Shone Farm	02	01	OLD: Lab prep equipment and installation	1	$10,550.00	$10,550.00	Shone Ag/NR Move	BLDG 2&3 - Central Supply	Kevin Sea
0004	Shone Farm	02	01	Automated irrigation technology	1	$25,000.00	$25,000.00	Shone Ag/NR Move	Shade House	Kevin Sea
0005	Shone Farm	02	01	SWP FUNDED: Shade House Misc	1	$1,500.00	$1,500.00	Shone Ag/NR Move	Shade House	Kevin Sea
0010	Shone Farm	02	01	FACILITY REQUEST: Grade and Rock	1	$24,000.00	$24,000.00	Shone Ag/NR Move	Alleys	Kevin Sea
0099	Shone Farm	02	01	Printer	1	$5,000.00	$5,000.00	Ag/NR	Pavilion	Kevin Sea
0099	Shone Farm	02	01	BLDG C Misc	1	$1,400.00	$1,400.00	Shone Ag/NR Move	BLDG C - Student Lounge	Kevin Sea
0099	Shone Farm	02	01	Media and tech. installation	1	$10,000.00	$10,000.00	Shone Ag/NR Move	BLDG D - Department	Kevin Sea
0099	Shone Farm	02	01	Refrigerator	1	$1,500.00	$1,500.00	Shone Ag/NR Move	BLDG D - Department	Kevin Sea
0099	Shone Farm	02	01	BLDG D Misc	1	$1,000.00	$1,000.00	Shone Ag/NR Move	BLDG D - Department	Kevin Sea
0099	Shone Farm	02	01	Large equipment cabinets	1	$3,000.00	$3,000.00	Shone Ag/NR Move	BLDG 2&3 - Central Supply	Kevin Sea
0099	Shone Farm	02	01	Shelving and attachment to floor	1	$8,000.00	$8,000.00	Shone Ag/NR Move	BLDG 2&3 - Central Supply	Kevin Sea

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0099	Shone Farm	02	01	BLDG 2 & 3 Misc	1	$2,500.00	$2,500.00	Shone Ag/NR Move	BLDG 2&3 - Central Supply	Kevin Sea
0099	Shone Farm	02	01	Media equip and install	1	$5,000.00	$5,000.00	Shone Ag/NR Move	BLDG 4 - Staff Offices & Conf.	Kevin Sea
0099	Shone Farm	02	01	Staff workstations	1	$12,000.00	$12,000.00	Shone Ag/NR Move	BLDG 4 - Staff Offices & Conf.	Kevin Sea
0099	Shone Farm	02	01	BLDG 4 Misc	1	$1,000.00	$1,000.00	Shone Ag/NR Move	BLDG 4 - Staff Offices & Conf.	Kevin Sea
0099	Shone Farm	02	01	Rolling Gate	1	$7,500.00	$7,500.00	Shone Ag/NR Move	Barn	Kevin Sea
0099	Shone Farm	02	01	Complete Fencing & Gates	1	$70,000.00	$70,000.00	Shone Ag/NR Move	Pasture	Kevin Sea
0099	Shone Farm	02	01	Complete panel fencing	1	$20,000.00	$20,000.00	Shone Ag/NR Move	Barn	Kevin Sea
0099	Shone Farm	02	01	Roof wings	1	$7,500.00	$7,500.00	Shone Ag/NR Move	Barn	Kevin Sea
0099	Shone Farm	02	01	Painting	1	$5,000.00	$5,000.00	Shone Ag/NR Move	Barn	Kevin Sea
0099	Shone Farm	02	01	Lighting	1	$50,000.00	$50,000.00	Shone Ag/NR Move	Barn	Kevin Sea
0099	Shone Farm	02	01	Walk-in Cooler Install	1	$150,000.00	$150,000.00	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea
0099	Shone Farm	02	01	Septic	1	$50,000.00	$50,000.00	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea
0099	Shone Farm	02	01	Joint Trench PCO8	1	$16,694.21	$16,694.21	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0099	Shone Farm	02	01	Anaya PCO15	1	$4,768.50	$4,768.50	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea
0099	Shone Farm	02	01	Anaya PCO16	1	$2,500.00	$2,500.00	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea
0099	Shone Farm	02	01	Fencing & Gates	1	$45,000.00	$45,000.00	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea
0099	Shone Farm	02	01	Transfer Switch for Backup Generator	1	$15,000.00	$15,000.00	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea
0099	Shone Farm	02	01	Produce Processing Contingency 10%	1	$24,500.00	$24,500.00	Shone Ag/NR Move	Produce Processing Facility	Kevin Sea

2.4f Instructional/Non-Instructional Software Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
0001	Santa Rosa	02	01	ARC GIS	1	$5,000.00	$5,000.00	NRM	2060	Briana Boaz
0002	Shone Farm	02	01	AgCode Vineyard	1	$3,255.00	$3,255.00	VIT	Shone	Merilark Padgett

2.5a Minor Facilities Requests

Rank	Location	SP	M	Time Frame	Building	Room Number	Est. Cost	Description
0001	Shone Farm	01	02	Urgent	Propagation House		$250,000.00	Numerous labs are having to be rescheduled due to weather (heat, wind, rain) because there is not a suitable location to practice propagation skills.
0001	Shone Farm	01	02	Urgent	Shade House		$250,000.00	This facilitiy is needed to allow hardening off and growing of plants (including natives) which are not suitable to year-round greenhouse conditions.
0002	Petaluma	02	02	Urgent	Mobile veterinary clinic		$300,000.00	Serve and inspire students and community in hands-on training for vet tech
0002	Petaluma	01	06	Urgent	Student lounge/study area		$250,000.00	Ensure equity by providing safe and inviting study space for ANHLT students to study, interact, and practice

2.5b Analysis of Existing Facilities

The Agriculture and Natural Resources Department uses facilities at three campuses: Santa Rosa, Petaluma, and Shone Farm. Programs other than Animal Health (Vet Tech) and Floral Design are, as of Fall 2023, moving from Lark Hall (Santa Rosa Campus) to Shone Farm. Three modular classrooms and four office/supplies buildings were moved from the Santa Rosa campus to Shone Farm for new Agriculture and Natural Resources classrooms. Animal Health has moved from Santa Rosa to Petaluma. Floral Design will remain on the Santa Rosa Campus where Wine Studies will also teach some tasting classes.

Shone Farm
Facilities at Shone Farm include classrooms and instructional support facilities.

<u>Shone Farm Classrooms</u>

- Dutton Ag Pavilion

In general, the Pavilion classrooms are to be transitioned out of use as the new modular classrooms come online. The Wine Studies program will still use PAV1 for Wine Making classes (WINE 3, WINE 42.1, WINE 42.2) since those classes need access to the Winery. The Pavilion needs a reliable sound system and new whiteboards.

- Richard Thomas Classroom

RT classroom is in need of new whiteboards.

- New Modular Classroom: Classroom A (in construction)

Classroom A (Soils Lab) is in need of Student desks and chairs, Instructor desk and stations, media equip & install, casework/millwork/counters, sinks and hot water.

- New Modular Classroom: Classroom B (in construction)

Classroom B (Hort/Plant Lab) is in need of Student desks and chairs, Instructor desk and stations, media equip & install, casework/millwork/counters, sinks and hot water, Tissue Culture lab station.

- New Modular Classroom: Classroom C (in construction)

Classroom C (Computer Lab) is in need of Student desks and chairs, Instructor desk and stations, media equip & install, casework/millwork/counters, sinks and hot water, computers.

<u>Shone Farm Instructional Support Facilities</u> (See also the Shone Farm PRPP for equipment needs in thses facilities)

- Alvin J. Hansen Produce Processing Facility
- Belden Office Building
- Foley Crush Pad
- Gallo Winemaking Classroom
- GK Hardt Stable
- John & Terri Balletto Tasting Room

- Porter Barn
- Rich Kunde Greenhouse
- Extensive vineyards, pastures, and forest

Santa Rosa Campus
The Floral Design program will still need to use Lark Hall classrooms as that program is not included in the Department move to Shone Farm. In addition, Wine Studies will teach some tasting classes in the Burdo Culinary Center.

