

Unit Missions

MAT Mission Statement

Mission statement

The purposes of the Department of Mathematics are to prepare teachers of mathematics for the elementary and secondary schools, to provide a foundation for professional careers in mathematics, and to provide for the mathematical needs of the general student.

Related Items

There are no related items.

Learning Outcomes

BS-MAT 01: LO Proficiency in College Algebra

Start: 7/1/2013

End: 6/30/2014

Learning Outcome

Demonstrate proficiency in basic knowledge of College Algebra topics.

Data Collection (Evidence)

The final examination in MAT 104 College Algebra will be used to determine the level of mastery of the topics in College Algebra. The examination is written each semester by a committee of faculty members who do not teach the course during that particular semester, and the examination material covers specific course objectives which have been defined by a committee of departmental faculty. All college algebra students take this common final examination during an exam period that is dedicated solely to this course. Following the administration of the final exam, an item analysis will be performed to determine areas of weakness and strength.

Results of Evaluation

An analysis of the fall 2013 semester examination, given by objective, is shown in the following table. The objective number corresponds to the published objectives for College Algebra (MAT 104). The final examination questions were matched to these thirteen objectives. The number of students that demonstrated mastery of each objective was computed. (The list of the course objectives is included in the appendix.)

Objective Number	Mastery Percentage 2012	Mastery Percentage 2013	Number of exam questions for that objective
1	54	51	9
2	56	62	3
3	71	59	3
4	60	62	4
5	37	62	3
6	76	61	3
7	45	31	3
8	41	48	4
9	58	56	4
10	53	56	4
11	37	25	3
12	47	52	5/4
13	36	26	2

Use of Evaluation Results

Based on the analysis from the 2008 – 2009 academic year, the final exam in the fall 2009 was completely reworked in terms of the number of questions, the number of questions which address each objective, and the directions for each question. Only minor changes were made for the fall 2013 exam. Each objective in this year's exam was tested with at least three questions with the exception of Objective 13. This objective incorporates a very particular type of problem and is a minor portion of the course as a whole. The directions and types of problems included in the exam came directly from the homework problem sets; this method of choosing exam questions was used so that the students would have problems to work which were identical to those which they had been used to seeing in their preparations for tests. In the spring semester 2013, the administration of the final exam on the computer was piloted. This was tried since all of the unit tests are given in this way. Most of the final examinations were taken in the computer lab in the fall semester 2013 (a few students requested a paper test).

When compared with the mastery level listed in the 2012 – 2013 report, the students appear to have done better on six of the thirteen objectives (2, 4, 5, 8, 10, and 12). A decline is noted in objectives 1, 3, 6, 7, 9, 11, and 13. The decline in this quantity of objectives is attributed to the department's loss of its computer lab due to the renovation of the building. The students did not have a computer lab to come to for assistance on a regular basis. For the 2014 – 2015 school year, the department has been granted access to two computer labs to be used for student tutoring as well as for mandatory lab time on designated week days. The department thinks that the loss of the availability of the lab had a detrimental effect on the performance of the college algebra students.

All sections of MAT 104 have retained much of the redesign proposed by this department to IHL and the National Center for Academic Transformation (NCAT). The students had some lecture time in which the course content was presented. The textbook and accompanying software package (Hawkes Learning System) were used by the students. All homework, quizzes, and unit tests were completed using the computer software. Before a student could take a unit test, the student had to complete a practice test covering the same topics and make the minimum required score. This was done to ensure that the students had prepared for the unit tests. The faculty noticed an improvement in the unit test scores for students who had prepared for the tests in this way. The faculty are continuing to explore means of improvement of student performance in the coming academic year.

Related Items



GE 01: Critical and Creative Thinking



GE 03: Quantitative Skills

BS-MAT 02: LO Understanding fundamentals of mathematics

Start: 7/1/2013

End: 6/30/2014

Learning Outcome

Demonstrate understanding of fundamental ideas, concepts, and applications of mathematics.

Data Collection (Evidence)

The capstone course for students in the BS program is MAT 490. In this course, the students read a variety of articles which included but were not limited to biographical writings about contemporary mathematicians, research articles, and articles about current topics in mathematics.

Additionally, the students explored mathematical questions in a research setting to understand better what research mathematicians do

The department requires that each student complete the ETS Major Field Test.

ETS Major Field Test Content Areas:

1. Calculus
2. Algebra (linear and abstract)
3. Other topics: advanced calculus, real analysis, discrete mathematics, probability and statistics, dynamical systems, point-set topology, geometry, differential equations, numerical analysis, and complex analysis.

Results of Evaluation

The students summarized four articles to be included in their portfolios. Each student made a presentation and led a class discussion on two of the chosen articles. The students learned skills in communicating complex ideas as well as learning how to approach new material with only limited knowledge of foundational ideas.

The students were engaged in trying to solve a problem about which they had no significant prior knowledge or justify an outcome of a problem about which they had no prior knowledge. The solution processes required the students to incorporate and integrate knowledge from several subject areas in order to resolve the problem.

At the beginning of the 2010 – 2011 academic year, the department reset the required minimum score on the Major Field Test. Based on the results of the previous year, it was decided that a minimum of 134 from the previous year would be raised to 140. It was believed that this was reasonable for our students considering that content is included on this test which is not covered in any of the classes which we offer at Delta State. Although this was considered a low score, the department determined that for the second year with a minimum requirement, this was reasonable. For the 2013 – 2014 year, the faculty determined to keep the score at 140. Three BS students took the test, and all students completed it successfully on the first attempt. The scores of these students were 151, 164, and 167. Each of the three students spent some time reviewing the content areas in preparation for the test. Review sessions were held in the spring semester for any student preparing for the Major Field Test.

Use of Evaluation Results

The students were successful in reading and summarizing the articles. In the future, articles will continue to be chosen based on the students' areas of interest.

Research-type questions will continue to be chosen based on the ability of the students as well as their interests and career goals. Connections between various branches of mathematics will continue to be stressed in the major content courses in the major.

The department is still trying to determine the best time for students to take this test. A couple of formal review sessions were held prior to the test this year, and the students asked for individualized help in preparing for the test prior to taking it. Because this examination contains content which is not taught in the curriculum, the department has decided to require the BS students to take the content area test in the Praxis series (Praxis II – 5161) and achieve an acceptable score based on the Mississippi Department of Education requirements for candidates seeking licensure. This is the test which is required for the secondary mathematics teacher education candidates, and this will allow one assessment for both degree programs.

