

Counseling Center/Student Services Initiatives (2007-2008)

Initiative #2: Math Substitution Policy

Background: For almost twenty years, the Counseling Center has partnered with the Disability Resource Center to assess students for learning disabilities. A significant number have been diagnosed with math disabilities and students are sometimes unable to graduate from USU because they fail to meet the undergraduate math general education requirement. Some of these students have failed math 1010 or math 1050 as many as three or four times. Often, these students complain that their math instructors are not fluent in English or are not skilled in teaching math, especially for students with disabilities. Without compromising the integrity of an undergraduate degree from USU, it may be possible to combine the efforts of the Counseling Center, Disability Resource Center, Academic Resource Center and Math Department in providing specialized instruction for students at risk and/or considering course substitutions that fulfill the intent of the math requirement: proficiency in logic and problem solving.

Strategy: Ideally, a pilot project could be undertaken to offer a special section of Math 1010 and/or Math 1050 designed for students with disabilities. Teaching methods could be multi-modal with emphasis on manipulative (hands on features) strategies that emphasize practical application. If the class meets daily and a TA (with special education training) is available, then core support may be sufficient for students who struggle. It will be essential to add an element of advising that insures regular attendance, daily homework and reasonable course load. Further, students will need to reduce outside demands (number of hours worked).

A second component would require formal general education policy modifications (generated by appropriate committees) and could be taken to the Faculty Senate for approval. For students who have made a good faith effort to pass Math 1010 and Math 1050 (note above) without success and where math substitutions would not compromise the integrity of their University degree, then math substitutions (ie. logic or practical math) might be considered to fulfill the math requirement. Formal approval for any change in degree requirements would need to be obtained from department heads and college deans. A sample of the Counseling Center policy adjustments might include the following:

Counseling Center Assessment Policy Diagnosis of Math Anxiety/Disabilities

All students in need of assessment for math related disorders should first be screened by Disability Resource Center staff and then referred for testing. Referral forms from the DRC should specifically indicate the nature of the concerns related to mathematics so that assessment strategies will focus on areas related to math disorders. Students will sign release of information forms to facilitate communication between the Counseling Center and the DRC.

In order to qualify for special accommodations, including participation in the section of Math 1010 or Math 1050 designated for students with math difficulties, students must either:

1. Demonstrate a math disability upon assessment (discrepancy of at least one standard deviation between general cognitive abilities and math achievement), or
2. Document a previous math failure, or
3. Document clinically significant math anxiety (by observation, testing and self-report).

In order to qualify for math substitution, the student must document a math disability AND

1. Previous attempts to succeed at Math 1010 or 1050 via regular visits with the course instructor, regular attendance at the math lab and work with a math tutor.
2. Reasonable effort to complete all assignments as evidenced by a signed document from math instructors.

All students will be encouraged to employ all available resources (ie. math labs, tutors, ARC support to learn effective study skills, REACH Peer work at the Counseling Center to learn relaxation skills to address math anxiety). If students have not exhausted these resources, then petition for math substitution will be denied. The General Education committee will identify courses that can be substituted for Math 1010 or Math 1050 (ie. Math 1030 - Practical Math or Philosophy 1200 Practical Logic). Final approval depends on department heads and/or college deans.

Schedule: Implementation of the proposed changes could be piloted during Fall 2007 with any general education policy modifications prepared for Faculty Senate approval during Winter 2008.

Financial Plan: Costs of such changes would be minimal. Math faculty and TA's are already under contract and the initiative would merely require assignment of the teacher with the best credentials for creative teaching to the sections of math offered to students with disabilities. If special materials are required, a separate budget request could be made via future initiatives.

Outcome Measures: Math grades will be monitored, as well as percent passing math, especially amongst students with known disabilities. Further, retention rates will be compared, both for first year students and USU students in general.

Codicils: Support from the DRC, ARC, Retention Office and Math Department will be crucial in implementing this initiative.