

Program Review 2011 Evaluation Form

Program Information

Program Name *i.e. Anthropology ___Physics_____

College /School Name *i.e. CLA _____CNSM_____

Degree *Please choose one from the list. (Cert., AAS, BA, BS, MA, MS etc.) _MAT_

PART I - To be completed by the Faculty Program Review Committee

1. Quality and Assessment of the Program

Quality of the program, as determined by the establishment and regular assessment of program outcomes. Outcomes should be comprehensive, and indications of achievement should involve multiple measures and satisfy the properties of good evidence.

Please check all that applies to the Quality and Assessment of the Program.

- ☐ Separate plan for each program level e.g. Cert., AA/AAS, BS, BA, BBA, MS, MA, PhD
- ☒ Multiple (at least two) measures of student outcomes
- ☐ Plan has direct evidence of student learning not just surveys
- ☐ Assessment information is collected and summarized regularly
- ☐ Assessment summary is based on aggregate student information
- ☐ Assessment process has resulted in curricular improvement
- ☐ All elements recorded in the assessment plan are addressed in the assessment summary.

What is the evidence that students are achieving intended learning outcomes?

Assessment plan does indicate multiple methods of determining student learning. SLOA is based on student exit surveys, students completing the required courses, and plotting a thesis or project. The SLOA summary indicates some student comments, but does not address any cogent measurements of student learning or analysis from thesis and projects. Courses and thesis completion are not considered valid measurements of student learning outcomes.

Committee's assessment and guidance on Quality and Assessment of the Program:

The use of a student survey is not an adequate measure of student learning. The Physics SLOA needs to be updated to use multiple measures that provide direct evidence of student learning. These assessments should reflect the aggregate performance of the majors in the program. The committee recommends that the Physics department create an analytical SLOA as soon as possible, and that the summary reflect the results of the SLOA.

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:

Alaska Department of Labor (www.labor.state.ak.us/research/iodata/occproj.htm) projects an increased (15%) need for atmospheric and space scientists over the next ten year period.

Based on PAIR, the graduate numbers for the Physics MAT are zero. The report fails to address this issue. Recommend investigating the reasons for the absence of majors and graduates.

The Physics department supports many other degree programs at UAF.

Student credit hours, by subject and level

| Subject and level | FY06 | FY07 | FY08 | FY09 | FY10 |
|-------------------|------|------|------|------|------|
| PHYS - Lower | 2131 | 1854 | 1712 | 1844 | 2068 |
| PHYS - Upper | 185 | 254 | 227 | 264 | 240 |
| PHYS -Grad | 414 | 395 | 341 | 398 | 440 |
| PHYS -Outside | 109 | 8 | 9 | 90 | 87 |

No Physics MAT graduates FY06-FY10. The Physics department should investigate the absence of graduates. The MAT program does not indicate any majors during this time period.

These ratios include all of the Physics graduates and majors.

3. Program Productivity and Efficiency

Program productivity and efficiency as indicated by courses, student credit hours, sponsored proposals and service achievements produced in comparison to the number of faculty and staff and the costs of program support (The latter may not be available or may be a combined cost for several programs).

Teaching:

Service teaching

| Enrollee's major: | FY06 | FY07 | FY08 | FY09 | FY10 |
|-----------------------------|------|------|------|------|------|
| In department | 675 | 648 | 673 | 769 | 751 |
| In unit, outside department | 487 | 492 | 443 | 340 | 588 |
| Outside unit | 1583 | 1387 | 1181 | 1417 | 1420 |

The department has a significant amount of outside unit service teaching.

No students in the program based on PAIR data.

Research, Scholarly and Creative Activity:

Faculty has several published works and involvement in several grants.

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

- ☒ Yes
- ☐ No

Committee's assessment and guidance on Program Productivity and Efficiency:

Based on SCH and outside service teaching, the Physics department appears to be productive, but the absence of MAT majors or graduates indicates the program is not utilized.

The Physics department should investigate the need for the program.

4. Program Duplication

Unnecessary program duplication resulting from the existence of a similar program or programs elsewhere in the UA statewide system (BOR policy). Academic programs offered by UAA are available online at <http://www.uaa.alaska.edu/academics/degrees/> and those offered by UAS are available at <http://www.uas.alaska.edu/academicis/alpha.html>

Committee's assessment and guidance on Program Duplication:

No similar program within the UA system.

5. Centrality of the Program

Centrality of the program to the mission, needs and purposes of the university and the unit.

Committee's assessment and guidance on Centrality of the Program:

Given the importance of atmospheric and space science to Alaska and the U.S., Physics graduate studies appear to be a necessary and integral program at UAF.

There are other programs within UAF that serve the need to educate physics teachers.

6. Timeliness

Timeliness of an action to augment, reduce or discontinue the program. [Address current internal or external factors that provide an opportunity for change, i.e. availability of new grant funding, increasing employment opportunities of graduates, or the departure of a significant portion of the faculty.]

Committee's assessment and guidance on Timeliness:

The report states that the Physics department does not have enough faculty to teach all of the service courses. Increases in the number of engineering and biology students required to have physics has overwhelmed the number of faculty available to teach.

Additionally, there is concern that a large number of faculty are approaching retirement age.

The Physics department should investigate the need for the MAT program.

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:

No incremental financial information available to make a judgment.

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:

Scholarships for Physics majors are provided in-house primarily by UAF Alumni. The computer laboratory is supported by the John Noyes Computer Equipment and Lab Endowment.

RECOMMENDATION by the Faculty Program Review Committee: Please check one

☐

Continue program (0 votes)

☒

Discontinue program (8 votes)

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

☐

Continue program but improve assessment process and reporting

☐

Continue program but improve other specific areas

Comments (majority/minority statements welcome):

The provided report has been insufficient. If the program continues the committee recommends that the Physics department create an analytical SLOA as soon as possible.

Vote Count Please record the vote majority/minority:

Votes to discontinue program 8 Yes, 0 No, 0 Abstain

PART II - To be completed by the Administrative Program Review Committee

RECOMMENDATION by the Administrative Program Review Committee:

☒

Continue program Voted: 0

☒

Discontinue program Voted: 10

Additional instructions for continuing program: Please check applicable boxes.

☐

Continue program but improve assessment process and reporting Voted: 0

☐

Continue program but improve other specific areas Voted: 0

Comments:

No graduates nor majors in the past five years. Also, see comments above for the MS. You would think that the MAT would have different outcomes since it is focused on preparing physics teachers. With only a single departmental SLOA plan that is overly simplified, there is no way to address or assess the MAT specifically. The department needs to develop and implement a separate assessment plan for the MAT. Recommend elimination of this program or an effective recruitment plan from the department that shows how they will attract students to the MAT.

PART III- To be completed by the provost in consultation with the Chancellor's Cabinet

RECOMMENDATION by the provost and Chancellor's Cabinet:

- ☒ Continue program
- ☒ Discontinue program

Additional instructions for continuing program: Please check applicable boxes

- ☐ Continue program but improve assessment process and reporting
- ☐ Continue program but improve other specific areas

Comments:

The MAT has had no students enrolled and no graduates over the five year period. There is clearly no demand for this degree, and so it should be discontinued.