Related Items

 **SPL.Ind02: National/Standardized Test Scores**

 **GE 01: Critical and Creative Thinking**

 **GE 02: Communication**

 **GE 03: Quantitative Skills**

 **GE 04: Inquiry and Technology**

 **GE 08: Perspectives**

BS-MAT 03: LO Communication of mathematical ideas

Start: 7/1/2013

End: 6/30/2014

Learning Outcome

Demonstrate the ability to communicate mathematics.

Data Collection (Evidence)

In each of the 400-level mathematics content courses, the students will read an article from the area of content covered in that particular course. The articles will be chosen by a committee of the faculty who teach those courses. Each student will write a synopsis of the article and also include a critique. Approximately 50 – 75% of the summary should be devoted to the content of the article, and the remainder should be devoted to the critique. The summary should demonstrate that the reader understands the mathematical content and purpose of the article. The grading of the summaries will be done by a committee of faculty who teach the

400-level content courses as prescribed by a rubric developed by the faculty members on this committee.

Results of Evaluation

Article summaries were written in five classes during the 2013 – 2014 year (MAT 405, 411, 415, 442, and 443). The committee read a total of twenty-seven summaries during the course of the year and graded them according to the rubric. On a scale of 0 to 5, the scores ranged from 1.5 to 5. The average was 2.76. Twelve of the students scored 3 or higher on this assignment. The committee noted that the students who have had experience with this type of assignment tended to produce a higher quality paper. The committee also noted that the type of article given to the classes is a major factor in the overall class scores for one of these assignments. (See the appendix for the rubric.)

Use of Evaluation Results

Related Items



GE 01: Critical and Creative Thinking



GE 02: Communication

≡ BSE-MAT 01: LO Proficiency in College Algebra

Start: 7/1/2013

End: 6/30/2014

Learning Outcome

Demonstrate proficiency in basic knowledge of College Algebra topics.

Data Collection (Evidence)

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Results of Evaluation

An analysis of the fall 2013 semester examination, given by objective, is shown in the following table. The objective number corresponds to the published objectives for College Algebra (MAT 104). The final examination questions were matched to these thirteen objectives. The number of students that demonstrated mastery of each objective was computed. (The list of the course objectives is included in the appendix.)

Delta State University Unit Level Report
Department: Mathematics

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Use of Evaluation Results

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When compared with the mastery level listed in the 2012 – 2013 report, the students appear to have done better on six of the thirteen objectives (2, 4, 5, 8, 10, and 12). A decline is noted in objectives 1, 3, 6, 7, 9, 11, and 13. The decline in this quantity of objectives is attributed to the department’s loss of its computer lab due to the renovation of the building. The students did not have a computer lab to come to for assistance on a regular basis. For the 2014 – 2015 school year, the department has been granted access to two computer labs to be used for student tutoring as well as for mandatory lab time on designated week days. The department thinks that the loss of the availability of the lab had a detrimental effect on the performance of the college algebra students.

All sections of MAT 104 have retained much of the redesign proposed by this department to IHL and the National Center for Academic Transformation (NCAT). The students had some lecture time in which the course content was presented. The textbook and accompanying software

package (Hawkes Learning System) were used by the students. All homework, quizzes, and unit tests were completed using the computer software. Before a student could take a unit test, the student had to complete a practice test covering the same topics and make the minimum required score. This was done to ensure that the students had prepared for the unit tests. The faculty noticed an improvement in the unit test scores for students who had prepared for the tests in this way. The faculty are continuing to explore means of improvement of student performance in the coming academic year.

Related Items



GE 01: Critical and Creative Thinking



GE 03: Quantitative Skills

BSE-MAT 02: LO Understanding fundamentals of mathematics

Start: 7/1/2013

End: 6/30/2014

Learning Outcome

Demonstrate understanding of fundamental ideas, concepts, and applications of mathematics.

Data Collection (Evidence)

Each student in the BSE program must pass the Praxis Math Content Test.

The department requires that each student complete the ETS Major Field Test.

ETS Major Field Test Content Areas:

1. Calculus
2. Algebra (linear and abstract)
3. Other topics: advanced calculus, real analysis, discrete mathematics, probability and statistics, dynamical systems, point-set topology, geometry, differential equations, numerical analysis, and complex analysis.

Results of Evaluation

The state department for licensure of teachers determines the passing score, and this score was raised from 123 to 128 (on test 0061). This change went into effect in September 2012. One student took the content test and passed on the first attempt. The passing score was 132. As of the fall semester 2013, the required test for licensure in Mississippi is 5161. No students in the program have taken this version of the test at this time. (NOTE: The one student referenced above has since changed from the BSE degree program to the BS degree program.

At the beginning of the 2010 – 2011 academic year, the department reset the required minimum score on the Major Field Test. Based on the results of the previous year, it was decided that a minimum of 134 from the previous year would be raised to 140. It was believed that this was reasonable for our students considering that content is

included on this test which is not covered in any of the classes which we offer at Delta State. Although this was considered a low score, the department determined that for the second year with a minimum requirement, this was reasonable. For the 2012 – 2013 year, the faculty determined to keep the score at 140. No BSE students took the test in the 2013 – 2014 academic year.

Use of Evaluation Results

The department will assist students in reviewing the content courses taken early in their program prior to the taking of the test.

The department is still trying to determine the best time for students to take this test. A couple of formal review sessions were held prior to the test this year, and the students asked for individualized help in preparing for the test prior to taking it. Because this examination contains content which is not taught in the curriculum, the department has decided to discontinue the use of this assessment. Instead, the department will require all degree-seeking students to take the content area test in the Praxis series (Praxis II – 5161) referenced above and achieve an acceptable score based on the Mississippi Department of Education requirements for candidates seeking licensure. This will allow one assessment for both degree programs.


Related Items

 **SPI.Ind02: National/Standardized Test Scores**

 **GE 01: Critical and Creative Thinking**

 **GE 02: Communication**

 **GE 03: Quantitative Skills**

 **GE 04: Inquiry and Technology**

 **GE 08: Perspectives**

BSE-MAT 03: LO Communication of mathematical ideas

Start: 7/1/2013

End: 6/30/2014

Learning Outcome

Demonstrate the ability to communicate mathematics.

Data Collection (Evidence)

In each of the 400-level mathematics content courses, the students will read an article from the area of content covered in that particular course. The articles will be chosen by a committee of the faculty who teach those courses. Each student will write a synopsis of the article and also include a critique. Approximately 50 – 75% of the summary should be devoted to the content of the article, and the remainder should be devoted to the critique. The summary should demonstrate that the reader understands

the mathematical content and purpose of the article. The grading of the summaries will be done by a committee of faculty who teach the 400-level content courses as prescribed by a rubric developed by the faculty members on this committee.

