Agriculture Department Quality Criteria Narratives

Golden West High School

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Agriculture Quality Criteria Narrative 1
I BELIEVE IN THE FUTURE OF AGRICULTURE
AMBER NAGEL

Golden West High School established in 1979 was built just south of the ST. John's River. From the beginning the school established an agriculture program and have since grown into a multi-person department with a variety of courses and pathways. I believe we have a solid pathway foundation with room to grow and expand our course offerings. With our courses, we could grow a population of students adapted to the currently climate and environment who are fit with their knowledge and understanding of agriculture.

Our course offerings are as follows: Introduction to the Agriculture Industry, Agricultural Biology, Introduction to Environmental Horticulture, Advanced Environmental Horticulture, Animal Science and Veterinarian Science, Introduction to Agricultural Mechanics/Manufacturing, Agricultural Mechanics II, and Advanced Agricultural Mechanics, Agricultural Engineering Skills and Design. As a student enrolled in any of the selected courses they are automatically included on our roster and are members of the FFA and their students’ activities are documented onto their AET account. They also are required to complete a supervised agricultural experience project where they explore, own, research a problem, or work in the field of agriculture. Our students open an AET account and document their time, money and investments from their project into their own records.

Introduction to Agriculture Industry is a beginning course offered to freshman. This course is designed to get students interested in agriculture and develop an SAE project for their hands-on experience in the field. This course covers all aspects of agriculture and delves into the general aspects of each industry. They are introduced to the FFA and begin to develop a plan for their FFA experience and make goals for their growth.

Agricultural Biology is a course in the Agricultural Department where students get to deepen their understanding of specific functions from the cellular lever to complex organisms. This course meets the life science NGSS standards for graduation. While being agricultural influenced we still align the basic concepts with the science department and all students in both the science department and the agricultural department take the same semester finals. This course follows the Introduction to Agriculture Industry and is the second step in both the Animal Science and Horticulture pathways.

1A: The curriculum includes the components required under Section 52454 of the Education Code: organized classes in the study of agriculture science and technology; student supervised agricultural experience; and a program of leadership, organization and personal development.
Introduction to Environmental Horticulture is a year-long elective course currently offered to 9th-12th grade students. This course is designed to teach the basics of horticulture including: plant systems, plant nutrient cycles, daily care, maintenance of a nursery facility, tool identification, pest management, record keeping skills, and career opportunities. Leadership opportunities through the FFA and project development skills through the SAE project.

Advanced Environmental Horticulture is another year-long elective course in the horticulture pathway and is the capstone course as well. Curriculum in the Advanced Horticulture course includes a deepening of the skills above in plant identification, daily operating procedure of a greenhouse facility, propagation methods, marketing retail sales of plants, seasonal floral arrangements, construction of Prom flowers, evaluating and treating plant diseases, career training, record keeping skills, job resumes and cover letter. Leadership and project development skills are taught through the FFA and SAE component of the program.

This is my first year at Golden West High School. We have established pathways and each year we have students enrolled in each pathway. There are four pathways in our department, and they follow the Career Technical Education Model Curriculum for Agriculture and adhere to the foundation standards. Each pathway addresses foundation standards 2.0—Communications, 3.0—Career Planning and Management and 9.0—leadership and Teamwork.

Agricultural Education makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth, and career success. The outline is designed to secure students with skills necessary for a career in the agriculture industry and a major of study at a university of their choice. I believe it directly correlates with the FFA mission statement. Following these sequences is the key to broadening students understanding and gaining a strong background in agriculture.
Golden West Agriculture Department Pathways

Horticulture
- Ag Sci.
- Ag Bio*
- Intro to Hort.
- Adv. Hort.*

Animal Science
- Ag Sci.
- Ag Bio*
- Animal Sci.*
- Vet. Sci.*

Ag Mech/Fabrication
- Ag Mech1
- Ag Mech2
- Adv. Mech./Fab

Ag Engineering
- Ag Mech. 1/Eng.
- Ag Mech2
- Ag Eng/Design

*A-G Courses
Our schedule was set before I started at Golden West; and is the work of several individuals over the accumulation of many years. Thanks to the efforts of those who came before me we have a solid schedule that allows students to gain knowledge from each course and compound them through a sequence in a certain pathway. In the Horticulture and the Animal Science pathways, the initial step in the sequence is to gain exposure to agriculture, develop a plan for leadership growth through the FFA, explore, and implement an SAE project to further their study in this field of study.

Introduction to Agriculture is a course that sets these sequences off. I believe tremendously in this course and the potential the impact has on the knowledge growth in a student. The next step in the horticulture pathway is the Agriculture Biology course that cover in depth from cells to complex organisms and their interaction within their own organisms and within an ecosystem. This course in depth knowledge feeds very well into both the Animal Science and the Horticulture pathways. After this course is the Introduction to Horticulture course that provides basic knowledge of plants, their functions and usefulness in the field of horticulture. This course provides basis of understanding for Advanced Horticulture where students delve much deeper into the field and explore career paths. This is an example of the level of depth that we are committed to seeing our students through. Listed below is a master schedule of those currently on staff.

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Period 1</th>
<th>Period 2</th>
<th>Period 3</th>
<th>Period 4</th>
<th>Period 5</th>
<th>Period 6</th>
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<tbody>
<tr>
<td>Mr. Potter</td>
<td>Ag Biology</td>
<td>Intro Hort.</td>
<td>Ag Biology</td>
<td>Adv. Hort.</td>
<td>Engineering Skills/Design</td>
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<tr>
<td>Mrs. Nagel</td>
<td>Ag Biology</td>
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<td></td>
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</tr>
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</table>

Every course in our program students receive specific lessons about careers in agriculture. The goal is to create awareness of the wide range of opportunities this very large field provides for people. Statistically speaking less that 1 percent of the total American population does not have direct contact with production agriculture, while 1 in 5 jobs in California are directly or indirectly related to the field. Our focus in our career lessons or unit of instruction model is to reflect the types of jobs or careers we present to our students.
For example, in my Agriculture Biology course, every student is required to conduct a Supervised Agriculture Experience project where students study a field of agriculture and at the culmination of this project, they are to relate this experience to a job in agriculture. They create a trifold display of their project that documents and explains what they did. They then complete a career analysis where they compare their SAE to a job in agriculture, bringing their study to explain the opportunities in the field. After their tri fold is complete, they present their findings to others in class in a class project competition.

In Vet Science and Animal Science Career, lessons and the awareness to the jobs in the field receive throughout the year. We work very closely with an advisory committee and in this pathway with Dr. Eby. The class gets presentations and information from valuable members of our community.

In the Plant Science Pathway, students receive lessons and the awareness of careers in the field of plants throughout the year. They also will occasionally receive a presentation via ZOOM from other professionals in the field.

As explained above this is a typical experience from for the department. The Mechanics and Engineering pathways both follow in suit to ensure our students are receiving valuable information regarding career training.

**IF: Recordkeeping is taught in all agriculture classes. Every student maintains and completes (closes out) either an actual SAE Project or Mock Problem.**

Every student is required, and they receive a graded in their Ag class on a Supervised Agricultural Experience Project. This part of the AG program is 10% of their grade in their course. They receive instruction in every course and open an AET account to develop a plan for a project or keep records of an ongoing project. In Ag Biology, each 1st year Ag student is required to have a project and complete a tri-fold display of their project at the conclusion of their course that demonstrates the skills they performed in their project. Every 2nd year Ag member is required to complete a proficiency application on the AET and submit his or her project for grading. I also require pictures documented in their AET account as well as I project visit, in attendance to their project visit is their parent, themselves and me to talk about growth or implementation of the project. We have about 50% rate of record keeping, I and the other members on staff work every year to increase the percentage of students with active SAE projects and increase participation on our program. We do this by embedding the requirement in our course grades and I believe that my project visit requirement has added to improving my percentage of active SAE projects.
I BELIEVE IN THE FUTURE OF AGRICULTURE

All the courses at Golden West meet the graduation requirements for high school. Some of the courses are elective requirements and some are A-G college preparatory course. For graduation requirements, students must have 75 credits of elective requirements and have taken a course in life science for Life Science credits. Agricultural Biology is an A-G course that meets the Life Science standards for students enrolled in our program. Animal Science, Veterinarian Science, Intro/Advanced Environmental Horticulture all meet A-G credits at Golden West. Our newest course is the Engineering and Design. Where students get experience in the manufacturing side of agriculture.

<table>
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<tr>
<th>Course Title</th>
<th>Requirements the Course Meets</th>
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<tbody>
<tr>
<td>Introduction to Agriculture</td>
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<tr>
<td>Agricultural Biology</td>
<td>A-G Life Science, Graduation Requirements</td>
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<td>Animal Science</td>
<td>A-G, Elective</td>
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<td>Veterinarian Science</td>
<td>A-G, Elective</td>
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<td>Introduction to Environmental Horticulture</td>
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<td>Advanced Environmental Horticulture</td>
<td>A-G, Elective</td>
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<tr>
<td>Introduction to Mechanics/Engineering</td>
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<tr>
<td>Agricultural Mechanics 2</td>
<td>Elective</td>
</tr>
<tr>
<td>Agricultural Mechanics 3 &amp; 4</td>
<td>Elective</td>
</tr>
<tr>
<td>Agricultural Engineering/Design</td>
<td>Elective</td>
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</table>

Each pathway is geared to a specific sector in the Agricultural Industry. We focus each of the course’s essential standards in a pyramid effect. Each of the intro courses provide the platform and foundation to the sequence and so therefore covers a great number of standards briefly. The next course adds the much-needed information to take a student deeper into a pathway and lead to the final course. Hopefully at the end of the pathway we have a student who encompasses a great amount of skills necessary for the industry.

As the students sets forth in the path, they choose they get to take a serious look at what the industry has to offer. In order to do this industry experts are brought into the class in person or

1G: Agriculture courses have been submitted to meet high school graduation requirements and/or University of California a-g credit.

1H: Instruction includes guest speakers and/or field trips.
they are brought in with the use of technology resources (Zoom or Skype). In some cases, the course has been able to take students to different businesses and tour the facilities.

In the Ag Mechanics Pathway Mr. Shultz brings in industry experts or college recruiters to the course to discuss their opportunities at their place of employment. In the Animal Science Pathway Dr. Eby a local vet regularly visits the class to talk about her field and work with the students through various tasks such as pregnancy checks. In the Horticulture Pathway students have been able to tour Monrovia Nursery and ask questions to facility coordinators.
Agricultural Department Quality
Criteria Narrative 2
The Visalia- Golden West FFA Chapter was established in 1979 when the school was first built. We are currently in our 41st year as a school and an FFA chapter.

Every summer our chapter officer team sits down and write a program of activities for the chapter. Our post current program of activities sits on file with the regional supervisor.

Every course in the Ag Department includes a grading scale that breaks up the course into categories; a part of that grading scale is FFA participation, which is 10% of the grade. Students must participate in three activities per semester. FFA activities are announced in class, in the school bulletin, flyers, and word of mouth.

As stated above it is our departmental policy that we grade FFA participation. In our Program of Activities, we have outlined the activities that students can participate, and they are given a point value. As stated above they need to earn three activities points per semester to be able to receive 10% of their grade.

All students enrolled in agriculture classes are listed on the R2 form and submitted electronically prior to October 15th.

2 A: An FFA Chapter has been chartered by the State Association or has been applied for.

2 B: A Chapter Program of Activities is developed annually, and a copy is made available to the Regional Supervisor by Nov 15th.

2 C: Every student is given a grade for participation in the leadership activities. (Per ed. Code 52454)

2 D: The program has a clearly stated department policy that identifies the criteria for a student to earn full credit for leadership development.

2 E: All students enrolled in agriculture classes are affiliated with the State FFA Association.

2 F: Based on previous year’s records, the department participated in a minimum of 12 activities as listed on the FFA Activities Check Sheet.
<table>
<thead>
<tr>
<th>Activity Participation</th>
<th>Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenhand Conference</td>
<td>12</td>
</tr>
<tr>
<td>Made for Excellence</td>
<td>4</td>
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<tr>
<td>Advanced Leadership Academy</td>
<td>14</td>
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<tr>
<td>Chapter Officer Leadership Conference</td>
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<td>Spring Regional Meeting</td>
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<td>State Leadership Conference</td>
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<td>National Convention</td>
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<td>State Degree Application</td>
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</tr>
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<td>American Degree Application</td>
<td>0</td>
</tr>
<tr>
<td>Proficiency Award Application</td>
<td>1</td>
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<td>Opening and Closing Contest</td>
<td>4 Teams</td>
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<tr>
<td>Best Informed Greenhand Contest</td>
<td>3</td>
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<tr>
<td>Co-Op Marketing Quiz</td>
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<tr>
<td>Creed Recitation</td>
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<tr>
<td>Impromptu Public Speaking</td>
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<tr>
<td>Prepared Public Speaking</td>
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<tr>
<td>County Fair</td>
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<tr>
<td>Career Development Teams</td>
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<tr>
<td>• Ag Mechanics</td>
<td>5</td>
</tr>
<tr>
<td>• Farm Power</td>
<td>4</td>
</tr>
<tr>
<td>• Citrus</td>
<td>12</td>
</tr>
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**2G:** A minimum of 80% of the students participate in at least three leadership development activities annually as verified by department records.

Our Chapter Officers, every summer sit down and develop a program of activities for Golden West FFA. The program of activities is very detailed and on file with the Regional FFA Supervisor. I believe that we have a very comprehensive list of events at the Chapter level that any chapter advisor would be proud of. As a student in the course they are all enrolled in the FFA and as explained above they are graded on their participation in the chapter, section, region, or state events. Below is the 2019-2020 Program of Activities listed for students.

<table>
<thead>
<tr>
<th>Event</th>
<th>Level</th>
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<tbody>
<tr>
<td>San Joaquin Regional Boot Camp</td>
<td>Regional</td>
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<tr>
<td>Welcome Back BBQ</td>
<td>Chapter</td>
</tr>
<tr>
<td>Capture the Flag FFA Meeting</td>
<td>Chapter</td>
</tr>
<tr>
<td>Tulare County Fair</td>
<td>State</td>
</tr>
<tr>
<td>Greenhand Leadership Conference</td>
<td>State</td>
</tr>
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</table>
I truly commend the staff that I share a workspace with and the students who get involved in the program to grow and reach their potential. I believe that we have a comprehensive list of activities. I believe this year we are in a transition of staff year. Currently I teach part time at Golden West. I think we have seen a reduction in participation numbers at our events. I want to focus on student engagement in the program and getting them here to see what we have to offer. I believe that since we had a large change in staff this year it caused a reduction. Golden West FFA has had a consistent set of teachers typically throughout its history. It is a strong program and I believe that it will rebound. I cannot verify this standard, so we do not meet this requirement.
Agriculture Department Qualifying Criteria
Narrative 3
Golden West has a rich history in agriculture and so with that we have quite a few students who have a strong SAE project. One student works at a local goat dairy and assist in kidding, milking and general dairy maintenance. I have another student whose family owns a rock sorting facility and gathers and sorts rocks for a variety of businesses, and the student happens to weld and assists the company in welding and maintain metal equipment. This is my favorite part of my job, seeing student develop a plan and follow through with a project is a very satisfying part.

As a staff we grade SAE just like we grade FFA; it is 10% of a student’s grade to have an SAE project. It is listed on our course syllabuses and it is also a part of our Power School grade book. Each teacher grades the student’s records book and visits the students project as the time arises. After each project visit, we record the visit on AET. We have worked hard as a staff to move towards 100% of FFA and SAE data to be recorded into the AET.

As stated above it is a part of our course syllabus and our Power School grade book to complete an SAE project.

All first students are required to complete 25 hours in a SAE project. The first step to a project is to develop an interest in one of the systems listed on AET, and then develop a plan to implement this project. Once that plan in written down they have their parent sign the document and bring it into class. After they have submitted a plan then they open an AET accounts and begin the documentation process that all student have-to complete. This process also requires a project visit by their current instructor. All records are kept on the AET.

As stated above we document on the AET our SAE projects. We do not meet the 80% requirement.
As stated in 3B all project visits are recorded in the AET account.

3E: Students with SAE projects are visited by their agriculture teacher and the visits are documented in Department records. (ex: Ag. Experience Tracker)

3F: Students apply for advanced degrees and/or awards above the local level based on their SAE.

Our chapter hosts two different awards banquets, a fall awards banquet and a spring awards banquet. At each of the awards banquet student apply for specific awards. For example, the Greenhand and Chapter degree applicants fill out a written application for the degree and hopefully most of them attend the banquet to receive their award. This last proficiency season we had 8 students who received their state FFA degree and one student who applied for a proficiency. This is an area that needs to be improved and it will probably always need a heavy amount of attention. I hope to continue to develop my SAE coaching skills that develop a strong SAE portion of our program.
Agriculture Department Quality Criteria
Narrative 4
We currently have 4 teachers on staff at Golden West High School, they are: Department Head Emmett Schultz, Animal Science Pathway Jennifer Potter, Ag Engineering Pathway/Horticulture Pathway Gary Potter, and Ag Biology teacher Amber Nagel.

Each of these teachers graduated from a university with a major in Agricultural Education and received a valid single subject teaching credential at the completion of the schooling.

- Emmett Schultz: University of Idaho
- Gary Potter: Cal Poly University (SLO)
- Jennifer Potter: Cal Poly (SLO)
- Amber Nagel: Cal Poly (SLO)

4B: Based on the previous year’s records, every agriculture teacher, teaching at least ½ time agriculture, attends a minimum of four professional development activities.
Currently we are given a PLC time at the beginning of every week where we hold our weekly department meetings. Typically, Mrs. Potter takes down minutes and saves them on the google drive folder.

All expenses that incur while participating in board approved activities is reimbursed after the conference attendance sheet and receipts are turned into the office secretary. If receipts are not included, the teacher must fill out an affidavit stating that the amount is still true. If a conference sheet is not filled out for an event, a teacher cannot be reimbursed for those expenses. A reimbursement check is issued about a week after paperwork is submitted.
Agriculture Department Quality Criteria
Narrative 5
Facilities and equipment can be modified easily to fit special populations of students. However, typically most students can meet the requirements of the facilities without modifications. Academically students' needs are met through a variety of pedagogy and IEP accommodations if the student needs it. Typically, every year I have a few students with IEP that require academic modifications in the classroom. I consult with the Education Specialist to come up with accommodations that are necessary for the student to reach his or her academic goals.

There is appropriate storage space for materials, records, equipment and supplies.

Currently our school has a plethora of storage opportunities. Our department has a lot of stuff. We have a large shop that houses a mezzanine that runs the length of the shop. That houses shop metal. We also have a fenced in area behind the shop that houses large equipment and a small engine bone yard. It has several large C-trains that house additional metal and equipment. At the three-acre school farm we have three more C-trains to hold science and fair equipment. The farm has a large small livestock (sheep/goat) facility that comes equipped with a sheep and goat chute and lead up system. There also is a large chicken facility that has egg layer capabilities, and meat bird capabilities. The Horticulture facility is equipped with large double greenhouse that is evaporative cooled, and gas heated. The facility also comes with two garages that house all the equipment from pots to landscape maintenance equipment. There is a 6-stall covered bay that houses landscaping media and additional pot. As well has a large shade house next to the greenhouse.

The Agriculture building consists of three classroom and that hold a majority of our staff. The three classrooms have lengths of cabinets that run the whole length of the classroom. These cabinets store typical classroom supplies for the subjects taught. The Ag Engineering course is held in the Industrial Education building it comes equipped with a shop, a fenced in storage area and storage inside the classroom for shop materials.

We are very lucky to have the facilities that we do.
As stated above our school has an extensive facility. Our on-site school farm is approximately 3 acres. It houses a large small livestock facility, a small (needs to re-planted) orchard, A poultry facility, greenhouse, a shade house, raised garden beds and two shops for mechanics and engineering courses.

The facilities at Golden West have a lot of tools. In the horticulture facility it is needs of repair our floral cooler no longer works, our two-garage outer siding is rotting away and needs to be replaced and our greenhouse needs to have some of the paneling replaced. The greenhouse does not have an automated watering system and needs a misting bed for propagation and seeding. While we have two weed eaters and a driving lawn mower, some of our hand tools are broken and need to be repaired. We also need to fix our fan system in the greenhouse there seems to be a short in the system and it no longer works.

Our school is going through a major modernization due to its out of date heating and cooling system. So, our classrooms have an up to date look that is equipped with TV for lecture display.

Our department has a suburban and a van as well as an ag truck and trailer. We are reimbursed for any fuel used in the ag vehicles. Emmett Schultz is currently working on the purchase of a new ag truck. The current one is in working condition, however, has almost used up its useful life.

5C: Community or school-based laboratory facilities have been provided to accommodate students who have no place for their SAE project(s): For example:

- School Farm Laboratory
- Growing Area
- Greenhouse
- Agriculture Shop

5C: The facilities are appropriately equipped for the courses being taught.

5D: A school vehicle is readily available to each agriculture teacher for all SAE activities and transporting students associated with the program, or each teacher is adequately compensated for using their own personal vehicle. There is a replacement schedule for the vehicle.

5E: The reviewer verifies by visual observation that the agriculture facilities are neat, clean, and orderly. Facilities and equipment are regularly maintained, repaired, or replaced and are functional and operational.
As stated above, we have some work to do. In general, our facilities are in constant need of weed abatement and general repair of waterlines and sprinklers. The major areas of concern for me are the greenhouse irrigation system and the skin repair on the greenhouse. The greenhouse cooling and heating system needs a professional to look at the problems. At the beginning of the year, I had my Dad (farmer of 50 years and recently retired) and Dave Rosdahl, another farmer, to look at our greenhouse. We found several shorts in the electrical system and worn-out belts of the fans. The fans do not work at all; however, Gary was able to get the water pump operational and the cooler working to keep the inside of the greenhouse from roasting. We have some water lines ran on the sunny side of the greenhouse; however, they are ran to some kind of control panel that I cannot find or isn’t there anymore. We need to get the misting bed operational for propagation, it currently is operated by a hand valve. Some plants require misting every hour for a few seconds to short minutes to maintain moisture level and sprout adventitious roots. There are seeds that are so small that hand watering will wash them away. So, this is a big priority. We also need to repair the siding on the two garage storage units and repair some hand tools. After the current school closure, we will have some serious weed abatement we will need to do.
Agriculture Department Quality Criteria
Narrative 6
**6A: The Advisory Committee is operational and reflects the local agricultural industry for the courses being offered, as outlined in the "Agricultural Education Advisory Committee Manual"**

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
<th>Company/Affiliation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mazie Jameson</td>
<td>559-203-9256</td>
<td><a href="mailto:maziejameson@gmail.com">maziejameson@gmail.com</a></td>
<td></td>
<td>Advisory; Booster</td>
</tr>
<tr>
<td>Austin Williams</td>
<td>559-909-2567</td>
<td><a href="mailto:austin.fordranches@outlook.com">austin.fordranches@outlook.com</a></td>
<td></td>
<td>Advisory</td>
</tr>
<tr>
<td>Russell McKeith</td>
<td></td>
<td><a href="mailto:russellm@cos.edu">russellm@cos.edu</a></td>
<td>COS</td>
<td>Advisory</td>
</tr>
<tr>
<td>Robert Joubert</td>
<td>559-333-9353</td>
<td><a href="mailto:aewelding1@yahoo.com">aewelding1@yahoo.com</a></td>
<td>A &amp; E Welding</td>
<td>Advisory</td>
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<tr>
<td>Ben Knaus</td>
<td></td>
<td><a href="mailto:bknaus@hellwigproducts.com">bknaus@hellwigproducts.com</a></td>
<td>Hellwig Products</td>
<td>Advisory</td>
</tr>
<tr>
<td>Graham Burt</td>
<td>(559)346-9742</td>
<td><a href="mailto:GBurtPapatone@gmail.com">GBurtPapatone@gmail.com</a></td>
<td>Golden West Ag Services</td>
<td>Advisory; Booster</td>
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<tr>
<td>Rodney Wilson</td>
<td></td>
<td><a href="mailto:rodney.wilson@electricmotorshop.com">rodney.wilson@electricmotorshop.com</a></td>
<td>Electric Motor Shop</td>
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<td>Brian Brown</td>
<td>559-302-8237</td>
<td><a href="mailto:brownbrian01@gmail.com">brownbrian01@gmail.com</a></td>
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<tr>
<td>Sam Rodriguez</td>
<td>559-280-1307</td>
<td><a href="mailto:samuel.rodriguez@reedleycollege.edu">samuel.rodriguez@reedleycollege.edu</a></td>
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<td>Advisory</td>
</tr>
<tr>
<td>Lindsay Eby</td>
<td>(970)310-7278</td>
<td><a href="mailto:laosavs@gmail.com">laosavs@gmail.com</a></td>
<td>La Osa Vet</td>
<td>Advisory; Mentor; Guest Speaker</td>
</tr>
<tr>
<td>Dan Hayden</td>
<td>559-627-2070</td>
<td><a href="mailto:dan.hayden@afpllc.com">dan.hayden@afpllc.com</a></td>
<td></td>
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<tr>
<td>JJ Cerutti</td>
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<td>Advisory</td>
</tr>
<tr>
<td>Charlie Abee</td>
<td>559-359-0955</td>
<td><a href="mailto:charlesa@cos.edu">charlesa@cos.edu</a></td>
<td>COS</td>
<td>Advisory; Guest Speaker</td>
</tr>
<tr>
<td>Matt Walther</td>
<td>559-623-6746</td>
<td><a href="mailto:matthew.walther.121@gmail.com">matthew.walther.121@gmail.com</a></td>
<td>PCA</td>
<td>Advisory</td>
</tr>
<tr>
<td>Brett Morse</td>
<td>559-737-2281</td>
<td></td>
<td>G &amp; M Ag Spraying</td>
<td>Advisory; Mentor</td>
</tr>
</tbody>
</table>
We currently hosted a fall advisory meeting. Since the outbreak of Covid we did not host a spring advisory meeting. Though the next year we will get back on track with hosting more meeting sessions.

We have an outdated comprehensive program plan. We need to establish a meeting with our advisory committee. Please see documentation portion of this document to review the program plan.

We have annual meetings, please see the documentation portion of this document to see the minutes provided.

Our most current advisory minutes are not on file with the regional supervisor.
Agriculture Department Quality Criteria for Narrative 7
Every school year students receive presentations from specific trade colleges and they also receive lessons from their instructor on career options in the industry. Each teacher’s incorporates careers opportunities in their own way. A lot is done through each unit of instruction and a variety of industry presentations via zoom or in person. This last year Emmett had a trade college about aeronautical engineering. This was extremely interesting presentation about the advances in agriculture and the use of drones. Students have a lot of opportunities to identify, explore, and create an idea about what is next.

All students have an AET account and at the beginning of every year they update their profile. They include the courses they are enrolled in and completed and update their pathway in the agriculture program. They also update their career interests one their AET account.

We currently do not offer a certification program.
Agriculture Department Quality Criteria
Narrative 8
When I first walked into Golden West, I immediately identified a need to recruit and develop a strong relationship with our largest feeder school, Valley Oak middle school. I quickly went to work on presentation materials that our students enrolled in our program could do to initiate interest in the program. I worked up a mini lesson on a specific skill in Intro to Ag Engineering and Ag Mechanics as well as, Horticulture, and Animal Science. We also have a brochure on hand that we can issue to feeder schools and community members to promote our program.

Golden West has a rich history of supporting student’s financial needs to in the leadership and SAE goals. We currently pay for all freshman who are interested in the Greenhand Leadership Conference, and we pay ½ of the bill for students who attend the Advanced leadership and Made for Excellence conferences. This is a huge support to students pursuing leadership training and growth in their leadership skills. We have also in the past provided an advance in cash funds for students who raise plants for the plant sale. They then purchase the plants that they want and then sell the plants at the plant sales we host or from their own sales. This is a lot of support for students to get started in the ag program and develop some skills.

As stated in 8A I started a strong recruitment event at the largest feeder school, Valley Oak. After developing minilessons in the different pathways offered at Golden West I set for the to developing a recruitment committee comprised of a chapter officer (publicity) and students from each grade and a variety of classes. The committee was formed, and I had already made contact with a VP at Valley Oak, we then set forth to talking with the science department about teaching their classes all day. They had agreed and we had set a date in the first semester for recruitment. Students taught each mini lesson in three different science teacher’s classrooms all 8th grade students. This event was successful, and we had a lot of interest in the program. We didn’t grow in class periods this following year. I am interested in learning other methods in we could do for recruitment.
Agriculture Department Quality Criteria for Narrative 9
9A: A Comprehensive Program Plan has been provided electronically to the Regional Supervisor and is available for onsite review.

A current Comprehensive Program Plan is not on file with the Regional Supervisor. With my masters I am working on providing the information necessary for the incentive grant and submitting that for review.

9B: Updates of the Program Plan are forwarded to the Regional Supervisor by November 15th. These updates must include: (1) Five Year Equipment Acquisition Schedule; (2) Chart of Staff Responsibilities; (3) FFA Program of Activities; (4) Advisory Committee Roster; and (5) Advisory Committee Minutes.

These updates are on file with the Regional Supervisor.