- Lark 2060
- Lark 2070
- Lark 2086
- Lark 2089
- Central Supply
- Burdo 5020

Petaluma
- Doyle 211
- Doyle 212 (Vet Tech Lab)

3.1 Academic Quality

Strategies 3.1 to 3.4 are addressed in the table below.

			Ag & NR Plan	**AG & NR 2022-23 Actions**
STRATEGY 1: ACADEMIC QUALITY – Support excellent teaching and maximize education learning outcomes.				
	Goal 1: Ensure quality of courses and andragogy across disciplines and modalities.	Objective: Promote robust professional development and maintain professional development resources on culturally responsive andragogy and practices that are annually reviewed and updated.	• Annually, devote part of at least one department meeting to presentation on culturally responsive andragogy • Distribute to associate faculty annually information about how to teach with responsiveness to	• In March 2023 department meeting had a one-hour presentation by Laura Larque on culturally competent curriculum. • Distributed a recording of Laura Larque's presentation to all Associate instructors.

			cultural expectations, norms, and practices	
	Goal 2: Inspire and prepare students for transfer, degree or certificate completion, and lifelong learning through critical thinking and civic engagement.	Objective: Implement institutional learning outcomes that track how SRJC inspires and prepares students in support of equitable outcomes.	• Annually, review with instructors the institutional tracking noted in the objective.	• To come, as tracking is provided to the department
STRATEGY 2: STUDENT SUCCESS AND SUPPORT – Provide students with services, programs, and events in support of basic needs and educational goals in order to reduce student success equity gaps.				
	Goal 1: Build a culture and ecosystem that creates a sense of belonging and purpose for all students.	Objective: Prioritize student services events and activities which sustain a community committed to student learning and development	• For programs at Shone Farm, create student community at Shone Farm similar to what high school students have in FFA and 4-H • In Floristry… • In Animal Health (in Petaluma) ….	• Created a student lounge and study area at Shone Farm • Restarted Ag Ambassadors (student Ag Club) • Had ice cream social for incoming students • At Shone Farm, greeted with warm welcomes and tours 15 high school student groups. • Participated in the Sonoma County Winegrowers "Farm of the Future" program.
	Goal 2: Leverage basic needs services in support of student success while at the college and in the community.	Objective: Provide all students with comprehensive learning opportunities on accessing basic needs in support of wellness.	• In all syllabi, include extensive information about basic needs services provided by the college	• Distributed to all faculty a syllabus template including information about basic needs services • Provided from Shone farm food for Feed the Bears program
STRATEGY 3: RESPONSIVENESS TO OUR COMMUNITY – ensure that SRJC is supporting the diverse educational, social, and economic needs of our community.				
	Goal 1: Offer SRJC programming that impacts all	Objective: SRJC programs regularly assess their purpose in relation to diverse needs in education,	• Have Industry Advisory Board with representatives of all Ag & NR programs	• Industry Advisory Board met twice

	members of our community.	community, and economics.	• Frequent informal contact with industry through:
			  • Field trips
			  • Industry seminars
			  • Industry events
			  • Grants executed jointly with industry
			  • Hosting industry meetings at Shone Farm
			  • Talking with working students
			  • Reading local industry publications and news feeds
			  • Hosting industry people for tours at Shone Farm as part of SRJC fundraising
			  • Hosting high school tours at Shone Farm (allowing interactions with high school Ag & NR teachers)
			• Working relationship with Sonoma County CTE Foundation
				• New General Ag major drafted and out for review
				• Increased student interns in Wildfire Resilience program to meet community need for workers

	Goal 2: Provide equitable access to District opportunities in recognition of diversification in county population.	Objective: All new and updated policies, procedures, and practices will be reviewed to ensure equitable access to District opportunities (i.e., programs, enrollment, and employment).	• In syllabi, provide information of health, wellness, support, mentoring, and disability resources	• Distributed to all faculty a syllabus template including information about basic needs services
STRATEGY 4: CAMPUS CLIMATE AND CULTURE – cultivating a campus climate and culture for individuals connected to the District that embodies our Mission, Vision, and Values statements.				

	Goal 1: Formalize a campus climate that is culturally aware and prioritizes efforts in support of inclusion, diversity, equity, antiracism, and accessibility (IDEAA).	Objective: Establish and regularly assess an identifiable campus climate and culture for everyone who interacts with SRJC.	• At start of class, solicit from each student information about their barriers to success • Respond to those barriers such that each student feels valued and included	• In Wine Studies, sent video message to each student (in certain classes) to encourage them and ascertain their interests
	Goal 2: Promote a community culture of sustainability.	Objective: Identify annual goals for sustainability, including the creation and regular assessment of a District Sustainability Plan that achieves the Presidential Climate Commitment	• Annually, devote part of one department meeting to a brainstorming session on opportunities to increase sustainability in our facilities and programs • Each academic year, execute on at least two sustainability increases	• Passed organic certification of the Shone Farm Vineyard and Winery • For savings in electricity, cooled the wine crush pad with a canopy • With SRJC Facilities, initiated a night-air cooling project for saving energy in the Shone Farm Winery

3.2 Student Success and Support

Please see section 3.1 for how the department is addressing all college-wide goals and strategic plan.

3.3 Responsiveness to Our Community

Please see section 3.1 for how the department is addressing all college-wide goals and strategic plan.

3.4 Campus Climate and Culture

Please see section 3.1 for how the department is addressing all college-wide goals and strategic plan.

3.5 Establish a Culture of Sustainability

As farmers and ranchers the Ag/NR Department has an intimate daily relationship with the land, water and air. The land is both our love and our livelihood. Our job is to care for the land, and when we do that well, the land takes care of us. Accordingly, the Ag/ NR Department engages in an infinite number of sustainable practices, such as:

- Composting
- Rain water harvesting
- Cover crops
- Organic produce production
- Pasture rotation
- Polyculture
- Local marketing via farmers markets, Community Supported Agriculture, SRJC cafeteria, etc…
- Biological pest control
- Crop rotation
- Hedgerows
- Bioswales
- Invasive species reduction

As a result of many of these practices, Shone Farm Vineyards were Certified Sustainable in 2008 and the demonstration and sauvignon blanc blocks were Certified Organic by CCOF.

Students are exposed to all these practices in class as well as in outside endeavors by faculty, such as the student organization, Students for Sustainable Communities (SSC), which is co-advised by Ag/NR faculty member Kasey Wade. This organization that coordinates the sustainability activities of college clubs has been recognized for its efforts as the recipient of the “Best Practice Award” at the 2010 Higher Education Sustainability Conference. Its members have also received other awards for their sustainability practices and efforts, such as:

- Instrumental in getting the college to endorse the Talloires Declaration; collaborated with administration, faculty and staff to make this important signing happen on April 20th, 2011.
- Conducted two successful waste audits on the Bertolini Student Center food waste containers.
- Created the “Green Squad,” an educational team making students and staff aware of the appropriate use of waste receptacles in the Bertolini Student Center Dining Commons.
- Students have led Professional Development workshops for faculty and staff to engage them in discussion on how to make the campuses more sustainable.

Another sustainable practice facilitated by the Ag/NR Department is the propagation of oak seedlings. To emphasize the importance and value of the spectacular oak trees that inhabit SRJC, the Ag/NR Department propagates oaks seedlings that each student who graduates at the annual May commencement ceremony receives.

Recent grant we have applied for that demonstrate our commitment to sustainable practices include:

- USDA-Farmers Market Program Promotion, $65,719 (completed in September 2012)
- Summer Ag Academy for Sustainable Agriculture, $20.914 (completed in August 2012)
- NSF-ATE grant for "Improving Pathways in Sustainable Agriculture Education for the North Bay Region of California", $200,000 (July 1, 2013 - June 30, 2016)
- Beginning Farmers and Ranchers Development Program, $269,626 (Oct 2011-August 2014)
- USDA Specialty Crops Block Grant Program "Training the Next Generation of Farmers for the Growing California Oil Oil Industry", $385,211 (October 2013 - June 2016)
- USDA Specialty Crops Block Grant Program "Innovative Specialty Crops Oriented Program In Education", $385,925 (October 2013-June 2016)

Departmentally we are committed to the reduce, reuse, recycle philosophies behind the sustainable movement. Accordingly, we recycle “disposable” items, reduce our paper use and reuse instructional materials where ever possible. To further reduce our carbon footprint, with funding, departmentally we would like to secure a biodiesel vehicle to assist in carpooling students to and from Shone Farm.