Results of Evaluation

Article summaries were written in five classes during the 2013 – 2014 year (MAT 405, 411, 415, 442, and 443). The committee read a total of twenty-seven summaries during the course of the year and graded them according to the rubric. On a scale of 0 to 5, the scores ranged from 1.5 to 5. The average was 2.76. Twelve of the students scored 3 or higher on this assignment. The committee noted that the students who have had experience with this type of assignment tended to produce a higher quality paper. The committee also noted that the type of article given to the classes is a major factor in the overall class scores for one of these assignments. (See the appendix for the rubric.)

Use of Evaluation Results

The department will continue to use this type of writing assessment by gathering data in all 400-level courses each semester. We will track those who made below 3 on the first assessment and look for improvement in later assignments. We are now using this assignment in all 400-level courses. It was noted again this year in the capstone course (MAT 490) that this type of assignment in the prior courses made the writing more manageable when creating documents to be included in the students' portfolios.

Related Items



GE 01: Critical and Creative Thinking



GE 02: Communication

BSE-MAT 04: LO Teaching mathematics

Start: 7/1/2013

End: 6/30/2014

Learning Outcome

Performs appropriate mathematics teaching skills.

Data Collection (Evidence)

This year the department continued the use of the Teacher Intern Assessment Instrument, the IHL mandated scoring instrument that last year replaced the Student Teacher Assessment Instrument (STAI). TIAI scores by both the supervisor and cooperating teacher were examined. These scores are based on written lesson plans for an entire unit as well as observation of the teaching of actual lessons throughout the spring semester. The possible scores were:

0 - unacceptable

1 - emerging

2 - acceptable

3 – target

When the cooperating and supervising teacher differed in their scores, the graduate was awarded the higher score.

Also considered were the scores in the Teacher Work Sample (TWS). This instrument allows the teacher intern not only to record both their efforts to develop lesson plans that meet the needs of all students, but also to reflect on their impact on student learning and to explore possibilities for future lessons. The possible scores were

- 1 - indicator not met
- 2 - indicator partially met
- 3 - indicator met

Only the supervising teacher scored this rubric.

A Mathematics Specific Addendum was added in which nineteen indicators, specific to the teaching of mathematics, were used to assess the candidates during the internship.

The possible scores were

- 1 – unacceptable
- 2 – acceptable
- 3 - target

Since this is the first year for this instrument to be used, there is no data for comparison.

Results of Evaluation









Results of Evaluation

There were no interns in the 2013 – 2014 school year. No evaluations were conducted.

Use of Evaluation Results

No interns were evaluated in the 2013 – 2014 school year. The indicators that have been identified in previous years will continue to be monitored as the interns are evaluated.

Related Items

-  **SPL.Ind02: National/Standardized Test Scores**
-  **GE 01: Critical and Creative Thinking**
-  **GE 02: Communication**
-  **GE 03: Quantitative Skills**
-  **GE 04: Inquiry and Technology**
-  **GE 07: Cultural Awareness**
-  **GE 09: Cross-disciplinary Appreciation**
-  **GE 10: Values**

Gen Ed Learning Outcomes

MAT_103_GE 01: Critical and Creative Thinking

Start: 7/1/2013

End: 6/30/2014

Gen Ed learning outcome (competency)

Developing sound analytical and reasoning skills and the ability to use them to think critically, solve problems, analyze logically and quantitatively, and effectively respond to change

Data Collection

The final examination in MAT 103 Quantitative Reasoning will be used to determine the level of mastery of the topics in this course. The examination is a comprehensive assessment of the course content. All questions on the examination are linked to the specific course objectives which have been defined by the departmental faculty. Following the administration of the final exam, an item analysis will be performed to determine areas of weakness and strength. (The course objectives are found in the Appendix.)

Results of Evaluation

An analysis of the fall 2013 semester examination, given by course objective, is shown in the following table. The objective number corresponds to the published objectives for Quantitative Reasoning (MAT 103). The final examination questions were matched to these nine objectives (with the exception of Objective 7). The number of students, expressed as a percentage, who demonstrated mastery of each objective was computed. (The list of course objectives is included in the appendix. Course objectives 1 – 6, 8, and 9 address General Education Competency 01.

Objective Number	Mastery Percentage 2012	Mastery Percentage 2013	Number of exam questions for that objective
1	64.60	71.13	23
2	64.29	71.38	13
3	37.50	38.00	2
4	53.97	58.22	18
5	46.43	50.77	13
6	52.86	62.67	5/3
7	48.45	0	23/0
8	41.96	32.00	4
9	44.78	48.62	13

Use of Results

Each course objective that was on this year's exam was tested with at least three questions with the exception of objective 3. This objective incorporates a particular type of problem and is a minor portion of the course content as a whole. When compared with the performance on the

examination in the fall of 2012, improvement was shown on all but one of the assessed objectives (Objective 8). Those objectives for which the mastery level was below fifty percent will be examined for possible revision of course content and teaching methodology for the 2014 – 2015 school year. Additional stress will be placed on the teaching of these specific objectives in order to improve the performance of the students in these areas.

Related Items



GE 01: Critical and Creative Thinking

MAT_103_GE 03: Quantitative Skills

Start: 7/1/2013

End: 6/30/2014

Gen Ed learning outcome (competency)

Enhancing abilities for symbolic and numeric reasoning and the ability to use and understand statistical and other quantitative techniques to interpret data

Data Collection

The final examination in MAT 103 Quantitative Reasoning will be used to determine the level of mastery of the topics in this course. The examination is a comprehensive assessment of the course content. All questions on the examination are linked to the specific course objectives which have been defined by the departmental faculty. Following the administration of the final exam, an item analysis will be performed to determine areas of weakness and strength. (The course objectives are found in the Appendix.)

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1	64.60	71.13	23
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Related Items

 **GE 03: Quantitative Skills**

MAT_104_GE 01: Critical and Creative Thinking

Start: 7/1/2013

End: 6/30/2014

Gen Ed learning outcome (competency)

Developing sound analytical and reasoning skills and the ability to use them to think critically, solve problems, analyze logically and quantitatively, and effectively respond to change

Data Collection

The final examination in MAT 104 College Algebra will be used to determine the level of mastery of the topics in College Algebra. The examination is written each semester by a committee of faculty members who do not teach the course during that particular semester, and the examination material covers specific course objectives which have been defined by a committee of departmental faculty. All college algebra students take this common final examination during an exam period that is dedicated solely to this course. Following the administration of the final exam, an item analysis will be performed to determine areas of weakness and strength.

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Department: Mathematics

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of the availability of the lab had a detrimental effect on the performance of the college algebra students.

