BACHELOR OF SCIENCE, MAJOR IN AGRICULTURAL ENGINEERING TECHNOLOGY

The purpose of the Agricultural Engineering Technology curriculum is to provide an educational experience based on the fundamentals of engineering principles and practices. Theory-based lectures will be accompanied by experiential learning activities for persons who intend to pursue a career related to the technical operation and management of an agriculture enterprise. It is expected that graduates will choose a position of leadership and responsibility in a career area associated with service and sales, production, processing, product testing, alternative energies, or a government agency.

Agricultural Engineering Technology majors are required to complete the concentration in Power Machinery Management, a minor area of study or complete the Teacher Certification focus in Agricultural Education. Common minors are Agricultural Business, Plant and Soil Science, and Construction Management.

An internship in an agricultural engineering technology-related business or industry is strongly encouraged for each student. This will provide students 'real-life' learning experiences outside their regular classroom and laboratory opportunities. Students generally seek an internship experience at the end of their sophomore or junior year. Internships may be arranged through a student's contact with providers or through departmental announcements or postings. All internships must be approved by the student's departmental academic adviser prior to the initiation of the internship. Maximum credit for the internships is six (6) credit hours.

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-agricultural-engineering-technology/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

Code	Title	Hours
Bachelor of Science, Major in Agricultural Engineering Technology		
Core Curriculum		
Component Area I (Communication)		6
Component Area II (Mathematics) [1]		3
Component Area III (Life and Physical Science)		8
Component Area IV (Language, Philosophy, and Culture)		3
Component Area V (Creative Arts)		3
Component Area VI (U.S. History)		6
Component Area VII (Political Science/Government)		6
Component Area VIII (Social and Behavioral Sciences)		3
Component Area IX (Component Area Option)		4
Degree Specific Requirements		
ACCT 2301	Principles of Financial Accounting	3
ACOM 3360	Communication Skills for Agriculturists	3
or ENGL 3330	Introduction to Technical Writing	
ETDD 1361	Engineering Graphics	3
or ETDD 1390	Introduction to Computer Aided Drafting	
or AGET 3350	Plasma Arc Cutting Technology	
MATH 1314	Pre Calculus Algebra [1]	3
MATH 1342	Elementary Statistics	3
MGMT 3310	Principles Of Management (or approved BUAD, AGBU (advanced))	3
PHYS 1401	Physics Boot Camp [6]	4
Major: Foundation		
AGBU 2317	Principles of Agricultural Economics [2]	3
or AGBU 2389	Agribusiness Financial Analysis	
AGET 2303	Introduction to Agricultural Engineering Technology	3
AGRI 1309	Computers in Agriculture [2]	3
or CSTE 1330	Introduction to Computers	
or AGBU 2389	Agribusiness Financial Analysis	
UNIV 1101	Bearkat U [7]	1
Major: Prescribed Electives		
Select one from the following:		4

ANSC 1319 & ANSC 1119	Animal Science and Animal Science Laboratory	
PLSC 1307 & PLSC 1107	Plant Science and Plant Science Laboratory	
Advanced AGET Electives: including internship hours [3]		26-32
Minor Or Concentration: Required [4,5]		**18-24**
Minor (18 SCH) [4,5]		
Concentration: Power Machinery Management (24 SCH) [4]		
AGBU 3361	Agribusiness Organization & Management	
AGBU 3367	Agricultural Finance	
AGET 4385	Applied Electronics/Hydraulics	
AGET 4387	Agricultural Engines & Tractors	
AGET 4000 Approved Elective		
ETEC 3374	Time And Motion Study	
Concentration Electives		
Select 6 advanced from the following: ACCT, AGBU, BUAD, FINC. or MKTG		
Total Hours		**120**

1 MATH 1314 satisfies the Core Curriculum requirement for Component Area II [Mathematics] and the Degree Specific Requirement.
2 Students seeking a Concentration in Power Machinery Management must select AGBU 2389.
3 Students pursing a **minor, take 30 semester credit hours** of approved, Agricultural Engineering Technology advanced electives, including internship hours. Students pursing a **Concentration in Power Machinery Management,** take 24 semester credit hours approved, Agricultural Engineering Technology advanced electives, including internship hours.
4 Students have the option of either 1) pursuing a **minor** with 18 **semester credit hours** of coursework or 2) pursuing a **Concentration in Power Machinery Management with 24 semester** credit hours of coursework.
5 The following minors **cannot be paired** with this degree program: Minor in Agriculture Engineering Technology, Minor in Conservation Biology, Minor in Early Childhood Education, and Minor in Wildlife Ecology.
6 PHYS 1401 satisfies the Core Curriculum requirement for Component Area III and the Degree Specific Requirement.
7 UNIV 1101 satisfies the Core Curriculum requirement for Component Area IX and the Degree Specific Requirement.

