

**University Outcome Effective Critical Thinking (ECT) intersection with General Education Objective 1(c):** Students will think, speak, and write clearly as evidenced by *the ability to find appropriate sources of information, evaluate that information, and integrate that information into a final product.*

1. Faculty indicated how often they provide opportunities for students to *evaluate the quality of reliability of information they receive.*

Chi-square: 1.9744 Df: 2 [Source: 2007-2008 HERI Faculty Survey: Items pertaining to Student Learning]

		Male Faculty	Female Faculty	Total
3 Frequently	N	55	62	117
	Col %	79.7%	84.9%	82.4%
	Row %	47.0%	53.0%	100.0%
2 Occasionally	N	14	10	24
	Col %	20.3%	13.7%	16.9%
	Row %	58.3%	41.7%	100.0%
1 Not at all	N	0	1	1
	Col %	0.0%	1.4%	0.7%
	Row %	0.0%	100.0%	100.0%
Total	N	69	73	142
	Col %	100.0%	100.0%	100.0%
	Row %	48.6%	51.4%	100.0%

2. Millersville University students perform at or above when considering their performance on the Collegiate Learning Assessment.

[Source: CLA, 2007- 2008; 2008-09]

	2007-08 Performance Level			2008-09 Performance Level (adjusted)		
	First Year (Percentile Rank)	Senior (Percentile Rank)	Value Added (Percentile Rank)	First Year (Percentile Rank)	Senior (Percentile Rank)	Value Added (Percentile Rank)
<b>Total CLA Score</b>	At (62)	At (63)	At (49)	At (58)	Above (89)	Above (86)
<b>Performance Task</b>	At (63)	At (58)	At (42)	At (58)	Well Above (97)	Well Above (95)
<b>Analytic Writing Task</b>	At (66)	At (69)	At (52)	At (52)	At (61)	At (63)
Make an Argument	Above (71)	At (66)	At (44)	At (52)	At (67)	Above (72)
Critique an Argument	At (44)	Above (71)	Above (78)	At (53)	At (53)	At (51)

3. Millersville University students perform at or above when considering their performance on the AAC&U Values Rubric for Critical Thinking.

[Source: 2009-10 AACU Critical Thinking Values Rubric, StARs Pilot Project]

	Number of Scores	Mean Score	Intraclass Correlation	Cronbach's Alpha
Explanation of Issues	150	2.4	.57	.87
Selecting and Using Evidence	135	2.1	.72	.93
Influence of Context	150	2.0	.60	.88
Student's Perspective	150	2.2	.57	.87
Conclusions and Related Outcomes	150	2.1	.61	.89
<b>Overall</b>	<b>150</b>	<b>2.2</b>	<b>.62</b>	<b>.89</b>

**University Outcome Effective Critical Thinking (ECT) intersection with General Education Objective 1(c):**  
 Students will think, speak, and write clearly as evidenced by *the ability to find appropriate sources of information, evaluate that information, and integrate that information into a final product.*

3. Millersville University students perform at or above when considering their performance on the AAC&U Values Rubric for Critical Thinking., continued

[Source: 2009-10 AACU Critical Thinking Values Rubric, StARs Pilot Project]

	100 Level Course	200 Level Course	300 Level Course	400 Level Course
Explanation of Issues	1.3	2.6	2.7	2.6
Selecting and Using Evidence	0.6	2.3	2.4	2.5
Influence of Context	0.8	2.4	2.2	2.1
Student's Perspective	1.1	2.5	2.5	1.9
Conclusions and Related Outcomes	0.8	2.3	2.4	2.1
<b>Overall</b>	<b>0.9</b>	<b>2.4</b>	<b>2.4</b>	<b>2.2</b>

4. Students indicated the extent to which their experience at Millersville contributed knowledge, skills, and personal development *to thinking critically and analytically.*

[Source: 2003 to 2010, National Survey of Student Engagement, Item 11e]

	2003	2004	2005	2007	2008	2010
	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much
<b>First Year Students</b>						
<b>Millersville</b>	<b>80%</b>	<b>80%</b>	<b>78%</b>	<b>82%</b>	<b>79%</b>	<b>83%</b>
Masters (Carnegie Peers)	81%	79%	80%	81%	86%	83%
<b>Senior-Level Students</b>						
<b>Millersville</b>	<b>80%</b>	<b>84%</b>	<b>87%</b>	<b>87%</b>	<b>88%</b>	<b>87%</b>
Masters (Carnegie Peers)	86%	86%	87%	86%	88%	87%

**University Outcome Effective Critical Thinking (ECT) intersection with General Education Objective 1(d):** Students will think, speak, and write clearly as evidenced by *the use of statistical methods and other techniques of mathematics to analyze and solve problems.*

5. Faculty indicated how often they provide opportunities for students to *seek alternative solutions to a problem.*  
Chi-square: 1.4633 Df: 2, [Source: 2007-2008 HERI Faculty Survey: Items pertaining to Student Learning]

		1 Male	2 Female	Total
3 Frequently	N	52	59	111
	Col %	75.4%	80.8%	78.2%
	Row %	46.8%	53.2%	100.0%
2 Occasionally	N	16	14	30
	Col %	23.2%	19.2%	21.1%
	Row %	53.3%	46.7%	100.0%
1 Not at all	N	1	0	1
	Col %	1.4%	0.0%	0.7%
	Row %	100.0%	0.0%	100.0%
Total	N	69	73	142
	Col %	100.0%	100.0%	100.0%
	Row %	48.6%	51.4%	100.0%

6. Faculty indicated how often they provide opportunities for students to *seek solutions to problems and explain them to others*

Chi-square: 2.2981 Df: 2, [Source: 2007-2008 HERI Faculty Survey: Items pertaining to Student Learning]

		1 Male	2 Female	Total
3 Frequently	N	61	58	119
	Col %	88.4%	79.5%	83.8%
	Row %	51.3%	48.7%	100.0%
2 Occasionally	N	7	14	21
	Col %	10.1%	19.2%	14.8%
	Row %	33.3%	66.7%	100.0%
1 Not at all	N	1	1	2
	Col %	1.4%	1.4%	1.4%
	Row %	50.0%	50.0%	100.0%
Total	N	69	73	142
	Col %	100.0%	100.0%	100.0%
	Row %	48.6%	51.4%	100.0%

7. Students indicated the extent to which their experience at Millersville contributed knowledge, skills, and personal development *in analyzing quantitative problems.*

[Source: 2003 to 2010, National Survey of Student Engagement, Item 11f]

	2003	2004	2005	2007	2008	2010
	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much	Quite a bit/ Very Much
<b>First Year Students</b>						
<b>Millersville</b>	<b>57%</b>	<b>48%</b>	<b>67%</b>	<b>64%</b>	<b>68%</b>	<b>68%</b>
Masters (Carnegie Peers)	57%	54%	64%	67%	70%	71%
<b>Senior-Level Students</b>						
<b>Millersville</b>	<b>64%</b>	<b>59%</b>	<b>72%</b>	<b>70%</b>	<b>75%</b>	<b>72%</b>
Masters (Carnegie Peers)	67%	65%	72%	72%	74%	75%