

## **Outcomes Data – ASTE Department**

This document includes measurement information to be used for evaluation and assessment within the Utah State University Department of Agricultural Systems Technology and Education.

### **2008-09 Departmental Q-Sort Study**

As part of the ASTE department's ongoing assessment efforts, ASTE faculty met on September 5, 2008 for the purpose of prioritizing the departmental curriculum agenda. At the retreat, 32 previously identified curriculum statements were prioritized utilizing a Q-sort methodology (Stephenson, 1953). The statements were written on cards and disseminated to each of the faculty present. The faculty then prioritized the statements within a standard normal distribution (Q-sort) along seven categories (Category A = Most Important ... Category G = Least Important). The faculty recorded the categories of each statement and all of the records were collected. Each record was then entered into SPSS 15.0 for Windows. Each statement in category A was given the value of "7", each statement in category B was given a value of "6", and so on until all statements were assigned the proper weights.

### **Rank Order of Weighted Means of Curricular Statements**

In order to determine the priority of the curriculum statements, means were calculated and the statements were ordered. Caution is suggested as the data was of ordinal strength. The ranking of all 32 statements can be found in the table immediately following this section. Note that all 32 statements were recognized as important to the curriculum. However, the faculty and administration has sought to concentrate on the top ranked statements. The top five curricular items ranked by ASTE faculty were (1) Teach critical thinking, data analysis, and information gathering ( $M = 5.63$ ), (2) More synthesis/problem solving-project-based curriculum ( $M = 5.43$ ), (3) Expand hands-on laboratories experiences ( $M = 4.88$ ), (4) Increase recruitment of urban and suburban students ( $M = 4.86$ ), and (5) Teach team building and leadership development ( $M = 4.75$ ).

Generally, the top three curricular statements prioritized by faculty were related to higher level and hands on skills and knowledge. Based on the statements, the department should encourage more critical thinking, problem solving, and hands-on activities. These general priorities can be addressed across the ASTE curriculum in diverse methods. Another statement within the top five was related to leadership and can be specifically addressed in ASTE 3100 – Leadership Applications in Agricultural Science, Management, and Development. Leadership skills can also be dealt with in other courses, especially courses with opportunities for team work and presentations. The other curricular statement in the top five was related to recruitment in urban and suburban areas. It is recommend that all faculty members be aware of the results of the Q-Sort study and make plans to meet the curricular needs identified.

*The entire ASTE Q-Sort study can be found on the ASTE Website.*

Table – Rank Order of Weighted Means of Curricular Statements.

<u>Rank</u>	<u>Mean</u>	<u>Statement</u>
<b>Items with Mean Weights <math>\geq 5.00</math></b>		
1.	5.63	Q05 – Teach critical thinking, data analysis, and information gathering
2.	5.43	Q31 – More synthesis/problem solving-project-based curr. (outside the text)
<b>4.00 – 4.99</b>		
3.	4.88	Q32 – Expand hands-on laboratories experiences
4.	4.86	Q28 – Increase recruitment of urban and suburban students
5.	4.75	Q27 – Teach team building and leadership development
6.	4.71	Q24 – Invest in teacher development
7.	4.63	Q13 – Hire and reward faculty for teaching excellence
8.	4.50	Q07 – Improve student oral, written, and electronic communication skills
9.	4.43	Q18 – Implement service learning expectations for students
10.	4.38	Q02 – Incorporate “working” student teams into course objectives
11.	4.25	Q17 – Expand technology in classrooms
12.	4.25	Q11 – Provide a firm foundation in basic science skills
13.	4.13	Q12 – Incorporate integrated learning into capstone experiences
14.	4.13	Q04 – Expand off-campus programs
15.	4.13	Q03 – Increase student awareness of the global ecosystem
16.	4.00	Q15 – Integrate disciplines across college curriculum
17.	4.00	Q14 – Utilize industry-based needs and issues to guide curriculum
<b>3.00 – 3.99</b>		
18.	3.88	Q21 – Develop student / business / industry interactive programs
19.	3.88	Q19 – Expand undergraduate research internship opportunities
20.	3.86	Q29 – Improve technology for 24 / 7 learning (outside the classroom)
21.	3.75	Q30 – Teach ethics, including professionalism
22.	3.75	Q22 – Teach cutting-edge technology
23.	3.63	Q23 – Lead students through project management and program development
24.	3.63	Q08 – Expand academic advising
25.	3.50	Q20 – Teach basic academic skills (math, writing, computer)
26.	3.50	Q16 – More awareness of energy use and its relationship to global warming
27.	3.38	Q01 – Customize curriculum for individual student interests
28.	3.00	Q25 – Implement short term industry externships for faculty
29.	3.00	Q10 – Focus on sustainable resource practices
30.	3.00	Q06 – Remove under performer teachers from the classroom
<b>2.00 – 2.99</b>		
31.	2.75	Q26 – Develop international experiences for students
32.	2.63	Q09 – Better integrate natural resources and agriculture

Note: Q-sort Categories were coded: 7 = “Most Important”, 1 = “Least Important”.