All sections of MAT 104 have retained much of the redesign proposed by this department to IHL and the National Center for Academic Transformation (NCAT). The students had some lecture time in which the course content was presented. The textbook and accompanying software package (Hawkes Learning System) were used by the students. All homework, quizzes, and unit tests were completed using the computer software. Before a student could take a unit test, the student had to complete a practice test covering the same topics and make the minimum required score. This was done to ensure that the students had prepared for the unit tests. The faculty noticed an improvement in the unit test scores for students who had prepared for the tests in this way. The faculty are continuing to explore means of improvement of student performance in the coming academic year.

Related Items

 **GE 01: Critical and Creative Thinking**

MAT_104_GE 03: Quantitative Skills

Start: 7/1/2013

End: 6/30/2014

Gen Ed learning outcome (competency)

Enhancing abilities for symbolic and numeric reasoning and the ability to use and understand statistical and other quantitative techniques to interpret data

Data Collection

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Delta State Univeristy Unit Level Report
Department: Mathematics

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Related Items



GE 03: Quantitative Skills

Unit Goals

MAT 2014_01: Improvement of writing skills

Start: 7/1/2013

End: 6/30/2014

Unit Goal

To improve the writing skills of all mathematics majors.

Evaluation Procedures

The department will monitor the pass/fail rate on the Writing Proficiency Exam and on the writing component of the Praxis.

Actual Results of Evaluation

Test: WPE		
	PASS	FAIL
2006-2007	0	3
2007-2008	1	2
2008-2009	3	0
2009-2010	3	4
2010-2011	1	2
2011-2012	1	1
2012-2013	2	0
2013-2014	1	2
Test: Praxis Writing		
	PASS	FAIL
2006-2007	3	0
2007-2008	3	0
2008-2009	2	0
2009-2010	3	0
2010-2011	4	1
2011-2012	0	0
2012-2013	2	1
2013-2014	1	0

In the 2013 – 2014 academic year, one of the three students who took the writing proficiency exam passed this assessment. When looking at the data for the past five years, there is no trend in the pass/fail numbers for the writing proficiency exam. In one year, each student failed the test, but in another year, each student passed. In the current academic year, one student took the writing portion of Praxis I. This student passed this examination.

Use of Evaluation Results

The Department of Mathematics will continue to make a more concerted effort to implement the following plans to try to improve the writing ability of our students.

1. Each faculty member will include at least one question on each test in upper level classes that requires students to provide written explanations of concepts. Evaluation of the answers to such questions will include mathematical content and also spelling, grammar, and sentence construction.

2. All classes above the 200 level that are taken by mathematics majors will require writing in the form of written projects and essay portions of the exams. The written projects will concern an important concept in the course and may include reading and summarizing mathematics articles. Students should turn in a rough draft, receive feedback from the instructor, and then turn in a final draft. These projects will be graded for content and writing. A comparison of samples collected in the classes will be made to determine if individual students are improving.

We expect to see continued improvement in the writing skills of our majors as we continue to stress the importance of writing in our classes over the course of the semesters in which our majors are enrolled. If there is no improvement, we will work with the writing lab to try to assist our students in improving their writing skills

Related Items

 **SPL.Ind02: National/Standardized Test Scores**

MAT 2014_02: Using technology

Start: 7/1/2013

End: 6/30/2014

Unit Goal

Prepare students to teach using appropriate technology and prepare students who will enter the work force in non-teaching jobs to function in today's technology dependent society.

Evaluation Procedures

MAT 099 (Intermediate Algebra) was taught using a traditional teaching method with classroom lectures and practice problems and some in-class examples coming from the textbook. Other examples are presented in a manner comparable to methods unique to the Hawkes Learning System program if different from traditional methods or examples from the text. Mandatory quizzes and tests were assigned online using the Hawkes Learning Systems Course Management System software. With the HLS software, the students become more actively engaged in their learning experience because they are required to interact with the learning software to successfully complete assignments. In addition to completing assignments, the students can listen to and watch lectures on the topics if they are still having difficulty after class. It also provides consistency for all the MAT 099 sections offered at DSU. HLS requires students to demonstrate "mastery" learning in doing the homework. Success is based on 80% mastery, and 80% mastery is achieved by completing the homework without getting 20% of the answers incorrect. If a student answers more than 20% of the problems incorrectly, the program will force that student to start over. For tests and quizzes, the grade is immediately entered

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electronically into the instructor's grade book giving the student immediate credit for the assignment. At the end of a test, students can check incorrect answers and review the correct answers to the problems they solved incorrectly. In some sections of this class, PowerPoint presentations were posted online on CANVAS so that students could review the slides at a later time. Survey Monkey was used to administer several surveys related to the class. Clickers were used in class for students to respond to questions related to the lecture.

MAT 104 (College Algebra) was taught with a traditional teaching method with classroom lectures and practice problems and some in-class examples coming from the textbook. Other examples were presented in a manner comparable to methods unique to the Hawkes Learning System program if different from traditional methods or examples from the text. Mandatory homework, quizzes, and tests were assigned online using the Hawkes Learning Systems Course Management System software. With the HLS software, the students become more actively engaged in their learning experience because they are required to interact with the learning software to successfully complete assignments. Further discussion of MAT 104 and the results are contained under Goal #4.

Although we still use the textbook for some of the assignments in MAT 105 (College Trigonometry), our department uses MyMathLab for online homework assignments in this courses. We started using MyMathLab during the 2011 fall semester. The average from homework assignments and quiz grades has the same weight as a major test grade in the computation of the final grade. No unit tests were given using the software component.

MAT 215, Mathematics Technology, is a course designed to further mathematics students' knowledge of technology and the uses of technology. The instructor's assignments were such that the students gained proficiency in using learning management systems, electronic survey software, web-page creation tools, word processing tools, drawing tools, presentation tools, screen-casting and pod-casting tools, spreadsheet tools graphing calculators, computer algebra systems statistical computing systems, geometric visualization tools, virtual manipulative tools, NCTM Illuminations interactive tools, apps for mathematics education, software for mathematics education, games for mathematics education, and websites for mathematics education. Assignments related to these topics were assigned to the students to complete using the available technology and comprised a virtual portfolio.

In MAT 252, Calculus II, graphing calculators were used to perform numerical integration in addition to performing tedious computations. The students were tested on these methods and concepts on one of the course assessments.

In MAT 254, Calculus IV, the students encounter problems throughout the course which are more easily understood if the graph of the three-dimensional figure is seen. The students were taught how to use DERIVE 5 to accomplish the graphing and also some other complex manipulations. To determine if the students have mastered the techniques to use this computer algebra system effectively, an activity was performed by each of the students and assessed to determine their proficiency with the software package. The scores of the students who complete this activity ranged from 55 to 100, and the average of the class was 87.

