

UNIT REPORT

School of Agriculture - Final Annual Report

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Definition of Unit**Start:** 07/01/2017**End:** 06/30/2018**Reporting Year:** 2017-2018**Providing Department:** School of Agriculture**Department/Unit Contact:** Dennis Duncan**Mission/Vision/Goal Statement:****I. School of Agriculture's Mission Statement:**

Our mission is to prepare students for leadership roles in the food, fiber, and natural resource professions by providing state of the art experiential learning through agriculture. The School of Agriculture (SOA) mission statement flows from the TTU Mission Statement "to provide leadership and outstanding programs in . . . agriculture and human ecology, nursing, music, art and interdisciplinary studies." The SOA mission statement additionally supports the TTU Flight Plan to improve the undergraduate experience.

The SOA offers a Bachelor of Science degree in Agriculture focusing on one of 10 concentrations. Those concentrations span across the broad discipline of Agriculture including: Agribusiness Management, Agricultural Communications, Agricultural Education, Agricultural Engineering Technology, Agronomy and Soils, Environmental Agriscience, Animal Science/Pre-Veterinary Science, Horticulture, Nursery & Landscape Management, and Turfgrass Management.

We prepare our students to, upon graduation, enter a multitude of fields in the agricultural industry or to continue their education through graduate school. Previous graduates can be found across Tennessee and the United States in such roles as park rangers, veterinarians, golf course superintendents, government officials, business owners, county agents, conservationists, university professors, military officers, high school teachers, consultants, agricultural product/equipment sales, bankers, farm managers, landscape developers and the list continues to grow.

The School of Agriculture is blessed with two unique farms. In 1965 the Shipley Farm (300 acres) was acquired and houses the Hyder-Burks Pavilion, horticultural greenhouses, the organic farming operation, sheep, hogs, beef cattle, poultry, varied forage and row crops. Finally, in 2009, the Oakley Farm (1800+ acres) expanded the possibilities for research and teaching with access to 700 plus cows and calves with additional cropland and potential locations for greenhouses and other agricultural enterprises. These facilities are not supported by direct line funding by the state and therefore must pay their own way, however, all facilities are dedicated to the overall educational experience of our students.

Our vision states, "We are the hallmark program of experiential education in agriculture."

Program Goal 1.1- Increase undergraduate student enrollment**Progress:** Ongoing**Define Goal:**

Increase undergraduate student enrollment. For 2018-2019, we have enrolled 94 freshmen - our largest class in many years. In recent weeks we have developed a new staff position in the College of Agriculture and Human Ecology - student recruiter! The individual hired in this new position will be charged with meeting with high school students and their partners across TN.

Intended Outcomes / Objectives:

Meet or exceed our annual enrollment from 2006 - 2016. The School of Agriculture (SOA) will use a combination of the following to meet this goal: 1) Strive to increase the number of freshmen enrolled each fall; 2) Strive to maintain at least an 90% retention rate Fall-to-Spring and 85% Fall-to-Fall; 3) Assist any student interested in transferring to make the process easy, and try to have at least 20 transfer students per year; 4) Secure new funds for building a strong, focused recruitment program; and hire a new staff member (recruitment specialist) that will be charged with traveling the state and meeting with prospective students, their parents, alumni, etc.

Program Goal 1.2 - Encourage external funding and increase interaction of faculty and students**Progress:** Ongoing

Define Goal:

Encourage external funding and increase interaction of faculty and students.

Intended Outcomes / Objectives:

Tennessee Tech University (TTU) is a non-land grant university, which makes it more difficult for the School of Agriculture (SOA) to procure grant funds. Because of this over the years the SOA has migrated to more of a teaching unit than a research unit. In the past 3 years a renewed emphasis has been put on securing grant funds. The goal is to have at least as many grant applications as there are faculty members. One of the purposes of the grants are to include undergraduates in the research process. The grant/s can be URECA, QEP, or other grants offered through national, state, or local organizations.

Another approach is the development of an undergraduate research course - this will enable students to gain credit for collaborating with faculty on research projects.

As a result of undergraduate research, the SOA would like to have at least 8 students to present a poster at the TTU Creative Inquiry Day at the Hoop.