4.1a Course Student Learning Outcomes Assessment

The Ag/NR faculty members (full-time and adjunct) assess at least one course SLO every time they teach a course. Faculty members usually share the findings of their course SLO assessments with their discipline colleagues and sometimes the entire department. Sharing the findings of course SLO assessments over the past three years has helped other faculty within the Agriculture and Natural Resource (Ag/NR) department adapt their instructional practice to address similar Student Learning Outcomes in their courses or similar student learning needs. For example, one of our colleagues found that students were not successful in a specific course because of their writing skills. As such, this colleague developed a set of guidelines, tips and a rubric that have contributed to a significant improvement in the quality of student papers. Other faculty members within the department have adopted and adapted these resources to enhance writing within their courses. This response to course SLO assessment has informed the instructional practice of all faculty members and ultimately students success within our department.

Courses within each of the programs within the Agriculture and Natural Resources (Ag/NR) Department are sequenced to meet at least one of the following requirements: SRJC Certificate, Associates Degree, industry certification or industry qualification. Most of the core courses in our programs are sequenced in order to improve student success. As such, each program offers courses that are sequenced from the introductory level up to capstone courses. In addition to sequenced courses, each program within Ag/NR offers a handful of electives that do not require pre-requisites. The courses within each program are sequenced in order to meet the Program Learning Outcomes (PLOs). Each of the PLOs are assessed in at least one of the courses within that program. Over the past three years, each program has developed a PLO map that shows the alignment between course SLOs and PLOs. Furthermore, each program has a detailed plan with a timeline for assessing all PLOs. As a department that is in tune with industry trends and needs, each program has a plan for assessing course SLOs and subsequently all PLOs within a six-year cycle. Each time a course is revised, our SLOs are revised to reflect the changes in our courses. The revision of course SLOs and PLOs are informed by industry expectations or California State University (CSU) system requirements.

4.1b Program Student Learning Outcomes Assessment

Program Level Student Learning Outcomes (SLOs) within the Ag/NR Department are completed for all programs:

- Agribusiness

- Animal/Equine Science
- Environmental Horticulture
- Floral Design
- Hemp Agriculture
- Natural Resources
- Sustainable Agriculture
- Veterinary Technology
- Viticulture
- Wine Studies

Program coordinators work to ensure course offerings continue to meet program level student learning outcomes on an annual basis.

4.1c Student Learning Outcomes Reporting

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	AGBUS 107 -MATH APPS IN AGRIC*	N/A	N/A	N/A
Course	AGBUS 2 - AG COMPUTER APPLICAT	Fall 2011	Fall 2011	Spring 2012
Course	AGBUS 51 - AGRICULTURE LEADERS	Spring 2014	Spring 2014	N/A
Course	AGBUS 52 - AG OFFICER TRAINING	Spring 2014	Spring 2014	N/A
Course	AGBUS 56 - INTRO AG WINE BUS M	Spring 2012	Fall 2013	N/A
Course	AGBUS 61 - AGRICULTURAL MARKET	Spring 2014	Spring 2014	Spring 2014
Course	AGBUS 62 - AG SALES/COMMUNICAT	Spring 2014	Spring 2014	Spring 2014
Course	AGBUS 7 - AG ECON	Spring 2012	Spring 2012	N/A
Course	AGBUS 71 - AGRICULTURAL ACCNT	N/A	N/A	N/A
Course	AGMEC 163 - SMALL GAS ENGINES	Fall 2014	Fall 2014	Fall 2014
Course	AGMEC 60 - AG MACHINE/EQUIP SK	Fall 2014	Fall 2014	Fall 2014
Course	AGRI 10 - INTRO AG SCIENCES	Fall 2014	Fall 2014	Fall 2014
Course	AGRI 20 - INTRO TO PLANT SCIEN	Spring 2012	Spring 2012	Fall 2013
Course	AGRI 50 -INTRO AGRICULTURE ED*	N/A	N/A	N/A
Course	AGRI 56 - AG ENTERPRISE PROJEC	N/A	N/A	N/A
Course	AGRI 60 - SOIL & PLANT NUTRITI	Fall 2011	Fall 2011	Spring 2012
Course	AGRI 70 - INT PEST MANAGEMENT	Spring 2014	Spring 2014	Spring 2014
Course	ANHLT 109 - COMP/ALT VEG MED	Fall 2014	Fall 2014	Fall 2014
Course	ANHLT 120 - SML ANIML VET ASSI	Fall 2011	Fall 2011	Spring 2012
Course	ANHLT 121 - ANAT SURGICAL/DENT	Spring 2014	Spring 2014	Spring 2014
Course	ANHLT 123 - SMALL ANIMAL VET E	Spring 2013	Spring 2013	Spring 2013
Course	ANHLT 126 - VET TECH PROFICIEN	Spring 2013	Spring 2013	Spring 2013
Course	ANHLT 141- SM. AN. VET ANESTH	Spring 2014	Spring 2014	N/A

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	ANHLT 142-VET PHARM MED CALCS	Spring 2014	Spring 2014	Spring 2014
Course	ANHLT 151-VET LAB IMAGAING	Fall 2012	Fall 2012	Spring 2013
Course	ANHLT 161 - VETERIN OFF PROCED	Spring 2015	Spring 2015	Spring 2015
Course	ANHLT 50 - VETERINARY ANATOMY	Spring 2012	Spring 2012	Fall 2012
Course	ANHLT 52 - SML ANM REC/TRANS C	Fall 2014	Fall 2014	N/A
Course	ANSCI 153 - SUS ANIMAL PROD	Fall 2014	Fall 2014	Fall 2014
Course	ANSCI 171-BEHAVIOR & HUMANE MG	Fall 2014	Fall 2014	Fall 2014
Course	ANSCI 2 - VETERINARY PRACTICES	Spring 2011	Spring 2011	Spring 2012
Course	ANSCI 20 - BASIC ANIMAL SCIENC	Fall 2011	Fall 2011	Fall 2012
Course	ANSCI 26 - LIVESTOCK EVALUATIO	Spring 2012	Spring 2012	Spring 2014
Course	ANSCI 27 - BEEF CATTLE SCIENCE	Spring 2011	Spring 2011	Spring 2013
Course	ANSCI 28 - SHEEP SCIENCE	Spring 2014	Spring 2014	Spring 2014
Course	ANSCI 29 - DAIRY CATTLE SCIENC	N/A	N/A	N/A
Course	ANSCI 50 - POULTRY MGMT	Fall 2012	Fall 2012	N/A
Course	ANSCI 51-ANAT/PHYS FARM ANIMAL	N/A	N/A	N/A
Course	ANSCI 61 - LIVESTOCK FEED/NUTR	Fall 2013	Fall 2013	N/A
Course	ANSCI 91 - RANGELAND MANAGEMEN	Spring 2015	Spring 2015	Spring 2015
Course	EQSCI 101 - HORSE HANDLING SKI	Spring 2014	Spring 2014	Spring 2014
Course	EQSCI 102A - BEG HORSEMANSHIP/	Spring 2014	Spring 2014	Spring 2014
Course	EQSCI 102B - INT HORSEMANSHIP/	Fall 2014	Fall 2014	N/A
Course	EQSCI 102C - ADV HORSEMANSHIP/	Fall 2014	Fall 2014	N/A
Course	EQSCI 120 - INTRO THER RIDING	Spring 2014	Spring 2014	Spring 2014
Course	EQSCI 121 - THERAPEUTIC RIDING	N/A	N/A	N/A
Course	EQSCI 122 - THER RIDING PRO OP	N/A	N/A	N/A

