

PENNSYLVANIA STATE SYSTEM OF HIGHER EDUCATION
Academic Program Review Summary Form
Board Of Governors Policy 1986-04-A
Secondary Education, Mathematics
(2009 - 2010)

Please indicate:
 Annual Report
 Five-Year Review

University Lock Haven University **Degrees Offered** B.S. Ed.
Division/Unit Mathematics **Program** Secondary Mathematics Education
Date of Last Major Review NCTM/NCATE 2008 **Completion Date of Current Review** 7/16/10

I. Composition of Review Team (five-year program reviews only)

Chair: Steve Williams
 External Review Team Members:
 Campus Review Team Members:

II. Program Data

Insert other relevant program data related to the program review in the blank rows.

	Insert Appropriate Academic Years Below				
	2005-06	2006-07	2007-08	2008-09	2009-10
Student Enrollment (Annualized FTE)					
Program Budget / Cost (personnel, operating, equipment)					
Program Cost / Student FTE					
Faculty FTE					
Majors Enrolled (Fall Headcount)	56	63	75	69	75
Program Graduates	10	7	13	10	12

Either reflect the portion of the department's budget (personnel, operating, and equipment) associated with this program, or reflect the Common Cost Accounting instructional costs associated with this program. [Data at www.lhup.edu/planning-and-assessment/program/data.htm.]

[This is impossible to discern from the data provided.]

Accreditation Status (if any):
 Nationally Recognized

Accrediting Agency:
 NCTM/NCATE

Effective Date:
 July 2008/April 2009

Program Context

How This Program Relates to and Supports the University’s Mission and Strategic Plan

Concerning the university’s mission statement, Lock Haven’s nationally recognized secondary education mathematics program offers an affordable program that responds to societal and economic needs, preparing students for a productive career through diverse/multicultural experiences and a strong liberal arts education. Our moderately sized program allows for access to faculty, collegial relationships to form, and a culture of learning that is both caring and challenging to exist. Concerning the goals set forth in the university’s strategic plan, the secondary education mathematics program contributes to the following goals: 1-1, 1-3, 1-4, 1-9, 2-2, 2-3, 2-5, 2-7, 3-2, 3-3, 3-6, 3-7, 4-2, 4-5, 5-1, 5-6, 5-7, 6-1, 6-6, 6-7, 7-2, and 7-3.

External or Environmental Factors Affecting the Program

The National Council of Teachers of Mathematics (NCTM) and the National Council for Accreditation of Teacher Education (NCATE) are the two national accrediting bodies that set standards that affect the quality and content of the secondary education mathematics program. Likewise, the Pennsylvania Department of Education (PDE) makes decisions and requirements regarding teacher certification that influence the types of experiences and coursework our students are expected to master. According to PDE, students in the secondary education mathematics program must have the equivalent of a B.A. or B.S. in mathematics, along with many specific educational requirements, as well as maintain an overall grade-point-average of 3.000. In addition to this, Lock Haven University has required that students in all education programs have a 3.000 grade-point-average prior to entering the Professional Semester and maintain the 3.000 before entering Student-Teaching. In an area such as mathematics, these are very rigorous requirements.

Demand for This Program and its Graduates (Current and Anticipated)

There is no question that a strong secondary education mathematics program is a “must-have” for any university boasting strong education programs. According to the Bureau of Labor Statistics, the demand for mathematics teachers is high and is projected to remain high, especially in urban areas. In fact, the demand for quality secondary mathematics teachers is so high that many “fast-track” and alternative programs are being suggested and offered all around the country.

III. Progress Since Last Review

This should be a brief status report of principal actions taken since the last review, if applicable.

