California State University, Fresno
Agricultural Education Graduate Follow Up Survey
Spring 2021

Technical Competency Scale (Table 1)

The purpose of this scale was to measure the effectiveness of the agricultural coursework in preparing graduates to teach the core areas of agriculture. Based on the courses completed at Fresno State, participants indicated their perceived level of preparation by selecting the appropriate number using a 1 to 5 Likert-type scale: 1 = Not Prepared, 2 = Less than Adequately Prepared, 3 = Adequately Prepared, 4 = More than Adequately Prepared, and 5 = Well Prepared. Respondents were also asked to indicate N/A if they completed coursework at another institution.

Table 1. Summary of participants' level of preparedness on the Technical Competency Scale.

Core Agriculture Area	n	Mean	SD
Animal Science	60	4.07	.94
Agriculture Mechanics	60	3.47	1.07
Plant Science	60	3.33	1.16
Ornamental Horticulture	60	3.27	1.10
Agricultural Economics/Business	60	2.82	1.14
Natural Resources/Forestry	60	2.20	1.19

Professional Competency Scale (Table 2)

The purpose of this scale was to measure the effectiveness of the Agricultural Education coursework in preparing graduates to teach and perform the responsibilities of an agriculture teacher. Based on the Agricultural Education courses completed at Fresno State, participants indicate their perceived level of preparation to perform or teach by selecting the appropriate number using a 1 to 5 Likert-type scale: 1 = Not Prepared, 2 = Less than Adequately Prepared, 3 = Adequately Prepared, 4 = More than Adequately Prepared, and 5 = Well Prepared.

Table 2. Summary of participants' level of preparedness on the Professional Competency Scale.

Agricultural Education Competency	n	Mean	SD
Teaching FFA Unit	57	4.04	.96
Supervising FFA activities	57	3.72	1.08
Teaching agriculture subjects	57	3.65	.90
Teach SAE unit	57	3.54	1.09
Utilize technology as a resource/teaching aid	57	3.40	1.05
Determine appropriate content for Ag. courses you teach	57	3.40	1.03
Participation in your professional associations	57	3.37	1.06
Teaching agricultural mechanics	57	3.18	.95
Implement "Program Standards" in the management of an Ag. program	57	3.11	1.05
Supervise school farm facilities	57	3.04	.96
Prepare for an Incentive Grant Review	57	2.56	1.02

Summary of General Information

The respondents indicated a mean of 4.40 years of agriculture teaching experience (n = 62, SD = 1.55). Responses ranged from one to seven years. Of the 62 respondents, 98.3% (n = 61) reported having a Bachelor's degree in Agricultural Education/Science. One respondent completed their Bachelor's degree in Agricultural Business.

Summary of Open Comments Regarding Ag Subject Matter

I would have liked to be more prepared to teach Ag Sciences. Many student in my cohort ended up teaching Ag Chem / Ag Biology with little preparation.

My focus was animal science so those were primarily the courses I took. We touched on mechanics, plants, and business, but they were not a big focus. I teach business and plant science now and wish I had taken more classes outside of my focus.

More content/lessons need to be about how to present the information or teach some of the FFA/AET side of things. Overall great program, I enjoyed taking a variety of classes and did so on my own to be more well rounded. I know having classes offered every 4 semesters was difficult at times in planning but otherwise no complaints.

Ag Science specific courses weren't discussed, mentioned etc. We were vastly underprepared to integrate science standards, teach ag chemistry courses etc. I felt there was an outdated understanding of what courses we would be teaching.

You need to have student teachers taking Ag Science classes too!

Classes in fair, CDEs, and LDEs are needed. Also how to hook up trailers.

The Small Engines course in the Ag Mechanics area of preparation was not helpful at all.

One of the things that I definitely wish that I had was a course that focused on the different livestock projects that we could potentially take on in school. In my first two years both livestock I have been in charge of I have never worked with and that is definitely a challenge.

My emphasis was in Plant Science. I was disappointed in the availability and selection of classes that were offered each semester. A lot of horticulture classes aside from OH 1 and OH 4 were closed because there was not enough students. Had to take Plant 190 twice I believe to make up necessary classes.

Teacher candidates need to be ready to teach subjects like Ag Biology and Ag Chemistry and need specific training to make them more competitive in the new world of education.

It maybe more useful to take multiple classes in each area then choosing a specialization. I learned a lot in my specialization area because I had a lot of classes in that area but some of the other areas I may have only taken one class. I also think it would be helpful to have some ag science classes or methods of teaching ag science or something along those lines. I have taught at a couple schools and I have always taught a couple ag science classes, at least and have never taught animal science which was my specialization.

I think it should be a requirement to take the tractors class as well as a trailer driving course.

Absolutely loved my time and training for my career but wish they would have showed me more on department matters like how to run an ag department or register a team.

I believe that the teacher prep program should focus more on building curriculum and course outlines. I didn't understand until three years of teaching how to properly outline a class and prep backwards to plan a class well. I also think there should be a better focus on using standards, teaching with standards in mine and utilizing them in classes. Lastly, there was little focus on lab work outside of mechanics. How to set-up a lab, lab reports and gathering materials and layering it out in an efficient fashion.

Floral and Agriscience courses should be required!

Provide more preparation for agriculture science classes such as biology and chemistry. Provide more variety for ag mechanics for non ag mech concentration students. Potentially don't allow concentrations to create a more well rounded teacher rather than specifically good in one area.

I completed nearly all plant science classes at a JC. Overall, I felt prepared on the basics of most areas. There was still a learning curve once I entered the classroom.

I would have felt more prepared if I had the ability to take more courses within animal science and natural resources to help prepare me more.

Ag Mech I felt prepared, would have liked classes or units on how to use CNC plasma machines as well as welding fabrication type class.

Open more classes related to ag mechanics trade skills, offer more variety in plant/hort science.

Summary of Open Comments and Suggestions

I understand each site/district does POs and everything differently, but an overview of how to do them would be fantastic!

Using technology in undergrad classes and credential program was pretty helpful. Especially learning about the different applications. Did not get realistic help about the AIG though. Had no idea what to do the first time I had a review.

I would like to see a class in terms of outline a year, dissecting a unit and creating activities or lessons for students that are not strictly book and notes related.

Maybe this has been added now since it is newer but learning how to use AET, creating a project from start to finish as well as applying for a degree and proficiency would be super helpful. Actually being observed during initial student teaching by a teacher educator would be helpful too even if it is just a few times, I was not observed in initial student teaching at all. Writing a course of study or at least being familiar with one and the UC doorways and the process of getting a course approved would be nice.
I wish there was more hands on learning and going out into a school farm to set up crops and irrigation. Or going out into the industry to learn more. Also, I feel like in a lot of the courses teachers come out with book knowledge and not as much knowledge from trouble shooting and actually doing the work.

I think there should be a better focus on applicable information and technology. I don't think I was given enough information about the importance of keeping records, digitally and quickly. I think AET should be something taught now in college as it has become more important. I don't think SAE were properly covered either. Animal projects were covered but the others were not and I had to teach myself. There was also little information about Farm Facilities given. I especially think there should be more focus on funding, not just incentive grant, but all current grants.

I feel like I would have benefitted from more time spent on grants and prepping for Incentive Grant review. I also was not as prepared for use of technology in the classroom. I did receive some education on how to use apps in the classroom, but with the major progression of tech in the classroom, I did get a bit overwhelmed by the amount of tools that teachers can use and how to implement curriculum with the use of technology.

SAE units and AET Record Books would be good to cover more in depth.