Program Goal 1.3 - Promote and enhance faculty and staff development

Progress: Ongoing

Define Goal:

Promote and enhance faculty and staff development to the extent resources permit.

Intended Outcomes / Objectives:

The SOA has earmarked student activity fee (SAF) funds for each faculty member - enable faculty to participate/present at national and/or international conferences. Also, funds from a SOA foundation account have been earmarked for faculty development for fy 19 - these funds will also be used for professional development.

Program Goal 1.4 - Strengthen curriculum and increase resources and opportunities for student learning

Progress: Ongoing

Define Goal:

Strengthen curriculum and increase resources and opportunities for student learning.

Intended Outcomes / Objectives:

Use the various tests and interviews listed in Assessment 1.4 to review the curriculum and make necessary changes.

Additionally, the Director is conducting a study of industry leaders so as to identify what they are looking for in new hires; determining the impacts of internships; and determining the value of study abroad programs from an industry perspective.

Lastly, the SOA is developing new curriculum and study abroad opportunities that will better prepare students for a global marketplace!

Student Learning Outcome 1.1

Progress: Ongoing

Define Goal:

Students will be prepared for employment and to advance in Agricultural careers.

Intended Outcomes / Objectives:

The ACAT score is an indication of how well prepared the student is for his or her chosen profession. Strive to be above the National average on the ACAT.

Student Learning Outcome 1.2

Progress: Ongoing

Define Goal:

Beyond the classroom, students will engage in high quality scholarly activities and service learning activities designed to enhance the food, agriculture, and natural resource system.

Intended Outcomes / Objectives:

The SOA students will actively participant in one or more of the clubs/organizations available to SOA students, whether in the SOA or university wide. Also the students will have interest in attending state or national student organization meetings to interact with students from other universities. Lastly, the College has developed a series of "core" courses for all incoming students. These courses will provide a cadre of experiential and service learning activities so as to better prepare them for industry and beyond.

Student Learning Outcome 1.3

Progress: Ongoing

Define Goal:

Students will participate in activities and programs that enhance their leadership and social development.

Intended Outcomes / Objectives:

The SOA will strive to offer study aboard tours, opportunities for service with Ag in the Classroom, competitive teams, recruiting events, and other such events that will enhance the outside student experience. Additionally, a new leadership and service certificate program has been launched in the School, and will be open to all students in CAHE.

Student Learning Outcome 1.4

Progress: Ongoing

Define Goal:

Students will sharpen critical thinking skills and problem solving abilities through a variety of situations structured to meet the demands of the individual concentrations.

Intended Outcomes / Objectives:

The SOA student will score at or above TTU's student body average on the **California Critical Thinking Skills Test**. Additionally, incoming freshmen (fall of 2018) will be required to complete a critical thinking assessment and will be required to complete the same assessment annually.

Assessment for Student Learning Outcome 1.1

Goal/ Outcome/ Objective: Student Learning Outcome 1.1

Type of Tool: Exit Exam
Survey

Frequency of Assessment: Annually, Biennial

Rationale:

1. Area Concentration Achievement Test (ACAT) results
2. Conversations with stakeholders (Tennessee Farm Bureau, National Resources Conservation Services, and United States Department of Agriculture).
3. Alumni Survey (Biennial)
4. Industry Survey

Assessment for Student Learning Outcome 1.2

Goal/ Outcome/ Objective: Student Learning Outcome 1.2

Type of Tool: Survey
Other

Frequency of Assessment: Annually

Rationale:

1. Review of faculty **Annual Reports** for involvement with student organization service projects and competitions.

Assessment for Student Learning Outcome 1.3

Goal/ Outcome/ Objective: Student Learning Outcome 1.3

Type of Tool: Annual Unit Report
Tracking Spreadsheet
Other

Frequency of Assessment: Annually

Rationale:

1. Number of students taking advantage of study aboard trip opportunities
2. Participation in annual Ag-in-the-Classroom Days co-sponsored by Tennessee Farm Bureau and other similar activities.
3. Number of students involved in student organizations, attending state or national meetings for the organizations or their field of study.
4. Number of students participating in recruitment events
5. Number of students attending other outside events such as factory tours, field days, judging clinics, and competitive events.

