BACHELOR OF SCIENCE, MAJOR IN AGRICULTURAL ENGINEERING TECHNOLOGY WITH TEACHING CERTIFICATION

Code	Title	Hours
Bachelor of Science, Major in Agricultural Engineering Technology with Teaching Certification		
Core Curriculum (http://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) [5]		4
Degree Specific Requirements		
ACOM 3360	Communication Skills for Agriculturists (ACOM 3360 recommended)	3
or ENGL 3330	Intro to Technical Writing	
AGRI 1309	Computers in Agriculture (or approved substitute)	3
or CSTE 1330	Introduction to Computers	
CHEM 1406	Inorganic & Envir Chemistry [2]	4
ETDD 1361	Engineering Graphics	3
MATH 1314	Pre Calculus Algebra [1]	3
or MATH 1316	Plane Trigonometry	
or MATH 1324	Mth for Mngl Decision Making	
or MATH 1332	College Mathematics	
MATH 1342	Elementary Statistics	3
PHYS 1305 & PHYS 1105	Classical Physics & Thermdynmc and Class Phy & Thermodynamics Lab	4
Major: Foundation		
AGBU 2317	Principles of Agri Economics	3
AGBU 2389	Agribusiness Financl Analysis	3
AGED 3310	Teaching Ag Technology	3
AGED 3320	The Secondary Agriculture Education Program	3
AGED 4388	Secondary Agriculture Education Program Management	3
AGET 2303	Intro to Ag Engineering Tech	3
AGET 3380	Agricultural Machinery	3
AGET 3386	Agricultural Structures and Environmental Control Systems	3
AGET 4381	Adv Agricultural Mechanics	3
AGET 4387	Agricultural Engines & Tractor	3
AGRI 1131	Intro to Pro Leadership Skills	1
ANSC 1319 & ANSC 1119	Animal Science and Animal Science Laboratory	4
ANSC 3373	Animal Nutrition	3
ANSC 4360	Livestock Mgt Techniques	3
PLSC 1307 & PLSC 1107	Plant Science and Plant Science Laboratory	4
PLSC 3440	Soil Science	4
PLSC 4370	Forage Crops & Pasture Mgmt	3
or PLSC 3395	Plant Propagation Techniques	
Major: Prescribed Electives		

Select 3 hours from Animal Production Electives:		3
ANSC 3376	Meat Science	
ANSC 4376	Sheep & Goat Production & Mgt	
ANSC 4380	Beef Cattle Production & Mgmt	
EQSC 2364	Equine Science	
WMGT 3381	Game Animal Production	
Teaching Certification		
CISE 3384	The Teaching Profession	3
CISE 4364	Mth Tch Secondary Schools	3
CISE 4379	Differentiated Pedagogy	3
CISE 4380	Respon Of Pro Educator	3
READ 4378	Multiple Literacies in Secondary Education	3
Secondary Ed Courses - AGED		
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 [6,7]		
Total Hours		**140**

[1]   MATH 1314 or MATH 1332 is recommended. Satisfies Core Curriculum requirement for Component Area II (Mathematics).

[2]   CHEM 1406 satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science) and Degree Specific Requirement for major.

[3]   PLSC 2399 is recommended and satisfies Core Curriculum requirement for Component Area V (Creative Arts).

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

[5]   KINE 2115, NGLI 1101, or ECON 1100 is recommended and satisfies Core Curriculum requirement for Component Area IX (Component Area Option).

[6]   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 credits hours may be needed above the degree program's stated total semester credit hours.

[7]   The following minors cannot be paired with this degree program: Minor in Conservation Biology, Minor in Early Childhood Education, and Minor in Wildlife Ecology.

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 major GPA in all major coursework.

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

Students must earn a "C" or better in all agricultural science major coursework.

Students must earn an overall GPA of 2.75 (overall or in the last 60 hours) to be eligible for teacher certification.

Students should use elective and/or minor hours to satisfy the 42 advanced hour requirement.