Advisory Committee List:

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
<th>Company/Affiliation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mazie Jameson</td>
<td>559-203-9256</td>
<td><a href="mailto:maziejameson@gmail.com">maziejameson@gmail.com</a></td>
<td></td>
<td>Advisory; Booster</td>
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<tr>
<td>Austin Williams</td>
<td>559-909-2567</td>
<td><a href="mailto:austin.fordranches@outlook.com">austin.fordranches@outlook.com</a></td>
<td></td>
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<tr>
<td>Russell McKeith</td>
<td></td>
<td><a href="mailto:russellm@cos.edu">russellm@cos.edu</a></td>
<td>COS</td>
<td>Advisory</td>
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<tr>
<td>Robert Joubert</td>
<td>559-333-9353</td>
<td><a href="mailto:aewelding1@yahoo.com">aewelding1@yahoo.com</a></td>
<td>A &amp; E Welding</td>
<td>Advisory</td>
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<tr>
<td>Ben Knaus</td>
<td></td>
<td><a href="mailto:bknaus@hellwigproducts.com">bknaus@hellwigproducts.com</a></td>
<td>Hellwig Products</td>
<td>Advisory</td>
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<tr>
<td>Graham Burt</td>
<td>(559)346-9742</td>
<td><a href="mailto:GBurtPapatone@gmail.com">GBurtPapatone@gmail.com</a></td>
<td>Golden West Ag Services</td>
<td>Advisory; Booster</td>
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<tr>
<td>Rodney Wilson</td>
<td></td>
<td><a href="mailto:rodney.wilson@electricmotorshop.com">rodney.wilson@electricmotorshop.com</a></td>
<td>Electric Motor Shop</td>
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<tr>
<td>Brian Brown</td>
<td>559-302-8237</td>
<td><a href="mailto:brownbrian01@gmail.com">brownbrian01@gmail.com</a></td>
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<tr>
<td>Sam Rodriguez</td>
<td>559-280-1307</td>
<td><a href="mailto:samuel.rodriguez@reedleycollege.edu">samuel.rodriguez@reedleycollege.edu</a></td>
<td>Reedley College</td>
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<tr>
<td>Deneyse Grey</td>
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<td><a href="mailto:dgray@warrenbaerg.com">dgray@warrenbaerg.com</a></td>
<td>Warren Baerg</td>
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<td>Thomas Sandberg</td>
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<td><a href="mailto:tsandberg@serpapackaging.com">tsandberg@serpapackaging.com</a></td>
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<tr>
<td>Lindsay Eby</td>
<td>(970)310-7278</td>
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### Chart of Responsibilities:

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**I BELIEVE IN THE FUTURE OF AGRICULTURE** AMBER NAGEL
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<tr>
<th></th>
<th>G Potter</th>
<th>Schultz</th>
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<td>Ag Shop Maintenance - Wood Working</td>
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<td></td>
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<td>Ag Vehicles</td>
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<tr>
<td>BBQ Trailers</td>
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<tr>
<td>Forklift Maintenance</td>
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<td>Livestock Trailers</td>
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<td>Tractor &amp; Implements</td>
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<td>IE-1 Shop Maintenance - Supplies and Materials</td>
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<td>IE-1 Shop Maintenance- Metal Storage</td>
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<td>IE-1 Shop Maintenance- Computer Lab</td>
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<td>Ag Department Seatrains 1, 2 &amp; 3</td>
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<table>
<thead>
<tr>
<th><strong>FFA Judging Teams / Contests</strong></th>
<th>G Potter</th>
<th>Schultz</th>
<th>J Potter</th>
<th>Nagel</th>
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<tbody>
<tr>
<td>Ag Mechanics</td>
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<tr>
<td>BIG (Consult/Assist Student Teacher)</td>
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<td>Citrus</td>
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<tr>
<td>Creed Speaking</td>
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<td>X</td>
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<tr>
<td>Extemporaneous Speaking</td>
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<td>X</td>
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<tr>
<td>Impromptu</td>
<td></td>
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<tr>
<td>Job Interview</td>
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<td>Farm Power</td>
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<tr>
<td>Opening and Closing Officer Team</td>
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<tr>
<td>Opening and Closing Novice</td>
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<td>Opening and Closing Open</td>
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<td>Prepared Public Speaking</td>
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<td>Horse</td>
<td></td>
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<tr>
<td>Awards</td>
<td>G Potter</td>
<td>Schultz</td>
<td>J Potter</td>
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<td>------------------------</td>
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<td>Proficiency Awards</td>
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<td>End of Year Banquet</td>
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<table>
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<tr>
<td>Ag Mechanics Projects</td>
<td>X</td>
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<tr>
<td>(Plasma Art, Wood, and Engines)</td>
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<tr>
<td>Drive Thru BBQ: Cooking</td>
<td>X</td>
<td></td>
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<tr>
<td>Drive Thru BBQ: Supply Purchasing</td>
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<tr>
<td>Drive Thru BBQ: Supervision</td>
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<td>Drive Thru BBQ: Ticket Printing/Accounting/Deposit</td>
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<tr>
<td>Floral Projects— School Specialty Events</td>
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<td>Floral Projects— Prom</td>
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<td>Plant Sales</td>
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<td>Placemat Ads</td>
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<td>Sweetheart Dinner: Cooking</td>
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<td>Sweetheart Dinner: Silent Auction</td>
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<tr>
<td>Sweetheart Dinner: Ticket Printing/Accounting/Deposit</td>
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<td>Sweetheart Dinner: Supervision</td>
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<table>
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<tr>
<th>Alumni</th>
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<tr>
<td>Monthly Meetings</td>
<td>X</td>
<td>X</td>
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<td>Auction Items</td>
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<td>Communication with Alumni Officers</td>
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<table>
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<tr>
<th>Ag Engineering Academy</th>
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<tbody>
<tr>
<td>Monthly Meetings</td>
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<td></td>
<td></td>
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<tr>
<td>Manufacturing Day</td>
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<tr>
<td>Be Future Ready Day</td>
<td>X</td>
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<tr>
<td>Middle School Showcase</td>
<td>X</td>
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<tr>
<td>End of Year Showcase</td>
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<tr>
<td>Night at the 21st Century</td>
<td>X</td>
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Five Year Acquisition Proposal

POA

I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL
Advisory Committee Minutes
For the above documentation please see attachments

9C: The Graduate Follow Up is posted on the state data base as required by October 15th.

We currently do not have a paper or digital copy of our graduate follow up. We currently call our graduates and survey them over the phone. We really need to create a simple google form to follow up with our students something easy for our students who have graduated to complete. This would streamline our data collection process and allow us to know what’s next for them. I will be creating a form Golden West could use in graduate follow up data collection. It will a google form that a postgraduate could use to fill it out.

9E: The Agriculture Education Program provides evidence that student retention and graduate follow up data is reviewed and used in for program evaluation and improvement.

We are currently looking at a reduction in numbers at Golden West in the last few years. Which is why they decided to not fill Courtney’s position when she left. Numbers for the program as far as retention are looked at every year. I have begun the discussion with Valley oak at the beginning of the year about an 8th grade program or an Ag Explorer class. However, with the recent pandemic that will be something that I will have to review and see if it is still wanted from Valley Oak. Our Graduate 3-4-year members based on our graduate data is 38 of those 15 of them are majored in agriculture or hired in agriculture.

9F: The FFA Roster and the Program and Teacher Profiles were updated on calaged.org and the AIG Expenditure Report was received; all by no later than October 15.

At the beginning of the year we filled out our profiles on calaged.org and submitted the required information on the roster.
California Department of Education
AGRICULTURAL CAREER TECHNICAL EDUCATION INCENTIVE GRANT
REPORT OF EXPENDITURES
Due Date: To be received in Regional Supervisor's Office by October 15
Funding Year: 2018-2019

Golden West High School
(School Site)
Responsible for the Program

Visalia Unified School District
(District)
Telephone Number: (559) 730-7814

PART A
Account No. 4000 does not require matching of each item but subtotal on Column C
must at least equal the subtotal Column B unless a waiver of matching has been approved.
Accounts 5000 and 6000 require matching for each line item unless a waiver of matching has been approved.

<table>
<thead>
<tr>
<th>Line</th>
<th>Acct No.</th>
<th>Description of Item for Which Funds Were Expended</th>
<th>Incentive Grant Funds</th>
<th>Matching Funds</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>4000</td>
<td>Books &amp; Supplies</td>
<td>Subtotal for 4000</td>
<td>6,454.45</td>
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</table>
| 2    |          | Services and Other Operating Expenses such as Services of
          | 1. Travel Conferences                            | 12,686.74             | 13,897.37      |
|      |          | Consulting, Staff, Travel, and conference; Rentals,
          | 2. Transportation                                | 1,240.81              | 3,277.40       |
|      |          | Leases and Repairs; Bus Transportation            | 3. Professional Consulting |               |               |
|      |          |                                                    | 4. Rentals and Leases                             |               |               |
|      |          |                                                    | 5.                                                     |               |               |
| 3    | 5000     | Subtotal for 5000                                 | 13,927.55             | 17,174.77      |
| 4    | 6000     | Capital Outlay: Includes Sites and Improvements of Sites; |
          | 1. Land Improvements                             | 2. Equipment                                      |               |
|      |          | Buildings and Improvement of Buildings; Equipment  | 3.                                                     |               |
|      |          |                                                    | 4.                                                     |               |
| 13   | 6000     | Subtotal for 6000                                 | -                                                      | -             |
| 14   |          | Total for 4000-6000                               | 20,382.00             | 25,105.92      |
|      |          | Lines 2,8,13                                      |                                                      |               |

TOTAL Incentive Grant Allocation: $20,543.00

PART B
Complete this portion if a waiver of matching requirement was granted

<table>
<thead>
<tr>
<th>Line</th>
<th>Acct No.</th>
<th>Description of Item for Which Funds Were Expended</th>
<th>Incentive Grant Funds</th>
<th>Matching Funds</th>
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<tbody>
<tr>
<td>15</td>
<td>1000</td>
<td>Substitute Teachers</td>
<td>161.00</td>
<td>5,635.00</td>
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<tr>
<td>16</td>
<td>1000</td>
<td>Teachers Salaries for Project Supervision Period</td>
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<tr>
<td>17</td>
<td>3000</td>
<td>Benefits for the Above Items (1000)</td>
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<tr>
<td>18</td>
<td></td>
<td>TOTAL</td>
<td>161.00</td>
<td>5,635.00</td>
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PART C
Certification of Expenditures
I certify that the amounts entered on this final report are a true record of Incentive Grant funds and Non-Incentive Grant matching funds actually expended on the categories and items listed on the report

Signature - District Superintendent or Designee
Date: Oct. 11, 2019

AMBER NAGEL
I BELIEVE IN THE FUTURE OF AGRICULTURE
Agriculture Department Quality Criteria
Narrative 10
Currently most of our mechanics classes have more students enrolled in the periods. This next year we are combining the Intro to Ag Engineering and Intro to Ag Mechanics into one course. This will hopefully lighten up some of the Ag Mechanics classes and send more students into the engineering pathway. Some of the Intro to Agriculture and Ag Biology sections do not meet this number enrolled. My specific section of Ag Biology has 24 students enrolled; this meets the minimum requirement for AIG.
Agriculture Department Quality Criteria

Narrative 11
Every teacher in the department has an FFA Stipend as well as an extended contract, this exceeds the requirements for quality criteria 11.

We do not meet this criterion in the entire district. No teacher, not even the department head, gets a project supervision period. In the years I have taught, both Wasco and VUSD do not offer a project supervision period.
Agriculture Department Quality Criteria
Narrative 12
### 12 A: Leadership and Citizen Development: Number of activities on the approved FFA activity list which the local chapter participated in (must participate in at least 80% of the activities).

**12A. Leadership and Citizenship Development**

| 21 | Number of activities on the approved FFA activity list which the local chapter participated in (must participate in at least 80% of the activities). |

### 12B. Practical Application of Occupational Skills

| 8  | Number of students who received the State FFA Degree (must be at least 5% of the R-2 number) |

### 12C. Qualified and Professional Activities

| 4  | Number of teachers who attended a minimum of 5 professional inservice activities (must attach approved Inservice Activities Verification Page) |

### 12D Community, Business and Industry Involvement

| 1  | Number of meetings held by the local Agriculture Advisory Committee (must meet at least 3 times with minutes attached) |

|  | Name of Agriculture Advisory Committee Chair |
|  | Phone Number of Ag. Advisory Committee Chair |

### 12E Retention

| 67 | Number of students from the 2013 Freshman cohort who completed 3 or 4 years of Agriculture Education courses. Must be at least 30% of the 2013 Freshman cohort |

### 12F Graduate Follow-Up

| 38 | Number of program completers graduating last year. |

| 15 | Number of those who graduated who are employed in agriculture, in the military, or continuing their education (must be at least 75% of the program completers) Attach graduate follow-up report. |

We do not meet the specifications for criteria 12.
## Supporting Completion Materials

<table>
<thead>
<tr>
<th>Title</th>
<th>Page Number</th>
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<tbody>
<tr>
<td>Student Data Sheets</td>
<td>50</td>
</tr>
<tr>
<td>Description of Permanent Filing System</td>
<td>60</td>
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<tr>
<td>Course Outline</td>
<td>122</td>
</tr>
<tr>
<td>Daily Grade Sheets</td>
<td>61</td>
</tr>
<tr>
<td>SAE Project Visit Forms</td>
<td>62</td>
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<tr>
<td>Course Syllabus</td>
<td>63</td>
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<tr>
<td>Program of Activities</td>
<td>75</td>
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<tr>
<td>Recruitment Program</td>
<td>113</td>
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<tr>
<td>Chapter Scrapbook</td>
<td>114</td>
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<tr>
<td>Summer Activities Plan</td>
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<tr>
<td>Graduate Follow-up Survey</td>
<td>115</td>
</tr>
<tr>
<td>Results of Graduate Survey</td>
<td>116</td>
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<tr>
<td>Comprehensive Program Plan</td>
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<td>Advisory Committee Meeting Agenda</td>
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<td>Advisory Committee Minutes</td>
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<td>Advisory Committee Constitution and Bylaws</td>
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<td>Work in Progress on Proficiency Standards</td>
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<td>Copy of Teaching Credentials</td>
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<td>Calendar of Chapter Activities</td>
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<td>Professional Growth and Development Act.</td>
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<td>R-2 Report</td>
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<td>Copy of Travel Request</td>
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<td>Copy of CATA Membership</td>
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<td>Report from Professional Development Event</td>
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<td>Five Year Acquisition List</td>
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<td>Current Years Operating Budget</td>
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<tr>
<td>Department Budget Process</td>
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<td>Chart of Responsibilities</td>
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<td>Substitute Procedures</td>
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<td>Description of a Program Completer</td>
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<tr>
<td>Description of Reimbursement Process</td>
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</table>
**Name**: Williams  
**First Name**: Jace  

**Gender**: Male  

**Ethnicity/Race**: Asian Indian  

**Date**: 8/20/2019  

**Street Address**: 33700 Road 156  
**City**: Visalia, CA 93292  
**Phone Number**: 559-909-8282  
**Email**: jacew559@gmail.com  
**Parent/Guardian Name**: Chris Williams  
**Miss/Mrs./Ms.**: Robyn Williams  

**Program of Instruction Being Pursued**:  
- Animal Science (4020)  
- Agricultural Mechanics (4030)  
- Agricultural Business (4040)  
- Ornamental Horticulture (4050)  
- Forestry & Natural Resources (4060)  
- Agriscience (4070)  

**Year in Agriculture Program**: 4th  

**Grade Level in School**: 12  

**I Am Taking This Course Because**:  
- I plan a career in agriculture  
- Not a career, just an interest in agriculture  
- Not interested, placed in class  

**When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis () an occupation in agriculture you would enjoy**  
- I am unsure of what career I want to pursue
AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised 7.16.10

A. Name: Unholz Payton
   Last Name: First Name, MI

B. Gender: Male ______ Female X

C. Ethnicity/Race:
   Are you Hispanic or Latino? (Check one): Yes ______ No X
   The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.
   American Indian or Alaskan Native ______
   Asian Indian ______
   Cambodian ______
   Chinese ______
   Hmong ______
   Japanese ______
   Korean ______
   Laotian ______
   Vietnamese ______
   Black or African American ______
   Filipino ______
   Guamanian ______
   Samoan ______
   Tahitian ______
   White ______

D. Year in Agriculture Program: 3rd
   (1st, 2nd, 3rd, 4th)

E. Grade Level in School: 11
   (9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)
   X I plan a career in agriculture
   Not a career, just an interest in agriculture.
   Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis () an occupation in agriculture you would enjoy doing.
   I am interested in becoming a vet tech.

H. Date: 8/20/2019

I. Locator Data
   Street Address: 2820 South Jacob St
   City, Zip: Visalia, CA 93291
   Phone Number: 559-754-4770
   Email: paytonunholz@cloud.com
   Parent/Guardian Name (Print Full Name For Each):
   Mr. ______
   Miss/Mrs. ______

J. Program of Instruction Being Pursued: (Select Only One)
   ______ Plant & Soil Science (4010)
   ______ Animal Science (4020)
   ______ Agricultural Mechanics (4030)
   ______ Agricultural Business (4040)
   ______ Ornamental Horticulture (4050)
   ______ Forestry & Natural Resources (4060)
   ______ Agriscience (4070)

K. Please indicate below your plans after graduation from high school:
   1. Go to Work Full - Time
      No Further Education
      Some College Later

   2. Go to College
      Community College X
      Four Year College
      Full-Time Student
      Part-Time Student
      Agriculture Major X
      Non-Agriculture Major

   3. Go into Military Service

I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL
I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL

---

A. Name: Pratt Samuel

B. Gender: Male X Female

C. Ethnicity/Race: Are you Hispanic or Latino? (Check one): Yes No X

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be:

- American Indian or Alaskan Native
- Asian Indian
- Cambodian
- Chinese
- Hmong
- Japanese
- Korean
- Laotian
- Vietnamese
- Black or African American
- Filipino
- Guamanian

D. Year in Agriculture Program: 3rd (1st, 2nd, 3rd, 4th)

E. Grade Level in School: 11 (9, 10, 11, 12)

F. I Am Taking This Course Because (Select One):

- X I plan a career in agriculture
- Not a career, just an interest in agriculture.
- Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis an occupation in agriculture you would enjoy doing.

I am unsure at this time.

H. Date: 8/20/2019

I. Locator Data:
- Street Address: 32401 road 138
- City, Zip: Visalia, CA 93292
- Phone Number: 559-331-9355
- Email: samuel.pr3052@usd4.us

J. Program of Instruction Being Pursued: (Select Only One)

- X Agricultural Mechanics (4030)
- Animal Science (4020)
- Plant & Soil Science (4010)
- Agricultural Business (4040)
- Ornamental Horticulture (4050)
- Forestry & Natural Resources (4060)
- Agriscience (4070)

K. Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time
   - No Further Education
   - Some College Later

2. Go to College
   - Community College
   - Four Year College
   - Full-Time Student
   - Part-Time Student
   - Agriculture Major
   - X Non-Agriculture Major

3. Go into Military Service
**AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET**

<table>
<thead>
<tr>
<th>A. Name</th>
<th>Pratt</th>
<th>Sawyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Female X</td>
</tr>
<tr>
<td>Ethnicity/Race: Are you Hispanic or Latino?</td>
<td>Yes No X</td>
<td></td>
</tr>
</tbody>
</table>

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- American Indian or Alaskan Native
- Asian Indian
- Cambodian
- Chinese
- Hmong
- Japanese
- Korean
- Laotian
- Vietnamese
- Black or African American
- Filipino

D. Year in Agriculture Program: 1st (1st, 2nd, 3rd, 4th)

E. Grade Level in School: 9 (9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)

X I plan a career in agriculture

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis () an occupation in agriculture you would enjoy doing.

Work for my family.

J. Program of Instruction Being Pursued: (Select Only One)

- Plant & Soil Science (4010)
- Animal Science (4020)
- Agricultural Mechanics (4030)
- Agricultural Business (4040)
- Ornamental Horticulture (4050)
- Forestry & Natural Resources (4060)
- Agriscience (4070)

K. Please indicate below your plans after graduation from high school:

1. Go to Work Full-Time
   - No Further Education
   - Some College Later

2. Go to College
   - Community College
   - Four Year College
   - Full-Time Student
   - Part-Time Student
   - Agriculture Major X
   - Non-Agriculture Major

3. Go Into Military Service

---

**Second Page**

<table>
<thead>
<tr>
<th>A. Name</th>
<th>Pullin</th>
<th>Emma</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Female X</td>
</tr>
<tr>
<td>Ethnicity/Race: Are you Hispanic or Latino?</td>
<td>Yes No X</td>
<td></td>
</tr>
</tbody>
</table>

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- American Indian
- Asian Indian
- Cambodian
- Chinese
- Hmong
- Japanese
- Korean
- Laotian
- Vietnamese
- Black or African American
- Filipino

J. Program of Instruction Being Pursued: (Select Only One)

- Plant & Soil Science (4010)
- Animal Science (4020)
- Agricultural Mechanics (4030)
- Agricultural Business (4040)
- Ornamental Horticulture (4050)
- Forestry & Natural Resources (4060)
- Agriscience (4070)
I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL

---

K. Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time   
   - No Further Education
   - Some College Later

2. Go to College  X
   - Community College
   - Four Year College
   - Full-Time Student
   - Part-Time Student
   - Agriculture Major
   - Non-Agriculture Major

3. Go Into Military Service

---

AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

Revised 7.16.10

A. Name:  Skidmore, Elizabeth  
B. Gender: Male   X
C. Ethnicity/Race:
   - Are you Hispanic or Latino? (Check one): Yes   No  X
   The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.
   - American Indian or Alaskan Native
   - Asian Indian
   - Cambodian
   - Chinese
   - Hmong
   - Japanese
   - Korean
   - Laotian
   - Vietnamese
   - Black or African American
   - Filipino
   - Hawaiian

D. Year in Agriculture Program:  3
   (1st, 2nd, 3rd, 4th)

E. Grade Level in School:  11
   (9, 10, 11, 12)

F. I Am Taking This Course Because: (Select One)
   - I plan a career in agriculture      X
   - Not a career, just an interest in agriculture.
   - Not interested, placed in class.

G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis () an occupation in agriculture you would enjoy doing.
   - Major Agriculture
   - Minor Agriculture

---

I am unsure at this time
# AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

**A. Name**  
Barcelona  
Braden  

**B. Gender**  
Male  
Female  

**C. Ethnicity/Race**  
Are you Hispanic or Latino? (Check one): Yes  
No  
X

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- American Indian or Alaskan Native
- Asian Indian
- Cambodian
- Chinese
- Hmong
- Japanese
- Korean
- Laotian
- Vietnamese
- Black or African American
- Filipino
- Guamanian
- Samoan
- Tahitian
- X  
White

**D. Year in Agriculture Program:**  
2  
(1st, 2nd, 3rd, 4th)

**E. Grade Level in School:**  
10  
(9, 10, 11, 12)

**F. I Am Taking This Course Because:** (Select One)

- X  
I plan a career in agriculture
- Not a career, just an interest in agriculture.
- Not interested, placed in class.

**G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis () an occupation in agriculture you would enjoy doing. I am unsure at this time

---

# AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

**A. Name**  
Achterberg  
Riley  

**B. Gender**  
Male  
Female  

**C. Ethnicity/Race**  
Are you Hispanic or Latino? (Check one): Yes  
No  
X

The above part of the question is about ethnicity, not race. No matter what you selected above, please answer the following by marking one or more boxes to indicate what you believe your race to be.

- American Indian or Alaskan Native
- Asian Indian
- Cambodian
- Chinese
- Hmong
- Japanese
- Korean
- Laotian
- Vietnamese
- Black or African American
- Filipino
- Guamanian

**D. Year in Agriculture Program:**  
2  
(1st, 2nd, 3rd, 4th)

**E. Grade Level in School:**  
10  
(9, 10, 11, 12)

**F. I Am Taking This Course Because:** (Select One)

- X  
I plan a career in agriculture
- Not a career, just an interest in agriculture.
- Not interested, placed in class.

**G. When you eventually take your place in this world, what would you like to do? If your dream is not related to agriculture, place in parenthesis () an occupation in agriculture you would enjoy doing. I am unsure at this time

---

**AMBER NAGEL**

---

**I BELIEVE IN THE FUTURE OF AGRICULTURE  
BARCELONA, BRADEN**
I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL

---

### AGRICULTURAL EDUCATION - STUDENT CAREER DATA SHEET

<table>
<thead>
<tr>
<th>A. Name</th>
<th>Court Christopher</th>
<th>H. Date:</th>
<th>8/20/2019</th>
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<tbody>
<tr>
<td>B. Gender:</td>
<td>Male</td>
<td></td>
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<tr>
<td>C. Ethnicity/Race:</td>
<td>Guamanian</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Year in Agriculture Program: 2

1. Go to Work Full - Time
   - No Further Education
   - Some College Later

2. Go to College
   - Community College
   - Four Year College
   - Part-Time Student
   - Agriculture Major
   - Non-Agriculture Major

3. Go Into Military Service

---

I. Locator Data

- Street Address: 2735 Sweet Ave
- City, Zip: Visalia, CA 93292
- Phone Number: 559-329-1932
- Email: gloriafishing@gmail.com

---

J. Program of Instruction Being Pursued: (Select Only One)

- Plant & Soil Science (4010)
- Animal Science (4020)
- Agricultural Mechanics (4030)
- Agricultural Business (4040)
- Ornamental Horticulture (4050)
- Forestry & Natural Resources (4060)
- Agriscience (4070)

---

K. Please indicate below your plans after graduation from high school:

1. Go to Work Full - Time

2. Go to College
   - Community College
   - Four Year College
   - Full-Time Student
   - Part-Time Student
   - Agriculture Major
   - Non-Agriculture Major

3. Go Into Military Service

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Permanent Filing System

We currently do not have a filing system; all yearly updates are submitted through email to the regional supervisor. We do need to complete the student data sheets consistently and I see no record of that being done. I believe Courtney Castle and Sammy Slover had a filing cabinet prior the renovation of the Ag Building. However, there is not more student data sheets. Once school resumes, we will be having the students complete these required forms and storing them for AIG review. Through out this process I have called 10 students from our program and filled out the data sheets for them through a phone conversation. Through my break of teaching a lot has changed in regards of how we collect data for AIG and how we record SAE project information. I am now aware that this document that I had my students complete at Wasco is still in effect today. I would like a way for this to be done digitally, but we still need parent signatures and not all students have internet access.
# Scoresheet - S2
2(A) Ag Biology (P) [5]

<table>
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<th>STUDENTS (25)</th>
<th>GRADE</th>
<th>Calculations: Total Points</th>
<th>Grade: A 95.95% 711 / 741</th>
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<tr>
<td>2.</td>
<td>B</td>
<td>90.41%</td>
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<td>3.</td>
<td>C</td>
<td>84.63%</td>
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<tr>
<td>4.</td>
<td>D</td>
<td>78.88%</td>
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</tr>
<tr>
<td>5.</td>
<td>E</td>
<td>73.22%</td>
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<td>6.</td>
<td>F</td>
<td>67.67%</td>
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<tr>
<td>7.</td>
<td>A-</td>
<td>66.11%</td>
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<tr>
<td>8.</td>
<td>B+</td>
<td>64.56%</td>
<td></td>
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<tr>
<td>9.</td>
<td>C+</td>
<td>63.01%</td>
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<tr>
<td>10.</td>
<td>D-</td>
<td>61.54%</td>
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<td>11.</td>
<td>E-</td>
<td>60.00%</td>
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<td>25.</td>
<td>A-</td>
<td>40.48%</td>
<td></td>
</tr>
</tbody>
</table>

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I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL
# SAE Project Visit Forms

**Student:** Sierra Williams  
**Teacher:** Amber Nagel  
**Date of Visit:** 3/13/2020  
**Extended Contract Hours:** 1.0  
**In-Contract Hours:** 0.0  
**Miles Traveled:** 0

**Grading Period:** 6/1/2019 to 3/13/2020  
**Overall Skill & Work Rating**

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
<th>Limited</th>
<th>Basic</th>
<th>Proficient</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>9</td>
<td></td>
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</table>

**Broiler Bird Production**

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
<th>Limited</th>
<th>Basic</th>
<th>Proficient</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS.01.02 Assess and select animal production methods for use in animal systems based upon their effectiveness and impacts.</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AS.02.02 Analyze procedures to ensure that animal products are safe for consumption (e.g., use in food system, etc.).</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AS.03.02 Analyze feed rations and assess if they meet the nutritional needs of animals.</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
This visit was the initial start up to a beginner in Poultry Broiler Production. Students demonstrated initiative in setting up a brooder at the school farm to raise the birds in until they are ready to exit. Recommendations are to keep logging her hours and keep in contact with Mrs. Nagel. Daily checks on the bird.

### Student Information

**Student:** Faith Gomez  
**Teacher:** Amber Nagel  
**Date of Visit:** 3/5/2020  
**Extended Contract Hours:** 1.0  
**In-Contract Hours:** 0.0  
**Miles Traveled:** 0

### Grading Period: 8/1/2019 to 3/13/2020

#### Overall Skill & Work Rating

<table>
<thead>
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<th>Skill</th>
<th># Entries</th>
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<th>Limited</th>
<th>Basic</th>
<th>Proficient</th>
<th>Exemplary</th>
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<tbody>
<tr>
<td>Overall</td>
<td>9</td>
<td></td>
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#### Broiler bird Production

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
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<th>Basic</th>
<th>Proficient</th>
<th>Exemplary</th>
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</thead>
<tbody>
<tr>
<td>AS.08.02 Evaluate the effects of environmental conditions on animals and create plans to ensure favorable environments for animals.</td>
<td>7</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>AS.01.01 Evaluate the development and implications of animal origin, domestication and distribution on production practices and the environment.</td>
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<tr>
<td>AS.05.01 Design animal housing, equipment and handling facilities for the major systems of animal production.</td>
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<td></td>
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</tr>
</tbody>
</table>

### Recommendation / Comments

This visit was the initial start up to a beginner in Poultry Broiler Production. Students demonstrated initiative in setting up a brooder at the school farm to raise the birds in until they are ready to exit. Recommendations are to keep logging her hours and keep in contact with Mrs. Nagel. Daily checks on the bird.
**Student:** Melissa Quezada  
**Teacher:** Amber Nagel  
**Date of Visit:** 3/5/2020  
**Extended Contract Hours:** 1.0  
**In-Contract Hours:** 0.0  
**Miles Traveled:** 0

### Overall Skill & Work Rating

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
<th>Limited</th>
<th>Basic</th>
<th>Proficient</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>2</td>
<td></td>
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</tbody>
</table>

### Poultry

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
<th>Limited</th>
<th>Basic</th>
<th>Proficient</th>
<th>Exemplary</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS.02.02 Analyze procedures to ensure that animal products are safe for consumption (e.g., use in food system, etc.)</td>
<td>1</td>
<td></td>
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</tr>
<tr>
<td>CRP.03.02 Design and implement a personal financial management plan.</td>
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<tr>
<td>CRP.04.03 Model active listening strategies when interacting with others in formal and informal settings.</td>
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<td></td>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Recommendation / Comments:**

This visit was the initial start up for a beginning in Poultry Brotier Production. Students demonstrated initiative in setting up a brooder at the school farm to raise the birds until they are ready to exit. Recommendations are to keep logging their hours and keep in contact with Mrs. Nagel. Daily checks on the bird.