In MAT 300, Applied Probability and Statistics, lab assignments utilizing Microsoft Excel were part of the course. The focus of these labs were 1) constructing frequency distributions and drawing graphs, 2) computing standard deviation, and 3) computing p values from the student's t distribution and the Gaussian distribution. Within the course, each lab assignment was graded and was part of the student's overall quiz average which counted as a major test grade.

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MAT 322 is a course in differential equations. Early in the semester, this class meets in our department's computer lab for a DERIVE 5 demonstration. DERIVE 5 is a computer algebra program. It processes algebraic variables, expressions, equations, and functions. It can perform numeric and symbolic computations, algebra, trigonometry, calculus, and plot graphs in 2 and 3 dimensions. Individual homework problems assigned in MAT 322 constitute 50% of the grade in the class. Due to the nature of the problems assigned in this class, the verification of answers to homework questions often entails tedious computations involving derivatives and algebraic processes. Students are required to verify answers to homework problems before submitting them for grading. For students who fail to verify answers and who consequently get incorrect answers, papers are returned to the student with no credit awarded. The student then gets the opportunity to resubmit a corrected version of the problem for a maximum of 80% credit. The software is also used to create graphs for solution functions in this course.

In MAT 405, History of Mathematics, students used Geometers Sketchpad and Microsoft Excel to complete assignments which included the construction of inscribed and circumscribed polygons and the convergence of ratios to the number pi. The students also used appropriate technologies in making presentations to the class.

In MAT 411, Geometry, the students investigated basic geometric constructions using Geometers Sketchpad.

In MAT 415, Discrete Mathematics, some complex computations come into play in the course. The use of a computer algebra system such as DERIVE 5 aids in performing the computations while allowing the students to focus on the main concept which is how the solution is obtained and where the solution is located. The students had an activity in which they solved some difficult problems through the use of generating functions with the program DERIVE 5 performing the computations.

Actual Results of Evaluation

Students' grades in MAT 099 are shown for the past eight academic years. After showing some improvement in the passing rates, there was again an improvement in the fall semester of the current academic year. Improvement in the passing rate continued in the spring semester. It should be noted that the spring enrollment in this class was unusually low (40 students) when compared with the enrollment in previous spring semesters.

MAT 099	Pass	Fail		Pass	Fail
Fall 2006	63.08%	36.92%	Spring 2007	45.95%	54.05%
Fall 2007	49.66%	50.34%	Spring 2008	33.85%	66.15%
Fall 2008	51.85%	48.15%	Spring 2009	42.55%	57.45%
Fall 2009	38.98%	61.02%	Spring 2010	48.94%	51.06%
Fall 2010	36.61%	63.39%	Spring 2011	67.92%	32.08%
Fall 2011	47.22%	52.78%	Spring 2012	51.72%	48.28%
Fall 2012	57.58%	42.42%	Spring 2013	41.94%	58.06%
Fall 2013	61.11%	38.89%	Spring 2014	82.50%	17.50%

The use of the online system, MyMathLab, in MAT 105 (College Trigonometry) began in the fall semester of 2011. This system was used for the delivery of homework assignments to the students. The table below shows a comparison of the course grades (pass = grade of D or better)

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in the years since the software component was implemented. More data will be gathered in the next year for comparison purposes.

MAT 105	Pass	Fail
2010 – 2011	68.5%	31.5%
2011 – 2012	69.1%	30.9%
2012 – 2013	77.1%	22.9%
2013 – 2014	77.0%	23.0%

In MAT 215, Mathematics Technology, the students learned about the various programs which can be used in teaching mathematics to students through using these technologies in problem solving. The grades on the assignments indicate that the students mastered the use of the software packages for use in this way. All students earned a course grade of A.

In MAT 252, Calculus II, the students performed numerical integration on one of the course tests. The results indicated that the students made fewer calculation errors in the use of the numerical methods.

All students in MAT 254, Calculus IV, completed the technology-dependent activity. The scores on this activity ranged from 55 – 100, and the average of the class was 87. This indicates that the students were proficient with most aspects of the software package and could use it to assist them in achieving a better understanding of the problems which they were assigned in class.

In MAT 300, Applied Probability and Statistics, the three concepts defined above were assessed individually. In the fall semester, the class average on assignment 1) was 6.9 out of 10, and in the spring semester, the class average on assignment 1) was 6.5 out of 10 on the first concept; assignments 2) and 3) were not assessed in the fall. The class averages on assignments 2) and 3) in the spring semester were 7.7 and 6.0, respectively.

For MAT 322, Differential Equations, even though DERIVE 5 has the capability of solving differential equations, students are not allowed to use the software for this purpose. The students are required to show every detail of the work involved in solving the differential equations. They use DERIVE 5 to verify their answers to homework problems. They must also indicate on each problem exactly how the answer was verified. Those who decide to verify answers by hand typically have calculation errors in their work and therefore do not earn as much credit as they would have earned if they had used technology to verify the answer. When the technology is used and an answer cannot be verified, this is an indication to the student that there are errors in the problem solution. At this point, students are forced to analyze their work and employ critical thinking and problem solving skills to find the errors and correct them. The grades in the class for the spring 2014 semester indicate that the students were successful in using technology in the class. All of the students enrolled in the course received grades of C or better. The results can be used to conclude that the use of DERIVE 5 was effective.

In MAT 405, History of Mathematics, most students who completed the assignments did so with no flaws indicating that the technology was mastered and was used proficiently in completing the assignments. Two students made a 3 or less on one or more assignments indicating that they had some difficulty with the assignment. Overall, the performance of the class shows that the technological tools are beneficial in solving and verifying the solution to the problems presented in the class.

In MAT 411, Geometry, all students who completed the assignments did so with no flaws indicating that the technology was mastered and was used proficiently in completing the assignments.

The technology-dependent activity in MAT 415 was graded, and the range of grades was 71 – 100 with a class average of 81 for those students who completed the assignment. Because the students had difficulty with setting up the problems with pencil and paper prior to entering formulas into the software to be solved, the grades on this activity were low. Once the students had a formula, whether right or wrong, they were able to use the technology correctly. This indicated that the students had an above average grasp of the technology being used even though the solutions were incorrect for the assigned problems.

Use of Evaluation Results

Because this course is of concern statewide, MAT 099 will continue to be monitored closely. More emphasis on the students completing their homework assignments and actually using the tutorial portions of the Hawkes Learning Systems software will continue. Evidence shows that students who completed at least 60% of the homework achieved a degree of success in the class.

In MAT 105, College Trigonometry, the initial results indicate improvement in grades after the implementation of the online system, MyMathLab. Because of this, the system will continue to be employed in the next academic year in this course as the faculty continue to find ways to improve student learning in the course.