First Year

Fall	Hours	Spring	Hours
AGET 2303	3	Component Area IX [4]	1
AGRI 1131	1	ENGL 1302[1]	3
ANSC 1319 & ANSC 1119	4	HIST 1302[2]	3
ENGL 1301[1]	3	PLSC 1307 & PLSC 1107	4
HIST 1301[2]	3	POLS 2305[5]	3

MATH 1314, 1316, 1324, or 1332[3]	3		
	17		**14**

Second Year

Fall	Hours	Spring	Hours
AGBU 2317	3	Component Area V (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareav)[7]	3
AGRI 1309 or CSTE 1330	3	Component Area VIII (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaviii)[8]	3
CHEM 1406[6]	4	ACOM 3360 or ENGL 3330	3
MATH 1342	3	AGBU 2389	3
POLS 2306[5]	3	ETDD 1361	3
		Major: Prescribed Electives[9]	3
	16		**18**

Third Year

Fall	Hours	Spring	Hours	Summer	Hours
Component Area III (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiii)	4	Component Area IX (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaix)	3	AGED 3310	3
AGED 3320	3	AGET 3386	3	AGED 4388	3
ANSC 3373	3	AGET 4387	3	AGET 4381	3
CISE 3384	3	CISE 4380	3	PLSC 3440	4
PHYS 1305 & PHYS 1105	4	PLSC 4370 or 3395	3		
		READ 4378	3		
	17		**18**		**13**

Fourth Year

Fall	Hours	Spring	Hours
Component Area IV (http://catalog.shsu.edu/undergraduate/academic-policies-procedures/degree-requirements-academic-guidelines/core-curriculum/#componentareaiv)	3	AGED 4364	3
AGET 3380	3	AGED 4365	3
ANSC 4360	3	AGED 4366	3
CISE 4364	3	AGED 4394	3
CISE 4379	3		
	15		**12**

Total Hours: 140

[1]   Satisfies Core Curriculum requirement for Component Area I (Communication).

[2]   Satisfies Core Curriculum requirement for Component Area VI (U.S. History).

[3]   MATH 1314 or MATH 1332 is recommended. Satisfies Core Curriculum requirement for Component Area II (Mathematics).

[4]   KINE 2115, NGLI 1101 OR ECON 1100 recommended and satisfies Core Curriculum requirement for Component Area IX (Component Area Option).

[5]   Satisfies Core Curriculum requirement for Component Area VII (Political Science/Government).

[6]   CHEM 1406 satisfies the Core Curriculum requirement for Component Area III (Life and Physical Science) and Degree Specific Requirement for major.

[7]   PLSC 2399 is recommended and satisfies Core Curriculum requirement for Component Area V (Creative Arts).

[8]   ANSC 2360 is recommended and satisfies Core Curriculum requirement for Component Area VIII (Social and Behavioral Sciences).

[9]   Select one of the Prescribed Electives from the course list below.

Code	Title	Hours
Prescribed Electives		
Animal Production Electives [9]		
ANSC 3376	Meat Science	3
ANSC 4376	Sheep & Goat Production & Mgt	3
ANSC 4380	Beef Cattle Production & Mgmt	3
EQSC 2364	Equine Science	3
WMGT 3381	Game Animal Production	3

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The following minors cannot be paired with this degree program: Minor in Conservation Biology, Minor in Early Childhood Education, and Minor in Wildlife Ecology.

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 Agricultural Engineering Technology with Teaching Certification is designed to provide graduates with the following marketable skills:

- Understand the importance and use of technology found in the agriculture and related industries for real-world problem solving.

- Evaluate how technology has changed in our society and how those technologies are used in modern agriculture and related industries.

- Analyze engineering issues found within the agriculture and/or other related industries and the technological solutions to those problems.

- Apply independent and team-working skills to accomplish objectives and meet organizational goals.

- Demonstrate a work ethic and soft skills that are desirable of an employee.

- Use professional oral and written communication skills for the transfer of technologically-rich knowledge.

- Manage, organize, and conduct Supervised Agricultural Experience Programs, 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.