BACHELOR OF SCIENCE, MAJOR IN PLANT AND SOIL SCIENCES WITH TEACHING CERTIFICATION

Agriculture, Food, and Natural Resources (AFNR) Teacher Certification

The primary emphasis of the teaching certification program is the preparation of secondary teachers of Agricultural, Food, and Natural Resources (AFNR). Students gain a broad background in the agricultural sciences along with professional preparation courses in agricultural education and secondary pedagogy. This comprehensive and diverse background prepares students for a wide variety of professional agricultural careers.

The teaching certification option can be chosen with any of the agricultural emphasis majors as shown. Students seeking teaching certification may double major in Interdisciplinary Agriculture and Secondary Education or major in Agricultural Business, Agricultural Engineering Technology, Animal Science, or Plant and Soil Sciences with Teacher Certification.

All students seeking teaching certification must be advised each semester to ensure proper sequencing of classes.

Code	Title	Hours
Bachelor of Science, Major in Plant and Soil Sciences with Teaching Certification		
Core Curriculum (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/)		
Component Area I (Communication)		6
Component Area II (Mathematics) [1]		3
Component Area III (Life and Physical Science) [2]		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts) [3]		3
Component Area VI (U.S. History)		6
Component Area VII (Political Science/Government)		6
Component Area VIII (Social and Behavioral Sciences) [4]		3
Component Area IX (Component Area Option)		4
Degree Specific Requirements		
ACOM 3360	Communication Skills for Agriculturists	3
AGRI 1309	Computers in Agriculture (or approved substitute)	3
or CSTE 1330	Introduction to Computers	
CHEM 1406	Introduction to Inorganic and Environmental Chemistry [2]	4
or CHEM 1411	General Chemistry I	
CHEM 1407	Introduction to Organic and Biochemistry [2]	4
or CHEM 1412	General Chemistry II	
MATH 1314	Pre Calculus Algebra [1]	3
or MATH 1324	Mathematics for Managerial Decision Making	
or MATH 1332	College Mathematics	
MATH 1342	Elementary Statistics	3
Major: Foundation		
AGBU 2317	Principles of Agricultural Economics	3
AGBU 2389	Agribusiness Financial Analysis	3
or AGBU 3350	Agribusiness for Agriculture Education Teachers	
AGED 3310	Teaching Agricultural Technology	3
AGED 3320	The Secondary Agriculture Education Program	3
AGED 4388	Secondary Agriculture Education Program Management	3
AGET 2303	Introduction to Agricultural Engineering Technology	3
AGET 4384	Fusing & Joining of Metals & Non-Metals	3
ANSC 1319 & ANSC 1119	Animal Science and Animal Science Laboratory	4
ANSC 3373	Animal Nutrition	3
ANSC 4360	Livestock Management Techniques	3

PLSC 1307 & PLSC 1107	Plant Science and Plant Science Laboratory	4
PLSC 2395	Ornamental Plant Identification	3
PLSC 2399	Floral Design [3]	3
PLSC 3398	Landscape Design	3
PLSC 3440	Soil Science	4
PLSC 4370	Forage Crops and Pasture Management	3
or PLSC 3395	Plant Propagation Techniques	
Major: Prescribed Electives		
PLSC Advanced Electives		6
Teaching Certification		
CISE 3384	The Teaching Profession	3
CISE 4364	Methods of Teaching in Secondary Schools (CISE 4364 and CISE 4379 comprise the Methods Block)	3
CISE 4379	Differentiated Pedagogy	3
CISE 4380	Responsibilities of the Professional Educator (CISE 4380 and READ 4378 comprise the Professional Block)	3
READ 4378	Multiple Literacies in Secondary Education	3
AFNR Student Teaching		
AGED 4364	Methods of Teaching Agriculture Education	3
AGED 4365	Student Teaching in Agriculture Education	3
AGED 4366	Student Teaching in Agriculture Education	3
AGED 4394	Agriculture Education Learning Environments	3
Minor: Not Required [5, 6]		
Total Hours		**132**

1 MATH 1314, MATH 1324, or MATH 1332 satisfies the Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific Requirement.

2 CHEM 1406 or CHEM 1411 and CHEM 1407 or CHEM 1412 satisfy the Core Curriculum requirement for Component Area III (Life and Physical Science) and the Degree Specific Requirement.

