

## 1. Program Information:

Name of Department/Program: Mathematics

Academic year: 2011-12

Contact person: Brad Thiessen

List program faculty/staff and identify the contribution each individual made to this report: (press return/enter after entering each name or contribution)

Thomas Anderson	Developed assessment methods and recommended schedule
Ilwoo Cho	Developed assessment methods and recommended schedule
Tim Gillespie, Visiting	Will contribute assessment results (General Education and major courses)
Kathy Potter	Completed QUANT 131 assessment section
Hernando Tellez, Visiting	Developed assessment methods and recommended schedule
Brad Thiessen	Completed form; revised SLOs

## 2. Program Assessment:

Student Learning Outcomes	Assessment Tools/Methods	Academic year(s) of assessment					Assessment Results (due 7/1/2012)
		'11-12	'12-13	'13-14	'14-15	'15-16	
1. Demonstrate a breadth and depth of knowledge appropriate for a bachelor's degree in mathematics.	1. Major Field Test in Mathematics (administered in MATH 395) 2. Course exams will be reviewed by the Department to ensure they align with course outcomes and standards.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Results and brief explanation/discussion
2. Persevere in modeling and solving routine, non-routine, and applied problems, using appropriate resources strategically.	We're not sure. The Major Field Test will provide some information about this. We may need to get instructor ratings based on student performance in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Results and brief explanation/discussion
3. Learn mathematic independently by locating and assimilating technical material.	1. Textbook assignments completed independently in MATH 395 (rated on common rubric). 2. Final project presentations in MATH 395 (rated by peers and instructor on common rubric)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Results and brief explanation/discussion

4. Communicate mathematical ideas using proper terms and symbols.	1. Proofs written in WI-MATH 220 and WI-MATH 380. 2. Instructor ratings from MATH 300 (based on written assignments and exams)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Results and brief explanation/discussion
5. Write concise and rigorous mathematical proofs	1. Proofs written in WI-MATH 220 2. Proofs written in WI-MATH 380	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Results and brief explanation/discussion
6. Appreciate the career and educational opportunities for mathematics majors	1. Faculty ratings based on advising meetings 2. We may be able to get information from the University Alumni Survey.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Results and brief explanation/discussion
7. Critically consume and apply research and local/state/national standards in mathematics education to plan, deliver, and evaluate effective instruction.	1. Instructor and peer ratings of simulated teaching experiences in MATH 340 (rated on common rubric). 2. Research review papers written in MATH 340 (rated on common rubric). 3. Student and instructor evaluations of performance in MATH 399.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Results and brief explanation/discussion

## Annual Program Assessment Evaluation

---

Thank you for participating in the pilot of our annual assessment process. As a reminder, this annual assessment process, including the forms each department submitted in September, were intended to:

- 1) Assist programs in documenting student learning outcomes and ongoing assessment activities.
- 2) Inform programs of our institutional assessment expectations
- 3) Allow programs to receive more timely feedback to improve their assessment activities

Because these annual assessment forms demonstrate a program's commitment to effective, ongoing assessment, programs will be allowed to submit a collection of these forms to fulfill EPC Program Review assessment requirements.

After receiving forms from each program, members of the Assessment Committee evaluated the forms according to a standard rubric. Four members of the Committee evaluated each program's form and provided feedback (yielding 125 total evaluations). The Committee then met again to synthesize the evaluations into the attached summary forms for each program.

As you look at your program's evaluation summary, you'll notice that the Assessment Committee evaluated 5 components:

- 1) Program information and participation with the assessment process
- 2) Quality of program student learning outcomes
- 3) Number of instruments/measures used to assess each student learning outcome
- 4) Quality of instruments/measures used to assess each student learning outcome
- 5) Schedule of assessment (to ensure all outcomes are assessed over a 5-year period)

The 5 components were evaluated according to the attached rubric. Because we wanted a clean evaluation of programmatic assessment activities -- and because we did not want programs to feel pressured into quickly changing their assessment plans -- we did not share this rubric before collecting the forms. Now that you've received the rubric and your evaluation summary, it may make sense to:

