

SAC: Mathematics

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1. Please describe your plan of action for 2009-2010 Academic Year:

The math department will assess for critical thinking and problem solving by evaluating the student's ability to analyze sample work and/or analyze and solve an open-ended problem that incorporates most (or all) of the skills in the selected course(s).

The sample work to be analyzed will contain various types of errors such as conceptual, arithmetic, and formatting. The student will first be asked to work the problem themselves. They will then be asked to identify and accurately describe mistake(s) in the sample work, and to decide what advice should be given to prevent/understand the error. Each step of this process requires critical thinking about problem solving.

For the open-ended problem that incorporates most or all of the skills for the course, the student must be able to correctly apply learned concepts to the situation and defend their work. Critical thinking is needed to assess the situation and correctly apply concepts. Student's defense of their work should show that they have a thorough understanding of the problem and their results.

Students will also complete a survey for indirect assessment. The survey will have questions such as "Did you enjoy working on the problem? Explain," "Do you feel this class has improved your critical thinking and problem solving skills? Explain" and "Do you feel that evaluating other work helps you understand the concepts? Explain."

Student work will be assessed for critical thinking and problem solving using a rubric.

Unfortunately, we are unable to complete this by the deadline. We will be working on this during summer and fall, 2010.