6. Alumni Survey (Biennial)

7. Senior Exit Interviews

Assessment for Student Learning Outcome 1.4

Goal/ Outcome/ Objective: Student Learning Outcome 1.4

Type of Tool: Exit Exam
Survey

Frequency of Assessment: Annually

Rationale:

Assessment of this Outcome utilized:

CCTST (California Critical Thinking Skills Test) results

Senior Exit Interviews

Assessment: Program Goal 1.1 - Enrollment Data

Goal/ Outcome/ Objective: Program Goal 1.1

Type of Tool: FTE Enrollment
Graduation Rate
National Accrediting Agency Requirements and Standards

Frequency of Assessment: Annually/Biennially

Rationale:

Assessment for Goal 1.1:

1. **Enrollment data** by semester
2. **Monitor recruitment work**
3. **Alumni Survey** to rate the effectiveness of the academic, extra-curricular opportunity, and career placement program.

Assessment: Program Goal 1.2 - Annual Faculty Reports, Grants applied, Interaction through student organizations, Poster presentation at Campus Research Day

Goal/ Outcome/ Objective: Program Goal 1.2

Type of Tool: Annual Unit Report
National Accrediting Agency Requirements and Standards
Other

Frequency of Assessment: Annually

Rationale:

Assessment for Goal 1.2:

1. Review of **Annual Faculty Reports** in the research completed and research pending areas.
2. Monitor number of grants applied for.
3. Monitor number of students participating in the SOA student organizations
4. Monitor the number of students presenting at Campus Research Day

Assessment: Program Goal 1.3 - Annual Faculty Reports

Goal/ Outcome/ Objective: Program Goal 1.3

Type of Tool: Annual Unit Report
Frequency of Assessment: Annually

Rationale:

Assessment for Goal 1.3:

1. **Annual Faculty Reports** in participation in research conferences and trainings.

2. **Monitor budget increases** in available funding to support research related and other professional training opportunities

Assessment: Program Goal 1.4 - California Critical Thinking Skills Test, ACAT

Goal/ Outcome/ Objective: Program Goal 1.4

Type of Tool: Exit Exam

National Accrediting Agency Requirements and Standards

Survey

Frequency of Assessment: Annually, Biennial

Rationale:

1. **ACAT results** (Area Concentration Achievement Test-national comprehensive agriculture knowledge exam);
2. **CCTST results** (California Critical Thinking Skills Test—General Exit Exam);
3. **Senior Exit Interviews**
4. **Alumni Survey**

Results: CCTST, ACAT Program Goal 1.4

Goal/Objective/Outcome Number: Program Goal 1.4

Results:

See ACAT results under heading ACAT; SLO 1.1

See CCTST results under heading California Critical Thinking Skills Test; SLO 1.4

Results: California Critical Thinking Skills Test SLO 1.4

Goal/Objective/Outcome Number: Student Learning Outcome 1.5

Results:

CALIFORNIA CRITICAL THINKING SKILLS TEST RESULTS

Domain	2012-2013		2013-2014		2014-2015		2015-2016		2016-2017	2017-2018
	Mean	N	Mean	N	Mean	N	Mean	N		
AGRI	16.5	45	19.1	61	17.1	55	17.2	59		
TTU	17.6	1551	17.7	1410	17.3	1411	16.9	1485		

Results: Enrollment, Retention, Graduation Program Goal 1.1

Goal/Objective/Outcome Number: Program Goal 1.1

Results:

2017-2018 School of Agriculture (SOA) retention rates:

	Fall-to-Spring Retention	Fall-to-Fall Retention
2017 Cohort	93.5%	N/A
2016 Cohort	93.2%	N/A
2015 Cohort	92.4%	NA
2014 Cohort	97.1%	81.4%
2013 Cohort	92.5%	83.6%
2012 Cohort	85.1%	67.6%
2011 Cohort	92.2%	71.4%
2010 Cohort	92.0 %	68.0%
2009 Cohort	95.2 %	80.9 %
2008 Cohort	89.4 %	68.2%
2007 Cohort	88.6 %	77.4%
2006 Cohort	88.7%	63.6%
2005 Cohort	84.3 %	72.5%
2004 Cohort	83.3 %	66.7 %