**Photos:**

- [Send email notification to student with SAE Assessment Report](#)
- [Save Evaluation](#)
- [Delete](#)
Student: Alexander Valencia
Teacher: Amber Nagel
Date of Visit: 3/5/2020
Extended Contract Hours: 1.0  In-Contract Hours: 0.0  Miles Traveled: 0

Grading Period: 6/1/2019 to 3/13/2020

**Overall Skill & Work Rating**

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed (0)</th>
<th>Limited (1)</th>
<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>9</td>
<td></td>
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</table>

**Broiler Poultry Production**

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed (0)</th>
<th>Limited (1)</th>
<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A5.01.02 Assess and select animal production methods for use in animal systems based upon their effectiveness and impacts.</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5.05.01 Design animal housing, equipment and handling facilities for the major systems of animal production.</td>
<td>7</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5.03.01 Analyze the nutritional needs of animals.</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5.02.02 Analyze procedures to ensure that animal products are safe for consumption (e.g., use in food system, etc.).</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5.06.02 Evaluate the effects of environmental conditions on animals and create plans to ensure favorable environments for animals.</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Recommendation / Comments:**

This visit was the initial start up to a beginner in Poultry Broiler Production. Students demonstrated initiative in setting up a brooder at the school farm to raise the birds in until they are ready to exit. Recommendations are to keep logging his hours and keep in contact with Mrs. Nagel. Daily checks on the bird. He needs to be more diligent in his bird checks.

**Photos:**
**Student:** Fabian Mejia  
**Teacher:** Amber Nagel  
**Date of Visit:** 11/30/2019  
**Extended Contract Hours:** 1.0  
**In-Contract Hours:** 0.0  
**Miles Traveled:** 0

**Grading Period:** 9/30/2019 to 12/1/2019  
**Overall Skill & Work Rating**

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed (0)</th>
<th>Limited (1)</th>
<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>5</td>
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</table>

**vegetable production**

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed (0)</th>
<th>Limited (1)</th>
<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
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</thead>
<tbody>
<tr>
<td>PS.03.01 Demonstrate plant propagation techniques in plant system activities</td>
<td>5</td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>PS.03.02 Develop and implement a management plan for plant production.</td>
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<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Recommendation / Comments:**

Fabian, has started a vegetable garden SAE project. Where he is starting his vegetables in his greenhouse. He used the schools growing flats and potting soil to start his plants from seed. He needs to transplant these started plants into celled containers and as they grow he can harden them off in the shade house and plant them in our planted boxes.

**Photos:**

- [ ] Send email notification to student with SAE Assessment Report
- Save Evaluation  
- Delete
### Student: Javier Villalobos

**Teacher:** Amber Nagel

**Date of Visit:** 11/30/2019

**Extended Contract Hours:** 1.0  **In-Contract Hours:** 0.0  **Miles Traveled:** 0

### Grading Period: 9/30/2019 to 12/1/2019

#### Overall Skill & Work Rating

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
<th>Limited (1)</th>
<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
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<tbody>
<tr>
<td>Overall</td>
<td>7</td>
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</table>

#### Grain Production

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
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<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS.03.05 Harvest, handle and store crops according to current industry standards</td>
<td>7</td>
<td></td>
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</tr>
</tbody>
</table>

**Recommendation / Comments:**

Javier has worked the school’s small grain production chamber called the Fodder. He has a crew of about 3 other people who he leads through key tasks in small grain production. Keep up the hard work. He needs more seed as well.

---

### Student: Melissa Quezada

**Teacher:** Amber Nagel

**Date of Visit:** 11/20/2019

**Extended Contract Hours:** 2.0  **In-Contract Hours:** 0.0  **Miles Traveled:** 0

### Grading Period: 9/30/2019 to 12/1/2019

#### Overall Skill & Work Rating

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
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<th>Basic (2)</th>
<th>Proficient (3)</th>
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<td>Overall</td>
<td>1</td>
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</table>

#### Poultry

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
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<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A5.02.02 Analyze procedures to ensure that animal products are safe for consumption (e.g., use in food system, etc.)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Recommendation / Comments:**

Worked on improving the school facilities to grow the meat birds at the school farm
Student: Sierra Williams
Teacher: Amber Nagel
Date of Visit: 11/20/2019
Extended Contract Hours: 2.0
In-Contract Hours: 0.0
Miles Traveled: 0

Grading Period: 9/30/2019 to 12/1/2019

Overall Skill & Work Rating

<table>
<thead>
<tr>
<th>Skill</th>
<th># Entries</th>
<th>N/A or Not Observed</th>
<th>Limited (1)</th>
<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
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<tbody>
<tr>
<td>Overall</td>
<td>1</td>
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Broiler Bird Production

<table>
<thead>
<tr>
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<th># Entries</th>
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<th>Basic (2)</th>
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<tbody>
<tr>
<td>AS.02.02 Analyze procedures to ensure that animal products are safe for consumption (e.g., use in food system, etc.)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Recommendation / Comments:

Work on improving the school farms facilities and that is is ready for a flock of meat birds

Photos:
**Student:** Matt Hart  
**Teacher:** Amber Nagel  
**Date of Visit:** 2/17/2020  
**Extended Contract Hours:** 2.0  
**In-Contract Hours:** 0.0  
**Miles Traveled:** 5  

**Grading Period:** 6/1/2019 to 5/7/2020

### Overall Skill & Work Rating

<table>
<thead>
<tr>
<th>Skill</th>
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<th>N/A or Not Observed</th>
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<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
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<tbody>
<tr>
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<td>8</td>
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### Farming

<table>
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<th>Limited (1)</th>
<th>Basic (2)</th>
<th>Proficient (3)</th>
<th>Exemplary (4)</th>
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</thead>
<tbody>
<tr>
<td>PS.01.01 Determine the influence of environmental factors on plant growth.</td>
<td>5</td>
<td></td>
<td></td>
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<tr>
<td>PS.01.03 Develop and implement a fertilization plan for specific plants or crops.</td>
<td>5</td>
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<tr>
<td>PS.02.02 Apply knowledge of plant anatomy and the functions of plant structures to activities associated with plant systems.</td>
<td>5</td>
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<tr>
<td>CR.P02.01 Use strategic thinking to connect and apply academic learning, knowledge, and skills to solve problems in the workplace and community.</td>
<td>4</td>
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<tr>
<td>CR.P01.01 Model personal responsibility in the workplace and community.</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>
**Student:** Elizabeth Skidmore  
**Teacher:** Amber Nagel  
**Date of Visit:** 2/19/2020  
**Extended Contract Hours:** 1.0  
**In-Contract Hours:** 0.0  
**Miles Traveled:** 0

**Grading Period:** 6/1/2019 to 5/7/2020

### Overall Skill & Work Rating

<table>
<thead>
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<th>Skill</th>
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<th>Limited</th>
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<th>Proficient</th>
<th>Exemplary</th>
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</thead>
<tbody>
<tr>
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### 2019 Market Lamb Project

**A5.02.02 Analyze procedures to ensure that animal products are safe for consumption (e.g., use in food system, etc.).**  
105 entries

<table>
<thead>
<tr>
<th>Skill</th>
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<tr>
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</tbody>
</table>

**Recommendation / Comments:**  
I had a conversation with Elizabeth and her family about expanding her SAE. I believe she should collect data on her experiences with her Grandfather's Ranch. Her and her family do a lot of wildlife conservation and range management. It would allow her to be applicable for a proficiency award.

**Photos:**

---

**CRP:01.01 Model personal responsibility in the workplace and community:**  
3 entries

**CRP:01.02 Evaluate and consider the near-term and long-term impacts of personal and professional decisions on employers and community before taking action:**  
3 entries

**Recommendation / Comments:**  
I observed Matt at his Grandfather's citrus farm. He began showing me the various activities of jobs. He is an excellent irrigation technician and very knowledgeable about pruning and his irrigation system they use. I was able to see the different varieties of his family ranch and he is well versed in all aspects of the operation.

**Photos:**

---

Send email notification to student with SAE Assessment Report

Save Evaluation  Delete
I BELIEVE IN THE FUTURE OF AGRICULTURE

GWHS Agriculture Department 2019-2020
GRADING POLICY & CLASSROOM RULES

Mrs. Nagel
Ag Biology
Room P-36
Phone: To be determined
Email: anagel@vnd.org

Students & Parents sign up for “REMIND” – Text: @bhbgg7 To: 81010 (this is for Bio text reminders)

GRADING:
Grades will be determined by the following:
*Tests and other types of standards based assessment (40%)
*FFA and SAE (20%)
*Labs & Projects & Other Type of work (30%)
*Homework/Ag Biology Binder (10%)

GRADING SCALE:
100%-90% = A
89%-80% = B
79%-70% = C
69%-60% = D
59%-0% = F

TESTS AND ASSESSMENTS: It is important that you spend the TIME preparing for Tests. You will have a test about every three weeks. One week’s notice will usually be given before the test. These tests will be based upon the material covered in class and from homework assignments. After some tests, you will have one week to come in and rewrite missed questions for additional points. You may come in before school or at lunch to rewrite missed test questions. Quizzes will be given frequently as practice for the upcoming test. These will deal with notes given in class, laboratory experiments and/or homework assignments.

LABS: Ag Biology is primarily a laboratory oriented class. You will be expected to follow certain procedures during these times. Failure to follow these procedures will result in your not being able to take part in future laboratory activities. Careful use of equipment and materials is important because of the high cost of the equipment and potential harm from some of the materials used. All laboratory activities are expected to be completed by you, even if not finished in class (this relates to the analysis questions at the end of the experiment). This will be considered as HOMEWORK.

HOMEWORK: You will be given assignments to do at home. This could include, but not limited to, reading assignments, study guides, reports, laboratory questions. These will be due AT THE BEGINNING OF THE CLASS on the specified date. NO CLASS TIME WILL BE GIVEN TO COMPLETE HOMEWORK ASSIGNMENTS!

LATE WORK: Each day an assignment is late, it will be marked down one letter grade (10%). No late work will be accepted that is more than ONE week late. After one week you will receive a zero (0).

FFA AND SAE: What a wonderful choice you have made to join this Department. Throughout the year there will be multiple leadership opportunities for you to join. I am very interested in seeing what this wonderful program will do for you. Participating in the FFA is graded and 10% of your grade. Another part of this program is the Supervised Agricultural Experience Program. What is your project? Are you a business owner? An ag employee? Are you in research and problem solving? You are expected to have in the works. Also have project visit meeting with you, a parent, and me. 1 meeting per semester. Maintain an AET recordbook, and compete in the class Project Competition Contest. This is another 10% of your grade.

I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL
MISSED ASSIGNMENTS: If you are absent it is your responsibility to make up any missed work. You will have one week from the day you return to make up any missed assignments, tests or quizzes. After one week you will receive a zero (0). Before school and/or at lunch will be set aside for make-ups and rewriting test questions.

AG BIOLOGY BINDER: This is a portfolio of your work in this class. You will need a 2 inch binder with tabs. It will be collected periodically and a grade will be given based upon your records.

Tabs Labeled:
1. Calendar
2. Notes
3. Labs
4. Review
5. Quizzes
6. Other

CLASSROOM RULES:
Every student will have the opportunity to learn. We will have a set of rules to ensure that all students will be given this opportunity. The rules are as follows:
1. Listen when others are talking.
2. Use appropriate language (No Cussing).
3. Respect others & School property.
4. No Eating or Drinking in Class.
5. Participate and GIVE IT YOUR ALL!

When you step into the classroom:
1. Turn your device on silent, put it away and keep it out of sight.
2. If it is out or you use it for any reason (unless otherwise instructed to… for a calculator, stopwatch, etc.) it will be considered a disruption to the educational environment and your device will be confiscated.
3. The device will be given to an administrator & returned to you at the end of the day.
4. If you refuse to give it to your teacher (defiance), you will be given a referral removed from class for the remainder of the period and the next day.

TARDY POLICY (See GWHS Student/Parent Handbook)
- 1st & 2nd Tardy = Teacher will give a verbal warning to student & review Tardy Policy.
- 3rd Tardy = Teacher will make parent contact, and conference student.
- 4th Tardy = Counselor meeting with student and parent notified, intervention recorded in powerschool.
- 5th Tardy = Lunch detention assigned by administration and served on Tuesday or Thursday.
- 6th Tardy = Loss of off campus privileges for one week and lunch detention on Tuesday or Thursday.
- 7th Tardy = Loss of off campus privileges until Saturday school served.

SCHOOL FARM:
When we do school farm based labs or activities, clothed toed shoes must be worn at all times. When weather is warm dress appropriately, but remember the dress code. Follow instructions from your teacher and stay engaged in the lesson. Harassment, harm or attempt of harm to livestock will be reported immediately and will loose farm privileges immediately.

*Students & Parents: Please sign up for “REMIND”. This is to get text (or email) reminders of important things happening in Mrs. Nagel’s Ag Biology class. To sign up …
  - use your cellphone & Text: @bhbgg7 To: 81010
**SAE Project**

**Introduction:** As a Sophomore in our program, it is your year to HAVE an established SAE project in working order. This project is 10% of your grade and is graded at every grading period. You will need to complete your AET Recordbook, host a SAE project visit with your parents, your project and me. This must be completed for each semest. Below is a form that I need you and your parents to fill out. Please inform me what your project is.

1. Currently My Supervised SAE project is __________________________
2. This project is in this category in my AET recordbook __________________________
   (Such as Animal Systems, Plant Systems, Agri-Business, Agri-Science Fair)
3. In a few short sentences explain your SAE project.
   a. ___________________________________________________________________
      ___________________________________________________________________
      ___________________________________________________________________
      ___________________________________________________________________
   
4. What are you plans to grow your project this year:
   a. ___________________________________________________________________
      ___________________________________________________________________
      ___________________________________________________________________
      ___________________________________________________________________
   
5. What is your career goals after high school?
   ___________________________________________________________________
   
Your Signature:________________________________________
Parents Signature:____________________________________
Date:______________
Golden West
I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL

Program of Activities 2019-2020

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Advisors’ Message

I BELIEVE IN THE FUTURE OF AGRICULTURE  

AMBER NAGEL
Dear Parent(s), Guardian(s), & FFA Members,

Your child(ren) has shown interest in being an active member of the Golden West FFA Chapter. While some people believe that you have to live on a farm to be in FFA, this is no longer true. FFA is a student organization that, at one time, was known as “Future Farmers of America,” however in 1988 the name was changed to the “National FFA Organization.” This was done to accommodate the changing face and diversity of today’s agriculture industry. Whereas agricultural production in farming crops and livestock was the focal point for projects, new projects like turf grass management, forestry, ag sales, floriculture/landscaping, and many more are now widespread FFA activities.

This Program of Activities (POA) is designed to allow you to fully understand and become aware of the opportunities your child(ren) has in the Golden West FFA. It contains a brief chapter overview, events, and a tentative calendar of activities. Please let us know if you have any questions involving the FFA opportunities available to your student. We look forward to our upcoming year with you!

Emmett, Gary, Jennifer, and Amber

Emmett Schultz, Department Head & Ag Mechanics Teacher- eschultz@vusd.org
Gary Potter, FFA Advisor, Ag Engineering & Horticulture Teacher- gpotter@vusd.org
Jennifer Potter, Animal Science Teacher- jpotter@vusd.org
Amber Nagel, Agriculture Biology – anagel@vusd.org

Department Outline

Introduction:
The purpose of this outline is to acquaint you with the opportunities offered by the Golden West High school Agriculture Department. This will enable your student to take full advantage of these opportunities. The agriculture program is unique to each student as it is customized to individual
educational needs and interests. To participate fully in the agriculture program, students must be actively engaged in all three aspects of agriculture education: classroom activities, FFA, and SAE.

**FFA:**
This intra-curricular national youth organization is for all students studying agriculture education. The purpose of this organization is to develop leadership skills and serve as a learning tool to strengthen the “hands-on” component of the high school agriculture curriculum.

**Supervised Agricultural Experience (SAE):**
Otherwise known as “projects,” students engage themselves in an activity related to their individual agriculture program outside of the normal classroom environment. They keep records on the transactions related to their project in an official record book. It also provides them the opportunity for personal recognition, skill development, and career preparation.

**Advisors:**
Mr. Emmett Schultz- Ag Mechanics Pathway, Beef & Sheep Projects, Department Head
Mrs. Amber Nagel Ag Biology Teacher, Poultry and Avian Species Advisor
Mr. Gary Potter- Ag Engineering & OH Supervisor, Plant Science Pathway, Farm Powers, Swine Advisor, FFA Advisor
Mrs. Jennifer Potter- Animal Science Pathway, Sheep & Goat Breeding Enterprise

**What is taught in the Agriculture Department?**
- Advanced Environmental Horticulture
- Ag Biology
- Ag, Science
- Ag Engineering
- Ag Mechanics
- Animal Science
- Introduction to Environmental Horticulture
- Pre-Vet Technology
- Welding

**Department Outline, Continued**

**Career Development Events (CDE):**
- *Ag Mechanics*  
  *Farm Power*  
  *Poultry*
- *Agriscience Fair*  
  Floriculture  
  Soils/Land
- *Best Informed Greenhand*  
  *Horse Judging*  
  Vegetables
- *Citrus*  
  *Impromptu Speaking*  
  Vet Science
- Cooperatives  
  *Job Interview*  
  Vine Pruning
- Cotton  
  Livestock Judging
*Creed Speaking *Marketing
Dairy Products *Marketing Plan
*Extemporaneous Speaking Nursery/Landscape
Farm Records *Opening/Closing
Farm Business Management Parliamentary Procedure

*The CDE’s marked with an * are current teams offered through Golden West FFA.*

**Leadership Development Plan:**
- 9th grade- Greenhand Conference
- 10th grade- Made for Excellence Conference
- 11th grade- Advanced Leadership Academy
- 12th grade- Sacramento Leadership Experience
- 9th-12th State Leadership Conference
- 9th- Graduate National FFA Conference

**Fairs and Shows:**
- Tulare County Fair
- Cow Palace, Grand National Junior Livestock Show
- California State Fair
- Various jackpots and shows throughout California

**Comments:**
The above outline is only a brief sketch of the opportunities available to students. A student, with the support of family, can take advantage of any of these opportunities. By doing so, students will be able to graduate saying, “I’m glad I did…” rather than, “I wish I would have…”

**2019-2020 Officer Team**

- President- Jace Williams
- Vice President- Caleb Bolin
- Secretary- Jacob Patton
- Treasurer- Matthew Weatherwax
- Reporter- Sydney Noell
- Sentinel- Wyatt Benson
- Historian- Payton Unholz
- Publisist- Briana Vicenti
- Horticulture Representative- Jerad Werthen
- Animal Science Representative- Jaclyn Cervantes Ortega
- Ag Engineering & Ag Mechanics Representative- Sam Pratt
2019-2020 Chapter Goals

1) Enter scrapbook in Regional contest, have the book ready by February 1.

2) Have the treasurer print out and share the FFA budget once a month at the first officer meeting of each month.

3) Have 100 FFA t-shirts and 50 FFA sweatshirts ordered by Tulare Fair.

4) Reach a total of $12,000 at the Sweetheart Dinner.

5) Students that participate in 6 or more activities per semester will receive a free bbq lunch at the end of each semester.

6) Hold a summer survival drive at the end of the school year for needy families to prepare for summer.

7) Have an ending year balance in the FFA ASB Account of at least $1500.00

8) Hold a social for faculty and staff 1 hours before Welcome Back BBQ to inform about Calendars, Star Applications, and to give department tours.

2019-2020 FFA Budget

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Expenses</th>
<th>Receipts</th>
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<tbody>
<tr>
<td>July</td>
<td>Planning Meeting</td>
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<tr>
<td>Aug</td>
<td>SJR Boot Camp</td>
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<tr>
<td>Aug</td>
<td>Officer/Parent Dinner</td>
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<tr>
<td>Aug</td>
<td>Welcome Back BBQ</td>
<td>$500</td>
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<tr>
<td>Sept</td>
<td>Fair Supplies</td>
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<td>Sept</td>
<td>Fall Movie Night</td>
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<td></td>
<td>Placemat Ads</td>
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<td>Sept</td>
<td>Drive Thru BBQ</td>
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<td>Oct</td>
<td>Fall Extravaganza Meeting</td>
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<td>Nov</td>
<td>Greenhand Conference</td>
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<td>Nov</td>
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<tr>
<td>Dec</td>
<td>Winter Wonderland Meeting</td>
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<td>Dec</td>
<td>Officer Potluck</td>
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<tr>
<td>Jan</td>
<td>Winter Officer Retreat</td>
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<tr>
<td>Jan</td>
<td>Scavenger Hunt Meeting</td>
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<tr>
<td>Feb</td>
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<td>Spring Field Days</td>
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<td>State Convention</td>
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<td>Spring Movie Night</td>
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<td>May</td>
<td>Spring Awards Banquet</td>
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<td>May</td>
<td>Pool Party</td>
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<td>End of Year Trip</td>
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<td>T-Shirts</td>
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<td>SJR Spring Meeting</td>
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$18,240 $22,150
August
19: Placemat Ad Fundraiser Begins
    FFA T-shirt & Sweatshirt Orders Begin
22: Welcome Back BBQ, 5:00 PM, Ag Department

September
5: Capture the Flag, 5:30 PM
6: Placemat Ad Fundraiser Ends
    FFA T-shirt & Sweatshirt Orders End
11-15: Tulare County Fair, Times Vary, Tulare Fairgrounds
18: Greenhand Leadership Conference, All Day, Lemore
21: Drive Thru BBQ, GW Ag Department, 6-8 PM
28: Mt. Whitney Opening/Closing Contest, 5 PM

October
2: Sectional Opening/Closing Contest, 5 PM, Hanford
9: Tulare/Kings FFA Quantum Leap, 5-8 PM
17: Fall Extravaganza, 5:30 PM, Ag Department

November
8: COS Freshmen Field Day, All Day, COS Campus
14: Fall Awards Banquet, 6 PM, GW Mini-Gym

December
12: Winter Game Night Meeting, 5:30 PM, Ag Department
14: Golden West Citrus Contest
17: Semester Lunch
January
4: Porterville Citrus Contest
19: SJR FFA Officer Applications Due
16: Chapter Family Night, 5:30
18: Tulare Citrus Contest
25: Reedley College Citrus Contest
28: TK Section Job Interview & Prepared Manuscripts Due

February
1: Mid-Winter State Finals; 8:00 AM, Fresno State
3: Kiss A Cow Begins
5: TK Section BIG & COOP Contest; 5:00 PM, Mt. Whitney
6: Taco Truck Meeting, 5:30
14-15: MFE/ALA; Visalia
20-23: SLE
19: Sectional Creed & Impromptu Contests; Hanford
   Kiss A Cow Ends
20: Teacher Appreciation Breakfast; 6:00 AM, Cafeteria
21: Kiss-A-Cow at lunch
22: SJR FFA Meeting
27: Sectional Prepared, Extemp &
   Job Interview Contest; Golden West

March
7: UC Davis Field Day
   West Hills Field Day
14: Chico Field Day; Merced Field Day
12-16: Western Week Team Sign Ups
18: TK Section Roller Towne; 6-8 PM
20: SJR Speaking Contest, COS
21: MJC Field Day
23-27: Western Week
27: Sweetheart Dinner
28: Reedley College Field Day
April
2: TK Sectional Awards Banquet
4: Clovis Vet Science Contest
16: Spring Carnival Meeting; 5:00 PM, Ag Department
18: Fresno State Field Day
22: State Speaking Finals
23-26: State Conference
29: Sectional FFA Officer Names Due

May
1-2: Cal Poly State Finals
6: TK Section Officer Elections; Redwood
7-9: Norm Phillips Plant Sale
14: End of Year Banquet; 6:00 PM, GW Mini Gym

June
2: Semester Lunch
8: Top 10 Trip
Introduction to the FFA

The FFA is a national organization of, by, and for students studying agriculture in public secondary schools under the provision of the National Vocational Education Acts.

An integral part of the program of education in agriculture in the public school system of America, the FFA has become well known in recent years. No National student organization enjoys greater freedom of self-government under adult council and guidance than the FFA. Organized in November 1928, it has served to motivate and vitalize the instruction offered to students of agriculture and to provide further training in citizenship and agriculture business.

The FFA is a non-profit, non-political youth organization designed to take its place with other agents striving for the development of leadership, the advancement of agriculture technology, and improvement of agricultural life. The foundation upon which the FFA organization is molded includes leadership, service, thrift, scholarship, improved agriculture, organized recreation, citizenship, and patriotism.

National Headquarters for the FFA are located in Indianapolis, Indiana. The National FFA Convention is held in October every year and is currently located in Indianapolis, Indiana. The California FFA Association holds its annual conference at the Selland Arena in Fresno each April.

This 2019-2020 Program of Activities was developed to explain the purpose of the FFA organization and give insight into many opportunities that are available to all agriculture students at Golden West High School.

The FFA Motto:
Learning to Do
Doing to Learn
Earning to Live
Living to Serve
Mission and Strategies

FFA makes a positive difference in the lives of students by developing their potential for **premier leadership, personal growth and career success** through agricultural education.

To accomplish this mission, FFA:

- Develops competent and assertive agricultural leadership.
- Increases awareness of the global and technological importance of agriculture and its contribution to our well-being.
- Strengthens the confidence of agriculture students in themselves and their work.
- Promotes the intelligent choice and establishment of an agricultural career.
- Encourages achievement in supervised agricultural experienced programs.
- Encourages wise management of economic, environmental and human resources of the community.
- Develops interpersonal skills in teamwork, communications, human relations and social interaction.
- Builds character and promotes citizenship, volunteerism and patriotism.
- Promotes cooperation and cooperative attitudes among all people.
- Promotes healthy lifestyle.
- Encourages excellence in scholarship.

The Agricultural Education Mission

*The mission of Agriculture Education is to prepare and support individuals for careers, build awareness and develop leadership for the food, fiber and natural resource system.*
FFA Code of Ethics

FFA members conduct themselves at all times to be a credit to their organization, chapter, school, community and family. As an FFA member, I pledge to:

1. Develop my potential for premier leadership, personal growth, and career success.
2. Make a positive difference in the lives of others.
3. Dress neatly and appropriately for the occasion.
4. Respect the rights of others and their property.
5. Be courteous, honest and fair with others.
6. Communicate in an appropriate, purposeful, and positive manner.
7. Demonstrate good sportsmanship by being modest in winning and generous in defeat.
8. Make myself aware of FFA programs and activities and be an active participant.
9. Conduct and value a supervised agricultural program.
10. Strive to establish and enhance my skill through agricultural education in order to enter a successful career.
11. Appreciate and promote diversity in our organization.

FFA Official Dress

The uniform worn by FFA members at local, state, and national functions is called official dress. It provides identity and gives a distinctive and recognizable image to the organization.

Female members are to wear a black skirt, white blouse with official FFA blue scarf, black shoes and official jacket zipped to the top. Black slacks may be worn for traveling and outdoor activities such as judging contests and camping.

Official dress for male members is black slacks, white shirt, official FFA tie, black shoes, black socks, and official jacket zipped to the top.
Proper Use of the FFA Jacket

The FFA jacket is the most recognizable symbol of the organization. As a member, one of your responsibilities is to ensure its proper use. Specific guidelines are outlined below.

1. The jacket is to be worn only by members.
2. The jacket should be kept clean and neat.
3. The back of the jacket includes only: a large official FFA emblem, the name of the state association, and the name of the local chapter, district, or area. The front of the jacket includes only a small official FFA emblem, the name of the individual, one office or honor, and the year of that office or honor.
4. The jacket should be worn on official occasions with the zipper fastened to the top. The collar should be turned down and the cuffs buttoned.
5. The jacket should be worn by members and officers on all official FFA occasions, as well as other occasions where the chapter or state association is represented. It may be worn to school and other appropriate places.
6. The jacket should only be worn to places that are appropriate for members to visit.
7. School letters and insignia of other organizations should not be attached to or worn on the jacket.
8. When the jacket becomes faded and worn, it should be discarded or the emblems and lettering removed.
9. The emblems and lettering should be removed if the jacket is given or sold to a non-member.
10. A member should act professionally when wearing the official FFA jacket.
11. Members should refrain from use of tobacco and alcohol when underage and at all times when representing the FFA. In addition, members should exhibit their leadership qualities when they encounter substance including tobacco and alcohol and serve to discourage others from inappropriate behavior.
12. All chapter degree, officer and award medals should be worn beneath the name on the right side of the jacket, with exception that a single state FFA Degree charm or American FFA Degree key should be worn above the name or attached to a standard key chain. No more than three medals should be worn on the jacket. These should represent the highest degree earned, the highest office held and the highest award earned by the member.
The National Emblem of the FFA is significant and meaningful in every detail. Used by members in all recognized units in the organization, it is made up of five symbols: the owl, the plow, and the rising sun, within the cross section of an ear of corn, which is surrounded or surmounted by the American eagle. Upon the face of the emblem appear the words, "Agricultural Education," and the letters, "FFA."

The owl is symbolic of wisdom and knowledge.

The plow is the symbol of labor and tillage of the soil.

The rising sun is emblematic of progress and the new day that will dawn when all farmers are trained and have learned to cooperate.

The cross section of an ear of corn represents common agricultural interests since corn is native to America and grown in every state.

The eagle is indicative of the national scope of the organization.
FFA Creed

I believe in the future of agriculture, with a faith born not of words but of deeds – achievements won by the present and past generations of agriculturalists; in the promise of better days through better ways, even as the better things we now enjoy have come to us from the struggles of former years.