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	EQSCI 125 -BASICS OF DRESSAGE*	N/A	N/A	N/A
Course	EQSCI 151 - EQUINE ACCUPRESSUR	Summer 2014	Summer 2014	Summer 2014
Course	EQSCI 162 -HORSE HOUSE & FACI*	N/A	N/A	N/A
Course	EQSCI 170 - FARRIER SCIENCE	Fall 2014	Fall 2014	Fall 2014
Course	EQSCI 180 -EQUINE BUSINESS MG*	N/A	N/A	N/A
Course	EQSCI 25 - EQUINE SCIENCE	Fall 2014	Fall 2014	Fall 2014
Course	EQSCI 51 - EQUINE NUTRITION	Fall 2011	Fall 2011	Fall 2012
Course	EQSCI 52 - EQUINE HEALTH	Spring 2014	Spring 2014	N/A
Course	EQSCI 53 - EQUINE REPRODUCTION	Spring 2014	Spring 2014	Spring 2014
Course	EQSCI 60 - EQUINE ANATOMY/PHYS	N/A	N/A	N/A
Course	EQSCI 80 - EQUINE & STABLE MG*	Fall 2014	Fall 2014	Fall 2014
Course	HORT 110 - UNIQUE TREES NO. CA	Fall 2013	Fall 2013	Fall 2013
Course	HORT 111 - UNIQ SHRBS, VNS, GC	N/A	N/A	N/A
Course	HORT 112 - PERENNIALS FOR SO C	Fall 2013	Fall 2013	Fall 2013
Course	HORT 115 - ORNAMENTAL GRASSES	N/A	N/A	N/A
Course	HORT 115.1 - DSGN ORNAMENTAL G	N/A	N/A	N/A
Course	HORT 119 - LNDSCPNG CALIF NTV	N/A	N/A	N/A
Course	HORT 12 - PLNT MATERIALS: WIN/	Spring 2013	Spring 2014	Spring 2013
Course	HORT 151 - PRUNING ORNAMENTALS	Fall 2013	Fall 2013	N/A
Course	HORT 153 - BASIC TURF CARE	N/A	N/A	N/A
Course	HORT 171 - IPM IN HORTICULTURE	Spring 2013	Fall 2013	Spring 2013
Course	HORT 180 - WATER CONSERVING LA	Spring 2014	Spring 2014	N/A
Course	HORT 181 - WATER EFFIC LANDSCA	Spring 2012	Fall 2011	Fall 2013
Course	HORT 189 - LNDSCP DRAINAGE BAS	Spring 2014	Spring 2014	N/A

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	HORT 195A - CAD:LANDSCAPE SITE	Spring 2014	Spring 2014	N/A
Course	HORT 195B - CAD:PLANTING PLANS	Spring 2014	Spring 2014	N/A
Course	HORT 195C - CAD:IRRIGATION PLA	Spring 2014	Spring 2014	N/A
Course	HORT 50.1 - INTRO HORTICULTURA	Spring 2011	Spring 2011	Fall 2011
Course	HORT 50.2 - HORT INDUSTRY & CA	Fall 2012	Spring 2013	N/A
Course	HORT 56 - ENTERPRISE PROJECT	N/A	N/A	N/A
Course	HORT 65 - HORT WORKPLACE PRACS	Fall 2012	Fall 2012	Fall 2013
Course	HORT 66 - GRADEN CENTER OPS	Spring 2013	Fall 2013	Spring 2014
Course	HORT 70 - PLANT PROPAGATION	Spring 2013	Spring 2013	N/A
Course	HORT 71 - NURSERY PRODUCTION	Fall 2012	Spring 2013	Fall 2013
Course	HORT 72 - GREENHOUSE PRODUCTIO	Spring 2014	Spring 2014	N/A
Course	HORT 8 - PLANT MATERIALS: SU/F	Fall 2013	Spring 2014	N/A
Course	HORT 80 - LANDSCAPE PRACTICES	Spring 2012	Spring 2012	Spring 2013
Course	HORT 81 - TURFGRASS MGMT*	N/A	N/A	N/A
Course	HORT 82 - INTRO TO ARBORICULT*	N/A	N/A	N/A
Course	HORT 82.1 - TREE HEALTH MGT*	N/A	N/A	N/A
Course	HORT 91 - LANDSCAPE CONST/ESTI	Fall 2012	Spring 2012	Fall 2013
Course	HORT 92.1 - LANDSCAPE IRRIGATI	Spring 2013	Spring 2013	Spring 2014
Course	HORT 92.2 - LOW VOLUME LANDSC	Spring 2013	Spring 2013	Spring 2014
Course	HORT 93 - LANDSCAPE DRAFT & DE	Fall 2011	Fall 2011	Fall 2012
Course	HORT 94 - LANDSCPE DESIGN APPL	Spring 2014	Spring 2014	Spring 2015
Course	NRM 102 - NATIVE PLANTS RES*	N/A	N/A	N/A
Course	NRM 103 - RESTROING NATIVE HAB	Spring 2014	Spring 2014	Spring 2014
Course	NRM 110 -INTERP INTERACTION T*	N/A	N/A	N/A
Course	NRM 111 - ORIENTAT NAT RES PRK	Fall 2014	Fall 2014	Fall 2014

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	NRM 12 - INTRO TO ENVIRON CONS	Spring 2010	Spring 2010	Fall 2011
Course	NRM 121 -GLOBAL POSITIONING S*	N/A	N/A	N/A
Course	NRM 131 - TRAILS MAINT/RECONST	Spring 2013	Spring 2013	N/A
Course	NRM 132 - CHAINSAW OPER/CARE	Spring 2014	Spring 2014	Spring 2014
Course	NRM 141 - BEG ROCK CLIMBING/SA	Spring 2014	Spring 2014	Spring 2014
Course	NRM 142 - ORIENTEERING WILDERN	N/A	N/A	N/A
Course	NRM 51 - WILDLAND TREE/SHRUBS	Spring 2011	Spring 2011	Spring 2012
Course	NRM 56 - ENTERPRISE PROJECT	N/A	N/A	N/A
Course	NRM 60 - INTRO TO OUTDOOR REC	Spring 2012	Spring 2012	N/A
Course	NRM 61 - OUTDOOR REC MGT	N/A	N/A	N/A
Course	NRM 63 - PARK INTERPRETATION	Fall 2011	Fall 2011	Fall 2012
Course	NRM 65 - REC FACILITY MAINT	N/A	N/A	N/A
Course	NRM 66 - WILDERNESS SKILLS	Spring 2012	Spring 2012	Spring 2014
Course	NRM 67-REC FACILITY MGMT	Fall 2014	Fall 2014	N/A
Course	NRM 70 - FOREST PRACTICES	Fall 2014	Fall 2014	Fall 2014
Course	NRM 72 - FIRE CNTROL/ITS USE	Spring 2014	Spring 2014	Spring 2014
Course	NRM 73 - INTRO FOREST MEASUREM	Fall 2014	Fall 2014	N/A
Course	NRM 84 - INTRO FISH/WILDLIFE C	Spring 2014	Spring 2014	Spring 2014
Course	NRM 85 - FOR HYDROL & WTRSHD M	Spring 2014	Spring 2014	Spring 2014
Course	NRM 86 - WATERSHED MONITR/ASSM	Spring 2015	Spring 2015	Spring 2015
Course	NRM 87 - GIS APPLIC IN NAT RES	Summer 2014	Summer 2014	Summer 2014
Course	NRM 88 - WATRSHD ECOL/RESTORAT	Spring 2013	Spring 2013	N/A
Course	NRM 91 - RANGELAND MANAGEMENT	Spring 2015	Spring 2015	Spring 2015

