

**Micro-credentialing for Alternative Teacher Certification:  
A Project of the CHS Foundation**

Morgan Sweeney  
Oklahoma State University

Robert Terry, Jr.  
Oklahoma State University

Christopher J. Eck  
Oklahoma State University

Bradley M. Coleman  
Oklahoma State University

Jon W. Ramsey  
Oklahoma State University

J. Shane Robinson  
Oklahoma State University

Robert Terry, Jr.  
325 Agricultural Hall  
Stillwater, OK 74078  
405-937-0338  
rob.terry@okstate.edu

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Alternative routes to teacher certification are not new, but the number of people seeking that pathway to become a teacher is growing (Grossman & Loeb, 2021). That is certainly the case for school-based agricultural education (SBAE). In fact, the number of individuals entering the SBAE classroom who are not yet credentialed has nearly tripled since 2020 (Smith et al., 2025). In Oklahoma, one-half of the newly hired SBAE teachers for the 2023-2024 school year were either alternatively certified or did not yet hold a teaching credential (S. Nemecek, personal communication, August 2, 2024).

The term *alternative teacher certification* generally refers to approaches to earning credentials for teaching other than going through a program housed at a college or university that lead to an undergraduate or graduate degree (National Research Council, 2010). Initially established nearly 50 years ago in response to concerns about future teacher shortages, one or more forms of alternative certification are now found in almost every state (Feistritzer, 2005). “Typically, alternative certification programs offer qualified teacher candidates a streamlined preparation program that places them in the classroom as the teacher of record more quickly than traditional university-based programs (Humphrey et al., 2008, p. 2).” Authority for certifying teachers lies at the state level and varies greatly from one state to the next (Feistritzer, 1993). Bowen and Ball (2018) stated there are more than 130 different alternative teacher certification programs in the United States. In Oklahoma, alternative certification aspirant teachers (ACATs) must have at least a baccalaureate degree, pass examinations on the subject matter to be taught and pedagogy, complete college coursework in classroom management and teaching methods, and complete specified hours of other professional development (Oklahoma Education, n.d.)

The increasing number of ACATs is concerning because of the profound impact teachers have on student achievement. Cardichon et al. (2020) found being taught by uncertified teachers leads to inequitable learning for students. Because they have not completed a traditional teacher education program, SBAE ACATs typically lack sufficient knowledge about the broad range of agricultural subjects they are expected to teach as well as pedagogical concepts needed to be effective teachers (Eck & Robinson, 2022). According to Touchstone (2015), SBAE ACATs need additional knowledge and skills associated with FFA, SAE, classroom management, and curriculum development. Consequently, Bowen and Ball (2018) recommended university-based teacher educators develop programs to address the professional needs of ACATs.

### **How it Works**

The innovation is a series of micro-credential courses designed for ACATs focused on teaching agriculture and management of SBAE programs. Micro-credentials are gaining prominence as effective tools for rapid upskilling in the twenty-first century (UpskillOK, n.d.). These *bite-sized* courses offer targeted learning experiences, allowing learners to acquire specific competencies relevant to their teaching roles. Oklahoma State University (OSU) offers micro-credentials for a wide variety of subjects including some being developed on the topic of classroom management.

This delivery format unbundles courses composing the traditional teacher preparation program at OSU to fit the needs and time commitments of ACATs. This approach provides flexibility and relevance while addressing immediate teacher development needs.

The CHS-Foundation awarded us a grant to develop these micro-credential courses. Our project is designed to create micro-credential courses focused on the unique needs of SBAE ACATs that will allow them to complete state requirements for teacher certification. Titles of the micro-credential courses being developed through this project are (a) Foundations of Teaching SBAE, (b) Instructional Planning in SBAE, (c) Advising an FFA Chapter, (d) Supervising Experiential Learning Projects in Agriculture, and (e) SBAE Program Management.

The courses are being developed and delivered through the university's Canvas learning platform. Canvas allows diverse forms of content to be shared in an organized, learner-friendly format (Instructure, n.d.). Each course is offered asynchronously and is self-paced. The courses are designed to be equivalent to a one-credit-hour class and most content mirrors what is taught in some of our professional education courses.

Course participants must meet eligibility requirements for the state's alternative teacher placement program for secondary teaching areas (Oklahoma Education, n.d.). They can earn graduate course credit for taking these courses if they choose to do so and they meet admission requirements for a graduate degree program.

The first course being developed, Foundations of Teaching SBAE, is composed of 10 modules addressing topics such as philosophical foundations of agricultural education, purposes and components of SBAE programs, roles and tasks of SBAE teachers, program quality standards, and program funding sources. Each module includes an overview of the topics addressed, reading assignments from textbooks, professional publications, and/or research journals, videos of content presentations, and videos of SBAE teachers discussing related topics. Modules also include learning activities and assessments.

### **Results to Date**

Development of the first course is nearing completion, and modules for the second and third courses are under construction.

### **Future Plans**

The next step is to have the first course, Foundations of Teaching SBAE, reviewed and evaluated by teacher educators, state supervisory staff for SBAE, and selected SBAE teachers, including teachers who have completed alternative certification. In addition, the course is to be pilot tested by 20 SBAE ACATs. We anticipate some updates and changes will be made to the course based on reviews and pilot tests. This process will be repeated as each subsequent course is developed. Within the next 24 months, we intend to have all five courses developed, reviewed, and available to serve the intended audience.

As stated above, another area of need for ACATs is greater subject matter competence. We believe micro-credential courses can be developed on topics associated with the Agriculture, Food and Natural Resources (AFNR) Content Standards (The Council, n.d.), which would allow ACATs to target areas in which their knowledge is deficient.

### **Costs & Resources Needed**

The total cost for the project is nearly \$150,000, funded by the CHS Foundation. The university's Institute for Teaching and Learning Excellence (ITLE) is a valuable resource and partner for the project. ITLE has expertise and facilities for construction of online learning tools and educational video production. The primary expenses of this innovation are the salary and benefits for a graduate associate working on the project and services provided by ITLE.

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