3 PLSC 2399 satisfies the Core Curriculum requirement for Component Area V (Creative Arts).

4 ANSC 2360 is recommended and satisfies the Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).

5 A minor is not required for this degree program; however, a student has the option to add a minor, but to do so, additional semester credit hours will be needed above the degree program's stated total semester credit hours.

6 The following minors cannot be paired with this degree program: Minor in Early Childhood Education and Minor in Plant and Soil Sciences.

Notes

Students must earn a 2.0 minimum overall GPA in all coursework.

Students must meet a 2.75 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.75 minimum SHSU Education major GPA in all major coursework.

Students must earn a "C" or better in all Education coursework.

Students must earn an overall GPA of 2.75 to earn teacher certification.

First Year

Fall	Hours	Spring	Hours
Component Area IX (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	1	AGRI 1309 or CSTE 1330	3
ENGL 1301[1]	3	ANSC 1319 & ANSC 1119	4
HSTY 1301[2]	3	ENGL 1302[1]	3
MATH 1314, 1324, or 1332[3]	3	HSTY 1302[2]	3
PLSC 1307 & PLSC 1107	4	POLS 2305[4]	3
	14		**16**

Second Year

Fall	Hours	Spring	Hours
AGET 2303	3	Component Area VIII (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)[7]	3
CHEM 1406 or 1411[5]	4	AGBU 2317	3
MATH 1342	3	CHEM 1407 or 1412[5]	4
PLSC 2395	3	PLSC 3398	3
PLSC 2399[6]	3	POLS 2306[4]	3
	16		**16**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
AGBU 2389 or 3350	3	ANSC 3373	3	Component Area IX (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3
AGED 3320	3	CISE 4380	3	ACOM 3360	3
AGET 4384	3	PLSC Advanced Electives	3	AGED 3310	3
CISE 3384	3	PLSC 4370 or 3395	3	AGED 4388	3
PLSC 3440	4	READ 4378	3		
	16		**15**		**12**

Fourth Year

Fall	Hours	Spring	Hours
Component Area IV (https://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)		3 AGED 4364	3
ANSC 4360		3 AGED 4365	3
CISE 4364		3 AGED 4366	3
CISE 4379		3 AGED 4394	3
PLSC Advanced Electives		3	
	15		**12**

Total Hours: 132

1 Satisfies the Core Curriculum requirement for Component Area I (Communication).
2 Satisfies the Core Curriculum requirement for Component Area VI (U.S. History).
3 Satisfies the Core Curriculum requirement for Component Area II (Mathematics) and the Degree Specific Requirement.
4 Satisfies the Core Curriculum requirement for Component Area VII (Political Science/Government).
5 Satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science).
6 Satisfies the Core Curriculum requirement for Component Area V (Creative Arts).
7 ANSC 2360 is recommended and satisfies the Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).

Notes

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Students must meet a 2.75 minimum overall major GPA in all major coursework.

Students must earn a 2.0 minimum SHSU GPA in all coursework.

Students must meet a 2.75 minimum SHSU Education major GPA in all major coursework.

Students must earn a "C" or better in all Education coursework.

Students must earn an overall GPA of 2.75 to earn teacher certification.

A minor is not required for this degree program; however, a student has the option to add a minor, but to do so, additional semester credit hours will be needed above the degree program's stated total semester credit hours.

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The Texas Higher Education Coordinating Board (THECB) marketable skills initiative is part of the state's **60x30TX plan** and was designed to help students articulate their skills to employers. Marketable skills are those skills valued by employers and/or graduate programs that can be applied in a variety of work or education settings and may include interpersonal, cognitive, and applied skill areas.

The BS in Plant and Soil Sciences with Teaching Certification is designed to provide graduates with the following marketable skills:

- Recognize soil characteristics for optimum plant growth.
- Evaluate plants of importance in our society and how those plants are utilized.
- Analyze major insect, disease, and weed pests and control strategies.
- Develop entry level technical knowledge and skills required of Agriculture, Food, and Natural Resources teachers in Agricultural Communications, Agricultural Business, Agricultural Engineering Technology, Animal Science, and Plant and Soil Science.
- Manage, organize, and conduct Supervised Agricultural Experience Programs and Leadership, Career, and Speaking Development Events.

- Develop annual and long range plans (program of activity, semester, and lesson plans, etc.).
- Use effective research-based techniques to develop a positive classroom environment.
- Create lessons and units of instruction to meet the Texas Essential Knowledge and Skills requirements for Agriculture, Food, and Natural Resources classes.