Notes

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

Students must meet a 2.0 minimum overall major GPA in all major coursework.

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

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

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

Additional information: Reference the Program Landing Page (https://www.shsu.edu/programs/bachelor-of-science-in-agricultural-engineering-technology/) for additional information, such as cost, delivery format, contact information, or to schedule a visit.

First Year

Fall	Hours	Spring	Hours
Component Area I [1]		3 Component Area I [1]	3
AGET 2303		3 Component Area III [4]	4
AGRI 1309, CSTE 1330, or AGBU 2389 [2]		3 Component Area VI [5]	3
MATH 1314 [3]		3 Component Area VII [6]	3
UNIV 1101 [7]		1 Select either Animal or Plant Science	4
		ANSC 1319 & ANSC 1119	
		PLSC 1307 & PLSC 1107	
	13		**17**

Second Year

Fall	Hours	Spring	Hours
Component Area VI[5]		3 Component Area IV	3
Component Area VII[6]		3 Component Area V	3
AGBU 2317 or 2389[2]		3 ACCT 2301	3
MATH 1342		3 ETDD 1361, 1390, or AGET 3350	3
Minor OR Concentration [8,9,10]		3 PHYS 1401	4
		15	**16**

Third Year

Fall	Hours	Spring	Hours
Component Area VIII		3 Advanced Electives[11]	3-6
Component Area IX		3 MGMT 3310	3
Advanced Electives[11]		8 Minor Advanced OR Concentration [8,9,10]	6-9
		14	**15**

Fourth Year

Fall	Hours	Spring	Hours
ACOM 3360 or ENGL 3330		3 Advanced Electives[11]	9
Advanced Electives[11]		6-9 Minor Advanced OR Concentration [8,9,10]	6
Minor Advanced OR Concentration[8,9,10]		3-6	
		15	**15**

Total Hours: 120

1 ENGL 1301 and ENGL 1302 satisfy the Core Curriculum requirement for Component Area I (Communication).

2 Students seeking a Concentration in Power Machinery Management must take AGBU 2389.

3 MATH 1314 satisfies the Core Curriculum requirement for Component Area II [Mathematics] and the Degree Specific Requirement.

4 Core Curriculum requirement for Component Area III (Life and Physical Science).

5 HIST 1301 and HIST 1302 satisfy the Core Curriculum requirement for Component Area VI (U.S. History).

6 POLS 2305 and POLS 2306 satisfy the Core Curriculum requirement for Component Area VII (Political Science/Government).

7 UNIV 1101 satisfies the Core Curriculum requirement for Component Area IX and the Degree Specific Requirement.

8 Students have the option of either 1) pursing a **minor** with 18 **semester credit hours** of coursework or 2) pursing a **Concentration in Power Machinery Management with 24 semester** credit hours of coursework.

9 See, the course list for Concentration in Power Machinery Management below.

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

11 Students pursing a minor take 30 semester credit hours of approved, Agricultural Engineering Technology advanced electives, including internship hours. Students pursing a Concentration in Power Machinery Management take 24 semester credit hours approved, Agricultural Engineering Technology advanced electives, including internship hour.

Code	Title	Hours
Power Machinery Management Concentration Courses [9]		
AGBU 3361	Agribusiness Organization & Management	3
AGBU 3367	Agricultural Finance	3
AGET 4385	Applied Electronics/Hydraulics	3
AGET 4387	Agricultural Engines & Tractors	3
AGET 4000 Approved Elective		3
ETEC 3374	Time And Motion Study	3

Notes

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

Students must meet a 2.0 minimum overall major GPA in all major coursework.

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

Students must meet a 2.0 minimum SHSU major GPA in all major coursework.

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

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 is designed to provide graduates with the following marketable skills:

- Understand the importance and use of technology found in agriculture and related industries for real-world problem solving.
- Evaluate how technology has changed in our society and how those technologies are utilized in modern agriculture and related industries.
- Analyze engineering issues found within 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.