I believe that to live and work on a good farm, or to be engaged in other agricultural pursuits, is pleasant as well as challenging; for I know the joys and discomforts of agricultural life and hold an inborn fondness for those associations which, even in hours of discouragement, I cannot deny.

I believe in leadership from ourselves and respect from others. I believe in my own ability to work efficiently and think clearly, with such knowledge and skill as I can secure, and in the ability of progressive agriculturalists to serve our own and the public interest in producing and marketing the product of our toil.

I believe in less dependence on begging and more power in bargaining; in the life abundant and enough honest wealth to help make it so – for others as well as myself; in less need for charity and more of it when needed; in being happy myself and playing square with those whose happiness depends upon me.

I believe that American agriculture can and will hold true to the best traditions of our national life and that I can exert an influence in my home and community which will stand solid for my part in that inspiring task.

The creed was written by E.M. Tiffany, and adopted at the 3rd National Convention of the FFA. It was revised at the 38th Convention and the 63rd Convention.
FFA Degrees

There shall be four degrees of active membership based on individual achievement. These are the Greenhand FFA Degree, Chapter FFA Degree, State FFA Degree, and the American FFA Degree. The national organization shall set the minimum qualifications for each degree.

Greenhand FFA Degree
To be eligible to receive the Greenhand FFA Degree from the chapter, the member must meet the following minimum qualifications:

- Be enrolled in agricultural education and have satisfactory plans for a supervised agricultural experience program.
- Learn to explain the FFA Creed, Motto, Salute and the FFA Mission Statement.
- Describe and explain the meaning of the FFA emblem and colors.
- Demonstrate knowledge of the FFA Code of Ethics and the proper use of the FFA jacket.
- Demonstrate knowledge of the history of the organization, the chapter constitution and the bylaws, and the chapter Program of Activities.
- Personally own or have access to the Official FFA Manual and the FFA Student Handbook.
- Submit written application for the Greenhand FFA Degree.

Chapter FFA Degree
To be eligible to receive the Chapter FFA Degree from the chapter, the member must meet the following qualifications:

- Must have received the Greenhand FFA Degree.
- Must have satisfactorily completed the equivalent of at least 180 hours of systematic school instruction in agricultural education at or above the ninth grade level, have in operation an approved supervised agriculture experience program, and be enrolled in an agricultural education course.
- Have participated in the planning and conducting of at least three official functions in the chapter Program of Activities.
- Have earned and productively invested at least $150 by the members own efforts or worked at least forty-five hours in excess of scheduled class time, or a combination thereof, and have developed plans for continued growth and improvement in a supervised agriculture experience program.
- Have effectively led a group discussion for 15 minutes.
- Have demonstrated five procedures of parliamentary law.
- Show progress toward individual achievement in the FFA awards program.
- Have a satisfactory scholastic record.
- Submit a written application for the Chapter FFA Degree.
State FFA Degree
To be eligible to receive the State FFA Degree from the state association, the member must meet the following minimum qualifications:

- Have received the Chapter FFA Degree.
- Have been an active FFA member for at least two years (24 months) at the time of receiving the State FFA Degree.
- While in school, have completed the equivalent of at least two years (360 hours) of systematic school instruction in agricultural education at or above the ninth grade level, which includes a SAE program.
- Have earned and productively invested at least $1,000, or worked at least 300 hours in excess of scheduled class time, or a combination thereof, in a supervised agricultural experience program.
- Demonstrate leadership ability by:
  - Performing 10 procedures of parliamentary law or a test.
  - Giving a six-minute speech on a topic relating to agriculture or the FFA.
- Serving as an officer, committee chairperson, or participating member of a chapter committee.
- Have a satisfactory scholastic record as certified by the local agriculture educator and the principal or superintendent.
- Have participated in at least five different FFA activities above the chapter level.

American FFA Degree
To be eligible to receive the American FFA Degree from the National FFA Organization, the member must meet the following qualifications:

- Have received the State FFA Degree, have been an active member for the past three years (36 months) and have a record of satisfactory participation in activities on the chapter and the state level.
- Have satisfactorily completed the equivalent of at least three years (540 hours) of systematic secondary school instruction in an agricultural education program.
- Have graduated from high school at least 12 months prior to the national convention at which the degree is to be granted.
- Have in operation and have maintained records to substantiate an outstanding SAE program through which a member has exhibited comprehensive planning, managerial and financial expertise.
- Have earned and productively invested at least $7,500 or have earned and productively invested at least $1,500 and worked 2,250 hours in excess of scheduled class time.
- Have a record of outstanding leadership abilities and community involvement and have achieved a high school scholastic record of a “C” or better as certified by the principal or superintendent.
Proficiency Award Areas

Agricultural Communications
Typically includes programs in which students work at newspapers or other agricultural print facilities such as magazines to obtain training and practical experience in writing and publicizing in preparation for a writing or communications career. SAE programs may occur at radio or television stations, fair media rooms, or other businesses that require speaking skills and a knowledge of agriculture. This area includes any use of communication technology, such as web sites, aimed at communicating about agriculture.

Agricultural Mechanics Design and Fabrication
Involves designing and constructing agricultural equipment, structural land improvements and/or structures. It also includes selecting structural materials and/or implementing plans that use concrete, plumbing, heating, ventilation, and/or air conditioning in agricultural settings.

Agricultural Mechanics Repair and Maintenance
Involves adjusting, repairing, and maintaining agricultural power systems, which includes those that run by the way of mechanical, electrical, chemical, wind, solar, fluid, and/or water power.

Agricultural Mechanics Energy Systems (Agricultural Power)
Involves adjusting, repairing and maintaining agricultural power systems, which includes those that run by the way of mechanical, electrical, chemical, wind, solar, fluid and/or water power.

Agricultural Processing
Involves students who assemble, transport, process, fabricate, mix, package, and store food and nonfood agricultural products. Products may include the processing of meat, milk, honey, cheese, raisins and other dried fruits, maple syrup, and/or other food items. Nonfood products can include the processing of by-products such as meat, bone, fish and blood meal; tallow; compost; hides; wool and cotton. It can include the cubing and pelleting of forages, as well as producing birdseed and other pet foods. Note: the processing of forest products is no longer a part of this proficiency area.

Agriculture Sales Entrepreneurship/Placement
Involves students who sell feed, seed, fertilizer or agricultural chemicals. Students can also own businesses that involve the sales of agricultural equipment, machinery, or structures. Activities can include the merchandising of crops, livestock, processed agricultural commodities, horticultural or forestry items at either the retail or wholesale level.

Agricultural Services
Involves students who work in services offered through agricultural enterprises that deal with custom equipment operation and maintenance, agricultural management and finance, agricultural education, animal breeding, custom bailing, crop scouting,
**Beef Production Entrepreneurship/Placement**
Involves programs that use the best management practices available to produce and market beef efficiently.

**Dairy Production Entrepreneurship/Placement**
Involves programs that use the best management practices available to produce and market dairy cattle and dairy products efficiently.

**Diversified Agricultural Production**
Involves the use of the best management practices available to produce and market efficiently at least one livestock and at least one crop related proficiency.

**Diversified Crop Production Entrepreneurship/Placement**
Involves the use of the best management practices available to produce and market efficiently two or more crop related proficiency areas such as grain, fiber/oil, forage, specialty crop, non-horticultural vegetable or fruit production.

**Diversified Horticulture Entrepreneurship/Placement**
Typically involves producing, processing, and marketing plants used principally for ornamental or aesthetic purposes and fruits and vegetables traditionally related to horticulture. This diversified proficiency area encompasses a student SAE with at least two of the following areas: Floriculture; Nursery Operations; Landscape Management; Turf Grass Management; and Fruit and/or Vegetable Production – such as viticulture (grapes), pomology (fruit trees) and horticulture fruits and vegetable (not including fruit and vegetable row crops).

**Diversified Livestock Production Entrepreneurship/Placement**
Involves the use of the best management practices available to produce and market efficiently a combination of two or more livestock related proficiency areas such as beef, dairy, swine, equine, specialty animal, small animal, small animal production or poultry.

**Emerging Agricultural Technology**
Involves programs where students gain career experiences in new and emerging agricultural technologies such as agriscience, global positioning, biotechnology lab research, computers and others that are not covered by existing categories.

**Environmental Sciences and Natural Resources Management**
Typically results in FFA members receiving practical experiences in the principles and practices of managing and/or improving the environment and natural resources. Activities can involve managing agricultural waste, recycling agriculture products, cleaning the environment, or serving in the conservation corps. This area can include multiple resource uses; wildlife surveys; erosion prevention practices; public relations.
Equine Science Entrepreneurship/Placement
Typically provides insights into horse production, breeding, marketing, showing and other aspects of the equine industry. Programs can also include calf roping, barrel racing, rodeo, racing, riding lessons and therapeutic horseback riding if horses are owned and/or managed by a member.

Fiber Crop Production
Involves the use of the best management practices available to produce a market efficiently fiber and/or oil crops such as cotton, sisal, hemp, soybeans, flax, mustard, canola, caster beans, sunflower, peanuts, dill, spearmint and safflower.

Floriculture
Involves the use of the best management practices available to produce and market efficiently fresh and dried field or greenhouse flowers, foliage and related plant materials, including the arranging, packaging and marketing of these materials, for ornamental purposes.

Food Science and Technology
Involves students who work for wages and/or experiences in applying microbiology, food biochemistry or food product research and development to improve taste, nutrition, quality and/or the value of food. Programs can include research, new product development, food testing, grading and inspecting.

Forage Production
Involves the use of the best management practices available to produce and market efficiently forage crops such as non-grain sorghum, alfalfa, clover, brome grass, orchard grass, grain forages, corn or grass silages and pasture.

Forest Management and Products
Involves the use of the best management practices available to conserve or increase the economic value of a forest and/or forest products through such practices a thinning, pruning, weeding, stand improvement, reforestation, insect and disease control, planting and harvesting. It can include experience with the Forest Service, Christmas tree farming, as well as making and selling cedar shakes, firewood and wood ships/mulch.

Grain Production Entrepreneurship/Placement
Involves the use of the best management practices available to produce and market efficiently grain crops such as corn, barley (including the malting types), millet, buckwheat, oats, grain sorghum, Milo, wheat, rice and rye. (Grain production would not include any of the previously mentioned crops where its intended use is for forage.)
**Home and/or Community Development**
Typically involves improving and protecting the beauty of an area by using natural vegetation or commercial ornamental plants. This area can include activities to modernize a home for better health and comfort by installing or improving water and sanitary facilities, heating and air conditioning or labor saving devices. It can include community and betterment and development activities such as volunteerism to improve the community.

**Landscape Management**
Typically involves experiences of planting and maintaining plants and shrubs landscaping and outdoor beautification, installing sprinklers and improving recreational areas.

**Nursery Operations**
Typically provides students with job-entry experiences in areas such as shrubs, tree or other plant production for the purpose of transplanting or propagation. It can include water garden plants produced for sale.

**Outdoor Recreation**
Typically involves outdoor recreational activities as the primary land use. Some activities best suited to family use or as income-producing enterprises include vacation cabins and cottages, camping areas, fishing, hunting, shooting preserves, guide services, riding stables, vacation farms and guest ranches, natural scenic or historic areas and rodeo events where members do not own or manage horses.

**Pomology Production Entrepreneurship/Placement**
Involves the use of the best management practices to produce and market efficiently fruit crops such as stone, pome, and citrus fruits; pineapples; coconuts; berries; watermelon; grapes; nuts and all common fruits. (Pome fruits include apples, may haws and pears. Stone fruits include peaches, nectarines, plums, apricots, and cherries.)

**Poultry Production**
Involves the use of the best management practices available to produce and market efficiently domestic fowl such as duck, geese and guinea; chickens; as well as turkeys and their products.

**Sheep Production**
Involves the use of the best management practices available to produce and market sheep and wool efficiently.

**Small Animal Production and Care**
Involves the use of the best management practices available to manage, produce and/or market efficiently small pet animals such as rabbits (for pets), cats, dogs, mice, hedgehogs and guinea pigs. Programs can typically provide a service where students care for the well-being of pets. They can also include working at a pet shop or kennel, grooming or training dogs, as well as serving as a veterinary assistant or providing pet sitting service.
Specialty Animal Production Entrepreneurship/Placement
Involves the use of the best management practices available to manage, produce and market efficiently specialty animals covered by none of the existing award categories, including bees, goats, mules, donkeys, miniature horses, meat rabbits, mink, worms, ostriches, emus, alpacas or llamas. Placement experiences can involve working at zoo or at any specialty animal facility.

Specialty Crop Production
Involves the use of the best management practices available to produce and market efficiently crops covered by none of the existing award categories, including sugar beets, dry edible beans, gourds, tobacco, popcorn, Indian and other specialty corns, grass seed, herbs and spices, mushrooms, sugar cane, hops, sorghum cane, confectionary sunflowers or crop seed.

Swine Production Entrepreneurship/Placement
Involves the use of the best management practices available to produce and market swine efficiently.

Turf Grass Management
Typically involves the planting and maintaining of turf for outdoor beautification, owning a lawn mowing service, improving recreational areas, producing sod for sale and managing golf courses.

Vegetable Production Entrepreneurship/Placement
Involves the use of the best management practices available to produce and market efficiently crops such as beans, potatoes, pumpkins, sweet corn, tomatoes, onions, zucchini, hot peppers, as well as all canning and common garden vegetables.

Viticulture Production Entrepreneurship/Placement
Involves the use of the best management practices available to produce and market efficiently grapes and/or their by-products.

Wildlife Production and Management Entrepreneurship/Placement
Typically involves activities to improve the availability of fish and wildlife through practices such as trapping, stocking fish and wild game or those that develop new or improve existing land and water habitats for wildlife. This proficiency can include experiences with Fish and Wildlife Departments and Department of Natural Resources. Wildlife and wild species of ducks, geese, quail and pheasants are eligible in this area if used as an income enterprise.
California Leadership Map

GREENHAND CONFERENCE (9th Grade)
FFA Organization, Agricultural Career Awareness, Individual Personal Plan

MADE FOR EXCELLENCE (10th/11th Grades)
Self-Esteem Building, Internal Motivation, Positive Attitude, Self Improvement, Time Management

CHAPTER OFFICER LEADERSHIP CONFERENCE
Coordinated by Regional and State Officers, Officer Skills, Meeting Activities, Speaking, Team Management

SECTIONAL OFFICER LEADERSHIP CONFERENCE
Coordinated by Regional and State Officers, Organizing Meetings, Mixers & Eye Openers, Making Presentations

ADVANCED LEADERSHIP ACADEMY (11th/12th Grade)
Verbal Communication, Interviewing, Presentation Techniques, Key Messages

STATE LEADERSHIP CONFERENCE
Exercising Democratic Principles, Developing a Committee Report, Award Recognition, Group Interaction

REGIONAL OFFICER LEADERSHIP CONFERENCE
Working with Others, Critical Thinking, Workshop Development, Team Building

NATIONAL CONVENTION
Group Interaction, Teamwork, Critical Thinking, Developing a National Perspective

SACRAMENTO LEADERSHIP EXPERIENCE (12th Grade)
Government Operations, Agricultural Industry, Organization, Management, Critical Thinking
Point Awards System

Each year the Golden West FFA keeps a point system for the activities that students attend. Each activity is worth a certain amount of points that are tallied up through the year. Chapter level activities are worth 10 points. Sectional and regional level activities are worth 20 points. State and national level activities are worth 30 points. The chapter secretary is in charge of keeping this system up to date. Monthly totals are posted in the agriculture department for students to keep track. At the end of the school year, the top ten most active, non-officer members are announced at the Spring Awards banquet. These individuals are then invited to a paid trip to an adventure park or activity chosen by the officer team at the summer officer retreat.

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<th>ACTIVITY</th>
<th>POINT VALUE</th>
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<td>1. State Fair</td>
<td>30</td>
<td>28. Taco Truck Meeting</td>
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<td>2. Welcome Back BBQ</td>
<td>10</td>
<td>29. MFE/ALA</td>
<td>20</td>
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<td>3. Tulare Fair</td>
<td>20</td>
<td>30. Farm Show</td>
<td>30</td>
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<td>4. Farm Fair</td>
<td>20</td>
<td>31. Sectional Speech Contest</td>
<td>20</td>
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<td>5. Fair Booth</td>
<td>20</td>
<td>32. BIG Contest</td>
<td>20</td>
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<td>6. Fair Banner</td>
<td>20</td>
<td>33. Banking Quiz</td>
<td>20</td>
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<td>7. Fall Movie Night</td>
<td>10</td>
<td>34. Co-Op Contest</td>
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<td>11. Drive Thru BBQ- 5 Tickets Sold</td>
<td>10</td>
<td>35. Staff Appreciation Breakfast</td>
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<td>12. Drive Thru BBQ- 2 Hours Worked</td>
<td>10</td>
<td>36. Spring Regional Meeting</td>
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<td>13. National Convention</td>
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<td>14. Halloween Meeting</td>
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<td>37. UC Davis Field Day</td>
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<td>15. Greenhand Conference</td>
<td>20</td>
<td>38. Hanford Field Day</td>
<td>20</td>
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<td>16. Fall Regional Meeting</td>
<td>20</td>
<td>39. Merced Field Day</td>
<td>20</td>
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<td>17. Turkey Bowling</td>
<td>10</td>
<td>40. MJC Field Day</td>
<td>20</td>
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<td>18. Fall Awards Banquet</td>
<td>10</td>
<td>41. Blind Babies Community Service</td>
<td>20</td>
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<td>19. Sectional Activities (Skating)</td>
<td>20</td>
<td>42. State Degree Ceremony</td>
<td>30</td>
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<td>20. Winter Wonderland Meeting</td>
<td>10</td>
<td>43. Sweetheart Dinner</td>
<td>10</td>
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<td>21. GW Citrus Contest</td>
<td>20</td>
<td>44. Western Week Committee or Team</td>
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<td>22. Scrapbook Committee</td>
<td>20</td>
<td>45. Petting Zoo</td>
<td>10</td>
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<td>23. Proficiency Application</td>
<td>20</td>
<td>46. Reedley Field Day</td>
<td>20</td>
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<td>24. Lock-In</td>
<td>10</td>
<td>47. Spring Movie Night</td>
<td>10</td>
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<tr>
<td>25. Porterville Citrus Contest</td>
<td>20</td>
<td>48. Fresno Field Day</td>
<td>10</td>
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<tr>
<td>26. Tulare Citrus Contest</td>
<td>20</td>
<td>49. State Conference</td>
<td>30</td>
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<tr>
<td>27. Winter State Finals</td>
<td>30</td>
<td>50. Cal Poly State Finals</td>
<td>30</td>
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<tr>
<td>28. Taco Truck Meeting</td>
<td>10</td>
<td>51. Chapter Officer Application</td>
<td>10</td>
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<tr>
<td>29. MFE/ALA</td>
<td>20</td>
<td>52. Sectional/Regional Officer Application</td>
<td>20</td>
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<tr>
<td>30. Farm Show</td>
<td>30</td>
<td>52. SLE or State Officer Candidate</td>
<td>30</td>
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</table>
Chapter Officer Duties

PRESIDENT:

- Preside over meetings
- Help appoint committees and serve on them when needed as ex-officio
- Coordinate the activities of the chapter
- Evaluate the process of the POA
- Represent the chapter in public & official functions
- Assist committee chairs with activities
- Preside over officer meetings and meet beforehand with advisor to set up agenda

VICE PRESIDENT:

- Assume all duties of the president when needed
- Develop the POA and serve as the ex-officio on committee when needed
- Coordinate all committee work
- Work closely with the president and advisor to assess progress toward meeting chapter goals
- Submit school bulletin announcements

SECRETARY:

- Prepare and present the minutes of each chapter meeting
- Record minutes for each officer meeting and keep on file with ASB
- Place all committee reports on file
- Be responsible for chapter correspondence
- Maintain membership attendance records and issue membership cards
TREASURER:

-Assist the advisor with receiving, recording, and depositing FFA funds
- Present up-to-date treasurer’s reports at each chapter meeting
- Collect money when required and serve as the chairperson to the fundraising committee
- Maintain financial records
- Correspond with ASB Director about authorization of fundraiser dates
- Promote innovative ideas to increase revenue at chapter fundraisers

REPORTER:

- Work with local newspapers, radios, television, and service clubs to promote chapter happenings
- Write articles for the New Horizon magazine
- Create press releases for chapter activities
- Compile a chapter scrapbook to submit in Regional contest
- Serve as the chapter photographer and assist the advisor in maintaining the chapter display case

SENTINEL:

- Assist the president in maintaining order during meetings
- Get the FFA paraphernalia and supplies for each meeting
- Welcome members and guests at events
- Reserve the meeting room and keep it comfortable
- Take charge of candidates for degree ceremonies
- Assist with special activities and refreshments
- Serve as decorations committee chair
HISTORIAN/PUBLICITY:

- Develop and maintain a scrapbook of memorabilia
- Research and prepare items of significance of the chapter’s history
- Prepare displays of chapter activities and submit stories of former members to the media
- Assist the reporter in providing photography for chapter needs

OPERATIONS:

- Assist the sentinel in preparing meeting room
- Aid in set up and take down at all events
- Work with sentinel to reserve meetings rooms
- Serve as Barbecue committee chair

REPRESENTATIVES (AG MECHANICS, HORTICULTURE, ANIMAL SCIENCE):

- Serve as liaison between classroom and FFA
- Recognize outstanding students within respective pathways
- Present monthly updates at FFA meetings
- Collaborate with Pathway Teachers
ARTICLE I. Name and Purposes

Section A. The name of this organization shall be “Golden West – Visalia Chapter of the National FFA Organization”.

Section B. The purposes in which this chapter is formed are as follows:

1. To develop competent, aggressive, rural, and agricultural leadership.
2. To create and nurture a love of country life.
3. To strengthen confidence of young men and women in themselves and their work.
4. To create more interest in the intelligent choice of agriculture occupations.
5. To encourage members in development of individual agricultural programs.
6. To encourage members to improve the home and its surroundings.
7. To participate in worthy undertakings for the improvement of agriculture.
8. To develop character, train for useful citizenship, and foster patriotism.
9. To participate on cooperative effort.
10. To encourage and practice thrift.
11. To encourage improvement in scholarship.
12. To provide and encourage the development of organized recreational activities.

ARTICLE II. Organization

Section A. The Golden West – Visalia Chapter is a chartered local unit of the California State Association, which is a chartered unit by the National FFA Organization.

Section B. The chapter accepts in full provisions in the constitution and bylaws of the California State Association as well as those of the National FFA Organization.

ARTICLE III. Membership

Section A. Membership in this chapter shall be of two kinds: (1) Honorary as defined by the National FFA Constitution; and (2) Active.

Section B. The regular work of this chapter shall be carried on by the active membership.

Section C. Honorary membership in this chapter shall be limited to the Honorary Chapter Degree.

Section D. Active members in good standing may vote on all business brought before the chapter. An active member shall be considered in good standing when:
ARTICLE IV. Emblems

Section A. The emblem of the FFA shall be the emblem of the chapter.

Section B. Emblems used by the members shall be uniform and those obtained from concerns officially designated by the National FFA Organization.

ARTICLE V. Membership Degrees and Privileges

Section A. There shall be four grades of active membership in this chapter. Those grades are: (1) the Greenhand Degree; (2) the Chapter Degree; (3) the State Degree; and (4) the American Degree.

Section B. Qualifications for election to the various degrees shall be the same as those set up in the FFA Handbook.

Section C. Special committees shall review the qualifications of members, and make recommendations to the chapter concerning degree advancements.

Section D. The Star Greenhand, Star Chapter Degree, Star Junior and Star Senior, shall be selected from the top five—point award winners of each class demonstrating the most diversified degree of FFA participation.

1. FFA participation shall be judged by:
   A. Scholarship
   B. Judging Teams
   C. Projects
   D. Fair and Shows
   E. FFA Activities
   F. Citizenship
   G. Conferences/Conventions

ARTICLE VI. Officers

Section A. The officers of the chapter shall be as follows: (Constitutional) President, Vice President, Secretary, Reporter, Treasurer, Sentinel; (Optional) Historian, Publicity, Operations, Ag Mechanics Representative, Ag Engineering Representative, Animal Science Representative, Horticulture Representative.

Section B. 6 constitutional officers will serve on the team each school year. Additional officer positions are determined by each nominating committee on a yearly basis, dependent on the applicant pool.
Section C. Officers shall be elected annually through a nominating committee comprised of outgoing senior officers. Applications and interview scores determine placement upon the team.

Section D. President shall be a senior during his/her year in office, susceptible to an amendment.

Section E. The officers of the chapter together while the chairman in charge of the major committees of this Program of Work shall constitute the Chapter Executive Committee. This Executive Committee shall have full power to act as necessary for the chapter in accordance with actions taken at chapter meetings and various regulations or by-laws adopted from time to time.

Section F. Honorary members shall not vote nor shall they hold office in the chapter except that of adviser.

Section G. Major Duties:

1. **PRESIDENT**
   - Preside over meetings
   - Appoint committees
   - Coordinate work of chapter
   - Members of all committees, ex officio
   - Be familiar with constitution and bylaws
   - Check on progress being made by chapter
   - Represent the chapter at special occasions

2. **VICE PRESIDENT**
   - Assist the President
   - President at meetings in absence of President

3. **SECRETARY**
   - Prepare and read minutes and reports
   - Attend to official correspondence
   - Keep membership and degree roll
   - Have available list of business for each meeting
   - Have on hand for each meeting secretary’s book and list of committees.
   - Prepare membership cards

4. **TREASURER**
   - Maintains chapter funds
   - Collect dues and send in State and National Dues
   - Assist in preparing annual budget
   - Keep financial record of chapter
   - Pay out chapter funds as authorized
   - Devise methods to raise funds
   - Encourage individual and chapter thrift

5. **REPORTER**
   - Prepare chapter news articles
   - Keep a chapter scrapbook
   - Keep file on all chapter news
Contact newspapers and arrange publicity  
Maintain FFA bulletin boards  

1. SENTINEL  
Set up the meeting room  
Care for chapter paraphernalia and equipment  
Attend the door and welcome visitors  
See that the meeting room is kept comfortable  
Assist with entertainment and refreshments  

2. HISTORIAN  
Assist Reporter in maintaining scrapbook  
Assist Reporter in maintaining FFA bulletin boards  

3. OPERATIONS  
Help arrange chapter parliamentary procedure contest  
Help sentinel with meeting room and paraphernalia  

ARTICLE VII. Meetings  

Section A  
Regular Chapter meetings shall be held at least once a month during the school year at such a time and place designated by the Chapter Executive Committee.  

Section B.  
Official delegates at the State Convention shall be active members in good standing.  

1. Additional members may be named as necessary in order to have proper representation at various sessions as the State Convention. These delegates must have a 3.0 GPA and will be required to pay the specified amount determined on a year to year basis. Selection of these additional delegates will be done by interview.  

Section C.  
One-third of the active members listed on the secretary’s membership roll shall constitute a quorum, and a quorum must be present at any meeting at which business is transacted or a vote is taken committing the chapter to a proposal or action.  

ARTICLE VIII. DUES  

Section A.  
Full local, State, and National Dues shall be paid by the chapter.  

ARTICLE IX. Amendments  

The constitution may be amended at any regular chapter meeting by a two-thirds vote of the active membership present providing it is not a conflict with the State and National Constitutions.
POLICIES

I. ELECTION OF OFFICERS

1. Officers shall be slated by a committee.
2. All officers, except Sentinel, Historian, and Operations must hold a chapter degree.
3. Applicants must have a 2.5 GPA with no “F’s” for the last grade period and a “B” in their current Ag class at that time of the application.
4. President must be a senior.

II. NONPERFORMANCE OF DUTY

1. An officer may be removed from office by a majority vote of the Executive Committee if in the opinion of the Executive Committee, he/she fails to perform their duty.

III. REPLACEMENT OF OFFICERS

1. Replacement of officers will be made by appointment of the Executive Committee.

IV. ELIGIBILITY RULES FOR PARTICIPATION

1. To participate in off campus activities, a member must:
   A. Have a 2.0 GPA with no “F’s” in all subjects and a “C” or better in his/her Agriculture class.
   B. Members must show proper citizenship and behavior at all activities.
   C. Show proper conduct in the FFA jacket.
   D. Not have been sent to the Vice Principal for disciplinary action more than two times per year.

VI. CHANGE OF POLICIES

1. The executive committee will convene annually to evaluate the constitution and make any necessary modifications or amendments for the benefit of the chapter.
2. These policies may be changed or added to by a two-thirds majority vote of the Chapter at any regular meeting at which a quorum is present.
Offered Agriculture Courses

Course Title: Agriculture Science 1  
Grade Level: 9th  
Elective/Required: Meet Physical Science graduation requirement  
Length/Credit: One year/10 credits  
Prerequisites: None

Course Description: Students participating in the Introduction to Agriculture course will experience hands-on activities, projects, and problems. Student’s experiences will involve the study of communication, the science of agriculture, plants, animals, natural resources, and agricultural mechanics. While surveying the opportunities available in agriculture and natural resources, students will learn to solve problems, conduct research, analyze data, work in teams, and take responsibility for their work, actions, and learning. For example, students will work in groups to determine the efficiency and environmental impacts of fuel sources in a practical learning exercise.

Course Title: Agriculture Biology  
Grade Level: 10th  
Elective/Required: Elective; meets biology graduation requirement  
Length/Credits: 1 year/10 credits  
Prerequisites: None  
Course Numbers: 0041, 0042  
CBEDS Codes: 2603  
Replaces: N/A

Course Description: A study of agriculture biology is basic to all students regardless of their educational goals, it is especially important to students interested in an agriculture career. This course is designed as an introductory course in living systems for the college preparatory student. The course is designed around the State of California’s academic standards for biology and is matched to the Visalia Unified School District common course outline for Biology. Major areas of study include cell biology, genetics, ecology, evolution and the structure and function of living things. Participants are expected to take the Core Content Area Test for Biology.
Course Title: Agricultural Mechanics I
Grade Level: 9th-12th
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: None
Course Numbers: 0052, 0053
CBEDS Codes: 4030
Replaces: N/A

Course Description: This introductory course in Agricultural Mechanics is designed to provide a strong foundation in the use of all basic farm shop skills. Tools, materials, and safety will be reviewed when each unit is taught. Proper skills involving hand tools will be stressed. This basic course in mechanics includes woodworking, metals, rope work, cutting and welding, etc. Instruction provides an opportunity for project development and begins preparation for careers in the construction, operation, and maintenance of equipment used by the agriculture industry. Throughout the school year, students will be working on small individual projects.

