Assessment of Program Student Learning Objectives (SLOs)

SLO Survey of Degree Applicants

Mathematics AS-T Degree

Summer 2012 – Spring 2014

Program SLO Statements

	# of Respondents	Agree Strongly	Agree	Disagree	Disagree Strongly	Mean Score
1. Demonstrate analytical thinking by: Breaking complex problems into manageable smaller problems	6	66.7%	33.3%	0.0%	0.0%	3.67
2. Demonstrate analytical thinking by: Identifying the relationships among verbal, symbolic, graphical and numerical representations within the same problem	6	83.3%	0.0%	16.7%	0.0%	3.67
3. Demonstrate analytical thinking by: Identifying what a problem is really asking	6	50.0%	50.0%	0.0%	0.0%	3.50
4. Demonstrate analytical thinking by: Solving non-algorithmic problems	6	50.0%	50.0%	0.0%	0.0%	3.50
5. Demonstrate resourcefulness in problem solving by: Choosing appropriate methods	6	66.7%	16.7%	16.7%	0.0%	3.50
6. Demonstrate resourcefulness in problem solving by: Recognizing and explaining source of errors and impossible solutions	6	83.3%	16.7%	0.0%	0.0%	3.83
7. Demonstrate resourcefulness in problem solving by: Synthesizing appropriate strategies, techniques or information from prerequisite courses	6	50.0%	50.0%	0.0%	0.0%	3.50
8. Demonstrate resourcefulness in problem solving by: Using alternative representations of mathematical ideas	6	66.7%	16.7%	16.7%	0.0%	3.50
9. Employ mathematical strategies with confidence	6	83.3%	16.7%	0.0%	0.0%	3.83
10. Synthesize ideas expressed in mathematical language by: Communicating arguments clearly	5	40.0%	40.0%	20.0%	0.0%	3.20
11. Synthesize ideas expressed in mathematical language by: Demonstrating a basic understanding of proof	6	50.0%	50.0%	0.0%	0.0%	3.50
12. Synthesize ideas expressed in mathematical language by: Demonstrating the ability to collaborate in problem solving (i.e. study groups, group projects)	5	40.0%	60.0%	0.0%	0.0%	3.40
13. Synthesize ideas expressed in mathematical language by: Demonstrating the ability to understand both written and spoken mathematics	6	83.3%	16.7%	0.0%	0.0%	3.83

Note: "Mean Score" is derived by assigning numeric values to each response (where 1="Disagree Strongly", 2="Disagree", 3="Agree", and 4="Agree Strongly") and calculating the mean of all responses for a given question item.

NOTE: The data presented here are derived from an online survey sent to all CSM degree applicants, Summer 2012-Spring 2014. Award earners are asked to indicate the extent to which they agreed with statements regarding student learning outcomes associated with their program.