Overall and Freshmen Enrollments

	Fall Overall	% Change from prev. year	Fall Freshmen	Spring Overall	% Change from prev. year	Spring Freshmen
2017-18	308		84			
2016-17	319		54			
2015-16	317	-7.0	53	293	-8.7	51
2014-15	341	4.6%	70	321	7.4%	74
2013-14	326	0.6%	67	299	-1.0%	62
2012-13	328	1.5%	74	302	-4.4%	63
2011-12	323	5.2%	77	316	6.4%	71
2010-11	307	15.1%	75	297	23.2%	69
2009-10	267	4.0%	63	241	1.7%	60
2008-09	257	13.7%	66	237	10.7%	59
2007-08	226	7.1%	62	214	9.7%	55
2006-07	211	-2.7%	44	195	-0.5%	39
2005-06	217	-2.7%	51	194	-2.5%	43
2004-05	223	-	48	199	-	40

School of Agriculture Graduation Results

	Total number of Graduates
2017-2018	78
2016-2017	69
2015-2016	65
2014-2015	60
2012-2013	57
2010-2011	55
2009-2010	48
2008-2009	44
2007-2008	37
2006-2007	46
2005-2006	50

Results: Faculty and Staff Development Activity Program Goal 1.3

Goal/Objective/Outcome Number: Program Goal 1.3

Results:

Faculty and staff development activity

Year	Professional Meetings or Trainings Attended	Professional Organization Membership	Peer-reviewed presentations and publications	Professional Organization Appointments or Offices Held
2017	14	11	17	10

Results: Grant Proposals Written, Student Organizations, Campus Research Day Program Goal 1.2

Goal/Objective/Outcome Number: Program Goal 1.2

Results:

School of Agriculture Grant Activity

Year	Grants	Faculty
2017	12	7

SOA students (13) presented posters at the Tech Campus Creative Inquiry Research Day at the Hoop. Two SOA students won awards for their collaborative research. Additionally, a student presented her poster at a series of off-campus meetings.

Results: Student organizations and state or national meetings SLO 1.2

Goal/Objective/Outcome Number: Student Learning Outcome 1.2

Results:

School of Agriculture Student**Organization Involvement**

Year	Organizations	Students
2017	12	297

School of Agriculture State and**National Meetings Attended**

Year	Organizations	Students
2017	8	79

Results: Study Abroad, Ag in the Classroom, Competition Events, Recruit SLO 1.3

Goal/Objective/Outcome Number: Student Learning Outcome 1.3

Results:

There were two study abroad trips offered - Dominican Republic and Costa Rica - which included 3 School of Agriculture faculty member and 23 students total.

The annual Farm Days in collaboration with TN Farm Bureau involved over 25 TTU students, 9 faculty and included over 1,500 elementary students and their teachers from across Putnam County.

SOA hosted a number of FFA events throughout the year - this involved over 20 TTU students and faculty and included over 600 high school FFA members from across TN.

SOA participated in both the state and national FFA conventions with the aid of TTU students (12-14). The TN FFA convention draws over 300 FFA members from across TN and the National FFA convention draws over 50,000 FFA members from across the US.

SOA Director also participated in the Georgia FFA state convention. This convention draws over 5,000 FFA members from across GA. The Eagle Reach program was presented at the convention.

Results:ACAT, Conversations with Major Stakeholders SLO 1.1

Goal/Objective/Outcome Number: Student Learning Outcome 1.1

Results:

ACAT Scores

	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	2012- 2013	2013- 2014	2014- 2015	2015- 2016	2016- 2017
National Average	486	507	521	512	424	454	527	497	N/A	NA	N/A
TTU - SOA Average	518	517	496	474	364	397	487	445	519	508	511

ALUMNI SURVEY RESULTS

Adequacy of School of Agriculture Experience in
Preparation for subsequent
Educational or Career Endeavors

Benefit
(%)

Item	Excellent	Great	Average	Little	No
Agriculture Courses in Discipline	35	33	15	8	8
Agriculture Courses outside Discipline	23	33	33	2	8
Seminar Course	33	15	20	11	22
Work Experience	46	15	19	4	17
Internships	26	11	19	9	36
Lab/Field Experience	38	10	29	15	8
Agricultural Clubs	35	23	19	8	15
Non-agricultural Clubs	17	6	29	21	27
Academic Advisement	42	23	19	4	13
Special Topics Courses	36	23	25	4	13