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	SUSAG 103 - AGRICULTURAL COMPO	Spring 2014	Spring 2014	Spring 2014
Course	SUSAG 109 - ORGANIC CROP PLANN	Spring 2015	Spring 2015	Spring 2015
Course	SUSAG 116 - ORGANIC APPLE PROD	N/A	N/A	N/A
Course	SUSAG 117 - ORG FRUIT TREE & B	Summer 2014	Summer 2014	N/A
Course	SUSAG 118 - OLIVE OIL PROD & E	N/A	N/A	N/A
Course	SUSAG 119 - SPECIALTY CROP PRO	Summer 2014	Summer 2014	N/A
Course	SUSAG 120 - OR GRDING & FOOD P	Fall 2014	Fall 2014	N/A
Course	SUSAG 151 -HYDROPONIC FOOD PR*	N/A	N/A	N/A
Course	SUSAG 153 - CSA	Fall 2014	Fall 2014	N/A
Course	SUSAG 160 - DIRECT FARM MARKET	Fall 2014	Fall 2014	N/A
Course	SUSAG 162 - CSA LATE SPRING	N/A	N/A	N/A
Course	SUSAG 163 - CSA SUMMER	N/A	N/A	N/A
Course	SUSAG 50 - INTRO SUSTAIN AGRI	Fall 2013	Fall 2013	Fall 2013
Course	SUSAG 64 - WARM SEASON VEG PRO	Spring 2014	Spring 2014	N/A
Course	SUSAG 65 - COOL SEASON VEG PRO	N/A	N/A	N/A
Course	VIT 1 - WORLD VIT & WINE STYLE	Fall 2012	Fall 2012	Spring 2013
Course	VIT 113 - ORGANIC VITICULTURE	Spring 2014	Spring 2014	Spring 2014
Course	VIT 120 - VINEYARD PRUNING	Spring 2014	Spring 2014	Spring 2014
Course	VIT 121 - PRUNING TECHN VINE B	Spring 2014	Spring 2014	N/A
Course	VIT 122 - VINE CANOPY MNGMT	Spring 2014	Spring 2014	Spring 2014
Course	VIT 123 - SPRING BUD & GRAFT	Spring 2012	Spring 2012	Spring 2013
Course	VIT 130 - GRAPEVINE PHYSIOLOGY	Spring 2014	Spring 2014	Spring 2014
Course	VIT 131 - FRUIT QUALITY ASSURA	Spring 2014	Spring 2014	Spring 2014
Course	VIT 132 - ADVANCES IN VINEYARD	Spring 2014	Spring 2014	Spring 2014
Course	VIT 133 - ADVANCES IN VITICULT	Spring 2012	Spring 2012	Spring 2013

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	VIT 51 - VITICULTURE: FALL PRA	Fall 2012	Fall 2012	Fall 2013
Course	VIT 52 - VITICULTURE: SPRING P	Spring 2010	Fall 2010	Spring 2011
Course	VIT 53 - ADV VINEYARD PRODUCTI	Spring 2013	Fall 2013	Spring 2013
Course	VIT 54 - VIT: SUMMER PRACTICES	Spring 2014	Spring 2014	Spring 2014
Course	VIT 55 - BASIC WINE VITICULTUR	Spring 2011	Spring 2011	Spring 2012
Course	VIT 60 - VINEYARD MANAGEMENT	Fall 2011	Fall 2011	Fall 2012
Course	WINE 1 - WORLD VIT & WINE STYL	Fall 2012	Fall 2012	N/A
Course	WINE 101 - WINE SALES AND DIST	Fall 2014	Fall 2014	Fall 2014
Course	WINE 102 - WINES GLBL MRKT/RTL	Fall 2013	Fall 2013	Fall 2013
Course	WINE 103 - CONSUMER DIRECT WIN	Fall 2014	Fall 2014	Fall 2014
Course	WINE 104 - AG & WINE MKTG FNDM	Fall 2012	Fall 2012	Fall 2012
Course	WINE 105 - WINE PUBLIC RELATIO	Summer 2014	Summer 2014	Summer 2014
Course	WINE 110 - PROF WINE JUDGING	Fall 2012	Fall 2012	Spring 2013
Course	WINE 111 - SONOMA APPELLATIONS	Fall 2012	Fall 2012	Fall 2013
Course	WINE 112 - WINE REGIONS OF CAL	Fall 2012	Fall 2012	Spring 2013
Course	WINE 113 - WINEMAKERS OF SONOM	Fall 2012	Fall 2012	Spring 2013
Course	WINE 114 - WINES OF CLAIF & EU	Fall 2012	Fall 2012	Spring 2013
Course	WINE 115 - WINES OF CA AUST/NE	Fall 2014	Fall 2014	Fall 2014
Course	WINE 116 - WINES OF ITALY	Fall 2014	Fall 2014	Fall 2014
Course	WINE 117 - WINES OF FRANCE	Fall 2014	Fall 2014	Fall 2014
Course	WINE 118 - ZINFANDEL-GRAPE TO	Fall 2012	Fall 2012	Spring 2013
Course	WINE 119 - EXAMINATION/PINOT N	Fall 2012	Fall 2012	Fall 2012
Course	WINE 121 - WINES OF SPAIN	Spring 2014	Spring 2014	N/A
Course	WINE 122 - DESSERT WINES OF WO	Fall 2014	Fall 2014	Fall 2014
Course	WINE 124 - CABERNET SAUVIGNON	Fall 2014	Fall 2014	N/A

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Course	WINE 125 - NAPA VALLEY	Fall 2013	Fall 2013	Fall 2013
Course	WINE 130 - WINE SERVICE HOSPIT	Spring 2014	Spring 2014	N/A
Course	WINE 131 - WINE IND EVENT PLAN	Spring 2015	Spring 2015	Spring 2015
Course	WINE 150 - AMATEUR WINEMAKING	N/A	N/A	N/A
Course	WINE 3 - INTRO TO ENOLOGY	Spring 2014	Spring 2014	N/A
Course	WINE 42.1 - FALL WINERY OPERAT	Fall 2014	Fall 2014	N/A
Course	WINE 42.2 - SPR WINERY OPERATI	Spring 2014	Spring 2014	N/A
Course	WINE 55A - LAB ANALYSIS OF WIN	Fall 2014	Fall 2014	Fall 2014
Course	WINE 55B - LAB ANALYSIS OF WIN	Fall 2012	Fall 2012	Fall 2012
Course	WINE 56 - INTRO AG/WINE BUS MG	Fall 2012	Spring 2013	N/A
Course	WINE 62 - AG SALES/COMMUNICATI	Spring 2014	Spring 2014	N/A
Course	WINE 70 - WINE COMP TASTING	Fall 2014	Fall 2014	Fall 2014

4.2a Key Courses or Services that address Institutional Outcomes

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
AGBUS 107	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 110	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 189	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 51			X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 52			X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 61				X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 62			X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGBUS 7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGMEC 60		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 10		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 50		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 98	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
AGRI 99	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 121	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 123	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 126	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 141	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 142	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 151	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 161	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANHLT 52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
ANSCI 150	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 171	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 26			X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 61	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 65	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ANSCI 91	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 100	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 101	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 102 A, B, C	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 121	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 122	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 125	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 150	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 151	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 154	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 162	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 170	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 180	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
EQSCI 53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
EQSCI 80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 110	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 111	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 112	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 115	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 115.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 119	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 12			X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 151	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 153	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 171	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 180	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 181	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 195 (A,B,C)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 50.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 50.2			X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 65	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 66	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 70			X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 71	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 72	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 8			X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 80	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 81	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 82	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
HORT 82.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 91	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 92.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 92.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 93	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
HORT 94	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 102	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X
NRM 103	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 110	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 111	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 121	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 131	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 132	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 141	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 142	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 60			X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 61		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 63	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 65	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 66	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 67	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 70	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 72	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 73	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 84	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
NRM 85	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 86	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 87	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 88	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 91	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
NRM 99	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 102	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 103	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 110	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 111	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 112	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 114	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 115	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 116	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 117	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 118	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 119	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 130	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 131	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 151	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 160	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 161	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 162	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 163	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 164	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 165	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SUSAG 64	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
SUSAG 65	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 1/WINE 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 113	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 121	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 122	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 123	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 124	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 130	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 131	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 132	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 133	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 151	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 60	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VIT 72	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 101	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 102	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 103	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 104	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 105	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 108	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 110	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
WINE 111	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 112	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 113	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 114	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 115	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 116	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 116.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 117	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 118	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 119	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 120	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 121	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 122	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 124	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 125	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 130			X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 131	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 150	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 151	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 3	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 42.1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 42.2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 55A	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 55B	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 62	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
WINE 70			X	X	X	X	X	X	X	X	X	X	X	X	X	X

4.2b Narrative (Optional)

5.0 Performance Measures

Not Applicable.

5.1 Effective Class Schedule: Course Offerings, Times, Locations, and Delivery Modes (annual)

The AG/NR Department offers day and evening courses Monday through Saturday. Classes are offered based on

- Student academic need
- Service to new or targeted populations
- Maximized use of college facilities
- Ensuring enrollment growth sufficient to fund ongoing district operations.