Course Title: Agriculture Mechanics II
Grade Level: 10th-12th
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: Agriculture Mechanics I or approval of instructor
Course Numbers: 0054, 0055
CBEDS Code: 4030
Replaces: N/A

Course Description: This second course in Agricultural Mechanics is designed to further understanding of Metal Inert Gas (MIG) welding, arc and oxy-acetylene welding, cutting, and project construction. Instruction also includes small engine repair and maintenance. The Agricultural Mechanics Pathway provides preparation for careers related to the construction, operation, and maintenance of equipment used by the agriculture industry. While students learned the “basics” in Agriculture Mechanics I, this course requires advanced welding techniques, as well as beginning project construction.
Course Title: Agriculture Mechanics III
Grade Level: 11-12
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: Ag. Mech. 2, and/or approval of teacher Course Number & CBEDS Codes: 0003/4030
Replaces: N/A

Course Description: Students will experience advanced welding and the construction of various projects. Instruction in welding stainless steel and aluminum as well as cutting with the electric plasma-arc torch and operation of the hydraulic shear and punch will be covered in detail. Students will be expected to design and construct a major project and compile a detailed written report of the process involved in the building of projects such as wood splitters, trailers, barbecues, stoves, benches, etc.

Course Title: Agriculture Mechanics IV
Grade Level: 12
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: Ag. Mech. 2, and/or 3 or approval of teacher Course Number & CBEDS Codes: 0004/4030
Replaces: N/A

Course Description: Students will experience advanced welding and the construction of various projects. Instruction in welding stainless steel and aluminum as well as cutting with the electric plasma-arc torch and operation of the hydraulic shear and punch will be covered in detail. Students will be expected to design and construct a major project and compile a detailed written report of the process involved in the building of projects such as wood splitters, trailers, barbecues, stoves, benches, etc. This course is an extension of the principles taught in Agricultural Mechanics 3.
**Course Title: Animal Science**
Grade Level: 11a
Elective/Required: Elective
Length/Credits: Year/10 Units
Prerequisites: English I, Algebra I, Ag Biology or Biology, Ag Chemistry or Chemistry
Course Numbers: 0093, 0094, and 0095
CBEDS Code: 4020
Replaces: NA

**Course Description:** This is an advanced course in the Agriculture Animal Science pathway. The course will cover anatomy and physiology of livestock animals, animal health as it relates to specific species, animal management, reproduction, nutrition, marketing, and record keeping. This course supports the standards in Algebra, with emphasis on mathematical problem solving, and English. Students will be assessed with written and practical exams. Benchmarks will check mastery of subject content.

**Course Title: Pre-Vet Science**
Grade Level: 12th
Elective/Required: Elective
Length/Credits: Year/10 units
Prerequisites: Ag Science I, Ag Biology, Algebra, English I
CBEDS Codes: 0084, 0085 4020
Replaces: None

**Course Description:** This course covers the fundamentals of animal health care. Instruction is offered in nutrition, diseases and sanitation, small animal care, as well as basic livestock handling. FFA instruction and participation, and student projects (supervised Agricultural Experience Programs) are an integral part of the class. The goals of the course are to provide the students with basic knowledge and skills necessary for an entry-level college course in animal science.
Course Title: Introduction to Environmental Horticulture
Grade Level: 9-10
Elective/Required: Elective
Length/Credits: 1 Year/10 Credits
Prerequisites: None
Course Numbers: 0032, 0033
CBEDS Code: 4050
Replaces: None

Course Description: Instruction in this course provides a understanding of the basic anatomy and physiology of plants. The Introduction to Environmental Horticulture course emphasizes practical biological knowledge and develops essential understandings in soil science, entomology, propagation, genetics, and local crop production and harvesting practices. Leadership skills are taught through participation in FFA.

Course Title: Advanced Environmental Horticulture
Grade Level: 11th -12th
Elective/Required: Elective
Length/Credits: 1 Year/2 periods/20 Credits
Prerequisites: NONE
Course Numbers: 4533, 4534, 4535
ROP Course Numbers: 8732, 8733, 8734
CBEDS: 2535
Replaces: TCOVE Nursery Technology

Course Description: This is an advanced course designed for students who have a sincere interest in the nursery and/or floral industry. Topics discussed include floral design techniques, design principles, nursery production, landscape design and maintenance, irrigation, botany, soils and fertilizers. Activities include designing with fresh flowers, holiday arrangements, personal flower, greenhouse and nursery crop production, landscape design and construction and care of outdoor landscaped areas. Course participation includes production of nursery crops and marketing and sales of nursery/floral products each semester. Leadership skills will be taught through participation in FFA.
Golden West Recruitment Plan

When I first was hired at the beginning of the year the plan was to be present the major tour that Valley Oak participated in. The students would tour the School and sometimes pass by the Ag Program. It was very difficult to get students interested in the program or become aware that it is present. This past year I organized a full day at Valley Oak. I took three students for each Class I had about four classes total and taught mini lessons for each pathway at Golden West Ag. We taught the science departments classes all period long and I felt positive about the opportunity. Our numbers did not grow like we wanted to this year. However, we have a solid recruitment strategy.
Summer Activities Plan

Well this summer is going to no plans. Our students are not allowed on the school premises and we are not allowed to zoom confer with them either. Most of my students in my one class have had a livestock project or intend on getting one. With the COVID outbreak we do not know if there is going to the county fair for them to sell their project or show in the competition arena. My plans are to see what is going to pan out and if we will resume fairs when school is back in session. A couple of my students have gardens and are maintaining them, and a few do not have projects. So, my plans for supervising SAE projects is waiting and observing and coming together as a team to make a good decision for Golden West. As of right now there are too many unpredictable variables to issue livestock. Our kids depend on the county auction and some people are not able to work, I do not think it’s a good idea to sell projects to students currently. People need to resume their personal lives and regain stability before school projects.

As far as the school facilities we as a team are feeding and managing the school flock of sheep and goats. We currently have lambed and kidded all our ewes and does, we had some deaths of young and one ewe die shortly after giving birth. We are also watering all the plants in the greenhouse and the shade house for the horticulture pathway. We have weeds as tall as people and small buildings, I am not excited about the work ahead. However, I am sure we will all go a weed the facility when the time comes. My plans for the school facility are to maintain them and complete a massive team weed abatement project.

I have some professional development goals. I am completing my master’s courses and hopefully gaining my master’s degree. I have spent some time looking through Golden West’s ability to meet all the requirements for AIG. I feel we have a solid foundation and a good program.
Graduate Follow-up Survey

During the first few months of the year Gary Potter and Emmett Schultz called all the graduates that were on AET and followed up with a personnel phone call. All the data was stored on CalAged.org. We did not use a form for the students to follow up on. So, we have no re-occurring data to review with our advisory committee and as a staff. I feel like that there is a need to have a survey instrument that we can review program completers thoughts on their experience. Though this experience I developed a google form that can be sent out to graduates post program completion.

Here is the link to view the form created. Here are images of the Google Doc as well.

FILL OUT FORM

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FILL OUT FORM

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Golden West Graduate Follow Up

Form description

Name: Last, First  *
Short answer text

Mailing Address  *
Short answer text
Phone Number *

What are you doing at this present time? *
- Working Full Time
- Working Part Time
- Attending School Full Time
- Attending School Part Time
- In the Military
- Homemaker

What is you major?

Which statements best applies to you? *
- I am using most of the skills I learned at Golden West Ag Department
- I am using some of the skills I learned at Golden West Ag Department
- I am not using any of the skills I learned at Golden West Ag Department

How would you rate the training you received at Golden West Ag Department? *
- Good
- Fair
I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL

Not working but looking
Not working and not looking
Add option or add "Other"

In what type of business are you employed at?
Short answer text

What college do you attend?
Short answer text

What is you major?
Short answer text

Which statements best applies to you? *

- I am using most of the skills I learned at Golden West Ag Department
- I am using some of the skills I learned at Golden West Ag Department
- I am not using any of the skills I learned at Golden West Ag Department

How would you rate the training you received at Golden West Ag Department? *

- Good
- Fair
Please check the following areas you feel is most valuable components of the FFA?

- Officer Team and other Committee Work
- Judging Contests
- State Degree and Proficiency Programs
- Livestock Shows and Fairs
- Leadership Developments such as State Conference and MFE/ALA
- Speaking Events such as Prepared Impromptu and Creed

Please rate the facilities at Golden West Ag

- Overcrowded
- Modern
- Adequate Space
- Outdated

Please rate the equipment used at Golden West Ag Dept.

- Modern
- Well Maintained
- Poorly Maintained
- Out of Date
Please note any suggestions you have on improving the instructional program, including the following areas: classroom, shop, greenhouse, school farm, etc; FFA, SAE, teaching methods used, and facilities and equipment.

Graduate Follow Results

Since we did not have a survey for post-graduates to complete, we do not have as much data as new form will pull. The phone calls that were made at the beginning of the school year lead to conversations about what they are doing, and that DATA was stored on calaged.org. Less than half of our program completers are majoring in ag or have an ag job.
Course Outline for Ag Biology

Visalia Unified School District

Course Title: Agriculture Biology
Alternate Title: Integrated AG Biology
Grade Level: 10th
Elective/Required: Elective; meets biology graduation requirement
Length/Credits: 1 year/10 credits
Prerequisites: None
Course Numbers: 0041, 0042
CBEDS Codes: 2603
Replaces: N/A

I. Course Description:
A study of agriculture biology is basic to all students regardless of their educational goals, it is especially important to students interested it an agriculture career. This course is designed as an introductory course in living systems for the college preparatory student.
The course is designed around the State of California's academic standards for biology and is matched to the Visalia Unified School District common course outline for Biology. Major areas of study include cell biology, genetics, ecology, evolution and the structure and function of living things. Participants are expected to take the Core Content Area Test for Biology.

II. Instructional Materials:
Required Text:
Biology – McDougal- Littell Publisher, 2007
Supplementary Text: None

III. Course Outline: This course is matched to the California Science Content Standards for Biology.
1. Introduction to Agricultural Biology (10%)
a. Agricultural Biology
b. Agricultural Research
c. Scientific Method
d. General Lab Skills and Procedure
2. Cell Biology – Plants & Animals (25%)
a. Cell organelles (structure and function)
b. Homeostasis (osmosis and diffusion)
c. Enzymes
d. Prokaryotic and Eukaryotic Cells/Cellular Complexity
e. Biochemistry
f. Cell reproduction (Mitosis)
g. Cell Respiration and Photosynthesis
3. Genetics- Plants & Animals (25%)
a. Meiosis
b. Mendelian principles of genetics
c. Human genetics
d. DNA/Structure and Replication
e. Protein Synthesis
f. Modern application of bioengineering
4. Evolution (10%)
a. Theories of evolution
b. Environmental and Genetic Influences on Evolution
5. Structure and Function in Living Systems (15%)
a. Organ Systems/Homeostasis
b. Disease and Immune Response
6. Ecology- Plants & Animals (10%)
a. Ecosystems
b. Communities
c. Populations
d. Environmental Problems/Human Impact
7. Leadership (5%)
a. SOEP (Supervised Agriculture Experience Project)
b. FFA- Leadership development
c. Record Books

IV. Expectations for Student Learning:
A. Introduction to Agricultural Biology
1. Biological skills are an important aspect of biological sciences. Students must develop the skills necessary for science investigations. As a basis for understanding this concept, students should learn:
a. The use of the scientific method and procedure.
b. Utilization of agriculture research.
c. Implementation of agriculture and laboratory skills
B. Cell Biology
1. Fundamental life processes of plants and animals depend on a variety of chemical reactions that are carried out in specialized areas of an organism’s cells. As a basis for understanding this concept, students should learn:
a. Cells are enclosed within semi-permeable membranes that regulate their interaction with their surroundings.
b. Enzymes are proteins and catalyze biochemical reactions without altering the reaction equilibrium, the activity of enzymes depends on the temperature, ionic conditions and pH of the surroundings.
c. How prokaryotic cells, eukaryotic cells (including those from plants and animals), and viruses differ in complexity and general structure.
d. The Central Dogma of molecular biology outlines the flow of information from transcription of RNA in the nucleus to translation of proteins on ribosomes in the cytoplasm.
e. The role of endoplasmic reticulum and Golgi apparatus in secretion of proteins.
f. Usable energy is captured from sunlight by chloroplasts, and stored via the synthesis of sugar from carbon dioxide.
g. The role of the mitochondria in making stored chemical bond energy available to cells by completing the breakdown of glucose to carbon dioxide.
h. Most macromolecules (polysaccharides, nucleic acids, proteins, lipids) in cells and organisms are synthesized from a small collection of simple
C. Genetics

1. Mutation and sexual reproduction lead to genetic variation in a population. As a basis for understanding this concept, students should learn:
   a. Meiosis is an early step in sexual reproduction in which the pairs of chromosomes separate and segregate randomly during cell division to produce gametes containing one chromosome of each type.
   b. Only certain cells in a multicellular organism undergo meiosis.
   c. How random chromosome segregation explains the probability that a particular allele will be in a gamete.
   d. New combinations of alleles may be generated in a zygote through fusion of male and female gametes (fertilization).
   e. Why approximately half of an individual's DNA sequence comes from each parent.
   f. The role of chromosomes in determining an individual's sex.
   g. How to predict possible combinations of alleles in a zygote from the genetic makeup of the parents.

2. A multicellular organism develops from a single zygote, and its phenotype depends on its genotype, which is established at fertilization. As a basis for understanding this concept, students should learn:
   a. How to predict the probable outcome of phenotypes in a genetic cross from the genotypes of the parents and mode of inheritance (autosomal or X-linked, dominant or recessive).
   b. The genetic basis for Mendel's laws of segregation and independent assortment.

3. Genes are a set of instructions, encoded in the DNA sequence of each organism that specify the sequence of amino acids in proteins characteristic of that organism. As a basis for understanding this concept, students should learn:
   a. The general pathway by which synthesize proteins, using tRNAs to translate genetic information in mRNA.
   b. How to apply the genetic coding rules to predict the sequence of amino acids from a sequence of codons in RNA.
   c. How mutations in the DNA sequence of a gene may or may not affect the expression of the gene, or the sequence rather than to differences of the genes themselves.
   d. Specialization of cells in multicellular organisms is usually due to different patterns of gene expressions rather than to differences of the genes themselves.
   e. Proteins can differ from one another in the number and sequence of amino acids.

4. The genetic composition of cells can be altered by incorporation of exogenous DNA into the cells. As a basis for understanding this concept, students should learn:
   a. The general structures and functions of DNA, RNA, and protein.
   b. How to apply base-pairing rules to explain precise copying of DNA during semi-conservative replication, and transcription of information from DNA into RNA.
   c. How genetic engineering (biotechnology) is used to produce novel biomedical agricultural products.

D. Ecology

1. Stability in an ecosystem is a balance between competing effects. As a basis for
understanding this concept, students should learn:

a. Biodiversity is the sum total of different kinds of organisms, and is affected by alterations of habitats.
b. How to analyze changes in an ecosystem resulting from changes in climate, human activity, introduction of non-native species, or changes in population size.
c. How fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.
d. How water, carbon, nitrogen cycle between abiotic resources and organic matter in the ecosystem and how oxygen cycles via photosynthesis and respiration.
e. A vital part of an ecosystem is the stability of its producers and decomposers.
f. At each link in a food web, some energy is stored in newly made structures but much is dissipated into the environment as heat and this can be represented in a food pyramid.
g. How to analyze the effects that changes in population size have on the ecological balance of a community.

E. Evolution

1. The frequency of an allele in a gene pool of a population depends on many factors, and may be stable or unstable over time. As a basis for understanding this concept, students should learn:
   a. Why natural selection acts on the phenotype rather than the genotype of an organism.
   b. Why alleles that are lethal in a homozygous individual may be carried in a heterozygote, and thus maintained in a gene pool.
   c. New mutations are constantly being generated in a gene pool.
   d. Variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

2. Evolution is the result of genetic changes that occur in constantly changing environments. As a basis for understanding this concept, students should learn:
   a. How natural selection determines the differential survival of groups of organisms.
   b. A great diversity of species increases the chance that at least some organisms survive large changes in the environment.
   c. The effects of genetic drift on the diversity of organisms in a population.
   d. Reproductive or geographic isolation affects speciation.
   e. How to analyze fossil evidence with regard to biological diversity, episodic speciation, and mass extinction.

F. Structure and Function in Living Systems

1. As a result of the coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable (homeostatic), despite changes in the outside environment. As a basis for understanding this concept, students should learn:
   a. How the complementary activity of major body systems provides cells with oxygen and nutrients, and remove toxic waste products such as carbon dioxide.
   b. How the nervous system mediates communication between different parts of the body and interactions with the environment.
   c. How feedback loops in the nervous and endocrine systems regulate conditions within the body.
d. The functions of the nervous system, and the role of neurons in transmitting electro-chemical impulses.

e. The roles of sensory neurons, inter-neurons, and motor neurons in sensation, thought, and response.

f. The individual functions and sites of secretion of digestive enzymes (amylases, proteases, nucleases, lipases), stomach acid, and bile salts.

g. The homeostatic role of the kidneys in the removal of nitrogenous wastes, and of the liver in blood detoxification and glucose balance.

h. The cellular and molecular basis of muscle contraction, including the roles of actin, myosin, Ca+2, and ATP.

i. How hormones (including digestive, reproductive, osmoregulatory) provide feedback mechanisms for homeostasis at the cellular level and in whole organisms.

2. Organisms have a variety of mechanisms to combat disease. As a basis for understanding the human immune response concept, students should learn:

a. The role of the skin in providing nonspecific defenses against infection.

b. The role of antibodies in the body’s response to infection.

c. How vaccination protects an individual from infectious disease.

d. There are important differences between bacteria and viruses, with respect to their requirements for growth and replication, the primary defense of the body against them, and effective treatment of infects they cause.

e. Why an individual with a compromised immune system. (For example, a person with AIDS) may be unable to fight off and survive infections of microorganisms that are usually benign.

f. The roles of phagocytes, B-lymphocytes, and T-lymphocytes in the immune system.

G. Leadership

1. The future of Agriculture is dependent upon skilled and confident leaders who aspire to premier leadership, personal growth and career success. As a basis for understanding this concept, students should learn:

a. The skills necessary for public speaking.

b. The importance of keeping accurate records in relation to their SOEP.

c. The ability to communicate and work with others effectively for a future career in Agriculture.

d. The opportunities in Agriculture Biology related fields.

e. And appreciate their self worth and develop a sense of self-confidence.

Co-Curricular Standards (English, Math, and Reading)

1. Understand the meanings of and use specialized vocabulary related to each unit.

2. Write clear, coherent, and focused essays.

3. Demonstrate correct organization, involve research and technology and use the writing process.

4. Use correct sentence structure, grammar, punctuation, capitalization, and spelling to produce legible works.

5. Deliver focused, coherent presentations using elements of effective speech and communication skills.

6. Deliver a variety of narrative and expository presentations and apply appropriate interviewing techniques.

7. Add, subtract, multiply and divide numbers.
V. Instructional Methods:
A. Laboratory and field investigations; virtual labs
B. Current Readings
C. Videos/DVD/Multi-media – software, tutorials, Internet activities
D. Whole Class/Small Group Discussions
E. Direct Instruction – Lectures, Demonstrations, Modeling
F. Guest Speakers
G. Research projects and Written Assignments (Essays, lab reports, etc…)

VI. Assessment and Evaluations:
A. Assignments
Students will be responsible for completing a variety of assignments as determined by the instructor. Possible assignments include:
1. Term Paper; written work
2. Speech and/or Oral Presentations
3. Lab activities and reports
4. Record keeping problem
5. Classwork and Homework
6. Science project
B. Testing
1. Students will be given objective tests on a regular basis. Tests will require students to retain, interpret, and apply ideas and information taught in each unit.
2. Students will participate in regular lab activities which reinforce ideas and information conveyed by the instructor.
3. Students will be given a comprehensive exam.
C. SOEP and Record Book
1. A Supervised Occupational Experience Program or project is an organized agricultural activity conducted outside of class time with supervision from one of the Agriculture instructors.
2. Hours, inventory and/or money earned must be recorded in a California Agricultural Education Record Book.
D. FFA Activity Involvement
1. Students will be required to participate in a variety of FFA activities.
2. Potential Activities include: Chapter Meetings, Fairs and Shows, Committee Meetings, etc.

VII. Grading Policy:
Reports of student progress will be provided every six weeks, with final grades provided at the end of each of two semesters. Final grades will be determined by classroom assessments of student proficiency levels based upon individual student achievement of the course content standards included within this course outline. Final grades reflect only academic factors and do not include non-academic factors (attendance and behavior); although these factors do impact the student’s ability to master concepts and skills. Nonacademic factors are reported through the individual citizenship grades.

NOTE: Refer to alternative school handbooks and planning guides for information about when final grades and credit are assigned.
All final grades will follow Visalia Unified School District Board Policy, including adhering to the approved grading scale below.
A = 90% – 100%
B = 80% – 89%
C = 70% – 79%
D = 60% – 69%
F = 0% – 59%
Comprehensive Program Plan
A. Job Market

Golden West High School is one of four comprehensive high schools in the Visalia Unified School District. Located on the northeast side of Visalia (population 124,442) just south of Fresno, CA (population 495,913), the high school has a current enrollment of 1,821 students. The composition of student demographics are as follows; 55% Hispanic or Latin, 37% Caucasian, 4% Asian, 1% African American, 1% American Indian or Alaska Native, and less than 1% Filipino and Pacific Islander. 45% of students at this school participate in the free of reduced-price lunch program and 12% of the students are identified as English Language Learners.

Due to Golden West’s location on the northeast side of Visalia, the school receives students from the low socio-economic country areas of Ivanhoe (population 5,051; 82.5% Hispanic) and Farmersville (population 10,773; 72.9% Hispanic). The majority of families living in these areas are employed in production agriculture. To reflect the importance of the agriculture industry, the Golden West High School Agriculture Department offers pathways in Plant Science, Animal Science, and Agriculture Mechanics.

Tulare County’s Agriculture is a diverse one, producing numerous crops, livestock, poultry, and other agricultural commodities. Once in five jobs in Tulare County is agriculturally related, most of which don’t require any college degree. Therefore, preparing students with job skills for positions in agricultural occupations is crucial. High school graduates from Golden West High School attend schools, or obtain work throughout California but primarily attend community colleges within the San Joaquin Valley and obtain part or full-time work in or near the Tulare County boundaries. Graduates are employed in agricultural production as well as packing houses, welding, and numerous other agricultural related jobs.

Tulare County is a total of 3,100,800 acres. Of this total 1,400,885 acres are described as farms by the United State census. The remainder of the area is in Kings Canyon and Sequoia Parks, Sequoia National Forest, cities, and roads. It extends from about the mid-valley floor on the west to the crest of the Sierra Nevada range on the east side including Mt. Whitney, the highest peak in the original 48 state. It is bound on the north by Fresno County, on the south by Kern County, and on the west by Kings County. It lays 80 air miles inland from the Pacific Ocean. The climate is one of limited rainfall, 10 inches during November to March. The summers are hot and dry with day temperatures of 90 to 105 degrees Fahrenheit. The winter months are cool and foggy with night temperatures ranging as low as 25 degrees Fahrenheit. Extremes of 115 degrees and 16 degrees have been recorded although such temperatures are rare. The months of July and August are the hottest and January and February are the coldest. Because of the dry summers, most agricultural crops require irrigation. There is a small acreage of dry farmed barley and wheat and considerable dry land pasture, particularly in the foothills. Water for irrigation is supplied from wells and from rivers that flow from the Sierra Nevada Mountains. Storage reservoirs on the San Joaquin, Kings, Kaweah, and Tule rivers extend the snowmelt runoff into the summer. Additional water supplies would increase the irrigated acreage. About 700,000 acres of land are irrigated.
The soils along the foothills have weathered in place and usually have a hardpan. The valley floor is made up of alluvial soils placed there in the past by streams. Consequently, soil texture ranges from sandy soils near the mountains in the east, to very fine clay soils in the basin in the western part of the county. A wide variety of crops are grown. Agricultural enterprises include alfalfa, citrus, cotton, corn, beans, deciduous fruits, nuts, oil crops, grapes, olives, sugar beets, vegetables, barley, wheat, sorghum, beef, dairy, poultry, nursery crops, and many others. The gross agricultural income in 2011 was $5.017 billion dollars, making Tulare County the second richest agricultural county in the state of California.

Some of the major agricultural enterprises in Tulare County in 2011 were:
- Milk & Cream
- Oranges
- Cattle & Calves
- Grapes
- Alfalfa
- Plums
- Cotton
- Nectarines
- Corn
- Peaches

B. Targeted Occupations
The career paths that are taught at Golden West Ag Department are Ag Mechanics and Construction, Nursery and Floral Technology, Animal Science and Ag Engineering. We have a 3 acre onsite facility used to support educational needs in all of the pathways. The Mechanics and Engineering pathways construct school facilities. The Animal Science pathways maintain the school’s livestock and herd health. The Horticulture pathway uses the onsite greenhouse and shade house to grow a variety of plants for two plant sales. They also maintain the plant mother stock used in propagation lessons.

Ours classes receive a variety of presenters in the industry and colleges, such as tech schools, community colleges, and universities.

The pathway sequence for Ag Mechanics is as followed:
- Intro to Ag Mech I/Intro Ag Engineering
- Ag Mech II
- Advanced Mechanics III/IV
The pathway sequence for Ag Engineering is as followed:
Ag Mech I/Intro to Ag Engineering
Advanced Engineering and Design.

The pathway sequence for Animal Science is as followed:
Intro to Ag
Ag Biology
Animal Science
Pre-Vet Science

The pathway sequence for Environmental Horticulture is as followed:
Intro to Ag
Ag Biology
Intro to Env. Horticulture
Adv Env. Horticulture

We strive to teach students skills to meet competencies in an occupation in one or more of the Four Program Area Occupation in Agriculture. Listed below are jobs listed in each of the program areas.

<table>
<thead>
<tr>
<th>Agriculture Production</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crop Production</td>
<td>Irrigator, Propagator, Farmhand, Foreman, Ranch Laborer, Feed Lot Hand, Field Crop Grower, General Maintenance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Animal Production</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livestock Handler, Milker, Inseminator, Auctioneer, Vet, Aide, Pet Care, Ranch Laborer, Brand Inspector, Farm Hand, Pest Control</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Agriculture Mechanics</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanics</td>
<td>Small Engine Mechanics, Equipment</td>
</tr>
</tbody>
</table>
C. Total Program Goals and Objectives:
Some of the families living in the area are employed in agriculture. To reflect the importance of the agriculture industry, the Golden West High School Agriculture Department offers pathways in Plant Science, Animal Science, Ag Mechanics and Ag Engineering. We are very fortunate to have an onsite learning facility this is a result of over 30 years of support from the district and community. Students and walk out of the classroom and straight into the school farm, where they take an active part in maintaining the facilities. Our school facility is a 3-acre farm that houses a large greenhouse and shade house with two garages for tool storage. We have a large barn that typically houses market lamb projects and a rotational pasture that the school farm flock is raised on. We have raised garden beds and an orchard that needs some help, poor watering schedule and maintenance has led to most of the trees dying. There is also a large covered area that is hopefully going have cement poured for future use. We have a fodder system that was just put into working order by Amber Nagel. It was a goal of this teacher to complete the installation process and train students to operate the feeding system as a school-based SAE project. Our school farm is a great tool but needs some work in some specific areas.
Our classroom space consists of three teaching classrooms, two large shops that both have outdoor storage space. Above one of the shops has a large three-room mezzanine that is used as storage. We also have several c-train storage containers around the facility used to store equipment for each of the pathways.

Our course offerings reflect our course pathways and to obtain as many program completers as possible. Our pathways are Ag Mechanics and Construction, Ag Engineering, Animal Science, and Horticulture and Floral Technology. Our district uses a traditional 6 period day with one prep section. Golden West provided limitless possibilities to students. With a variety of activities offered from judging teams, conferences, chapter activities, awards and recognitions, and leadership opportunities there are continently choices for members.

In our department we follow the three-circle model, students learn in the classroom and take those experiences into the choices of SAE projects, and the FFA program as well. The main goal of the program is preparing students with not only entering the work force with competencies in valuable hands on skills; but also, a rigorous curriculum for students preparing to go to college. We believe that we have a valuable pathway set up for students and we believe that we can maintain a successful well-rounded program. Our hopes and goals with our program is to take our current rank and transition to a top ranked program in the section, regions, state, and maybe national level. Our advisory committee, industry leaders, and community members are assisting us in our comprehensive program that is sure to enhance our success. We will hopefully be meeting twice a year.

Our goals that we hope to provide our students with follow below:

1. Teach students to practice responsibility through SAE Projects
2. Enhance student’s confidence through leadership growth
3. Practice good citizenship and community involvement
4. Ensure that student’s interest in agriculture is positively influenced
5. An appreciation of conservation of our natural resources is developed in the student
6. Give the student the ability to make intelligent selection of farm products for home use
7. Teaches the student to provide and maintain attractive home surroundings.
8. Develops in the student an appreciation and understanding for the importance agriculture to all students
9. Acquaint students with agriculture related careers.
10. Train students for agriculture related jobs
11. Prepare students to become engaged in agriculture production
12. Prepare students for higher education in the field of agriculture.

The Golden West Chapter is comprised of about 300 students. We have a very active program of activities and many of our leaders are student leaders in other programs as well. Our program is active in the Tulare Kings FFA section, San Joaquin Section, the CA State and National Level as well. My teaching partners and I make sure that are members are prepared and represent our school and program well at FFA Activities. Our officer team meets weekly to work on our program of activities and ensure the activities are a success. Each year we take our newly elected officers on a three-day retreat to bond with each other and develop a plan for our chapter activities.