In MAT 215, Mathematics Technology, the students gained knowledge of various software programs and electronic tools needed to complete the various assignments, and further, the students demonstrated a mastery of this software and tools as it related to the problems being solved.

In MAT 252, the grades on the course assessment indicate that the students are learning both how to use the technology and the basic concepts behind the methods. Implementation of the technology, whether with a handheld device or with some other computing technology will continue to be integrated in the course as a means for assisting the students in mastering some of the course concepts.

The students in MAT 254, Calculus IV, benefitted from knowing how to use the computer software, Derive 5, to graph surfaces and curves in three dimensions. Because it helped them to “see” what they were working with, the students had more confidence in performing the problem-solving techniques which involved these different types of structures. Derive 5 will continue to be used in this class to assist the students in understanding the types of things with which they are working.

For MAT 300, the above averages are considered as well as the comments from student evaluations to determine whether adjustments need to be made in the teaching/grading of the lab assignments. Because the class has been rescheduled from Monday/Wednesday/Friday to Tuesday/Thursday, fewer lab assignments can be completed.

The students in differential equations, MAT 322, in previous semesters have indicated on their course evaluations the value of using the computer software to assist in the problem solving. The use of the software will continue in this class, and the students will be encouraged to apply the techniques in other classes.

In MAT 405, History of Mathematics, the integration of technology proved to be beneficial in aiding the students master the concepts. Similar assignments will be incorporated in the course in the future.

In MAT 411, Geometry, because all students did not complete the assignments, more weight will be given to the assignments in the future and all students will be encouraged to complete them. The students who did complete the assignments indicate that the technology is a beneficial tool when integrated in the course.

The students in MAT 415 benefited from the use of the computer algebra system in solving problems. They understood better after the assignment the importance of correctly setting up problems; the computer took care of the complex computations involved. Similar activities will be incorporated in this class the next time that the class is taught.

Related Items

 **SP1.Ind07: Resources: access to appropriate library and learning resources**

MAT 2014_03: High School Mathematics Event

Start: 7/1/2013

End: 6/30/2014

Unit Goal

Host an annual mathematics event to be held each year on our campus and sponsored by the Department of Mathematics.

Evaluation Procedures

Because of the ongoing renovations to Caylor/White/Walters Halls and the displacement of the Department of Mathematics, the annual mathematics tournament for high school students was not held. The loss of classroom space in addition to the relocation of faculty and materials would have made preparations and hosting the event very difficult.


Actual Results of Evaluation

There are no results to report.

Use of Evaluation Results

There are no results to report. The Department of Mathematics is considering alternative ideas for the future. The Department recognizes the importance of hosting an annual event as a means for challenging young students, encouraging the study of mathematics, and recruiting students who are strong in mathematics to programs on this campus.

Related Items

 **SP2.Ind01: Enrollment**

 **MAT 2014_04: College Algebra**

Start: 7/1/2013

End: 6/30/2014

Unit Goal

Revise the MAT 104, College Algebra, course that includes a technology component.

Evaluation Procedures

During the 2013 – 2014 academic year, the college algebra instructors continued to use the computer package provided by Hawkes Learning Systems for student homework, online quizzes, and online testing. The classes, originally modeled after the emporium model prescribed by the National Center for Academic Transformation, were modified to include more lecture time. Mandatory homework assignments were required for each section of the textbook which was covered. The instructors selected the homework exercises, and the students completed these assigned problems on the computer. The student responses were graded by the computer system which provided immediate feedback to the students after each problem by indicating that the problem was solved correctly or allowing the student to see a step-by-step solution to the problem or see a detailed solution to the problem with annotated comments if the problem was solved incorrectly. All unit tests were taken in the computer lab. The software system assessed the answers and posted grades immediately to the instructors’ grade books.

Practice tests were made available to the students before each unit test, and the students were encouraged to take the practice tests as many times as possible in order to improve their chance of passing the scheduled test. In some sections, the students were required to take the practice test and achieve a score in a predetermined range before taking a unit test. Complete data is not available for this intervention, but preliminary results indicate that students did better on the actual tests after they had taken the practice test and were required to achieve a minimum score.

Actual Results of Evaluation

The data in the table below show the pass/fail rates for students on the Delta State campus in MAT 104 for the past nine academic years.

	Pass	Fail		Pass	Fail
Fall 2004	54.98%	45.02%	Spring 2005	31.79%	68.21%
Fall 2005	51.03%	48.97%	Spring 2006	52.57%	47.43%
Fall 2006	49.80%	50.20%	Spring 2007	39.02%	60.98%
Fall 2007	47.27%	52.73%	Spring 2008	27.98%	72.02%
Fall 2008	39.36%	60.64%	Spring 2009	32.84%	67.16%
Fall 2009	36.64%	63.36%	Spring 2010	34.13%	65.87%
Fall 2010	38.25%	61.75%	Spring 2011	33.58%	66.42%
Fall 2011	40.00%	60.00%	Spring 2012	35.22%	64.78%
Fall 2012	48.34%	51.66%	Spring 2013	31.48%	68.52%
Fall 2013	36.57%	63.43%	Spring 2014	28.39%	71.61%

Because of the ongoing renovation of Caylor/White/Walters Halls, the Department of Mathematics was moved out during the summer of 2013. Because of this, faculty offices are not located in the building where the classes are held. This, combined with the loss of dedicated computer lab space, has contributed to the students not performing at the levels achieved in previous years. Computer lab space was not available on a regular basis for students to work on homework assignments and quizzes in a supervised setting. Individualized tutoring of students was more difficult to manage. The computer labs were reserved for testing purposes only.

Use of Evaluation Results

The data above clearly indicate a disturbing trend over the past nine years. The passing rate in the fall semesters for the six years represented by the data for 2004 to 2009 continued to decline in spite of the implementation of the computer component and the emporium model for delivery of the course content. The passing rate was increased slightly in the fall semester 2010 for the first time in the reporting period, and the rate was again increased in the fall semester 2011 and in the fall semester 2012. The higher failure rate is attributed in part to the loss of partial credit on quizzes and tests. The instructors also feel that the students are not as prepared for the level of competence required for success in the course with the newer delivery methods. The failure rate in the spring semesters has begun to decrease since the Spring semester of 2008 although it did increase slightly in the Spring 2011 and again in the Spring 2013 semesters, and it is believed that this is in part due to the fact that a number of the students who were unsuccessful in the fall semester have passed on a subsequent attempt in the spring semester. Also, students who have successfully completed MAT 099 (Intermediate Algebra) in the fall semester have been introduced to the same software in that course and are more comfortable with that type of learning environment as a result. The department is concerned about the disturbing trend in the data and is continuing to look for ways to make course revisions to assist the students in being successful in completing this course. The use of cooperative study groups was implemented in some sections of the course during the year, and this avenue of assisting in student learning will be explored more next year. Additionally for the 2014 – 2015 school year while the department is still displaced, lab space is being reserved on a weekly basis for students so that they can have access to tutors as they work assignments for homework. The quizzes will also be taken in a supervised setting with this setup.