Many short courses are offered, ie.. 2-8 weeks, Fri/Sat, two weekends, etc.

Many short courses of 2-8 week duration are offered with class days and times arranged to maximize student convenience.

The AG/NR Department has increased the number of online and hybrid sections since 2020. The majority of in-person and hybrid classes are offered at Shone Farm, though the Veterinary Technician program has moved to the Petaluma campus and some wine classes are offered in the Burdo Culinary building. Classes are also occasionally offered off site, such as at Elise Allen High School, Pepperwood Preserve, Equi-Ed, and the Animal Care Center.

The department believes strongly in hands-on experience. Unfortunately, classes with labs require lab set up and clean-up, and the department is understaffed at Shone Farm, Santa Rosa, and Petaluma such that the set up of any more labs is problematic.

There is always demand for specific courses to meet the needs of industry. The department solicits industry input in the Ag/NR industry advisory board. In addtion, faculty meet regularly with industry colleagues and seek advice and recommendations concerning new courses.

5.2a Enrollment Efficiency

The AG/NR department evaluates the relevancy of each course in relation to scheduling. Based upon 2021-2022 combined totals for ALL locations in the district, the Ag/NR Department averaged 82% of seats filled (Fall 2021– 85%, Spring 2022– 77%). To maximize enrollment efficiency, courses are offered on a rotation plan. Rotation plans are assessed each year by the program coordinator.

The Ag/NR department is working to offer more classes as hybrid and online. At this time, online and hybrid sections are popular with some students, but not all lab classes are able to convert to online. The Ag/NR department is focusing on offering hybrid sections with lecture online and lab in-person at Shone Farm or Petaluma for Vet Tech.

The AG/NR course offerings are varied and only a few courses have multiple sections offered. These sections tend to be introductory classes like ANSCI 20 - Basic Animal Science, ANHLT 50 - Vet Anatomy Terminology, NRM 12 - Intro to Environ Conserv, VIT 1/WINE 1 - Intro to VIT/WINE. Other classes that have multiple sections are GE classes like AGRI 20 - Plant Science and AGRI 60 - Soil Science. The classes that have multiple sections typically fill each semester.

Courses with an enrollment efficiency over 100% based on 2021-2022 (F21, S22) data: AGRI 20 (108%, 129%), ANHLT 101 (104%/106%), ANHLT 120 (N/A, 100%), ANHLT 141(109%, 100%), ANHLT 142 (100%, N/A), ANHLT 151 (N/A, 100%), ANHLT 50 (106%), ANSCI 20 (115%, N/A), HORT 12(N/A, 125%), HORT 51 (N/A, 100%), NRM 12 (105%, 108%), NRM 51 (100%, N/A), SUSAG 50 (104%. N/A), WINE 3 (121%, N/A).The Ag/NR dept is focusing on adding more GE courses to the class schedule. The Ag/NR dept is also working with Petaluma campus to offer more ANHLT courses.

Courses with an low enrollment efficiency based on 2021-2022 (F21, S22) data: ANHLT 123 (61%, N/A), ANHLT 161 (N/A, 42%), ANSCI 2 (N/A, 43%), ANSCI 91 (N/A, 31%), ANSCI 153 (50%, N/A), ANSCI 61 (42%, N/A), EQSCI 25 (N/A, 50%),FLORS 105 (N/A, 38%), FLORS 108 (N/A, 29%), FLORS 116 (N/A, 29%), FLORS 187 (N/A, 54%), HORT 72 (N/A, 58%), NRM 51 (N/A, 54%), NRM 80 (N/A, 42%), NRM 111 (58%, N/A), SUSAG 103 (N/A, 33%), SUSAG 160 (58%, N/A),VIT 114 (N/A, 50%), VIT 120 (29%, N/A), VIT 121 (29%, N/A), VIT 55 (N/A, 58%), VIT 60 (33%, N/A), WINE 111.2 (57%, N/A), WINE 103 (N/A, 58%), WINE 130 (N/A, 54%), WINE 55 (N/A, 50%). The courses offered with low enrollment efficiency are not multiple sections. Each course is on a one-year rotation or once a semester rotation. The AG/NR department will be assessing if elective courses need to be on a different rotation plan.

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S2021
Agriculture (AG)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.
Agriculture (AGRI)	40.0%	83.1%	91.9%	0.0%	97.4%	107.2%	0.0%	101.0%	108.
Agriculture Business	83.3%	69.5%	112.5%	0.0%	104.2%	87.5%	86.7%	70.5%	95.
Agriculture Mechanics	0.0%	100.0%	0.0%	0.0%	140.0%	0.0%	0.0%	0.0%	0.
Animal Health	76.7%	92.9%	94.6%	100.0%	111.4%	91.5%	96.7%	103.8%	106.

Animal Science	0.0%	75.2%	93.0%	0.0%	97.7%	90.7%	100.0%	96.9%	72.
Equine Science	0.0%	75.7%	54.2%	0.0%	79.2%	47.9%	0.0%	0.0%	100.
Floristry	0.0%	95.0%	86.3%	0.0%	99.0%	66.7%	0.0%	69.4%	59.
Forestry	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.
Horticulture	0.0%	95.9%	94.0%	0.0%	93.4%	90.6%	0.0%	107.3%	112.
Natural Resources	78.3%	100.0%	84.4%	51.4%	105.1%	79.1%	96.7%	106.4%	93.
Sustainable Agriculture	83.3%	76.1%	80.7%	93.8%	75.0%	86.4%	81.3%	101.1%	95.
Viticulture	62.9%	80.5%	81.9%	112.5%	77.6%	64.8%	0.0%	97.9%	95.
Wine Studies	116.7%	84.9%	87.6%	66.7%	81.8%	81.3%	83.3%	89.8%	86.
ALL Disciplines	**80.2%**	**86.2%**	**87.7%**	**76.6%**	**95.0%**	**83.7%**	**91.0%**	**97.1%**	**94.**

5.2b Average Class Size

Class sizes for most of our courses are dictated by laboratory conditions, such as equipment availability, safety issues, etc. Based upon Fall 2021 totals for ALL locations in the district, the AG/NR classes average 20.3 students per class. This is a decrease from the previous semesters. A smaller class size provides the best hands on learning environment for students. The majority of AG/NR classes are limited to 24 students.

Discipline	X2018	F2018	S2019	X2019	F2019	S2020	X2020	F2020	S202
Agriculture (AG)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Agriculture (AGRI)	2.0	16.0	18.2	0.0	18.8	22.3	0.0	25.8	2
Agriculture Business	20.0	18.3	27.0	0.0	25.0	21.0	26.0	18.3	2
Agriculture Mechanics	0.0	20.0	0.0	0.0	28.0	0.0	0.0	0.0	
Animal Health	23.0	24.1	24.4	30.0	26.4	21.5	29.0	23.3	2
Animal Science	0.0	23.5	26.5	0.0	28.7	24.5	30.0	31.0	1
Equine Science	0.0	18.7	13.0	0.0	19.0	11.5	0.0	0.0	2
Floristry	0.0	23.8	20.0	0.0	24.8	16.0	0.0	16.7	1
Forestry	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Horticulture	0.0	23.2	22.0	0.0	22.6	21.2	0.0	25.8	2
Natural Resources	23.5	23.7	27.0	18.0	27.3	21.6	29.0	27.7	2
Sustainable Agriculture	20.0	22.3	23.7	22.5	22.0	25.3	19.5	29.7	2
Viticulture	22.0	30.6	25.4	27.0	26.4	22.8	0.0	28.2	2
Wine Studies	28.0	22.5	23.0	16.0	22.4	21.0	20.0	23.5	2
ALL Disciplines	**20.3**	**22.9**	**23.2**	**19.3**	**24.6**	**21.5**	**25.3**	**25.0**	**2**

5.3 Instructional Productivity

Fall 2021 FTES was 133.45 for the Agriculture/Natural Resources department. The majority of AG/NR classes are limited to 24 students and are lab classes.