This past year we had 8 state degrees and one proficiency application. We had a lot of greenhand degree members and about 60 chapter degree members as well.

Golden West has been recognized as a Superior Chapter through the National FFA. The Chapter strives to maintain communication with its members through announcements and the school bulletin, the chapter website and the Instagram account. Additionally, members attend and speak at school board meetings and feeder schools. We partner with another local school and coordinate a citrus contest. Our members compete and help organize to ensure the event is a success. As stated above we offer a lot to our students, with farm power, ag mechanics, horse judging, citrus, and greenhand team.

D. Program Description of Included Courses, SAE and Leadership:

Golden West FFA offers a wide range of opportunities for students to get involved. The cornerstone for our program is the FFA with such a vast membership it provides so many opportunities to gain leadership experiences and compete in agriculture competencies across the state. In addition to the FFA students can take career focused courses in the following pathways: Ag Mechanics, Ag Engineering, Horticulture, and Animal Science. Our current class offerings are:

<table>
<thead>
<tr>
<th>Intro to Ag</th>
<th>Ag Biology</th>
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</thead>
<tbody>
<tr>
<td>Animal Science</td>
<td>Pre-Vet</td>
</tr>
<tr>
<td>Intro to Horticulture</td>
<td>Adv. Horticulture</td>
</tr>
<tr>
<td>Intro to Ag Mech/Ag Engineering</td>
<td>Ag Mech II</td>
</tr>
</tbody>
</table>
FFA activities at Golden West include: Monthly FFA Meetings, Greenhand Conference, Made For Excellence, Advanced Leadership Academy, State Leadership Conference, COLC, Sectional and Regional Activities, Judging Team Competitions, and sometimes scrapbooking.

Possible SAE projects include: Beef and Dairy, agriculture mechanics projects, poultry, small animal projects and care, home and community development. In addition to some students have placement jobs in the agriculture field.
Visalia Unified School District
Course Outline

Course Title: Agricultural Mechanics I
Grade Level: 9-12
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: None
Course Number & CBEDS Codes: 0001/4030
Replaces: N/A

I. Course Description:

This course is designed to give students a strong foundation in the use of all basic farmshop skills. Tools, materials, and safety will be reviewed when each unit is taught. Proper skills involving hand tools will be stressed. This basic course in mechanics includes woodworking, metals, rope work, cutting and welding, etc. During the fourth quarter, students will be working on individual projects.

II. Instructional Materials:

Each student will have at his/her disposal the use of all shop equipment to include all the necessary hand tools, power saws, drill, shears, etc. Arc welding and oxy-acetylene welding and cutting equipment will be used throughout the year. All safety equipment to include glasses, shields, helmets, etc. will be provided for each student. Audiovisual equipment and tapes/movies shown when appropriate.

Required Text: None

Supplementary Texts:
Supplemental reference books provided to include Shopwork on the Farm and Mechanics in Agriculture.
### III. Course Outline:

#### First Quarter
- Shop Orientation/Record keeping: 3 days
- General Safety/Tool Identification: 7 days
- Rope/Knots/Splices: 10 days
- Drawing (Bill of Materials): 5 days
- Wood working (Safety Unit): 20 days

#### Second Quarter
- Record Keeping: 2 days
- Arc Welding (Safety Unit): 15 days
- Oxy-Acetylene Welding (Safety Unit): 15 days
- Oxy-Acetylene Welding Cutting (Safety Unit): 13 days
- Record Keeping: 2 days

#### Third Quarter
- Hot Metal Forming (Safety Unit): 8 days
- Tool Sharpening: 5 days
- Tap & Die (Safety Unit): 5 days
- Electricity (Safety Unit): 10 days
- Plumbing (Safety Unit): 7 days
- Concrete (Safety Unit): 8 days

#### Fourth Quarter
- Individual Projects: 45 days

### VI. Expectations for Student Learning:
Each student who completes this course will be able to:

1. Understand and follow safety procedures
2. Demonstrate a knowledge of common ropes/splices
3. Plan and estimate cost of materials
4. Construct a wood project (i.e. Nail box, saw horse, stool, etc.)
5. Weld 4 position, two rods
6. Fusion weld, braze, puddle
7. Set, adjust and cut using oxy-acetylene
8. Plan, form a hot metal project
9. Demonstrate correct tool sharpening
10. Plan and layout drill & tap
11. Masters electrical splices and single switch wiring
12. Masters plumbing – PVC, Copper, Galvanized, threading and fitting
13. Masters measurement and mixing techniques of concrete
V. Instructional Methods:
   A. Lectures
   B. Demonstrations
   C. Class discussion
   D. Visual aids
   E. Laboratory practice
   F. Speakers/guest
   G. Practical application of course outline

VI. Assessment and Evaluations:
   A. Written tests
   B. Daily work
   C. Grading of all materials as completed, such as rope work, welds, woodwork, etc.
   D. Successful completion of each project

VII. Grading Policy:

Completion of assigned projects & FFA involvement

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 – 100%</td>
<td>A</td>
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<tr>
<td>80 – 89%</td>
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<tr>
<td>70 – 79%</td>
<td>C</td>
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<tr>
<td>60 – 69%</td>
<td>D</td>
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<tr>
<td>0 – 59%</td>
<td>F</td>
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</tbody>
</table>
Course Title: Agriculture Mechanics II
Grade Level: 10-12
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: Agriculture Mechanics I or approval of instructor
Course Number & CBEDS Codes: 0002/4030
Replaces: N/A

I. Course Description:
This course is designed to give the students a further understanding of Metal Inert Gas (MIG) welding, arc and oxy-acetylene welding, cutting, and project construction, as well as small engine repair and maintenance. The students learned the “basics” in Agriculture Mechanics I. In this course, the student will learn advanced welding techniques, as well as beginning project construction.

II. Instructional Materials:

A. Audio/Visual materials where appropriate
B. Guest Speakers
C. All available equipment as needed for implementation of course outline

Required Text: None

Supplementary Texts:
Shopwork On the Farm by Briggs and Stratton
Mechanics In Agriculture by Briggs and Stratton
Small Engine Repair by Briggs and Stratton
III. Course Outline:

The second year of Agricultural Mechanics is an expansion of the first year. The student will take the skills learned during the first year and build on them. This course is designed to give students a strong foundation in the use of all basic farmshop skills. Tools, materials, and safety will be reviewed when each unit is taught. Proper skills involving hand tools will be stressed. This basic course in mechanics includes woodworking, metals, rope work, cutting and welding, etc.

During this year, the student will be allowed to show more personal expression in the type of project he/she may construct.

First Semester:
- Shop Orientation/Record Keeping 5 days
- General Safety 2 days
- Hand tool repair 3 days
- Advanced Arc welding/safety 20 days
- Advanced oxy-acetylene/safety 20 days
- Advanced MIG welding techniques/safety 20 days
- Small engine theory and maintenance/safety 20 days

Second Semester:
- Construction safety procedures 3 days
- Project construction
  (i.e. feed scoop, weather vane, small BBQ) 82 days
- Record Keeping 5 days

IV. Expectations for Student Learning

Each student who completes this course will be able to:

A. Demonstrate proper safety procedures
B. Repair and maintain common hand tools
C. Weld both vertical and horizontal welds
D. Perform simple brazing operations
E. Properly adjust a MIG welder for different welding positions and material thickness
F. Understand the principles of small gas engine operation, basic maintenance, and equipment adjustment
G. Construct small projects using all previously learned techniques
H. Record and maintain proper records

V. Instructional Methods

A. Lecture/notes taking
B. Audio/visual materials
C. Group/individual assignments
D. Laboratory activities
E. Discussion
F. Reading assignments/related worksheets
G. Guest speakers
H. Test-taking
I. Field trips
J. Research/term paper
K. Student presentations

VI. Assessment and Evaluations

A. Written tests
B. Daily work
C. Grading of all materials as completed (i.e. welds, woodwork, rope work, etc.)
D. Successful completion of each project

VII. Grading Policy

90 – 100% = A
80 – 89% = B
70 – 79% = C
60 – 69% = D
0 – 59% = F
Visalia Unified School District
Course Outline

Course Title: Agriculture Mechanics III
Grade Level: 11-12
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: Ag. Mech. 2, and/or approval of teacher
Course Number & CBEDS Codes: 0003/4030
Replaces: N/A

I. Course Description:

Students will experience advanced welding and the construction of various projects. Instruction in welding stainless steel and aluminum as well as cutting with the electric plasma-arc torch and operation of the hydraulic shear and punch will be covered in detail. Students will be expected to design and construct a major project and compile a detailed written report of the process involved in the building of projects such as wood splitters, trailers, barbecues, stoves, benches, etc.

II. Instructional Materials:

Various handouts given to the students to explain welding and welding techniques.

Required Text: None

Supplementary Text:

Mechanics in Agriculture

III. Course Outline:

Orientation and safety 5 days
Record keeping 5 days
Project design and measurement 5 days
IV. Expectations for Student Learning

A. Follow proper safety procedures
B. Be able to design and develop a project idea
C. Understand the uses of various wood and metals and fasteners
D. Demonstrate advanced welding and cutting techniques
E. Proper use of the hydraulic shear and punch
F. Construct a major project
G. Understand the principles of electrical wiring as used in projects under construction
H. Understand hydraulic and pneumatics as used in the construction of various projects
I. Write a detailed report of project
J. Demonstrate correct painting and finishing procedures

V. Instructional Methods

A. Demonstrations
B. Videos
C. Speakers

VI. Assessment and Evaluations

A. Written progress reports
B. Test and quizzes
C. Weekly grades
D. Written report
### VII. Grading Policy

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90 – 100%</td>
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<tr>
<td>F</td>
<td>0 – 59%</td>
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</table>
Visalia Unified School District
Course Outline

Course Title: Agriculture Mechanics IV
Grade Level: 12
Elective/Required: Elective
Length/Credits: 1 year/10 credits
Prerequisites: Ag. Mech. 2, and/or 3 or approval of teacher
Course Number & CBEDS Codes: 0004/4030
Replaces: N/A

I. Course Description:

Students will experience advanced welding and the construction of various projects. Instruction in welding stainless steel and aluminum as well as cutting with the electric plasma-arc torch and operation of the hydraulic shear and punch will be covered in detail. Students will be expected to design and construct a major project and compile a detailed written report of the process involved in the building of projects such as wood splitters, trailers, bar-b-cues, stoves, benches, etc. This course is an extension of the principles taught in Agricultural Mechanics 3.

II. Instructional Materials:

Various handouts given to the students to explain welding and welding techniques.

Required Text: None

Supplementary Texts:
Mechanics in Agriculture

III. Course Outline:

- Orientation and safety
  - 5 days
- Record keeping
  - 5 days
IV. Expectations for Student Learning
   A. Follow proper safety procedures
   B. Be able to design and develop a project idea
   C. Understand the uses of various wood and metals and fasteners
   D. Demonstrate advanced welding and cutting techniques
   E. Proper use of the hydraulic shear and punch
   F. Construct a major project
   G. Understand the principles of electrical wiring as used in projects under construction
   H. Understand hydraulic and pneumatics as used in the construction of projects
   I. Write a detailed report of project
   J. Demonstrate correct painting and finishing procedures

V. Instructional Methods
   A. Demonstrations

VI. Assessment and Evaluations
   A. Written progress reports
   B. Test and quizzes
   C. Weekly grades
   D. Written report
   E. Completion of project

VII. Grading Policy

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>90 – 100%</td>
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<td>0 – 59%</td>
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</tbody>
</table>
I. Course Description:

A study of agriculture biology is basic to all students regardless of their educational goals, it is especially important to students interested in an agriculture career. This course is designed as an introductory course in living systems for the college preparatory student. The course is designed around the State of California’s academic standards for biology. Major areas of study include cell biology, genetics, ecology, evolution and structure and function of living things.

II. Instructional Materials:

Required Text:


Supplementary Text: None

III. Course Outline:

1. Introduction to Agricultural Biology (10%)
   a. Agricultural Biology
   b. Agricultural Research
   c. Scientific Method
   d. General Lab Skills and Procedure
2. Cell Biology – Plants & Animals (25%)
   a. Cell organelles (structure and function)
   b. Homeostasis (osmosis and diffusion)
   c. Enzymes
   d. Prokaryotic and Eukaryotic Cells/Cellular Complexity
   e. Biochemistry
   f. Cell reproduction (Mitosis)
   g. Cell Respiration and Photosynthesis
3. Genetics- Plants & Animals (25%)
   a. Meiosis
   b. Mendelian principles of genetics
   c. Human genetics
   d. DNA/Structure and Replication
   e. Protein Synthesis
   f. Modern application of bioengineering
4. Evolution (10%)  
   a. Theories of evolution
   b. Environmental and Genetic Influences on Evolution
5. Structure and Function in Living Systems (15%)  
   a. Organ Systems/Homeostasis
   b. Disease and Immune Response
6. Ecology- Plants & Animals(10%)
   a. Ecosystems
   b. Communities
   c. Populations
   d. Environmental Problems/Human Impact
7. Leadership (5%)
   a. SOEP (Supervised Agriculture Experience Project)
   b. FFA- Leadership development
   c. Record Books

IV. Expectations for Student Learning

    A. Introduction to Agricultural Biology
       1. Biological skills are an important aspect of biological sciences. Students must develop the skills necessary for science investigation. As a basis for understanding this concept, students should learn:
          a. The use of the scientific method and procedure.
          b. Utilization of agriculture of agriculture research
          c. Implementation of agriculture and laboratory skills
    B. Cell Biology
       1. Fundamental life processes of plants and animals depend on a variety of chemical reactions that are carried out in specialized areas of the organism’s cells. As a basis for understanding this concept, students should learn:
a. Cells are enclosed within semi-permeable membranes that regulate their interaction with their surroundings.

b. Enzymes are proteins and catalyze biochemical reactions without altering the reaction equilibrium, the activity of enzymes depends on the temperature, ionic conditions and pH of the surroundings.

c. How prokaryotic cells, eukaryotic cells (including those from plants and animals), and viruses differ in complexity and general structure.

d. The Central Dogma of molecular biology outlines the flow of information from transcription of RNA in the nucleus to translation of proteins on ribosomes in the cytoplasm.

e. The role of endoplasmic reticulum and Golgi apparatus in secretion of proteins.

f. Usable energy is captured from sunlight by chloroplasts, and stored via the synthesis of sugar from carbon dioxide.

g. The role of the mitochondria in making stored chemical bond energy available to cells by completing the breakdown of glucose to carbon dioxide.

h. Most macromolecules (polysaccharides, nucleic acids, proteins, lipids) in cells and organisms are synthesized from a small collection of simple precursors.

Genetics

1. Mutation and sexual reproduction lead to genetic variation in a poppylation. As a basis for understanding this concept, students should learn:
   a. Meiosis is an early step in sexual reproduction in which the pairs of chromosomes separate and segregate randomly during cell division to produce gametes containing one chromosome of each type.
   b. Only certain cells in a multicellular organism undergo meiosis.
   c. How random chromosome segregation explains the probability that a particular allele will be in a gamete.
   d. New combinations of alleles may be generated in a zygote through fusion of male and female gametes (fertilization)
   e. Why approximately half of an individual's DNA sequence comes from each parent.
   f. The role of chromosomes in determining an individual's sex.
   g. How to predict possible combinations of alleles in a zygote from the genetic makeup of the parents.

2. A multicellular organism develops from a single zygote, and its phenotype depends on its genotype, which is established at fertilization. As a basis for understanding this concept, students should learn:
   a. How to predict the probable outcome of phenotypes in a genetic cross from the genotypes of the parents and mode of inheritance (autosomal or X-linked, dominant or recessive).
   b. The genetic basis for Mendel's laws of segregation and independent assortment.
3. Genes are a set of instructions, encoded in the DNA sequence of each organism that specify the sequence of amino acids in proteins characteristic of that organism. As a basis for understanding this concept, students should learn:
   a. The general pathway by which synthesize proteins, using tRNAs to translate genetic information in mRNA.
   b. How to apply the genetic coding rules to predict the sequence of amino acids from a sequence of codons in RNA.
   c. How mutations in the DNA sequence of a gene may or may not affect the expression of the gene, or the sequence rather than to differences of the genes themselves.
   d. Specialization of cells in multicellular organisms is usually due to different patterns of gene expressions rather than to differences of the genes themselves.
   e. Proteins can differ from on another in the number and sequence of amino acids.

4. The genetic composition of cells can be altered by incorporation of exogenous DNA into the cells. As a basis for understanding this concept, students should learn:
   a. The general structures and functions of DNA, RNA, and protein.
   b. How to apply base-pairing rules to explain precise copying of DNA during semi-conservative replication, and transcription of information from DNA into nRNA.
   c. How genetic engineering (biotechnology) is used to produce novel biomedical agricultural products.

Ecology
1. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept, students should learn:
   a. Biodiversity is the sum total of different kinds of organisms, and is affected by alterations of habitats.
   b. How to analyze changes in an ecosystems resulting from changes in climate, human activity, introduction of non-native species, or changes in population size.
   c. How fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.
   d. How water, carbon, nitrogen cycle between abiotic resources and organic matter in the ecosystem and how oxygen cycles via photosynthesis and respiration.
   e. A vital part of an ecosystem is the stability of its producers and decomposers.
   f. At each link in a food web, some energy is stored in newly made structures but much is dissipated into the environment as heat and this can be represented in a food pyramid.
   g. How to analyze the effects that changes in population size have on the ecological balance of a community.
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D. Ecology
   1. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept, students should learn:
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      c. How fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.
      d. How water, carbon, nitrogen cycle between abiotic resources and organic matter in the ecosystem and how oxygen cycles via photosynthesis and respiration.
      e. A vital part of an ecosystem is the stability of its producers and decomposers.
      f. At each link in a food web, some energy is stored in newly made structures but much is dissipated into the environment as heat and this can be represented in a food pyramid.
      g. How to analyze the effects that changes in population size have on the ecological balance of a community.
E. Evolution

1. The frequency of an allele in a gene pool of a population depends on many factors, and may be stable or unstable over time. As a basis for understanding this concept, students should learn:
   a. Why natural selection acts on the phenotype rather than the genotype of an organism.
   b. Why alleles that are lethal in a homozygous individual may be carried in a heterozygote, and thus maintained in a gene pool.
   c. New mutations are constantly being generated in a gene pool.
   d. Variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

2. Evolution is the result of genetic changes that occur in constantly changing environments. As a basis for understanding this concept, students should learn:
   a. How natural selection determines the differential survival of groups of organisms.
   b. A great diversity of species increases the chance that at least some organisms survive large changes in the environment.
   c. The effects of genetic drift on the diversity of organisms in a population.
   d. Reproductive or geographic isolation affects speciation.
   e. How to analyze fossil evidence with regard to biological diversity, episodic speciation, and mass extinction.

F. Structure and Function in Living Systems

1. As a result of the coordinated structures and functions of organ systems, the internal environment of the human body remains relatively stable (homeostatic), despite changes in the outside environment. As a basis for understanding this concept, students should learn:
   a. How the complementary activity of major body systems provides cells with oxygen and nutrients, and remove toxic waste products such as carbon dioxide.
   b. How the nervous system mediates communication between different parts of the body and interactions with the environment.
   c. How feedback loops in the nervous and endocrine systems regulate conditions within the body.
   d. The functions of the nervous system, and the role of neurons in transmitting electrochemical impulses.
   e. The roles of sensory neurons, interneurons, and motor neurons in sensation, thought, and response.
   f. The individual functions and sites of secretion of digestive enzymes (amylases, proteases, nucleases, lipases), stomach acid, and bile salts.
g. The homeostatic role of the kidneys in the removal of nitrogenous wastes, and of the liver in blood detoxification and glucose balance.

h. The cellular and molecular basis of muscle contraction, including the roles of ctn, myosin, Ca+2, and ATP.

i. How hormones (including digestive, reproductive, osmoregulatory) provide feedback mechanisms for homeostasis at the cellular level and in whole organisms.

2. Organisms have a variety of mechanisms to combat disease. As a basis for understanding the human immune response concept, students should learn:
   a. The role of the skin in providing nonspecific defenses against infection.
   b. The role of antibodies in the body’s response to infection.
   c. How vaccination protects an individual from infectious disease.
   d. There are important differences between bacteria and viruses, with respect to their requirements for growth and replication, the primary defense of the body against them, and effective treatment of infects they cause.
   e. Why an individual with a compromised immune system, (for example, a person with AIDS) may be unable to fight off and survive infections of microorganisms that are usually benign.
   f. The roles of phagocytes, B-lymphocytes, and T-lymphocytes in the immune system.

G. Leadership
   1. The future of Agriculture is dependent upon skilled and confident leaders who aspire to premier leadership, personal growth and career success. As a basis for understanding this concept, students should learn:
      a. The skills necessary for public speaking.
      b. The importance of keeping accurate records in relation to their SOEP.
      c. The ability to communicate and work with others effectively for a future career in Agriculture.
      d. The opportunities in Agriculture Biology related fields.
      e. And appreciate their self worth and develop a sense of self-confidence.

V. Instructional Methods

   A. Laboratory and field investigations
   B. Current readings
   C. Videos
   D. Discussions
   E. Lectures
   F. Guest speakers
   G. Internet activities
   H. Research projects.
VI. Assessment and Evaluations

A. Assignments
   Students will be responsible for completing a variety of assignments as
determined by the instructor. Possible assignments include:
   1. Term Paper
   2. Speech
   3. Lab activities
   4. Record keeping problem
   5. Class Participation
   6. Science project

B. Testing
   1. Students will be given objective tests on a regular basis. Tests will require
      students to retain, interpret, and apply ideas and information taught in
      each unit.
   2. Students will participate in regular lab activities which reinforce ideas and
      information conveyed by the instructor.
   3. Students will be given a comprehensive exam.

C. SOEP and Record Book
   1. A Supervised Occupational Experience Program or project is an organized
      agricultural activity conducted outside of class time with supervision from
      one of the Agriculture instructors.
   2. Hours, inventory and/or money earned must be recorded in a California
      Agricultural Education Record Book.

D. FFA Activity Involvement
   1. Students will be required to participate in a variety of FFA activities.
   2. Potential Activities include: Chapter Meetings, Fairs and Shows,
      Committee Meetings, etc.

E. Homework
   1. The student will be responsible for completing a variety of assignments as
      determined by the instructor.

VII. Grading Policy:

Completion of assigned projects & FFA involvement

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Grade</th>
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<tbody>
<tr>
<td>90 – 100%</td>
<td>A</td>
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<tr>
<td>80 – 89%</td>
<td>B</td>
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<tr>
<td>70 – 79%</td>
<td>C</td>
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<tr>
<td>60 – 69%</td>
<td>D</td>
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<tr>
<td>0 – 59%</td>
<td>F</td>
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Visalia Unified School District
Course Outline

Course Title: Animal Science
Alternative Title: None
Grade Level: 11th - 12th
Elective/Required: Elective
Length/Credits: Year/10 Units
Prerequisites: English I, Algebra I, Ag Biology or Biology, Ag Chemistry or Chemistry
Course Numbers: 0093, 0094, and 0095
CBEDS Code: 4020
Replaces: NA

I. Course Description:
This is an advanced course in the Agriculture Animal Science pathway. The course will cover anatomy and physiology of livestock animals, animal health as it relates to specific species, animal management, reproduction, nutrition, marketing, and record keeping. This course supports the standards in Algebra, with emphasis on mathematical problem solving, and English. Students will be assessed with written and practical exams. Benchmarks will check mastery of subject content.

II. Instructional Materials:

Required Text:
Animal Production and Management; Kirby Barrick and Hobart L. Harmon.

Supplementary Texts:
Teacher notes, Student handouts, related magazine articles and current industry videos.

III. Course Outline (include approximate length of time):
First six-week grading period
A. Introduction to Animal Management
   1. Careers and Supervised Occupational Experience Project
   2. Animal Production in the United States
   3. Animals and their uses
B. Animal Selection and evaluation
   1. Selection of breeding stock
   2. Selection of market stock

Second six-week grading period
A. Breeding and Reproduction
   1. Mating Systems
   2. Breeding Periods
   3. Female reproductive tract
   4. Male reproductive tract
   5. Reproductive Hormones
B. Nutrition
   1. Digestive systems
   2. Functions of essential nutrients
   3. Calculating rations

Third six-week grading period
A. Animal Health
   1. Causes of Disease
   2. Diagnosis
   3. Disease Prevention
   4. Controlling Parasites
   5. Controlling Poisonous Plants
   6. Treatment of Disease

Fourth six-week grading period
A. Managing Beef Cattle
   1. Types, breeds
   2. Breeding management
   3. Feeding management
   4. Health management
   5. Housing and equipment
B. Managing Dairy Cattle
   1. Types, breeds
   2. Breeding management
   3. Feeding management
   4. Health management
   5. Housing and equipment

Fifth six-week grading period
A. Managing Sheep
   1. Types, breeds
   2. Breeding management
   3. Feeding management
   4. Health management
   5. Housing and equipment
B. Managing Swine
   1. Types, breeds
   2. Breeding management
   3. Feeding management
   4. Health management
   5. Housing and equipment

Sixth six-week grading period
A. Managing Horses
   1. Types, breeds
   2. Breeding management
   3. Feeding management
   4. Health management
   5. Housing and equipment

B. Career Planning
   1. Student Seminar Presentation
   2. College education and/or vocational career planning
   3. Work ethics and employability skills
   4. Developing a professional portfolio

IV. Expectations for Student Learning:
   Essential Standard: Students will understand fundamental life processes.
   1a – Students know cells are enclosed within semi permeable membranes that regulate their interaction with their surroundings.
   1c – Students know how prokaryotic cells and eukaryotic cells differ in complexity and general structure.
   1g – Students know the role of the mitochondria in making stored chemical-bond energy available to cells by completing the breakdown of glucose to carbon dioxide.

   Essential Standard: Students will understand the role genetics play in the development of bacteria for fermentation of milk.
   5c – Students know how genetic engineering (biotechnology) is used to produce novel biomedical and agricultural products.

   Essential Standard: Students will understand structures and functions of organ systems, the internal environment of animals relatively stable despite changes in the outside environment.
   9a – Students know how the complementary activity of major body systems provides cells with oxygen and nutrients and removes toxic waste products such as carbon dioxide.
   10c – Students know how vaccination protects an individual from infectious diseases.
   10d – Students know there are important differences between bacteria and viruses with respect to their requirements for growth and replication, the body’s primary defenses against bacterial and viral infection, and effective treatments of these infections.
Essential Standard: Students will understand solutions, gases and their properties, acids and bases, reaction rates, and thermodynamics as it relates to the production of dairy products.

4a – Students know the random motion of molecules and their collisions with a surface create the observable pressure on that surface.
4d – Students know the values and meanings of standard temperature and pressure
5a – Students know the observable properties of acids, bases, and salt solutions
6c – Students know temperature, pressure, and surface area affect the dissolving process
7a – Students know how to describe temperature and heat flow in terms of the motion of molecules (or atoms).
7d – Students know how to solve problems involving heat flow and temperature changes, using known values of specific heat and latent heat of phase change.
8b – Students know how reaction rates depend on such factors as concentration, temperature, and pressure.
8c – Students know how to write and calculate an equilibrium constant expression for a reaction.

Co-Curricular Standards (English and Mathematics)

**English**
1.1 Understand words and their derivations
1.2 Understanding denotative and connotative meanings of words
2.4 Synthesize content, paraphrase and connect ideas
2.5 Extend ideas
2.6 Follow technical directions

**Math**
10.0 Add, subtract, multiply, and divide to solve multi-step problems using these techniques.
13.0 Add, subtract, multiply, and divide rational expressions/functions solving both computationally and conceptually challenging problems.

**Instructional Methods:**

A. Lecture/Note-taking
B. Audio/Visual materials
C. Group/Individual assignments
D. Laboratory activities
E. Discussion
F. Reading assignments/related worksheets
G. Guest Speakers
H. Field trips
Visalia Unified School District
Course Outline

Course Title: ROP Advanced Environmental Horticulture
“Nursery and Floral Industry”
Grade Level: 11-12
Elective/Required: Elective
Length/Credits: 1 Year/2 periods/20 Credits
Prerequisites: NONE
Course Number and CBEDS: TCOVE Nursery Technology

I. Course Description:

This is an advanced course designed for students who have a sincere interest in the nursery and or floral industry. Topics discussed include floral design techniques, design principles, nursery production, landscape design and maintenance, irrigation, botany, soils and fertilizers. Activities will include designing with fresh flowers, holiday arrangements, personal flower, greenhouse and nursery crop production, landscape design and construction and care of outdoor landscaped areas. Students will have the opportunity to grow nursery crops and sell them to the public through class run plant sales in the Spring and Fall. Leadership skills will be taught through participation in FFA.

II. Instructional Materials:

Each student will have the opportunity to work in a commercial style greenhouse and utilize the latest in horticulture and floral equipment. Equipment used will include tractors, mowers, chainsaws, shredders, soil mixers and sterilizers and edging equipment. In the classroom student will have access to all the floral tools used in the floral industry including glue pans, cash registers and bunch cutters. Safety equipment will be utilized as needed for the student’s protections. Videos and slides will be utilized as needed for educational purposes.