Related Items

There are no related items.

MAT 2014_05: Recruitment and Retention

Start: 7/1/2013

End: 6/30/2014

Unit Goal

Recruit students to the university and to the mathematics programs and retain students in our programs.

Evaluation Procedures

The departmental faculty anticipated participating in a number of college fairs and other events as a means of recruiting students to Delta State University and the Department of Mathematics. In terms of retention efforts, the faculty advisors work diligently with our majors to ensure that the students are staying on track to graduate in a timely manner with the courses they select for each semester. The advisors in the department also work with the students on a regular basis and encourage them to get assistance if they are having difficulties with their academics or with areas of their personal lives. In terms of working with students who are not majoring in mathematics, the faculty in the department hold regular help sessions for the students in their classes especially prior to major tests in order to provide the needed assistance to the students.

Actual Results of Evaluation

For recruitment, the faculty participated in college and majors fairs both on campus and off campus. The faculty also met with prospective students when they were on campus for a visit. For retention, the faculty have seen improvements in the number of students who continue to stay in classes and try to complete the courses as a result of the interventions that have been put in place. Attitudes of some students are better as a result of the additional opportunities for assistance.

Use of Evaluation Results

The faculty will continue to participate in college and career fairs when given the opportunity. The faculty will continue to provide opportunities for the students to get assistance and be successful in their educational pursuits. We will monitor recruitment and retention efforts to determine the effectiveness of these practices.

Related Items

  **SP2.Ind01: Enrollment**

  **SP2.Ind02: Retention**

 **MAT 2014_06: Data standards and Data integrity**

Start: 7/1/2013

End: 6/30/2014

Unit Goal

The faculty members in the Department of Mathematics will attend technology training sessions.

Evaluation Procedures

The departmental will participate in appropriate technology training sessions to enhance their effectiveness in the classroom.

Actual Results of Evaluation



Some members of the faculty participated in training sessions dealing with web page design, use of CANVAS, and Hawkes Learning Systems and Wiley Plus (mathematics specific computer applications). Training for special teaching tools such as Texas Instruments products (TI Inspire and TI-84 Plus) and Promethean board were attended by some faculty. Some faculty also attended the Technology in Teaching Symposium sponsored by OIT in April and the TOPHAT demonstration in May.

Use of Evaluation Results

The training sessions in which the faculty participated helped each one to enhance his teaching. Not every faculty member participated in any one training event, but each faculty member participated in at least one training event during the year. By allowing the faculty to participate in events that are most appropriate for the courses that they teach has allowed the faculty to choose and incorporate technologies that are more appropriate for their teaching areas. The faculty will continue to participate in training sessions dealing with technologies that enhance teaching and delivery of course content in the future.

Related Items

  **SP3.Ind04: Technology training**

  **SP4.Ind10: Data Integrity**

Section IV.a
Brief Description
Judgment

- Meets Standards Does Not Meet Standards Not Applicable

Narrative

The purposes of the Department of Mathematics are to prepare teachers of mathematics for the elementary and secondary schools, to provide a foundation for professional careers in mathematics, and to provide for the mathematical needs of the general student.

The Department offers a major in mathematics in the B.S. degree and a major in mathematics education in the B.S. in Education degree. The Department also offers a program of pre-engineering designed for the student who wishes to complete a portion of an engineering curriculum before attending an engineering school.

The Department has no active degree granting graduate program, however, graduate hours are offered through institutes and special courses.

Section IV.b
Comparative data

Enrollment, CHP, majors, graduation rates, expenditures, trends, etc.

Judgment

- Meets Standards Does Not Meet Standards Not Applicable

Narrative

Credit Hour Production						
	Summer 2013		Fall 2013		Spring 2014	
	UG	GR	UG	GR	UG	GR
Mathematics (MAT)	81	0	1515	0	1238	0

Enrollment by Major						
	Summer 2013		Fall 2013		Spring 2014	
	UG	GR	UG	GR	UG	GR
Math	1	0	15	0	11	0
Math Education	0	0	11	0	9	0
Total	1	0	26	0	20	0

2013-14 Graduates	
Mathematics	
BS	3
Mathematics Education	
BSE	0

[Trend Data 2010-14 Mathematics](#)

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	S 06	F 06	Sp 07	S 07	F 07	Sp 08	S 08	F 08	Sp 09	S 09	F 09
*TCH-UG	183	2538	1979	159	2248	1776	81	2226	1348	96	2032
*TCH-GR	102	0	0	72	0	0	78	0	0	72	0
Totals	285	2538	1979	231	2248	1776	159	2226	1348	168	2032
Number of Majors											
Mathematics	4	23	20	3	22	19	3	18	17	6	25
Mathematics Ed	3	24	21	2	20	18	2	17	14	3	27
Total	7	47	41	5	42	37	5	35	31	9	52
Grade Distribution											
A	17	106	105	16	95	56	6	91	64	8	55
B	12	124	116	12	123	84	10	107	76	7	104
C	18	177	133	6	162	120	3	123	91	9	120
D	4	104	97	9	101	70	4	90	55	6	62
F	12	233	189	13	213	201	6	167	124	5	168
W	6	53	36	6	41	20	3	35	37	5	56
Other (I, IP, AU)	4	4	3	0	2	1	0	29	2	0	1

	Sp 10	S 10	F 10	Sp 11	S11	F 11	Sp 12	S12	F 12	Sp 13	S 13	F 13	Sp 14
TCH-UG	1395	102	1814	1442	114	1728	1506	87	1587	1315	81	1515	1238
TCH-GR	0	66	0	0	78	0	0	0	0	0	0	0	0
Totals	1395	168	1814	1442	192	1728	1506	87	1587	1315	81	1515	1238
Number of Majors													
Mathematics	17	0	24	20	3	15	19	5	22	18	1	15	11
Mathematics Ed	20	5	23	18	5	20	14	2	12	5	0	11	9
Total	37	5	47	38	8	35	33	7	34	23	1	26	20
Grade Distribution													
A	70	10	74	63	10	62	98	0	67	68	0	70	52
B	78	6	96	114	5	90	102	3	102	99	0	91	83
C	112	6	106	95	10	126	102	6	121	95	2	98	104
D	78	5	71	53	2	58	51	1	55	54	2	68	57
F	116	4	114	92	8	163	107	4	103	104	8	91	76
W	59	0	1	0	0	0	0	0	0	0	0	0	0
Other (I, IP, AU)	7	0	4	3	0	3	4	0	2	3	0	2	4

*TCH-UG – Total Credit Hour Undergraduate

*TCH-GR – Total Credit Hour Graduate

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There are two courses that are taught in the mathematics department that do not appear on the printout of faculty load or credit hour production—MAT 099 and CUR 487. The following table indicates the enrollment in those courses.