Based upon Fall 2021 data, combined totals for ALL locations in the district, the Ag/NR Department's FTES to FTEF ratio is 11.9. Each discipline is as follows:

- Agriculture: 14.39
- Agribusiness: 12.14
- Agriculture Mechanics: 11.18

- Animal Health (Veterinary Technician): 11.69
- Animal Science: 9.7
- Equine Science: 0
- Environmental Horticulture: 11.67
- Floral Design: 8.55
- Natural Resources: 12.29
- Sustainable Agriculture: 10.96
- Viticulture: 12.13
- Wine Studies: 13.13

5.4 Curriculum Currency

There has been a major emphasis in the department for curriculum currency. Faculty have been working closely with statewide advisory groups monitoring Transfer Model Curriculum (TMC) and C-IDs (Course Identifications). Additionally, input has been obtained from the local program Advisory Committees and Ag/NR Department to ensure the currency and relevancy of our course offerings in the Ag/NR Department. The Agriculture department is 96% up-to-date on curriculum currency. The Agriculture Business courses were not reveiwed because the program coordinator was on Sabbatical. The Horticulture courses are to be inactivated after the Spring 2022 semester.

2021-2022 Active and Current Courses by Department and Discipline				
Department	**Discipline**	**Active Courses**	**Courses Not Current**	**Course Count Minus Non-Current Courses**
Agriculture & Natural Resources				
	Agriculture (AGRI)	6	0	6
	Agriculture Business (AGBUS)	9	2	7
	Agriculture Mechanics (AGMEC)	2	0	2
	Animal Health (ANHLT)	15	0	15
	Animal Science (ANSCI)	11	0	11
	Equine Science (EQSCI)	12	0	12
	Floral Design (FLORS)	10	0	10
	Horticulture (HORT)	19	4	15
	Natural Resources (NRM)	21	0	21
	Sustainable Agriculture (SUSAG)	12	0	12
	Viticulture (VIT)	19	0	19
	Wine Studies (WINE)	30	0	30
	Agriculture & Natural Resources Total	**166**	**6**	**160**

5.5 Successful Program Completion

Associate of Science degrees

Program coordinators and instructors encourage individual students to continue with their classes for program completion. In 2021-2022, Associate of Science degrees were awarded for the following programs:

- Agriculture Animal Science (AS-T): 1
- Agriculture Business (AS-T): 0
- Agriculture Business Management: 0
- Agriculture Plant Science (AS-T): 0
- Animal Science: 1
- Environ Conserv: Parks & Rec. Mgmt: 0
- Environ Conserv: Watershed Mgmt: 0
- Environ Horticulture: Nursery Mgmt: 0
- Environmental Horticulture: Landscape Design: 1
- Environmental Horticulture: Nursery Management: 1
- Equine Science: 1
- Floral Design: 1
- Floristry: 0
- Natural Resources: 8
- Natural Resources: Forest Management: 0
- Natural Resources: Parks and Recreation Mana: 0
- Natural Resources: Watershed Management: 0
- Sustainable Agriculture: 4
- Sustainable Agriculture: 1
- Viticulture: 2
- Wine Studies: Enology: 9
- Wine Studies: Wine Business and Marketing: 0
- Wine Studies: Wine Cellar Worker: 0
- Wine Studies: Wine Eval. & Service: 0
- Wine Studies: Wine Hospitality and Direct Marketing: 3
- Wine Studies: Wine Marketing: 4

In 2021-2022, 37 Associates of Science degrees have been awarded in the SRJC Ag/NR Department. While the number of associate degrees for Ag/NR majors is low, these numbers are not surprising or in any way discouraging. Completion of an AS degree in an Ag/NR major is not necessary or particularly useful for students who are Ag/NR majors intending to transfer to earn a BS in Ag/NR; these students accurately see very little benefit in completing an Ag/NR major with an AA degree. These students are so focused on transferring that they do not always complete all lower division courses here, but fit in as much as they can before transfer. Thus they may not complete all requirements for an AS degree.

Certificates

In 2021-2022, certificates were awarded in the following programs:

- Agriculture Business Management: 0
- Brewing: 0
- Environmental Horticulture: Landscape Constr: 0

- Environmental Horticulture: Landscape Design: 1
- Environmental Horticulture: Nursery Manageme: 0
- Equine Management: 0
- Floral Design: 1
- Hemp Agriculture: 0
- Natural Resource Management: 1
- Natural Resources: 9
- Natural Resources: Forest Management: 0
- Natural Resources: Parks and Recreation Mana: 0
- Natural Resources: Watershed Management: 0
- Parks and Recreation Management: 1
- Pest Control Adviser: 0
- Sustainable Agriculture: 1
- Veterinary Technician: 33
- Viticulture: 2
- Watershed Management: 0
- Wine Studies: Enology: 4
- Wine Studies: Wine Business and Marketing: 0
- Wine Studies: Wine Cellar Worker: 0
- Wine Studies: Wine Eval. & Service: 0
- Wine Studies: Wine Hospitality and Direct Marketing: 2
- Wine Studies: Wine Marketing: 2
-

In 2021-2022, 57 certificates have been awarded in the SRJC Ag/NR Department.The department is working with particular programs that have industry certification or licensure to further strengthen successful program completion. However, as with all career and technical education programs, it should be pointed out that many students do not have a goal of completing a certificate; instead, their focus may be on taking one or two selected courses for skill building, job enhancement, or licensure for entry into the workforce. Unfortunately, student success rates on licensure exams/certifications is not readily available from industry. Success of students is based solely on anecdotal information. The district would highly benefit in helping to acquire this information by having a "leaver study".

As a department we try to make sure that we minimize any barriers to successful completion of our majors courses. We coordinate scheduling between programs and ensure that courses are offered on a rotational basis frequently enough for students to complete their programs of study within a 2 year time period (when not under schedule reduction). Program coordinators refer students to counseling department and guide student to courses needed to complete the program.

5.6 Student Success

Retention

Based upon Fall 2021 for ALL locations in the district, the Ag/NR Department has the following percentage of students receiving a grade of A,B,C,D,CR, or I in each discipline as follows:

- Agriculture: 86.1%
- Agribusiness: 65%
- Agriculture Mechanics: 78.9%
- Veterinary Technician/Animal Health: 69.2%
- Animal Science: 66.2%
- Equine Science: 0
- Environmental Horticulture: 77.4%
- Floral Design: 100%
- Natural Resources: 73.1%
- Sustainable Agriculture: 76.8%
- Viticulture: 83.3%
- Wine Studies: 76.3%

The average students receiving a grade of A,B,C,D,CR, or I for all disciplines is 75.4%. The District average for Fall 2021 is 74%.

Students receiving a grade of A, B, C or CR

Based upon Fall 2021 for ALL locations in the district, the Ag/NR Department has the following percentage of students receiving a grade of A, B, C or CR in each discipline as follows:

- Agriculture: 82.4%
- Agribusiness: 55%
- Agriculture Mechanics: 73.7%
- Veterinary Technician/Animal Health: 65.1
- Animal Science: 66.2
- Equine Science: N/A
- Environmental Horticulture: 71.8%
- Floral Design: 100%
- Natural Resources: 71.7%
- Sustainable Agriculture: 73.2%
- Viticulture: 77.3%
- Wine Studies: 74

On average across all disciplines, based upon Fall 2021 totals for ALL locations in the district, the Ag/NR Department has the following percentage of students receiving a grade of A, B, C or CR, 71.9%. The District average for Fall 2021 is 71%.

Grade Point Average

Programs coordinators and instructors encourage individual students to strive for excellence. Based upon Fall 2021 for ALL locations in the district, the Ag/NR Department has the following average GPA in each discipline as follows:

- Agriculture: 2.96
- Agribusiness: 2.45
- Agriculture Mechanics: 2.22
- Veterinary Technician/Animal Health: 2.4
- Animal Science: 2.64
- Equine Science: 0
- Environmental Horticulture: 2.71
- Floral Design: 3.82
- Natural Resources: 2.87

- Sustainable Agriculture: 3.05
- Viticulture: 3.03
- Wine Studies: 3.12

The average GPA for all disciplines is 2.79. The District average for Fall 2021 is 2.76. There has been little fluctuation in GPA between Summer 2017 and Fall 2021.

