

# CSAM Summary Report on Program Assessment

May 2006

## College of Science and Mathematics Assessment Committee

**Al Adams, Department of Physics and Astronomy**  
**Paul Akers, Department of Biology**  
**Marian Douglas, Department of Chemistry**  
**Cindy Gilbert, Department of Nursing**  
**Donna Quimby, Department of Health Sciences**  
**Jay Sims, Department of Earth Science**  
**Jim Fulmer, Committee Chair, Department of Mathematics**

The College of Science and Mathematics used a 0 to 4 point scale to rate this year's program assessment reports. This scale corresponds to the **Exceptional** (4), **Reasonable** (3), **Limited** (2), and **Inadequate** (1) criteria distributed by the Provost's Office. A score of 0 indicates that the area of the report was not present. The following table is a summary of the scores for each program.

<b>Program</b>	<b>Use</b>	<b>Faculty &amp; Stakeholder</b>	<b>Approach</b>
B.S., Biology	3.3 Reasonable	3.4 Reasonable	3.4 Reasonable
M.S. Biology*	*	*	*
B.S. & B.A. Chemistry	3.8 Exceptional	3.7 Exceptional	3.7 Exceptional
M.S. & M.A. Chemistry*	*	*	*
B.S. Environmental Health Science	2.0 Limited	2.2 Limited	2.9 Reasonable
B.S., Geology	3.5 Exceptional	3.7 Exceptional	3.6 Exceptional
B.S. Health Science	3.8 Exceptional	3.7 Exceptional	3.4 Reasonable
M.S. Integrated Science and Mathematics	0.2 Inadequate	0.5 Inadequate	1.5 Limited
B.S. & B.A. Mathematics	3.9 Exceptional	3.9 Exceptional	3.9 Exceptional
M.S., Applied Mathematics	3.7 Exceptional	3.8 Exceptional	3.8 Exceptional

A.S., Nursing	4.0 Exceptional	3.9 Exceptional	4.0 Exceptional
B.S. & B.A., Physics	1.9 Limited	2.4 Limited	2.1 Limited
<b>Totals:</b>	Inadequate: 1 Limited: 2 Reasonable: 1 Exceptional: 6	Inadequate: 1 Limited: 2 Reasonable: 1 Exceptional: 6	Inadequate: 0 Limited: 2 Reasonable: 3 Exceptional: 5

\*Assessment plan for M.S. Biology is still under review and assessment plan for M.S. Chemistry is being revised.

Most of the undergraduate programs in the College of Science and Mathematics are rated at reasonable level or above, in program assessment based on the PAAG criteria rubric. In general, the undergraduate programs are doing a good job with assessment, although there is variation across the college and room for improvement. It is apparent that there is a *culture of assessment* that is now imbedded in most of the undergraduate programs and in some of the graduate programs in the college. The step between reasonable and exceptional is a difficult step to make. Five programs have made that step to exceptional in all categories: BS/BA Chemistry, BS Geology, BS/BA Mathematics, MS Mathematical Science, and AS Nursing; last year we had three programs in this category. One program has made the step to exceptional in two categories, BS Health Sciences; last year we had two programs in this category.

The assessment plan for the MS Biology is being reviewed by the CSAM Assessment Committee and Department of Biology. The assessment plan for the MS Chemistry is being revised. The Dean and the College Assessment Committee are working with the programs with inadequate or limited rating to try to improve their assessment plans and assessment process.

### **Strengths:**

- A new approach to the process of evaluating the Assessment Progress Reports has been initiated that involves two levels of review before a final evaluation is made. The first level is by teams as in the past, making sure that no team member evaluates his/her department's report. The second level is the team will bring their evaluation reports for review by the entire Assessment Committee, with a majority vote need to approve the team evaluation recommendation. This approach has now been used for three years.
- Once the program is working with a feedback loop, there is evidence and consistency of maintenance. We have some mature programs.
- The maturity of assessment programs has allowed programs to focus on fewer student learning objectives annually in the assessment timeline.

- There is considerably more assessment data being collected. It is obvious that more implementation has occurred and this has resulted in more useful assessment data.
- Most programs have good student learning objectives that are linked to goals of their programs. In addition, most programs have methods to assess the student learning objectives.
- There has been improvement in program assessment in the programs that comprise CSAM over the past few years. As a result of continued emphasis on assessment, the college is developing faculty expertise in the area of program assessment in the programs that are scoring well in the review process.
- A benefit of participating in the assessment process is that each program has had to examine and evaluate student learning in respect to learning objectives. Programs have discovered areas in which they are doing a good job as well as a whole rather than narrower view of individual courses.
- For the first time we are using the Institute of Government-Study Research Group, Ross Hall, 6<sup>th</sup> floor, in the process of administering and collecting data for alumni surveys and employer surveys. Previously, they have done this type of survey with the Department of Nursing.
- Some programs are seeing the need to re-evaluate their assessment plans.

### **Areas of Concern:**

- Not all programs are demonstrating a commitment to the assessment process. We encourage consequences for those programs that do not comply and rewards for all that have a working plan.
- Some Assessment Progress Reports are using acronyms without clearly defining for what it stands. This is causing difficulty for the evaluators in making their evaluations.

### **Recommendations and Comments:**

- Be sure to use the new forms next year when preparing Assessment Plans and Assessment Progress Reports and follow the new directions.
- Remind and enforce the 10-page limit rule with 10-12 point font size.
- It would be helpful to have assessment plans posted on Assessment Central. The assessment plans have more information than the approach section of the Assessment Progress Report.

- Representation from MSISM on college assessment committee
- Compare transfer student grades with non-transfer student grades in the college.
- In the Assessment Progress Reports, be sure that Student Learning Objectives (Expectations) are carefully stated and identified for the evaluator's use and are measurable.
- When preparing Assessment Plans and Assessment Progress Reports, the various acronyms should be clearly defined for the evaluator's use.