Required Text:

California Association of Nurseryman Retail Training Manual
Ornamental Plants, D. Dwight Wait
### III. Course Outline: (260 Hours of Classroom Instruction)

<table>
<thead>
<tr>
<th>Section</th>
<th>Hours of Class Time</th>
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<tbody>
<tr>
<td>A. Plant Identification</td>
<td>20</td>
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<tr>
<td>1. Plant Classification</td>
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<tr>
<td>2. Terms used to classify plants</td>
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<tr>
<td>3. Common names</td>
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<td>4. Botanical names</td>
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<td>5. Plant uses in landscapes</td>
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<tr>
<td>B. Botany</td>
<td>20</td>
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<tr>
<td>1. Plant taxonomy and classification</td>
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<td>2. Plant parts and functions</td>
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<td>3. Photosynthesis</td>
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<td>4. Respiration</td>
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<td>5. Plant reproduction</td>
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<tr>
<td>C. Plant Propagation</td>
<td>20</td>
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<tr>
<td>1. Sexual propagation with seeds, methods and applications</td>
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<td>2. Asexual propagation, methods and applications</td>
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<td>3. Cuttings</td>
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<td>4. Layering</td>
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<td>5. Budding and grafting</td>
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<td>D. Soils</td>
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<tr>
<td>1. Characters of planting medias</td>
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<td>2. PH of the soil and regulation</td>
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<tr>
<td>3. Characteristics of soil type</td>
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<tr>
<td>4. Plant nutrients, functions, and uses</td>
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<tr>
<td>5. Irrigation of soil medias</td>
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<tr>
<td>E. Landscape maintenance</td>
<td>20</td>
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<tr>
<td>1. Prepare the site</td>
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<tr>
<td>2. Planting trees, shrubs, and bedding plants</td>
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<tr>
<td>3. Construction methods and materials</td>
<td></td>
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<tr>
<td>F. Landscape Design</td>
<td>10</td>
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<tr>
<td>1. Principals of design</td>
<td></td>
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<tr>
<td>2. Tools and materials</td>
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<tr>
<td>3. Lettering, symbols, and measurement</td>
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<tr>
<td>4. How to read blueprints</td>
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<tr>
<td>5. Design problems and practice</td>
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<tr>
<td>G. Nursery Practices</td>
<td>20</td>
</tr>
<tr>
<td>1. Nurseries and Greenhouse Plant Production</td>
<td></td>
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<tr>
<td>2. Soil Mixes</td>
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<td>3. Sterilization methods</td>
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<td>4. Planting containers</td>
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<td>Section</td>
<td>Pages</td>
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<tr>
<td>H. Fertilizers</td>
<td>5</td>
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<tr>
<td>1. Foliage Plant Production</td>
<td></td>
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<tr>
<td>2. Fertilizers in the Landscape</td>
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<tr>
<td>3. Application Practices</td>
<td></td>
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<tr>
<td>I. Irrigation Design</td>
<td>10</td>
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<tr>
<td>1. Basic Hydraulics</td>
<td></td>
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<tr>
<td>2. Irrigation equipment</td>
<td></td>
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<tr>
<td>3. System Design</td>
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<td>J. Plant Maintenance</td>
<td>20</td>
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<tr>
<td>1. Nursery organization</td>
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<td>2. When and how to use fertilizer</td>
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<tr>
<td>3. Proper pruning methods</td>
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<tr>
<td>4. Irrigation methods and schedules</td>
<td></td>
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<tr>
<td>K. Turf and Lawns</td>
<td>5</td>
</tr>
<tr>
<td>1. Tools and equipment</td>
<td></td>
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<tr>
<td>2. Turf varieties and uses</td>
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<tr>
<td>3. Mowing</td>
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<td>4. Fertilization</td>
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<tr>
<td>5. Planting techniques</td>
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<tr>
<td>L. Floral Design Principles</td>
<td>20</td>
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<tr>
<td>1. Elements of design</td>
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<tr>
<td>2. Color and the color wheel</td>
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<tr>
<td>3. Design styles and origins</td>
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<tr>
<td>4. Scale, harmony, balance and texture</td>
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<tr>
<td>M. Holiday Arrangement</td>
<td>10</td>
</tr>
<tr>
<td>1. Cultural Implications</td>
<td></td>
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<tr>
<td>2. Scheduling</td>
<td></td>
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<tr>
<td>N. Arrangement Design</td>
<td>20</td>
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<tr>
<td>1. Basic table arrangements</td>
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<tr>
<td>2. Vase arrangements</td>
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<tr>
<td>3. Container selection</td>
<td></td>
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<td>4. Round and one-sided arrangements</td>
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<tr>
<td>O. Wedding flower Construction</td>
<td>5</td>
</tr>
<tr>
<td>1. Bouquets</td>
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<td>2. Personal flowers</td>
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<td>3. Altar pieces</td>
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<tr>
<td>P. Merchandise and Sales</td>
<td>10</td>
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<tr>
<td>1. Management</td>
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<td>2. Advertising</td>
<td></td>
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<tr>
<td>3. Cashiering</td>
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<td>4. Use of floral wire service (FTD)</td>
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<tr>
<td>5. Delivery techniques</td>
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<tr>
<td>6. Sales and displays</td>
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</tbody>
</table>
Q. Professionalism  
   1. Define professional responsibility  
   2. Ethical and legal roles in the workplace  
   3. Professionalism in the floriculture industry  
   4. Time management and goal setting  

R. Inter-Personal Communication  
   1. Customer and employee interaction  
   2. Team work in the workplace  
   3. Non-verbal communication  
   4. Customer relations  
   5. Telephone skills  

S. Occupational Safety  
   1. Tool safety and handling  
   2. Proper lifting and moving techniques  
   3. Electrical power hazard  
   4. Work-place safety and liability issues  

T. Job Preparation Skills  
   1. Filling out an application  
   2. Preparation of an effective resume  
   3. Job researching skills  
   4. Job interviewing  

U. Cut Flowers  
   1. Uses in design  
   2. Identification  
   3. Cultural practices  
   4. Optimum stage of security  

V. Flower Processing  
   1. Techniques  
   2. Flower preservation  
   3. Bunching, shipping, and grading of cut flowers  

W. Community Classroom **(100 hours)**  
   1. Students will have the option to participate in real world leaning experiences through the community classroom program.  
   2. Areas of practical study include:  
      a. Nursery Production  
      b. Floral Design  
      c. Landscape Installation and Maintenance  
      d. Parks and Golf Courses  

IV. Expectations for Student Learning  
   Each student who completes this course will be able to:
A. Botany, Fertilizers and Soils
   1. Identify and understand the functions and uses of the different parts of cultivated plant material
   2. Understand biological functions such as photosynthesis, respiration and transpiration and their importance to humans.
   3. Understand soil science and how correct to soil conditions in the landscape
   4. Identify major and minor nutrients needed by plants.
   5. Understand and be able to identify nutrient problems and understand how to correct them in a nursery or garden setting
   6. Be able to apply fertilizers to plant material both in the garden and in containers

Plant Propagation and Nursery Practices
   1. Understand and demonstrate typical methods of asexual and sexual propagation.
   2. Identify characteristics of a nursery and how they are used in plant production.
   3. Understand the components of a greenhouse and demonstrate the use of climate controls
   4. Demonstrate novelty techniques in plant propagation such as Air-layers and budding and grafting.
   5. Understand soil mixes and their importance to plant production
   6. Identify and utilize different soil and container sterilization techniques

Landscape and Irrigation Design and Maintenance
   1. Demonstrate proper landscape maintenance practices
   2. Demonstrate basic skills in landscape design
   3. Design to scale a working drawing to be used in an actual landscape installation
   4. Identify different varieties of turf used in the San Joaquin Valley
   5. Demonstrate basic turf practices such as mowing and fertilizing
   6. Demonstrate proper Pruning Practices
   7. Understand the basic concepts in irrigation design
   8. Design a basic irrigation system for a garden and install it to the correct specifications
   9. Understand and demonstrate proper planting techniques for tree, shrubs and annuals

Plant and Flower Identification
   1. Identify floral and ornamental plants of the San Joaquin Valley
   2. Identify plant uses in the landscape
   3. Understand and demonstrate the correct use of cut flowers and foliage in floral designs

Career Preparation
   1. Understanding how professional skill development—including positive attitude, honesty, self-confidence, time-management and other positive traits affect employability.
   2. Understanding principles of effective interpersonal skills, including group dynamics, conflict resolution and negotiation.
   3. Understand the importance of good basic skills, critical thinking and problem solving skills in the work place.
4. Understand principles of effective communication.
5. Understand occupational safety issues.
7. Understand and adapt to changing technology.

Design Elements
1. Explain the history of floral design
2. Explain the cultural diversity and implications of different types of floral design.
3. Explain the three styles of modern floral design and their origins.
4. Explain the elements and principles of floral design.
5. Demonstrate the design of a variety of popular floral arrangements
6. Demonstrate the construction personal flowers
7. Construct holiday and wedding flowers

Oral and Written Communications and Research
(As per English Standards)
1. Students will write a 2 page research paper on a new technology or application in the industry.
2. Students will make short oral presentations and demonstrations
3. Students will be expected to read and keep up to date using trade journals and selected readings.

V. Instructional Methods

Lecture
Audio/Visual Materials
Group/Individual Assignments
Laboratory Activities
Discussions
Reading Assignments
Field Trips
Research Projects

VI. Assessment and Evaluation

A. Assignments
Students will be responsible for completing a variety of assignments as determined by the instructor. Possible assignments include:
1. Term Paper
2. Speeches
3. Class Participation
4. Class Assignments
5. Laboratory Activities
6. Class Projects

B. Assessment
1. Students will be given objective tests including performance based tests on a regular basis. Assessment will require students to retain, interpret and apply the ideas and information discussed in class through the use of written assignments, laboratory activities, scenarios and class presentations.
2. Students will participate regular lab activities and will be evaluated by the instructor.
3. Students will be given comprehensive quizzes during each unit of instruction.

C. Homework
1. The students will be responsible for completing a variety of assignments as determined by the instructor.

D. Plant and Landscape Projects
1. All students will be required to maintain a plant and landscape project. The plant projects may consist of houseplants, shrubs, vegetable or perennials, grown and cared for by the student. The students will also be responsible for the maintenance of one of the many landscaped flower beds or lawn areas in the GWHS OH unit.
2. Projects will vary depending on class and student interest.
Visalia Unified School District
Course Outline

Course Title: Plant and Soil Science
Alternate Course Titles: None
Grade Level: 11th and 12th
Elective/Required: Elective
Length/Credits: 1-year/10 credits
Prerequisites: Ag Science I, Ag Biology, Algebra, English I
Course Numbers: 0086, 0087
CBEDS Number: 4010
Replaces: None

I. Course Description:
A course that covers the fundamentals of plant and soil science, the factors that influence crop production, integrated pest management, laboratory skills, basic research and the role of plants in the ecosystem. FFA instruction and participation, and student projects (supervised Agricultural Experience Programs) are an integral part of the class. The goals of the course are to provide students the basic knowledge and skills necessary for an entry-level position in the Agricultural Industry, and to provide students the basic background knowledge necessary for an entry-level college course in plant science. The class meets the science high school graduation requirement.

II. Instructional Materials:

Required Text:
Introduction to Plant and Soil Science; Biondo and Lee.

Supplementary Texts:
Teacher notes, Student handouts, related agricultural magazines and the Agricultural Education Record Book.
III. Course Outline:

First six-week grading period
A. Agriculture Leadership Development
   1. Use and application of Parliamentary Law
   2. FFA Leadership Development and public speaking
   3. Careers and Supervised Occupational Experience Project

B. Plant Classification
   1. Taxonomy and Classification
   2. Plant Identification

C. Plant Cell Components
   1. Cell Structure and Function
   2. Cell Reproduction
   3. Genetics and Heredity

   English Language Arts - 1.3,2.5

Second six-week grading period
A. Plant Cell Components
   1. Plant DNA

B. Plant Physiology and Growth
   1. Anatomy
   2. Functions
   3. Factors affecting growth
   4. Physiological Processes

   English Language Arts – 1.7,2.4,2.8

Third six-week grading period
A. Plant Reproduction
   1. Asexual versus Sexual Reproduction
   2. Propagation

   English Language Arts – 3.2

B. Plant Pathology
   1. Entomology
   2. Weed Identification
   3. Integrated Pest Management
   4. Plant Diseases

   English Language Arts – 2.4,2.7
Fourth six-week grading period
A. Soil Properties
   1. Soil Texture, Structure, and Types
   2. Soil and Water Management
   3. Biology
   4. Soil Origins
   5. Irrigation and Drainage
   *English Language Arts* – 1.7,2.5,2.6,2.7,2.8

B. Fertilizers
   1. Components, Structures
   2. ph, Salinity
   3. Application
   4. Development
   *English Language Arts* – 2.4,2.5,2.7,3.2

Fifth six-week grading period
A. Crop Management
   1. Cotton
   2. Alfalfa
   3. Citrus
   4. Walnuts
   5. Grapes
   *English Language Arts* – 2.3

B. Post Harvest Physiology and Marketing
   1. Packaging
   2. Processing
   3. Post Harvest Treatments

Sixth six-week grading period
A. Equipment Management and Safety
   1. Tractors, Maintenance, and Implements
   2. Occupational Safety Hazards
   3. Hazardous Materials

B. Biotechnology
   1. Micro-propagation
   2. Biological Pest Controls
   3. Modern Mechanized Agriculture
   *English Language Arts* – 1.5,1.7,2.2,2.7

C. Record Keeping
   1. Record Books and Financial Records
   *English Language Arts* – 2.7
IV. Expectations for Student Learning:

First six-week grading period

Biology
1a – Students know cells are enclosed within semi permeable membranes that regulate their interaction with their surroundings.
1c – Students know how prokaryotic cells and eukaryotic cells differ in complexity and general structure.
1e – Students know the role of the endoplasmic reticulum and Golgi apparatus in the secretion of proteins.
1f – Students know usable energy is captured from sunlight by chloroplasts and is stored through the synthesis of sugar form carbon dioxide.
1g – Students know the role of the mitochondria in making stored chemical-bond energy available to cells by completing the breakdown of glucose to carbon dioxide.
2a – Students know meiosis is an early step in sexual reproduction in which the pairs of chromosomes separate and segregate randomly during cell division to produce gametes containing one chromosome of each type.
3a– Students know how to predict the probable outcome of phenotypes in a genetic cross from the genotypes of the parents and mode of inheritance (autosomal or sex-linked, dominant or recessive).
4d – Students know every cell has the same set of genes although all of them may not be utilized by each cell.

Second six-week grading period

Biology
6d – Students know that water, carbon, and nitrogen cycle between abiotic resources and organic matter in the ecosystem and that oxygen cycles through photosynthesis and respiration.

Third six-week grading period

Biology
2a - Students know meiosis is an early step in sexual reproduction in which the pairs of chromosomes separate and segregate randomly during cell division to produce gametes containing one chromosome of each type.
2b – Students know only certain cells in a multicellular organism undergo meiosis.
2e – Students know why approximately half of an individual’s DNA sequence comes from each parent.
2f – Students know the role of chromosomes in determining an individual’s sex.
3a - Students know how to predict the probable outcome of phenotypes in a genetic cross from the genotypes of the parents and mode of inheritance (autosomal or sex-linked, dominant or recessive).

Fourth six-week grading period

Chemistry
Atomic Structure and Bonding
- Students know how to use the periodic table to identify metals, metalloids, nonmetals, halogens, and noble gases.
- Students know how to use the periodic table to identify alkali metals, alkaline earth metals and transition metals, trends in ionization energy, electronegativity, and the relative sizes of ions and atoms.
- Students know protons and neutrons in the nucleus are held together by nuclear forces that overcome the electromagnetic repulsion.
- Students know atoms combine to form molecules by sharing electrons to form covalent or metallic bonds or by exchanging electrons to form ionic bonds.
- Students know salt crystals, such as NaCl, are repeating patterns of positive and negative ions held together by electrostatic attraction.
- Students know the atoms and molecules in liquid move in a random pattern relative to one another because the intermolecular forces are too weak to hold the atoms or molecules in a solid form.

Conservation of Matter/Stoichiometry
- Students know how to describe chemical reactions by writing balanced equations.
- Students know how to calculate the masses of reactants and products in a chemical reaction from the mass of one of the reactants or products and the relevant atomic masses.

States of Matter
- Students know the random motion of molecules and their collisions with a surface create the observable pressure on that surface.
- Students know the definitions of solute and solvent.
- Students know temperature, pressure, and surface area affect the dissolving process.
- Students know how to calculate the concentration of a solute in terms of grams per liter, molarity, parts per million, and percent composition.
- Students know the observable properties of acids, bases, and salt solutions.
- Students know strong acids and bases fully dissociate and weak acids and bases partially dissociate.
- Students know how to use the pH scale to characterize acid and base solutions.

Kinetics and Thermodynamics
- Students know chemical processes can either release (exothermic) or absorb (endothermic) thermal energy.
- Students know energy is released when a material condenses or freezes and is absorbed when material evaporates or melts.
- Students know how reaction rates depend on such factors as concentration, temperature, and pressure.
- Students know the role a catalyst plays in increasing the reaction rate.
Organic and Biochemistry
- Students know large molecules (polymers), such as proteins, nucleic acids, and starch, are formed by repetitive combinations of simple subunits.
- Students know the bonding characteristics of carbon that result in the formation of a large variety of structures ranging from simple hydrocarbons to complex polymers and biological molecules.

Fifth six-week grading period
Chemistry
None

Sixth six-week grading period
Chemistry
States of Matter
- Students know how to apply the gas laws to relations between the pressure, temperature, and volume of any amount of an ideal gas or any mixture of ideal gases.
- Students know the values and meanings of standard temperature and pressure (STP).

V. Instructional Methods:
A. Lecture/Note-taking
B. Audio/Visual materials
C. Group/Individual assignments
D. Laboratory activities
E. Discussion
F. Reading assignments/related worksheets
G. Guest Speakers
H. Field trips

VI. Assessment and Evaluations:
A. Students will be responsible for completing a variety of assignments as determined by the instructor. Possible assignments include:
   1. In-class work/homework
   2. Labs
      a. Field work and laboratory
   3. Speeches/Presentations
   4. Term paper

B. Testing
   1. Students will be given objective tests on a regular basis. Tests will require students to retain, interpret, and apply the ideas and information taught in each unit.
2. Students will participate in regular lab activities, which reinforce ideas and information conveyed by the instructor.
3. Students will be given comprehensive quizzes and exams during each unit.

C. Supervised Occupational Experience Project and Record Book

1. A Supervised Occupational Experience Program or project is an organized agricultural activity conducted outside of class time with supervision from one of the Agriculture instructors, which accumulates money, inventory or hours, as evidenced in his/her California Agricultural Education Record Book.

VII. Grading Policy:

Reports of student progress will be provided every six weeks, with final grades provided at the end of each of two semesters. Final grades will be determined by classroom assessments of student proficiency levels based upon individual student achievement of the course content standards included within this course outline. Final grades reflect only academic factors and do not include non-academic factors (attendance and behavior), although these factors do impact the student's ability to master concepts and skills. Non-academic factors are reported through individual citizenship grades.

All final grades will follow Visalia Unified School District Board Policy, including adhering to the approved grading scale below.

A = 90% - 100%
B = 80% - 89%
C = 70% - 79%
D = 60% - 69%
F = 0% - 59%
Visalia Unified School District  
Course Outline

Course Title: Pre-Vet Science  
Alternate Course Titles: None  
Grade Level: 11th and 12th  
Elective/Required: Elective  
Length/Credits: Semester  
Prerequisites: Ag Science I, Ag Biology, Algebra, English I  
Course Numbers: 0084, 0085  
CBEDS Number: 4020  
Replaces: None

I. Course Description:

This course covers the fundamentals of animal health care. Instruction is offered in nutrition, diseases and sanitation, small animal care, as well as basic livestock handling. FFA instruction and participation, and student projects (supervised Agricultural Experience Programs) are an integral part of the class. The goals of the course are to provide the students with basic knowledge and skills necessary for an entry-level college course in animal science.

II. Instructional Materials:

Required Text:

None

Supplementary Texts:
Teacher notes, Student handouts, related agricultural magazines and the Agricultural Education Record Book.

III. Course Outline:
First six-week grading period
A. Agriculture Leadership Development
   1. Careers and Supervised Occupational Experience Project
B. Animal Nutrition
   1. Nutrients
   2. Digestive Systems
   3. Feeding Balanced Rations/Feed Formulations

*English Language Arts – 1.1,1.4,1.5,1.7,1.9,2.2,2.3,2.5,2.6,2.7,3.2*

C. Basic Livestock Handling
   1. Fight/Flight Response
   2. Equipment/Usage

**Second six-week grading period**
A. Animal Sanitation and Disease
   1. Causes of Disease
   2. Diagnosis
   3. Parasites
   4. Poisonings
   5. Infectious Diseases
   6. Treatment of Diseases

*English Language Arts – 1.1,1.4,1.5,1.7,1.9,2.2,2.3,2.5,2.6,2.7,3.2*

**Third six-week grading period**
A. Animal Health
   1. Veterinary Therapy
   2. Antibiotics
   3. Biologicals
   4. Obstetrics
   5. Care of Dam and the Newborn
   6. Vaccination Schedules

*English Language Arts – 1.1,1.4,1.5,1.7,1.9,2.2,2.3,2.5,2.6,2.7,3.2*

**IV. Expectations for Student Learning:**
**First six-week grading period**
Biology
1e – Students know the role of the endoplasmic reticulum and Golgi apparatus in the secretion of proteins.
1f – Students know usable energy is captured from sunlight by chloroplasts and is stored through the synthesis of sugar form carbon dioxide.
1g – Students know the role of the mitochondria in making stored chemical-bond energy available to cells by completing the breakdown of glucose to carbon dioxide.

**Second six-week grading period**
Biology
1a – Students know cells are enclosed within semi permeable membranes that regulate their interaction with their surroundings.
1c – Students know how prokaryotic cells and eukaryotic cells differ in complexity and general structure.
Third six-week grading period

Biology

2a – Students know meiosis is an early step in sexual reproduction in which the pairs of chromosomes separate and segregate randomly during cell division to produce gametes containing one chromosome of each type.

2b – Students know only certain cells in a multicellular organism undergo meiosis.

3a – Students know how to predict the probable outcome of phenotypes in a genetic cross from the genotypes of the parents and mode of inheritance (autosomal or sex-linked, dominant or recessive).

4d – Students know every cell has the same set of genes although all of them may not be utilized by each cell.

7d – Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.

9a – Students know how the complementary activity of major body systems provides cells with oxygen and nutrients and removes toxic waste products such as carbon dioxide.

9c – Students know how feedback loops in the nervous and endocrine systems regulate conditions in the body.

10c – Students know how vaccination protects an individual from infectious diseases.

10d – Students know there are important differences between bacteria and viruses with respect to their requirements for growth and replication, the body’s primary defenses against bacterial and viral infection, and effective treatments of these infections.

V. Instructional Methods:

A. Lecture/Note-taking
B. Audio/Visual materials
C. Group/Individual assignments
D. Laboratory activities
E. Discussion
F. Reading assignments/related worksheets
G. Guest Speakers
H. Field trips

VI. Assessment and Evaluations:

A. Students will be responsible for completing a variety of assignments as determined by the instructor. Possible assignments include:
   1. In-class work/homework
   2. Labs
      a. Field work and laboratory
   3. Speeches/Presentations
   4. Term paper
B. Testing
   1. Students will be given objective tests on a regular basis. Tests will require students to retain, interpret, and apply the ideas and information taught in each unit.
   2. Students will participate in regular lab activities, which reinforce ideas and information conveyed by the instructor.
   3. Students will be given comprehensive quizzes and exams during each unit.

C. Supervised Occupational Experience Project and Record Book
   A Supervised Occupational Experience Program or project is an organized agricultural activity conducted outside of class time with supervision from one of the Agriculture instructors, which accumulates money, inventory or hours, as evidenced in his/her California Agricultural Education Record Book.

VII. Grading Policy:

Reports of student progress will be provided every six weeks, with final grades provided at the end of each of two semesters. Final grades will be determined by classroom assessments of student proficiency levels based upon individual student achievement of the course content standards included within this course outline. Final grades reflect only academic factors and do not include non-academic factors (attendance and behavior); although these factors do impact the student’s ability to master concepts and skills. Non-academic factors are reported through individual citizenship grades.

All final grades will follow Visalia Unified School District Board Policy, including adhering to the approved grading scale below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>90% - 100%</td>
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<td>B</td>
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</tr>
<tr>
<td>F</td>
<td>0% - 59%</td>
</tr>
</tbody>
</table>
**Meeting Agenda**

<table>
<thead>
<tr>
<th>Time</th>
<th>Agenda Item</th>
<th>Discussion/Decision/Action</th>
<th>Notes</th>
</tr>
</thead>
</table>
| 6:00 – 6:05 | • Welcome  
              • Introductions         | • Gary Potter                    | • Self-Introductions  
                                                                        • Dinner release       |
| 6:05 – 6:25 | • Dinner                |                                    |                                            |
| 6:25 – 6:35 | • 1st Semester in Review | • All                            | • Review accomplishments and challenges    |
| 6:35 – 7:05 | • Goals for 2019-2020  
              • All members   | • Review goals for each pathway. (Animal Sci, Ag Mech, Plant Sci, Ag Manufacturing)  
                                                                        • Review Pathway outline and course review |
Opened at 6:10


- Accomplishments and Challenges
  - Plant Science
    - Currently have two classes of Plant Science, one intro and one advanced. Continually to grow the pathway. Orchard is having problems with animals and is in need of replacing trees. Green house is in need of repair. Rodney will check around to see if he could get someone in to look at it.
  - Animal Science
    - Has started breeding sheep and goats. Sammi is in hopes that all sheep will take. Sheep herd is up to 30 ewes and 15 boar goats.
  - Ag Mech
    - Classes are full except advance class due to past upper class students in intro classes.
  - Ag Manufacturing
    - Struggling to get students into the intro class. Had over 30 students sign up but due to class ranking students were not put in class. Total number is 11.

- Course outline
  - Ag mech and Ag Manufacturing will combine intro class in two years to up enrollment. The deadline was missed for the next year.
Visalia Unified School District  
Golden West High School Agriculture Department  
Advisory Committee  
BY-LAWS

ARTICLE I - NAME  
The name of this board shall be the Visalia Unified School District Golden West High School Agriculture Department Advisory Committee.

ARTICLE II - PURPOSE  
An Advisory Board functions in an advisory capacity to a Career Technical Education (CTE) program within the Visalia Unified School District. The Advisory Board makes recommendations regarding the expansion of CTE programs, number of students, curriculum, teacher training, and budget. The Advisory Board may also assist with raising funds, recruiting students, securing internships and scholarships, and providing in-kind contributions to the local CTE program. Lastly, the Advisory Board is an integral part of the experiential learning activities for all CTE students; bridging the gap between the classroom, and the workforce.

ARTICLE III - OBJECTIVES  
The primary objective of the Advisory Board is to support the following goals and policies of the local Academy program:

1. Preparing CTE students through coursework and related experiential education for success in higher education, their careers and in life.
2. Providing paid internships for CTE students where possible.
3. Providing training and professional development opportunities for teachers.
4. Providing and soliciting assistance from the business community in funding the CTE program.
5. Enlisting the expertise of individuals in the industry to assist with development and evaluation of curriculum, student selection, scholarships and internships.

ARTICLE IV: ORGANIZATION  
New Advisory Boards shall meet quarterly. Additional (more frequent) meetings may be held by Committees in order to give counsel and solve specific problems dealing with fundraising, internships, curriculum, professional development for teachers and other matters related to the CTE program. Advisory Boards should hold a full-board strategic planning meeting during the month of August, which includes all stakeholders of the CTE Program (Director, teachers, Principal, district representation, etc.)

ARTICLE V - MEMBERSHIP
Section 1. Membership:
1. The members of the Advisory Board shall be representatives of the industry, colleges and universities, community leaders and educators. Students and parents may also be members. Industry representatives should make up at least 80% of the Board members.
2. Members of the Advisory Board shall receive no compensation for their services as Advisory Board members.

Section 2. Term of Membership:
1. Advisory Board Members shall decide on terms of membership, such as a two or three-year rotating term.
2. Any member may resign from the Advisory Board by giving written notice to the Chairperson. The resignation will be effective immediately upon receipt of such notice.
3. Any member of the Advisory Board who shall fail to attend a minimum of advance notice meetings of the Advisory Board in any academic year shall be asked to resign from the Advisory Board. A member will be deemed to have attended a meeting if a duly qualified substitute attends on behalf of the member.
4. Appointment will be for a term of years, which may be renewed by a majority vote of the members of the Advisory Board.
5. Any Advisory Board member may be asked to resign from the Board at any time, for any reason, by a majority vote of the members of the Board.

Section 3. Membership Requirements:
1. The selection of members shall be made without respect to race, color, creed, national origin, age, handicap, sexual orientation or gender. The Advisory Board shall include, but not be limited to, representatives from the following three broad categories: (1) the respective CTE industry, (80%) (2) the educational community, (15%) and (3) the community at large (5%)
2. Candidates must be nominated by a member in good standing of the Advisory Board and approved by a majority vote of its members
3. Candidates must demonstrate a willingness to obtain at least one student internship position at their firm or elsewhere.
4. Candidates must commit to providing some form of in-kind contributions that will directly benefit the students in the local CTE program.

Section 4. Membership Year:
1. Academic, beginning on or about September 1, and ending on or about August 31.

ARTICLE V I – RESPONSIBILITIES
1. Commit to and/or assist with raising funds.
2. Secure paid internships.
3. Provide in-kind contributions.
4. Establish scholarships.
5. Strengthen public relations and publicity relative to the program.
6. Assist in evaluating the rigor, relevance and effectiveness of the curriculum to meet the needs of the industry, readiness for college and preparation for life.
7. Provide professional development activities for Academy teachers and the Academy Director.

ARTICLE V II – MEETINGS

Section 1 Quorum
A simple majority of the Advisory Board members shall constitute a quorum for conducting Advisory Board business.

Section 2 Voting
Each active member of the Advisory Board shall be entitled to vote on any issue presented to the Advisory Board. A duly qualified alternate in attendance at a meeting may vote on behalf of a member, but no proxy votes are allowed.

Section 3 Minutes
The Chairperson will designate a person to record and distribute the minutes to all Advisory Board members. This is typically the Secretary. The Academy Director will assist the Chairperson in coordinating the meetings and developing the agenda. The Academy Director will also ensure that absent Advisory Board members will receive material and minutes distributed at the Board meetings. Minutes will be distributed at least one week prior to the next Board meeting.

ARTICLE VIII – OFFICERS

Section 1 Chairperson
The Advisory Board shall consist of one Chairperson. The members of the Advisory Board shall elect the Chairperson for a term of two years.