Student Learning Outcomes

Action Item	Steps Taken/Progress Reported	Date
12 hours in Special Education/English Language Learners	All students are now required (PDE mandate) to take 9 hours of Special Education courses and an additional 3 hours of ELL courses.	2009 – 2010

Other Program Outcomes

Action Item	Steps Taken/Progress Reported	Date

Two credits of Educational Media were removed and one credit added to Methods 1.	Due to Educational Media being dropped, one credit was absorbed into the Methods 1 course so those topics could be taught there.	2009 - 2010

IV. Outcomes Assessment (PASSHE Board of Governors Policy 1997-01)

Student Learning Outcomes (list goals and outcomes)

See attached Learning Outcomes Assessment Worksheets.

Program Outcomes (list goals and outcomes)

See attached Program Outcomes Assessment Worksheets.

V. Strengths

Student Learning

Cooperating Teachers, as well as Principals and Superintendents continue to claim that our students are very well prepared. They have stated many times that they prefer to hire LHU graduates because they are confident that they are well-prepared for the classroom.

Other Program Areas

In general, the program seems fairly strong in most areas. There are new guidelines coming out from PDE that will create new challenges that will have to be met, specifically in the area of Field Experiences for our students.

VI. Areas in Need of Improvement

Student Learning

Our students could improve on their knowledge of meeting the needs of diverse learners, incorporating technology into their lessons, and using assessment to improve student learning. With the inclusion of the 12 hours of Special Education/ELL courses, students should improve in the first category. The absorbing of one credit for Media into the Methods 1 course should give students a better understanding of math specific technologies, although some general technological knowledge may be lost. An increased emphasis on assessment will hopefully improve the final category in the near future.

Other Program Areas

The main “other” are for improvement is in the area of retention. While our retention numbers do not seem to be any different than other institutions, they can certainly be improved. The freshman seminar course that is offered seems to be helping, yet still only about half of those students who begin the program as freshmen become program graduates.

VII. Action Plan

Student Learning Outcomes

Goals	Action Plan	Steps To Be Taken	Date
Improve student learning of mathematical concepts	Encourage faculty to continue to hold high standards, improve their teaching, and provide student support; Require a course that reviews secondary mathematics from an advanced standpoint	Encourage faculty to discuss standards; encourage faculty to discuss various teaching strategies; encourage faculty to discuss ways to support students; Require a previously developed course that reviews secondary mathematics from an advanced standpoint	2010 and beyond
Meet the needs of diverse learners	Meet the new PDE standards for requiring coursework geared towards diverse learners	Begin requiring that all candidates meet the new PDE requirements for coursework geared towards diverse learners	beginning in 2009
Increase ability to incorporate technology into their lessons	Integrate the Educational Media course into the Methods courses; provide more content-specific technology instruction	Rewrite methods syllabi to incorporate the Educational Media content	2009
Improve student ability to use assessment results to improve student learning	Do a better job during Methods 2 at instructing students to use assessment results to improve student learning	Create a more succinct unit on Assessment for Methods 2 that will provide more information concerning how to use assessment results to improve student learning	2010

Other Program Outcomes

Goals	Action Plan	Steps To Be Taken	Date
Improve student retention	Create a program of support for freshmen beyond the Freshman Seminar course	Discuss with faculty how we can support freshmen students outside of the Freshmen Seminar course	2010

Resources

As the technology content is incorporated into the Methods courses, we may find that additional technology will be needed. A commitment from administration to fund such requests is requested. A grant was awarded, for \$3600, to obtain the new TI-Inspire graphing calculators for use in the Methods courses.

VIII. Comments

Comments by Dean and/or Provost

IX. Actions Planned by the University

- | | |
|---|---|
| <input type="checkbox"/> Continue Program | <input type="checkbox"/> Continue Program and Revise as Indicated |
| <input type="checkbox"/> Place in Moratorium | <input type="checkbox"/> Interim Review |
| <input type="checkbox"/> Discontinue Program | <input type="checkbox"/> Reorganization |
| <input type="checkbox"/> Pursue Accreditation | <input type="checkbox"/> Other (Please explain below) |

_____	_____
Department Chair	Date
_____	_____
Program Coordinator	Date
_____	_____
Program Review Chair	Date
_____	_____
Provost or Vice President	Date