- 1) Review your program's scores to determine if you're currently meeting institutional expectations in each component
- 2) Review the rubric for a more detailed explanation of expectations for each assessment component
- 3) Review the comments for suggestions to improve your programmatic assessment activities

You can also review the summary evaluation of all SAU programs if you're interested in determining how your program's assessment activities compare to other programs at SAU. These comparisons are not as important as working towards meeting all institutional expectations prior to your next program review. **If you would like assistance in improving your programmatic assessment activities, please contact any member of the Assessment Committee.**

Next Steps: **By July 1, you will be expected to provide results from the assessment of any SLOs that were scheduled for 2011-12.**

---

Members of the Assessment Committee:	Neil Aschliman, Biology Les Bell, Art Bud Grant, Theology Michael Hustedde, English Jason Richter, Student Engagement Art Serianz, Chemistry Brad Thiessen, Assessment Katie Trujillo, Psychology
---	--

---

Attachments: 1) An evaluation of your programmatic assessment, including brief feedback  
2) A summary evaluation of all programs at SAU  
3) The rubric used to evaluate the annual assessment forms

Program: PROGRAM NAME

Spring 2012 evaluation

	(see rubric for score descriptions)				Points	
	0	1	2	3		
1. Program information, including a list of contributions, is provided.	=====X				2/2	Meets expectations
2. Program SLOs are clear and student-focused.	=====X				1/3	Approaches expectations
3. At least one direct measure is identified to assess each SLO.	=====X				2/3	Meets expectations
4. The program uses high-quality measures to assess each SLO.	=====X				1/3	Approaches expectations
5. SLOs are assessed on a 5-year schedule	====X				0/2	Below expectations
6. The program provides a brief discussion of results to determine the degree to which SLOs were met.					N/A	(Will be due in July)
<b>Total Score:</b>					<b>6/12</b>	

Notes: Your program assessment scored 6 out of 12 points possible and met expectations in 2 of the 5 components. The comments pasted below and attached rubric can guide you towards meeting all institutional assessment expectations. Please contact any member of the Assessment Committee for further assistance. By July, you will be expected to provide results from the assessment of SLOs that were scheduled for 2011-12.

Comments: How will the program evaluate/ensure the quality of the assessments used within each course? Will common rubrics be used to evaluate essays/discussions? How will data from these assessments be collected, synthesized, and reported? Will multiple faculty review the assignments, exams, and case studies within each course?

"SLOs should be explicitly student-focused ("Students will apply...").

SLO #7 is an activity, not an outcome: "dialogue with...".

Typo in SLO #2: "rsearch."

No evidence of use of multiple raters, standard rubric, external sources of evaluation, etc.

SLO #4 is not scheduled to be assessed.

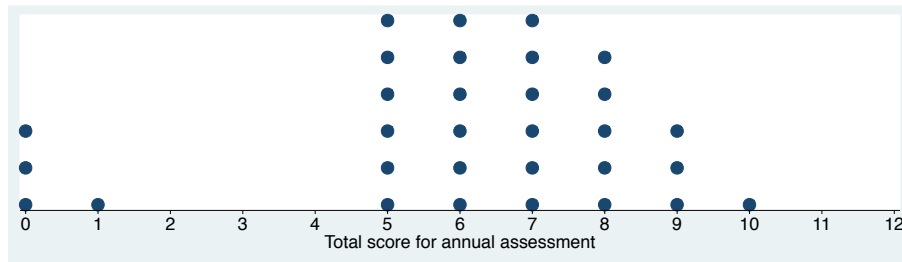
The SLOs are written more as processes than outcomes

Program: **Summary of all SAU programs**

	Number of programs				% meeting expectations	Average Score
	0	1	2	3		
1. Program information, including a list of contributions, is provided.	9	3	19		61%	1.32
2. Program SLOs are clear and student-focused.	5	14	12		39%	1.23
3. At least one direct measure is identified to assess each SLO.	4	7	18	2	65%	1.58
4. The program uses high-quality measures to assess each SLO.	4	20	7		23%	1.10
5. SLOs are assessed on a 5-year schedule	7	24			77%	0.77
6. The program provides a brief discussion of results to determine the degree to which SLOs were met.					N/A	N/A