Section 2 Vice – Chairperson (or Co-Chairperson)
The Advisory Board shall consist of one Vice- or Co-Chairperson. The Vice- or Co-Chairperson shall be elected by the members of the Advisory Board every two years.

Section 3 Other Officers
The majority of the Advisory Board members shall decide other officer positions such as Secretary and Treasury.

Section 4 Ex Officio–Members
Ex officio members shall consist of selected industry leaders, state or municipal government officials and school district staff, and are non-voting members.
ARTICLE IX – DUTIES OF THE OFFICERS

Section 1 Chairperson
The Chairperson’s duties shall be those usually pertaining to the office set forth in Robert’s Rules of Order and such other duties as may be prescribed.

Section 2 Vice-Chairperson or Co-Chairperson
The Vice- or Co-Chairperson’s duties shall be to direct all meetings in the absence of the Chairperson to ensure the development and maintenance of a strong and active Advisory Board.

Section 3 Other Officers
The Secretary shall keep, record and disseminate the minutes of the Advisory Board meetings. The Secretary shall also keep a current list of Advisory Board members’ names, company names, email and mailing addresses and other contact information. The Treasurer shall be responsible for keeping, and reporting on the financial condition of the Academy, typically in concert with the Academy Director. The Treasurer shall report the current financial condition of the Academy at each Board meeting. All officers shall participate on at least one Board Committee.

ARTICLE X – AMENDMENTS
These by-laws may be altered, amended, or repealed. New by-laws may be adopted by a majority vote of the Advisory Board at any regular meeting or special meeting.
# Program Completer Certificates

### Advanced Environmental Horticulture

The individual whose name appears on the front of this certificate has demonstrated employable skills and knowledge in some or all of the following areas; additional information concerning work habits and the degree of competency gained in the areas listed below may be obtained by calling the instructor.

<table>
<thead>
<tr>
<th>Plant Identification</th>
<th>Landscape Design</th>
<th>Turf and Lawn Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common name</td>
<td>Principles of design</td>
<td>Turf identification</td>
</tr>
<tr>
<td>Botanical name</td>
<td>Design Drafting</td>
<td>Planting</td>
</tr>
<tr>
<td>Plant landscape uses</td>
<td>How to read blueprints</td>
<td>Mowing</td>
</tr>
<tr>
<td></td>
<td>Design problems</td>
<td>Fertilization</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Plant Propagation</th>
<th>Landscape Construction</th>
<th>Irrigation Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seeds</td>
<td>Soil Conditioning</td>
<td>Designing the system</td>
</tr>
<tr>
<td>Transplanting</td>
<td>Installation of landscape plants</td>
<td>System tools and parts</td>
</tr>
<tr>
<td>Cuttings</td>
<td></td>
<td>Installation</td>
</tr>
<tr>
<td>Layerage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Budding and Grafting</td>
<td></td>
<td></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Plant Maintenance</th>
<th>Floriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery organization</td>
<td>Tools, equipment and supplies</td>
</tr>
<tr>
<td>Plant Fertilization</td>
<td>Corsage construction</td>
</tr>
<tr>
<td>Pruning</td>
<td>Flower arrangements</td>
</tr>
<tr>
<td>Watering</td>
<td>Care of fresh flowers</td>
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<tr>
<td>Pest control</td>
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</table>

<table>
<thead>
<tr>
<th>Nursery Stock Canning Operation</th>
<th>Floriculture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil mixes</td>
<td>Tools, equipment and supplies</td>
</tr>
<tr>
<td>Sterilization of soil and media</td>
<td>Corsage construction</td>
</tr>
<tr>
<td>Planting and transplanting into containers</td>
<td>Flower arrangements</td>
</tr>
</tbody>
</table>

---

I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL
I BELIEVE IN THE FUTURE OF AGRICULTURE

AGRICULTURAL WELDING

The individual whose name appears on the front of this certificate has demonstrated employable skills and knowledge in some or all of the following areas; additional information concerning work habits and the degree of competency gained in the areas listed below may be obtained by calling the instructor at 627-3975.

<table>
<thead>
<tr>
<th>General Shop Safety</th>
<th>Welds Completed</th>
<th>M.I.G.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper and safe use of hand tools</td>
<td>Flat bead</td>
<td>Flat bead</td>
</tr>
<tr>
<td>Proper and safe use of power equipment</td>
<td>Fillet</td>
<td>Fillet</td>
</tr>
<tr>
<td>Appropriate use of personal safety equipment</td>
<td>Butt</td>
<td>Lap</td>
</tr>
<tr>
<td>Billing Procedures</td>
<td>Pad</td>
<td>Butt</td>
</tr>
<tr>
<td>Estimating bill of materials</td>
<td>Lap</td>
<td>Horizontal</td>
</tr>
<tr>
<td>Estimating cost of materials</td>
<td>Thick to thin</td>
<td>Vertical</td>
</tr>
</tbody>
</table>

Principles of the Progress of Welding

- M.I.G.
- Shielded Arc
- Oxygen Acetylene

Job Skills

- Oxygen Acetylene
  - Puddle
  - Fusion
  - Fillet with rod

- M.L.G.
  - Flat bead
  - Fillet
  - Lap
  - Butt
  - Horizontal
  - Vertical

Project Construction

- Demonstrates good fabrication skills from concept to completed project.
- Project (paints and or finishes project).

Demonstrates responsibility.

And other desirable skills of a good employee.

- Fillet with rod
- Brazing
- Cutting with torch

Please test this proof over very carefully. Check for overall appearance, completeness and spelling. If you are not satisfied, please indicate changes. All OK to give, TOC/TE.

OK: OK

Signature Date:

AMBER NAGEL

GOLDEN WEST HIGH SCHOOL
Teaching Credential

<table>
<thead>
<tr>
<th>Document Number</th>
<th>Document Title</th>
<th>Term</th>
<th>Status</th>
<th>Issue Date</th>
<th>Expiration Date</th>
<th>Original Issue Date</th>
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<td>Single Subject Teaching Credential</td>
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<td>Valid</td>
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<td>7/1/2020</td>
<td>7/3/2008</td>
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<td>7/1/2020</td>
<td>7/3/2008</td>
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<td>130064860</td>
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<td>Valid</td>
<td>8/1/2013</td>
<td>7/1/2015</td>
<td>7/3/2008</td>
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</table>
Golden West FFA
Activities Calendar
2019-2020

August:
2-3  San Joaquin Region Boot Camp – Camp San Luis
19   Placemat Ads Begin
22   Welcome Back BBQ 6pm

September:
5    Capture the Flag
11-15 Tulare County Fair – Tulare
17-20 Greenhand Leadership Conference – Lemoore
21   Sequoia/Tulare Kings Section COLC – Golden West
26   Mt. Whitney FFA Opening/Closing Contest

October:
2    Tulare Kings Section Open/Close Contest – Hanford
8-9  Farm Tours
16   Tulare Kings Section Meeting – TBD
17   Fall Extravaganza
28-31 National FFA Convention

November:
1-2  National FFA Convention Cont.
12   Career Fair – Valley Oak
14   Fall Awards Banquet 6pm

December:
12   Family Game Night
17   Semester Reward Lunch
January:
17  San Joaquin Region FFA Officer Applications Due
22  Winter Olympics
27  Sequoia/Tulare Kings State Degree Certification – Mt. Whitney
30  Kiss-A-Cow Begins

February:
5   Tulare Kings Section BIG/COOP Contests – Mt. Whitney
12  World Ag Expo – Tulare
14-15 MFE/ALA – Visalia
19  Kiss-A-Cow Ends
19  Tulare Kings Section Creed/Impromptu Speaking Finals – Hanford
20  Teacher Appreciation Breakfast
20  Taco Truck Meeting
21  Kiss-A-Cow Lunch
22  San Joaquin Region FFA/CATA Region Meetings – Mission Oaks
27  Tulare Kings Section Job Intv/Prepared/Extemp Speaking Finals – GW

March:
18  Tulare Kings Section FFA Meeting – TBD
23-27 Western Week
27  Sweetheart Dinner 6pm

April:
2   Tulare Kings Section Banquet – TBD
16  Spring Carnival
20  Chapter Officer Applications Open
22  State Speaking Semi-Finals – Anaheim
23  State Parliamentary Procedure Finals – Anaheim
24-26 State FFA Leadership Conference – Anaheim

May:
1   Chapter Officer Applications Due
14  Spring Awards Banquet 6pm
June:
1       Semester Reward Lunch
Planned Professional Development

Below is a list of planned activities, however, due to COVID I will not be able to complete the list.

1. Complete Master’s Program at Cal Poly SLO
2. Become CASE certified instructor in ASP or gain probationary status.
3. Attend Skills Week at Summer Conference.
4. Attend Road Show for the Region
R2 Report

I have reached out to Emmett Schultz on multiple times through out the year. I have received very little to no communication from the Department Head. I have requested Golden Wests R2 report and I have not received it and He is not going to get it to me. I have nothing to report for this section.
Travel Expense Form

I have not completed a travel expense form, however as a department we have done them. I cannot access them due to the closure of the office.
CATA Membership Card

CALIFORNIA AGRICULTURAL TEACHERS' ASSOCIATION

SERVING AGRICULTURE BY TEACHING
2019/2020 ACTIVE MEMBER
I have not submitted a report to an administrator of a professional development event. However, I plan to complete the CASE probationary teacher certification. Once gained the access to the curriculum I will review it and complete a report to my administrator. I did receive a scholarship to attend a CASE institute and I sent an email to Breanne Phillips (Curriculum AP) regarding getting awarded the scholarship. As far as reporting any learning outcomes, that will have to be after my check has been processed and I receive links for the access.
## Current Years Operating Budget

### California Department of Education

**AGRICULTURAL CAREER TECHNICAL EDUCATION INCENTIVE GRANT**

**REPORT OF EXPENDITURES**

**Due Date:** To be received in Regional supervisor's Office by October 15

**Funding Year:** 2018-2019

---

### Golden West High School

**(School Site)**

**Responsible for the Program**

### Visalia Unified School District

**(District)**

**Telephone Number:** (559) 730-7814

---

**PART A**

Account No. 4000 does not require matching of each item but subtotal on Column C must at least equal the subtotal Column B unless a waiver of matching has been approved.

Accounts 5000 and 6000 require matching for each line item unless a waiver of matching has been approved.

<table>
<thead>
<tr>
<th>Line</th>
<th>Acct No.</th>
<th>Classification</th>
<th>Description of Item for Which Funds Were Expended</th>
<th>Incentive Grant Funds</th>
<th>Matching Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4000</td>
<td>Books &amp; Supplies</td>
<td>Subtotal for 4000</td>
<td>6,454.45</td>
<td>7,931.15</td>
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<tr>
<td>2</td>
<td>5000</td>
<td>Services and Other Operating Expenses such as Services of Consultants, Staff, Travel, and conference; Rentals, Leases and Repairs; Bus Transportation</td>
<td>1. Travel Conferences</td>
<td>12,686.74</td>
<td>13,897.37</td>
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<tr>
<td></td>
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<td></td>
<td>2. Transportation</td>
<td>1,240.81</td>
<td>3,277.40</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>3. Professional Consulting</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Rentas and Leases</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>6000</td>
<td>Capital Outlay: Includes Sites and Improvements of Sites; Buildings and Improvement of Buildings; Equipment</td>
<td>Subtotal for 6000</td>
<td>13,827.55</td>
<td>17,174.77</td>
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<tr>
<td>4</td>
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<td></td>
<td>1. Land Improvements</td>
<td></td>
<td></td>
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<tr>
<td>5</td>
<td></td>
<td></td>
<td>2. Equipment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td>3.</td>
<td></td>
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<tr>
<td>7</td>
<td></td>
<td></td>
<td>4.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total

|                | 20,382.00 | 25,105.92 |

**TOTAL Incentive Grant Allocation:** $20,543.00

---

**PART B**

Complete this portion if a waiver of matching requirement was granted.

<table>
<thead>
<tr>
<th>Line</th>
<th>Acct No.</th>
<th>Classification</th>
<th>Description of Item for Which Funds Were Expended</th>
<th>Incentive Grant Funds</th>
<th>Matching Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>1000</td>
<td>Salaries</td>
<td>Substitute Teachers</td>
<td>161.00</td>
<td>5,635.00</td>
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<tr>
<td>16</td>
<td>1000</td>
<td>Salaries</td>
<td>Teachers Salaries for Project Supervision Period</td>
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<tr>
<td>17</td>
<td>3000</td>
<td>Benefits</td>
<td>Benefits for the Above Items (1000)</td>
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</tr>
</tbody>
</table>

**TOTAL** 161.00 5,635.00

---

**PART C**

Certification of Expenditures

I certify that the amounts entered on this final report are a true record of Incentive Grant funds and Non-Incentive Grant matching funds actually expended on the categories and items listed on the report.

**Signature - District Superintendent or Designee**

**Date:** Oct. 11, 2019

---

I BELIEVE IN THE FUTURE OF AGRICULTURE

AMBER NAGEL
Five Year Acquisition List

1. Move back in the Ag building after modernization
2. Replace Ag Truck
3. Update greenhouse light, electrical, HVAC
4. Grow Pumpkins for SAE projects, Fall farm tours
5. Pour concrete for multi-use barn
6. Use Fodder Feed system
7. Seatrain shade/roof

2020-2021
1. Start Ag Mechanics/Manufacturing 1 classes
2. Recondition welding booths in Ag Mech Shop
3. Fruit Bins and sorting stations
4. Add two more periods of Ag Mech1/Manufacturing

2021-2022
1. Permanent raised garden beds
2. Rebuild Chicken coop
3. Mount Fans in Livestock Barn
4. Establish rotational pastures
5. Restructure Shade House

2022-2023
1. Build new Poultry Processing area
2. New Forklift
3. Build Parking Shade for Ag Vehicles
4. Tractor Storage in Seatrain

2023-2024
1. Add Solar panels to livestock barn
2. Up-Date metal storage
3. Add new lights and outlets to livestock barn
District/Departments Budgeting Process

Our department receives funding like all other ag programs in the state, through a variety of state and local avenues. We currently operate using a budget from AIG or Ag Incentive Grant, Perkins and site funding.

AIG: The department oversees completing the application for this funding yearly. This Process is done in November. The funding for the program is budgeted to be spent throughout the year depending on the pathways or teacher’s needs. The budget is then approved by the school board every year.

Perkins: Cal Perkins is another budget that the principal splits among the varies departments.
### Chart of Responsibilities

<table>
<thead>
<tr>
<th>Department Chair</th>
<th>G Potter</th>
<th>Schultz</th>
<th>J Potter</th>
<th>Nagel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Engineering Program Assessment</td>
<td>X</td>
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<tr>
<td>CATA Registration</td>
<td>X</td>
<td></td>
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<tr>
<td>Department / Program Budget</td>
<td>X</td>
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<tr>
<td>District Accounting Requisitions and PO’s</td>
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<tr>
<td>FFA Requisitions / PO’s</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Hotel Reservations</td>
<td>X</td>
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<tr>
<td>Office Supplies Orders</td>
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<tr>
<td>Perkins Funding Application</td>
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<tr>
<td>CTE Incentive Grant</td>
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<tr>
<td>Home Growers Account</td>
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<td>Ag Mechanics Account</td>
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<tr>
<td>FFA Account</td>
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<tr>
<td>Livestock Account</td>
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<td>LCAP Budget</td>
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<tr>
<td>Ag Engineering Account</td>
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</tr>
</tbody>
</table>

### General Program / Facility

<p>| 5-year Equipment Allocation | X |    |       |    |
| Advisory Committee Roster &amp; Minutes | X |    |       |    |
| Ag Advisory Committee Planning and Agenda | X |    |       |    |
| Chart of Staff Responsibilities | X |    |       |    |
| Comprehensive Program Plan | X |    |       |    |
| Graduate Follow-Up | X |    |       |    |
| In-Service Activities List | X |    |       |    |
| Maintenance Requests General | X | X | X |    |
| Maintenance Requests (Shops) | X | X | X |    |
| Program Press, Media, and Web Page | X | X | X |    |
| Program of Activities (FFA, Data, and Budget Data) | X |    |       |    |
| Quarterly / Yearly CATA Meetings / Events | X | X | X |    |
| R2 Report &amp; Roster | X | X |    |    |
| Recruitment (Valley Oak Middle School) | X | X | X | X |
| Report of Expenditures | X |    |       |    |
| Transportation Requests/Requisitions | X | X | X | X |</p>
<table>
<thead>
<tr>
<th></th>
<th>O. Potter</th>
<th>Schulte</th>
<th>J. Potter</th>
<th>Nagel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FFA Advisor</strong></td>
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<td>MFE/ALA Conference</td>
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<tr>
<td>American FFA Degree Applications</td>
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<tr>
<td>BBQ'ing and BBQ Crews</td>
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<td>Chapter Officer Leadership Conference</td>
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<tr>
<td>FFA Jacket Orders</td>
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<tr>
<td>FFA / T-Shirts and Polo Orders</td>
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<td>Greenhand Conference</td>
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<td>2019-2020 National FFA Conference</td>
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<td>Oversee Planning for FFA Meetings</td>
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<td>Regional Officer Leadership Conference</td>
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<td>Registration for CDE Contests</td>
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<td>Registration for Conferences</td>
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<td>Sectional Officer Leadership Conference</td>
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<td>State FFA Degree Applications</td>
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<td>State FFA Leadership Conference</td>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>O. Potter</th>
<th>Schulte</th>
<th>J. Potter</th>
<th>Nagel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SAE Project Supervision</strong></td>
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<td>Fair Supplies</td>
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<td>Veterinary Supplies</td>
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<td>Sheep Breeding</td>
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<td>Goat Breeding</td>
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<tr>
<td>Meat Birds</td>
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<tr>
<td>Turkeys</td>
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Substitute Procedures

Thank you for teaching my classes for today. Below is a list of expectations I have for the class to follow.

1. Students are to remain in their assigned seats.
2. Absolutely no cell phone, please write the names of the students on this form who violated this strict rule. I will enforce it.
3. They can use the restroom at the first 5 minutes of class. One person at a time. They know this rule.
4. All assignments are DUE and to be collected at the end of the period.

Period 2 Ag Biology:
Students of concern: Jesus Sanchez: He likes to shout out across the class and has been place in lunch time detention due to his over social behavior. Elias Pacheco need more given directions, please review the assignment and provide feedback to him about his progress.

Lesson:
Have them complete their bell ringer at the beginning of the class.
Give them the worksheet attached to the lesson plan and have them complete it. The answer key is there as well please review the page and give direction as needed to the students.
Leave the completed worksheets on my desk.

Have a nice day!
Amber Nagel

Please rate my classes behavior and performance on lesson
Circle One:
POOR FAIR GOOD EXCELLENT

Remarks and or student’s names who caused problems or didn’t follow my rules.
Program Completer Description

Golden West currently has three major pathways however, we are trying to grow an Ag Engineering Pathway. To qualify as a program completer, you must complete three of the courses in a specific pathway. Such as completing Ag Sci I, Ag Biology, Intro to Hort, and Adv. Hort.
Reimbursement Procedures

All expenses that have occurred while participating in a board approved event, are reimbursed after. The conference attendance sheet and receipts are submitted to principal’s secretary. A reimbursement check is usually given out about a week after the paperwork has been submitted.
AGED 539 Project Report
Fodder Facilities Upgrade and Student School-Based SAE Project
Background
Golden West is a part of the Visalia Unified School District. Our facilities, as described in the narratives are extensive but still need some work. With a large district farm and our small learning laboratory farm it allows us to have extensive support for school-based learning projects and to teach students a wide array of agriculture. The focus of my project is the limited hydroponic growing chamber. The unit was originally purchased before I was hired and never became operational.

I became fascinated with this new piece of equipment. The unit looks like a small toy-hauler or RV with dual doors on both front and back of the unit. It is equipped with a temperature-controlled unit that sits on top, a water tank and water pump, misting lines and 18 compartments that hold the fodder seed trays. All the parameters are controlled a computer screen that you can set the specific parameters depending on the climate in your area.

---

F-220 Sprouting System

$22,500.00

- Insulation: R24 Insulation
- Quantity: 1

Add to cart

The F-220 is completely self-contained and designed to be outdoors. It is precisely climate controlled and produces 220lbs of fodder each day.

- Lbs per day: 220
- Biscuits per day: 12

- Daily Seed required: 33 lbs
- Daily Water usage: 72 gallons per day
- Water Inlet: 3/4" (standard garden hose)
- Water outlet: 1 1/2"
- Climate Control: Adjustable heating and cooling, water tank heater – Additional insulation available for cold climates.
- Lighting: Full Spectrum fluorescent lighting
- Electrical requirements: Dedicated 220v, 20A circuit

SPECIAL DELIVERY REQUIREMENTS - PLEASE READ!
I wasn’t planning on this being my master’s project, however, I wanted something that was unique for Golden West Agriculture and something that would set us apart from the rest of the other programs. I decided that a facilities upgrade was a good use of my project for my master’s degree and Golden West School Farms needs some work. After I decided that this was my project, I focused on setting some goals that I wanted accomplished with this project.

Goal #1: How to Operate the Machine:
My initial thought was to get the machine operational and to learn how to operate it. When I first looked at the machine it had power ran to it, but it wouldn’t start. I immediately went to work and called the company. After speaking with a sales representative, they taught me how to operate the machine. The fodder needed to be hooked up with a simple garden hose and the water tank had a busted water float inside. With a simple screw and hooking up the water to the water inlet it began filling the water tank. The computer system then needed to be reset. I began turning in the fodder and resetting the growing parameters, such as, the length of time for water to mist the seed and how often it turned on. I set the lights to turn on and give light bursts intermittently throughout the day. I also set the temperature and humidity for growing barley seed. Once the parameters were set the machine was self-sufficient. It would even store the parameters internally if there was a short power outage. The machine was then set and needed to reach optimum temperature inside the chamber.

Goal #2: Choosing the Correct Seed Cultivar:
When I first looked for seed, price was the limiting factor. Lockwood Seed and Grain was the top of the list. They bid a pallet of seed at .32 cents per pound, however the freight of the seed was the largest of the bill. The total for the pallet exceeded 1,000.00 dollars. We purchased the seed and set forth with growing it. This initial purchase was done just to ensure the fodder biskets were growing well; and the timing of seeding to sprout growing time was efficient to incorporate into the feeding schedule and feed rations. When the pallet arrived, I loaded the machine ¼ capacity. The chamber is designed to grow the fodder from seed to a sprouted bisket in 5-6 days and at the last day being pulled from the unit and immediately fed. After day 4 I immediately noticed a problem. Our seed trays were growing a substantial amount of yeast. The yeast production from the fermentation of the barley grain was so great, it rotted the roots of the barley bisket and it was not feedable. We had to throughout a lot of money. With this new problem I called the fodder company and we determined the problem was a product of the soil the seed originated from. I ordered another pallet of seed from the Fodder Company we bought the seed from and it did not produce the yeast that was produced in the Lockwood Seed and Grain batch.
The first purchase did not go completely wasted, we upped the chlorine in the water tank and soaked the seed prior to loading in a vinegar solution. This reduced but did not eliminate the yeast problem. We still had to throughout ½ the biskets and some were fed to the ram and buck instead of the pregnant ewes and does.

Goal #3 To replace the grain purchased for the ewes and does in late gestation:

Once the proper cultivar of seed was purchased, we started to feed the does and ewes the biskets of barley sprouts. Through research and conversations with Fodder Works I learned some of the nutrition behind the process.

(Image Description: Fodder at Day 1 Germination, Golden West School Farm 2020)
Limited Hydroponic Fodder System was designed for a livestock or dairy producer to grow their own grain all year long instead of purchase it. So, let us look at the nutritional benefits of feeding sprouted barley instead of grain. On a study performed by Chico State for Organic Dairies they collected DATA on sprouts vs grain and drew some conclusions based on their findings.

When analyzing 100 grams of sprouted barley to 100 grams of barley seed there were more presents of mineral and vitamins such as Riboflavin, Vitamin C, Niacin, Vitamin B6, Folate, Thiamin, Ca, P,K,Mg,Zn. (C.A. Daley Ph.D, Chico State). We currently must supplement mineral and Vitamin tubs to our flock due to deficiencies in our soil and feed. The increase of nutrients is beneficial for our herd. They also looked at the digestibility of the sugars/starches, proteins, and fats present in the two comparisons. When germination occurs in a plant the plant release enzymes and the enzymes start to break down complex macromolecule chains into their building blocks. When starch is broken down it is converted into simple sugars that are more quickly absorbed into the blood stream. Proteins are broken down into amino acids and fats are broken down into fatty acids. This is a more digestible form of nutrition for the animal, therefore reaching the bloodstream quicker and less of the energy is wasted in digestion. This improves milk production as outlined in their findings. I am hoping it will keep or improve our flocks body condition score. They also found that in studying the milk production that the milk profile was improved it lowered. LDL (bad Cholesterol) levels and shortened the fatty acid chain and added more DHA (Omega 3) concentration. The smaller fatty acid chains are a healthier form of fat and it liquid instead of solid at room temperature. Livestock that eat a sprouted form of grain instead of seed grain can produce a healthier product.

A secondary problem if fodder is the only form of feed can develop in our flock. Digestion occurs because microorganisms aid in breaking down the feed stuffs. Fodder is so highly digestible that the rumen does not have something to feed the population of microorganisms all day long. So in a sense, the fodder is quickly used up and once the population of microorganisms die off the digestive system must repopulate itself. This is defeating one of the most beneficial aspects of feeding sprouts. Based on these findings I decided that we needed to keep feeding alfalfa hay as a roughage for our flock. We have a limited pasture, but the grass is sparse and not enough to supplement the herds roughage needs. I also would like to see a better choice of grass population in our fields. We have high amounts of nettle and not enough high-quality grazing grasses; so our pasture is not a good choice for roughages.
Another benefit that accompanies the smaller chains of macromolecules is the presence of enzymes from the gemination process. The fodder also comes laced with those much-needed enzymes to catalyze those chemical reactions for breaking down feed. This is not present in grained TMR feed. After researching this information, I understand some of the benefits of feeding this to our herd and I think this is a great idea for our program.

It was noted in their research that there is less dry matter present in the fodder. Most nutritionists want to see a high presence of dry matter in the feed. This means a higher concentration of energy. We know this that fodder has less dry matter because the energy is released and dispersed through the sprouts. This does not seem to make me not like this system. Our ewes love the fodder and eat it within 10 minutes and all the roots that go with it. We have not seen a reduction in body condition though I have not collected data on their score. The lower dry matter content has not reared an ugly head.

![Average Alfalfa Degradation (%DM)](Image Source: C.A. Daley Ph.D, Chico State University)

Background to Data Above:
When analyzing Grain VS. Fodder on a % Dry Matter Degradation or the breaking down of the total dry matter fodder breaks down faster over a period of 96 hours. This was analyzed by the In-
Situ digestion experiment. They pulled samples directly out of the rumen at these time increments listed on the X-Axis of the graph.

Goal #3: Analyzing the cost of bagged grain vs Fodder:
The cost of the barley is the least of the bill coming to $.25 cents per pound. The freight from northern CA is the biggest expense. For 50 50 lb. bags or one pallet of barley seed the bill came to $1,054.00 freight and seed. This information is not useful unless I know how much each bisket of fodder is. Each bisket gets approximately 3 lbs of barley seed which is .75 cents of grain. However, I need to calculate to true expense which includes the freight. $1,054.00/50 bag is $21.08 per bag. Per pound is .42 cents true cost per pound, with every bisket being three pounds the cost of a bisket of fodder is $1.26. Our department does not pay for electricity and our machine was purchase out of last years budget. This cost analysis is just a reflection of the purchase of the seed. We typically purchase High Noon grain to supplement our feed for our ewes. It cost $25.00 per bag. The cost of the fodder is slightly less expensive than the cost of the bagged grain we typically use.

Goal #4 Implementation of the Fodder Growing System and a School-Based SAE project.
As stated in the introduction the final phase of this project was to recruit students to operate the machine and gain interest in livestock feed production as a SAE project. As a part-time teacher this was proven to be a little challenging. I asked my co-workers to announce in class of a meeting held at lunch to discuss the Fodder system. The meeting consisted of about three students who were very interested in the project. Student 1 was from my Ag Biology class, Student’s 2 and 3 were from Gary Potter’s Ag Biology class.

The implementation process included a “on the job” training. The training outline was one day of guided instruction with me and the other three students. I demonstrated the soaking of the seed and the mixing requirements of vinegar to water. The students helped me load three buckets of seed to soak overnight. I then took other presoaked seed and demonstrated the tray loading procedures of the fodder trays. This included how much barley seed to fill the feed scoop with and how to disperse the seed evenly on the tray. We came up with number of trays to be loaded per day. We needed to load six trays per day to grow 18 biskets of fodder for the ewes/does feeding schedule. We loaded the first batch and discussed how this project needs good managers to come daily and ensure the livestock feeders have enough feed to throw. One of the problems in an enclosed hydroponic misting system is preventing mold outbreaks.
The machine needs to have chlorine in the water tank which can help with mold but is mainly used to prevent algae growth. Algae can remove dissolved CO2 from the water, which is needed for photosynthesis and the algae can also clog the water lines. Several times a week the inside of the machine needs to be scrubbed with a pool style scrub brush and a water and bleach solution. We discussed that they need to scrub the machine a couple times a week and that the animal science class will also scrub on Fridays.

With a clear plan laid out the students they then set forth on their SAE project adventure. I visited the project for the next two days to ensure they still remembered all the instructions and then they were independently operating the project. Over the next few months (until the school closure) the three students ensured that the machine was operated properly. The successfully grew enough fodder for the flock and did a great job at it.
I BELIEVE IN THE FUTURE OF AGRICULTURE

(Image Source: Golden West School Farm: Water Pump and Water Tank)
In conclusion the of this project, I feel like I met all the goals I set. It was an expensive upfront cost, but it opens the door to so much stuff. I love the idea of kids gaining experiences with alternative forms of growing feed in a small space. I love the idea of students learning how to operate the machine and the hands on very simple to operate tasks it provides the program.