Program Review 2011 Evaluation Form

Program Information

Program Name *i.e. Anthropology Mathematics

The program's assessment process appears planned and has an implementation schedule. Curricular changes do not appear to be addressed though the narrative suggests changes may be made. Overall, the program, through their assessment, is stated to be functioning well.

Assessment Summary not in standard tabular format; included in report as a narrative.
It appears that alumni survey is often not returned so information from these may be problematic in that the sample is too small or non-existent for genuine assessment and improvement of program.

Committee recommends survey method improves or another method of assessment explored and to separate assessment plans for the different degrees.

2. Demand for Program Services

Demand for program services, as indicated by measures such as: credit hour production appropriate to the program's mission, services performed by the program in support of other programs, graduates produced, the prospective market for graduates, expressed need by clientele in the service area, documented needs of the state and/or nation for specific knowledge, data, or analysis, other documented needed.

Committee's assessment and guidance on Demand for Program Services:
Report: The U.S. Department of Labor's Bureau of Labor and Statistics provides an Occupational Outlook Handbook (see http://www.bls.gov/oco/). In this handbook, Mathematicians, Actuaries, and Operations Research Analysts are described as occupations with much faster than average growth.

According to this AK Dept of Labor's website on the Alaska Occupational Forecast to 2018, Middle School Teachers, Post Secondary Teachers, and Secondary Teachers are three of the 23 so called "Top Jobs" that require bachelor's degrees or above. All mathematics teachers in these categories will require at least a bachelor's degree in mathematics. Post Secondary teachers require additional graduate study. 6 more of the top 23 are jobs in engineering and science which require significant mathematical study at the university level.

Number of majors (duplicated) in Mathematics M.A.T. in last five years (FY2006-FY2010): 3

Number of graduates of Mathematics M.A.T. in last five years (FY2006-FY2010): 2

Number of majors in Mathematics M.S. in last five years (FY2006-FY2010): 62

DMS provides extraordinary service coursework for other majors within the college and outside the college. Report: The ratio of credit hours produced by students with majors outside versus inside DMS is on the order of 10 to 1.

DMS Service teaching

Enrollee's major:	FY06	FY07	FY08	FY09	FY10
In department	743	648	583	633	587
In unit, outside department	1348	1353	1322	1416	

Student numbers and degrees awarded are very low in the MAT. MS appears viable, but could improve numbers of majors and graduates.

Research, Scholarly and Creative Activity:
On the Program Review Google Docs website for *Publications* in FY08-FY10:
DMS had listed 4 grants (2 grants in FY08 and 2 grants in FY10) with approximate total of $830K.

In the Math and Stat Program Review there were 19 publications listed for 2007-2008.

From the Math and Stat report: research accomplishments of DMS faculty -over three-quarters of the faculty (11 of 14) obtained substantial external funding at some point over the last five academic years.

Did the program review include significant public, university and professional service achievements?

x Yes

x No

Committee's assessment and guidance on Program Productivity and Efficiency:
Service: Consulting seminars for graduate students in Statistics, Biology, Fisheries and Wildlife Biology and Alaska teachers in a research-based Alaska-specific mathematics curriculum called Math in a Cultural Context Curriculum.

DMS program has steady SCH and strong Service Teaching accomplishments and faculty appeared to be productive at teaching, research and service.

4. Program Duplication

Unnecessary program duplication resulting from the existence of a similar program or programs elsewhere in the UA statewide system (BOR policy).

Committee's assessment and guidance on Timeliness:

In the Dept. of Mathematics and Statistics (DMS) report a 2006 external program review stated two high priority items:
1) increased space and 2) increased faculty.

For example: in Fall 2009 and Spring 2010, nearly 60 % of their classes were taught by adjuncts.

From report: DMS would benefit greatly from having a larger number of graduate students, but need additional TA-ships for that to be possible.

7. Cost of the Program

Cost of the program relative to the cost of comparable programs or to revenue produced (BOR policy). Because we are not currently able to provide program specific budget information or the cost of comparable programs, assessment will be based on proportionate cost.

Committee's assessment and guidance on the Cost of the Program:
Note: No information on the cost of programs was made available to this committee.

8. Partnerships

Program described successful partnerships resulting in scholarships, equipment or in-kind services during the past three years.

Committee's assessment and guidance on Partnerships:
DMS reported on partnerships within UAF (ARSC, IAB, Geophysical Institute) and association with TASK program for travel and continuing education aid.

Committee suggests DMS explore further partnerships outside the institution.

RECOMMENDATION by the Faculty Program Review Committee: Please check one

x Continue program

x Discontinue program

Additional instructions for continuing program (if any):Please check applicable boxes

x Continue program but improve assessment process and reporting

x Continue program but improve other specific areas

Comments (majority/minority statements welcome):
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It appears that alumni survey is often not returned so information from these may be problematic in that the sample is too small or non-existent for genuine assessment and improvement of program.

Committee recommends survey method improves or another method of assessment explored and to separate assessment plans for the different degrees.

Mathematics M.S., M.A.T. and PhD. programs share same assessment plan. SLOA plans should be separated.

Continue program

Discontinue program

Comments:

The Mathematics MS has a small enrollment, especially given that the total enrollment of all Mathematics graduate programs is only a few students more. Graduate courses enroll a few students from other fields, but the enrollment is typically five students or less. On the positive side, however, this program is the only in-state source of college level mathematics instructors and indeed many of the current Math and DEVM instructors within UA are graduates, as well as being a source of high school math teachers. Therefore, in the current fiscal climate its benefits outweigh its costs.