**Average Total Score: 6.00**

Comments: 31 programs/departments submitted annual assessment forms  
 5 programs submitted annual accreditation reports  
 Members of the Assessment Committee provided 125 evaluations (at least 4 per program)  
 4 programs met or exceeded expectations in all 5 categories  
 4 programs failed to meet expectations in all 5 categories (2 of these programs submitted forms too late)  
 You can locate your program's score in the distribution of total scores displayed below:



## Rubric to evaluate Annual Assessment Forms

Component	Rating Scale (in terms of expectations)	Comments
<b>Program Information.</b> Program information, including list of contributions, is provided	<b>0 = Below</b> (some information is missing)	
	<b>1 = Approaches</b> (all information is provided)	
	<b>2 = Meets</b> (all info is provided; multiple faculty contributed)	
<b>SLOs.</b> Program student learning outcomes are clear and student-focused (stated in terms of what students should be able to know, think, or do as a result of program activities)	<b>0 = Below</b> (outcomes are not student-focused and/or vague; outcomes are actually processes/activities; SLOs not focused on learning)	Example: Given a description of a student with a particular disability, students identify at least 3 ways to differentiate instruction.
	<b>1 = Approaches</b> (some outcomes are student-focused and clear)	Non-example: Students will be taught methods of differentiated instruction (not student-focused)
	<b>2 = Meets</b> (all outcomes are student-focused and clear)	Non-example: Students will participate in... (process; not outcome)
	<b>3 = Exceeds</b> (SLOs specify conditions under which students will demonstrate the behavior and criteria for success)	Non-example: Students will understand differentiated instruction (too vague)
<b>Number of measures.</b> At least one direct measure is identified to assess each SLO	<b>0 = Below</b> (no direct measures are identified for any SLOs)	Direct assessments are analyses of actual student behaviors or products. Examples: analyses of written tests, essays, portfolios, presentations, performances, and simulations
	<b>1 = Approaches</b> (measures are identified for all SLOs; some SLOs are only assessed indirectly)	
	<b>2 = Meets</b> (measures are identified for all SLOs; all SLOs are assessed directly)	Indirect assessments are analyses of reported perceptions about student performance. Typically, indirect measures indicate rather than provide evidence of actual student achievement. Examples: surveys, interviews, focus groups
<b>Quality of measures.</b> The program uses high-quality measures to assess each SLO	<b>0 = Below</b> (no evidence of quality is provided; measures appear to be low-quality; measures do not appear to align with SLOs)	Example: 0 = SLO was assessed by asking students about their writing skills.
	<b>1 = Approaches</b> (no evidence of quality is provided; measures appear to align with SLOs)	Example: 1 = Course instructor rated student essays for clarity and organization
	<b>2 = Meets</b> (evidence of quality is provided or the program has a plan to collect such evidence; measures appear to align with SLOs; measures use multiple raters when appropriate; rubric)	Example: 2 = Two faculty members rated student essays using departmental rubric.
	<b>3 = Exceeds</b> (evidence of quality is provided or identified; measures are high-quality)	Example: 3 = Two faculty members rated student essays using a rubric provided by a national organization.
<b>Schedule.</b> All SLOs will be assessed over 5 years	<b>0 = Below</b> (not all SLOs are scheduled to be assessed over 5 years)	
	<b>1 = Meets</b> (all SLOs will be assessed in 5 years; at least one SLO is assessed each year)	
<b>Results.</b> The program provides a brief discussion of results to determine the degree to which SLOs were met	<b>0 = Below</b> (results were not provided for the SLOs to be assessed)	
	<b>1 = Approaches</b> (results were provided, but explanation/discussion is lacking)	
	<b>2 = Meets</b> (results, including participation rates, were provided; the degree to which SLOs were accomplished is discussed)	
	<b>3 = Exceeds</b> (SLOs specify conditions under which students will demonstrate the behavior and criteria for success)	