## Departmental Statistics (2004-2008)

### MAJORS (FALL SEMESTER)

Undergraduate Headcount	2004	2005	2006	2007	2008
Agricultural Communication & Journalism			2	22	18
Agricultural Education	50	46	46	46	43
Agricultural Machine Technology	13	11	8	7	7
				2	
Agricultural Systems Technology	17	19	25	26	22
Family and Consumer Sciences Education	54	58	49	61	73
<b>Total Undergraduate</b>	<b>134</b>	<b>134</b>	<b>130</b>	<b>164</b>	<b>163</b>
<b>Graduate Headcount</b>					
Agricultural Systems Technology	19	21	16	19	30
Human Environments	4				
<b>Total Graduate</b>	<b>23</b>	<b>21</b>	<b>16</b>	<b>19</b>	<b>30</b>
<b>TOTAL MAJORS</b>	<b>157</b>	<b>155</b>	<b>146</b>	<b>183</b>	<b>193</b>

### Demographics

Undergraduate	2004	2005	2006	2007	2008
% Full-time	82.8%	88.8%	90.0%	89.6%	85.3%
% Female	60.4%	61.9%	60.8%	65.2%	67.5%
% Minority	0.7%	0.0%	1.5%	234.0%	3.1%
% International	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Graduate</b>					
% Full-time	21.7%	19.0%	18.8%	21.1%	16.7%
% Female	34.8%	38.1%	56.3%	63.2%	67.5%
% Minority	0.0%	4.8%	6.3%	0.0%	3.3%
% International	0.0%	19.0%	0.0%	0.0%	0.0%

### STUDENT CREDIT HOURS (FALL SEMESTER)

	2004	2005	2006	2007	2008
Remedial					
1000	126	792	896	1014	1011
2000	407	199	265	191	233
3000	625	636	989	1008	1044
4000	109	86	115	113	89
5000	158	81	60	93	87
6000	164	176	143	192	187
7000	18				
<b>TOTAL STUDENT CREDIT HOURS</b>	<b>1607</b>	<b>1970</b>	<b>2468</b>	<b>2611</b>	<b>2651</b>

<b>DEGREES</b>	<b>2003-04</b>	<b>2004-05</b>	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>
Certificate			1		2
Associate	3	6	7	2	4
Bachelor	30	33	30	33	36
Post Bachelor					
Masters	17	14	17	14	17
Post Masters					
Doctoral					
<b>TOTAL DEGREES</b>	<b>50</b>	<b>53</b>	<b>55</b>	<b>35</b>	<b>59</b>
<b>FIRST-YEAR RETENTION RATE (FALL COHORT)</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
	50.0%	69.2%	75.0%	83.3%	80.0%
<b>SIX-YEAR GRADUATION RATE (FALL COHORT)</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
	66.7%	75.0%	50.0%	33.3%	80.0%
<b>FULL-TIME FACULTY (FALL SEMESTER)</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Headcount	12	11	10	11	13
<b>Demographics</b>					
% Female	41.7%	15.5%	40.0%	45.5%	46.2%
% Minority	83.0%	91.0%	10.0%	9.1%	7.7%
<b>Rank</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Professor	1	1	1	1	2
Associate Professor	1	3	3	4	4
Assistant Professor	5	3	1	1	2
Instructor					
Lecturer	5	4	5	5	5
Other					
<b>PERCENT OF FACULTY WITH TERMINAL DEGREES*</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
	66.7%	72.7%		70.0%	66.7%

\* Analysis based on full-time instructional faculty.

## 2009 EMPLOYMENT/EDUCATION SURVEY OF RECENT USU GRADUATES

<b>DEPARTMENT</b>	<b>ASTE</b>
Number of survey respondents from department	27
Graduate's plans for the year following graduation from USU:	
Employment	81.5%
Additional education	40.7%
Stay at home with children	3.7%
Volunteer Service	3.7%
Military Service	0.0%
<b>Note:</b> Percentages don't sum to 100% because some graduates plan to engage in more than one activity.	
If additional education is planned, will it be:	
Full-time	72.7%
Part-time	27.3%
If additional education is planned, what degree:	
Masters	90.9%
Doctorate	0.0%
Second Bachelors	0.0%
Professional (medical, law)	0.0%
Other, no degree	9.1%
If the graduate has a job, is it or will it be:	
Full-time	83.3%
Part-time	16.7%
Is the job related to the graduate's degree?	
Yes	64.3%
Somewhat	21.4%
No	14.3%
In what sector will the graduate be working?	
Government agency	0.0%
Education (public or private)	46.2%
Business or industry	46.2%
Other	7.7%
Is the graduate's job located in Utah?	
Yes	57.1%
No	42.9%
Is the graduate currently looking for a full-time job?	
Yes	61.5%
No	38.5%

## Sources

Howell, D. C. (2006). *Statistical methods for psychology* (6<sup>th</sup> ed.). Boston: Duxbury Press.

Peterson, C., & Sleight, R. (2006, November). *2006 employment/education survey of recent USU graduates*. Office of Analysis, Assessment, and Accreditation, Utah State University.

Stephenson, W. (1953). *The study of behavior: Q-technique and its methodology*. Chicago: The University of Chicago Press.