5.7 Student Access

The Ag/NR Department serves a broad range of students and has demonstrated experience in understanding and being sensitive to the diverse academic, socioeconomic, cultural, disability and ethnic backgrounds of community college students. Depending on the program enrollment of students in each discipline broken down by ethnicity and gender reflects that in the Ag/NR Department, approximately 52% of students are white, 31% Hispanic, and 19% either black, Asian, Native American, pacific islander, Filipino or other non-white ethnicity. Equine Science is an outlier in the Ag/NR department with 87% white students. The Ag/NR department rates are not equal to the district average. The District average for sum of White students is 40%, 39% for Hispanic.

AG/NR	2021/2022
Sum of WhiteCnt	52%
Sum of AsianCnt	3%
Sum of BlackCnt	2%
Sum of HispCnt	31%
Sum of NativeCnt	0%
Sum of PacIsCnt	0%
Sum of FilipCnt	1%
Sum of OthNWCnt	5%
Sum of DeclCnt	8%

Review of the number of students broken down by gender reveals trends particular to programs. Animal based programs (Animal Health, Animal Science, Equine Science) are largely female based (77-89%), while mechanic based classes are predominately male (77%). Floral Design is predominantly female at 92% female. Agriculture Business, Sustainable Agriculture, and Wine Studies tend to be equally enrolled by both males and females.

Review of the number of students broken down by age reveals that the Ag/NR department serves a broad range of age demographics, however the majority of students fall between 19-30. Floral Design, Viticulture, and Wine Studies, however also serve a substantial amount of students aged 46-60.

5.8 Curriculum Offered Within Reasonable Time Frame

All courses in the Ag/NR Department certificates and majors are offered on a regular or rotational basis so that students can ideally complete their programs of study within a two year period. Working with students and industry counterparts, program coordinators develop program course rotations that are reviewed as needed. Course rotation sequences are maintained departmentally and shared with counseling and CTE coordinators.

5.9a Curriculum Responsiveness

To keep curriculum responsive to changing student, community, and industry needs, the Ag/NR Department convenes an Industry Advisory Board that meets at least twice per year. The Board includes members from all Ag/NR programs. Courses and program requiements are adjusted frequently based on input from the Board.

During the California Agricultural Teacher Association (Sonoma section) quarterly meetings, Ag/NR classes and career pathways are discussed with local high school teachers. In addition, natural resources, animal science, and sustainable agriculture programs have articulation agreements with a growing number of high schools, allowing high school students to get SRJC credit for completion of certain high school classes.

All Ag/NR courses follow the statewide articulation numbering system with CC, CSU, and UC agriculture courses statewide. Many of our courses also satisfy General Education requirements.

All Agriculture and Natural Resources Programs have a transfer track to CSU and UC agriculture majors.

5.9b Alignment with High Schools (Tech-Prep ONLY)

See section 5.9a

5.10 Alignment with Transfer Institutions (Transfer Majors ONLY)

Please see section 5.9a.

5.11a Labor Market Demand (Occupational Programs ONLY)

In light of all these positive employment trends student enrollment in the Ag/NR Department continues to be high. The department anticipates this trend to continue and will need to work closely with the administration to avoid too drastic of a schedule reduction. Many Ag/NR classes are already over-enrolled and given the size of classrooms, laboratory requirement of most Ag/NR classes, lack of full time laboratory support staff, it is not possible to increase these any further. Much of what the department would like to do in terms of expansion and interdepartmental collaboration will only be possible with permanent staffing support.

2018-2028 Occupational Projections Sonoma County

SOC Code	Occupational Title	Entry Level Education	2018 Jobs
11-9013	**Farmers, Ranchers, and Other Agricultural Managers**	High school diploma or equivalent	3,21
19-4011	**Agricultural and Food Science Technicians**	Associate's degree	13
27-1023	**Floral Designers**	High school diploma or equivalent	9
29-2056	**Veterinary Technologists and Technicians**	Associate's degree	36
37-1012	**First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers**	High school diploma or equivalent	63
37-2021	**Pest Control Workers**	High school diploma or equivalent	19
37-3011	**Landscaping and Groundskeeping Workers**	No formal educational credential	2,86
45-1011	**First-Line Supervisors of Farming, Fishing, and Forestry Workers**	High school diploma or equivalent	43
45-2092	**Farmworkers and Laborers, Crop, Nursery, and Greenhouse**	No formal educational credential	3,76
45-2093	**Farmworkers, Farm, Ranch, and Aquacultural Animals**	No formal educational credential	54
Grand Total			**12,20**

2018-2028 Occupational Projections Bay Area:

SOC Code	Occupational Title	Entry Level Education	2018 Jobs
11-9013	**Farmers, Ranchers, and Other Agricultural Managers**	High school diploma or equivalent	19,30
19-1013	**Soil and Plant Scientists**	Bachelor's degree	29
19-4011	**Agricultural and Food Science Technicians**	Associate's degree	97
19-4093	**Forest and Conservation Technicians**	Associate's degree	13
27-1023	**Floral Designers**	High school diploma or equivalent	1,76
29-2056	**Veterinary Technologists and Technicians**	Associate's degree	2,22
37-1012	**First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers**	High school diploma or equivalent	4,77
37-2021	**Pest Control Workers**	High school diploma or equivalent	1,11
37-3011	**Landscaping and Groundskeeping Workers**	No formal educational credential	31,41
37-3013	**Tree Trimmers and Pruners**	High school diploma or equivalent	17
45-1011	**First-Line Supervisors of Farming, Fishing, and Forestry Workers**	High school diploma or equivalent	2,96
45-2091	**Agricultural Equipment Operators**	No formal educational credential	2,32
45-2092	**Farmworkers and Laborers, Crop, Nursery, and Greenhouse**	No formal educational credential	54,54
45-2093	**Farmworkers, Farm, Ranch, and Aquacultural Animals**	No formal educational credential	1,29
Grand Total			**123,24**

5.11b Academic Standards

The Ag/NR Department meets annually to discuss academic standards ensuring that coursework is reflective of CC/CSU/UC level work.

6.1 Progress and Accomplishments Since Last Program/Unit Review

Rank	Location	SP	M	Goal	Objective	Time Frame	Progress to Date
0000	Shone Farm	01	01	Bring animals back to farm for use in the Animal Science program		2021-22	SLIA needed to care for animal. SLIA has been hired to care for animal, but grant funds may run out soon (2024).
0000	Santa Rosa	01	01	Build a wine tasting room at Shone Farm		2021-23	Tasting room project modified to better align with district resources and program needs.
0000	ALL	00	05	Complete the produce processing facility at Shone Farm		2021-24	Produce processing facility is fully operational.
0000	ALL	00	01	Complete the greenhouse at Shone Farm		2021-22	Greenhouse is fully operational.
0000	ALL	00	01	Hire General Ag/SUSAG instructor		2022-2023	Approved by faculty staffing committee Sp 2023. Hired Summer 2023. New faculty member is currently in tenure.
0001	Shone Farm	01	01	Move Ag/NR instructor offices to Shone Farm		2021-22	Completed

6.2b PRPP Editor Feedback - Optional

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6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0001	Shone Farm	01	02	Complete development of plant production area to enhance academic quality in various programs (SUSAG, AGRI, HORT, NRM)	Design, construct, and install plant producton/propagation area: Shadehouse and Propagation House	2021-2025	Some resources are in-hand. SWP proposal submitted (Sp 2024) for final stage of construction (Propagation house). Have support of Capital Projects. Staff time and Faculty release or hourly time to do project management would increase speed and success of this project.
0002	ALL	03	06	Expand CCAP dual enrollment in the Ag/Natural Resources department to povide equitable access to courses, programs, and awards.	Partner with local high schools to begin offering CCAP courses. Learn from and build on these efforts.	2023-2025	SWP proposal submitted (Sp 2024) for faculty time for professional developement and revisions to curriculum and course activities. If successful additional FTEF will be needed from the district to expand offerings.
0003	ALL	01	02	Enhance existing pathways by improving articulation and transferability of existing courses	Identify courses with promise for better articulation. Work with SRJC Articulation and Curriculum offices to make necessary revisons and submit these courses for UC TCA and CalGETC approval	2024-2026	Time for faculty to work meet with Articulation officer and make revisions.
0004	ALL	00	01	Maintain and increase academic rigor and career alignment of our programs.		2024-2026	Funds for instructional equipment, supplies, and professional development. SWP proposals submitted Sp 2024.