Enrollment	F 06	Sp 07	F 07	Sp 08	F 08	Sp 09	F 09	Sp 10	F 10	Sp 11	F 11	Sp 12	F 12	Sp 13	F 13	Sp 14
MAT 099	130	37	143	65	109	56	117	47	112	53	72	37	98	28	91	42
CUR 487	4	0	9	0	3	0	4	0	7	0	3	0	0	0	2	0

Students who are required to take MAT 099 must pass the course in their freshman year. Those students who are unsuccessful in the course in the fall semester or who were not able to register for the class in the fall must be enrolled in the course in the spring.

Number of Graduates

	2005 - 06	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12	2012 - 13	2013 - 14
BS degree	1	4	2	2	4	4	1	4	3
BSE degree	5	4	5	6	3	3	3	3	0

Advisees per Faculty Member*

	2005 - 06	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12	2012 - 13	2013 - 14
Hebert	1	1	3	4	?	6	9	6	5
Horton					11	9			
Norris	9	16	11	8	14	16	10	5	5
Strahan	14	12	15	7					
Virden			2	6	8	6	9	6	3
Wear	12	12							
Wingard	16	14	12	15	15	15	17	17	17

*The numbers reflect students majoring in mathematics and those students with an undecided major assigned advisors in this department

Writing Proficiency Exam

	2005 - 06	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11	2011 - 12	2012 - 13	2013 - 14
Credit	6	0	1	3	3	1	1	2	1
No credit	1	3	2	0	4	2	1	0	2

Praxis

	2005 – 06	2006 – 07	2007 – 08	2008 – 09	2009 – 10	2010 – 11	2011 – 12	2012 – 13	2013 – 14
PPST	Pass/Fail	Pass/Fail	Pass/Fail	Pass/Fail	Pass/Fail	Pass/Fail	Pass/Fail	Pass/Fail	Pass / Fail
Math	2 0	2 0	0 0	0 0	2 0	5 0	1 0	3 0	1 0
Reading	2 0	0 1	0 0	0 0	2 0	4 2	2 0	2 0	1 0
Writing	1 1	2 0	3 0	2 0	2 0	4 2	1 2	2 1	1 0
PLT	1 0	2 1	6 0	2 0	3 0	3 1	3 1	0 1	0 1
Math content area test	4 2	3 0	6 4	3 0	4 0	3 1	5 2	1 1	2 0

Sources

 [Trend Data 2010-14 Mathematics](#)

Section IV.c

Diversity Compliance Initiatives and Progress

Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

None.

Section IV.d

Economic Development Initiatives and Progress

Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

None.

Section IV.e

Grants, Contracts, Partnerships, Other Accomplishments

Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

The Department of Mathematics partnered with the College of Education to secure an NSF-funded mathematics/science partnership grant for the training of mathematics teachers of the middle grades in the Delta region. Campus workshops began in June 2013 for two 20-member cohorts. The grant was extended for the 2014 – 2015 school year. Summer workshops on campus were again held in June 2014 for two 20-member cohorts.

Section IV.f

Service Learning Data

List of projects, number of students involved, total service learning hours, number of classes, faculty involved, accomplishments.

Judgment

- Meets Standards Does Not Meet Standards Not Applicable

Narrative

None.

Section IV.g

Strategic Plan Data

Only use this section if you have strategic plan info to report that is not covered in other areas of your report

Judgment

- Meets Standards Does Not Meet Standards Not Applicable

Narrative

Indicators	Baseline FY 2009 (08 - 09)	FY 2010 (09 - 10)	FY 2011 (10 - 11)	FY 2012 (11 - 12)	FY 2013 (12 - 13)	FY 2014 (13 - 14)
3.11 Number of professional development activities by FT faculty	5	8	9	4	7	13
3.12 Number of scholarly contributions by FT faculty	5	8	9	6	5	9
3.13 Number of service activities by FT faculty	11	5	9	17	26	28

Section IV.h

Committees Reporting To Unit

Each unit includes in the annual plan and report a list of the committees whose work impacts that unit or any other aspect of the university; along with the list will be a notation documenting the repository location of the committee files and records. Committee actions affecting the unit’s goals may be noted in other applicable sections of the annual reports. Not required to be included in the unit’s annual plan and report, but required to be maintained in the repository location, will be a committee file that includes, for each committee: Mission and by-laws, Membership, Process, Minutes.

Judgment

- Meets Standards Does Not Meet Standards Not Applicable

Narrative

The Curriculum Committee of the Department of Mathematics files are housed in Walters 270I (now Broom 280).

The Tenure and Promotion Committee of the Department Mathematics files are housed in Walters 270A (now Broom 281).

Section V.a

Faculty (Accomplishments)

Noteworthy activities and accomplishments

Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

- Dr. Liza Cope presented "Applications of Conditional Probability and Independence" at the annual meeting of the Mississippi Council of Teachers of Mathematics in Biloxi, Mississippi, in September 2013.
- Dr. Liza Cope made a presentation at the American Educational Research Association annual meeting in Philadelphia, Pennsylvania, in April 2014.
- Dr. Liza Cope wrote "The impact of teachers' characteristics and self-reported practices on student algebra achievement" which was published in the fall 2013 issue of the Delta Journal of Education.
- Dr. David Hebert presented "How to Get MAD" at the annual meeting of the Mississippi Council of Teachers of Mathematics in Biloxi, Mississippi, September 2013.
- Dr. Hebert was elected to the Friends of Dahomey Board of Directors as Vice President.
- Dr. Paula Norris presented "Factoring Trinomials" at the annual meeting of the Mississippi Council of Teachers of Mathematics in Biloxi, Mississippi, September 2013.
- Dr. Lee Virden presented "Statistical Leaps Through Apps" at the annual meeting of the Mississippi Council of Teachers of Mathematics in Biloxi, Mississippi, September 2013.
- Dr. Liza Cope and Dr. Lee Virden presented a workshop for junior high girls, "Nailing Math," at the Tech Savvy Conference held on the Delta State University campus in March, 2014.
- Dr. Virden serves as president of the Delta State University chapter of Phi Kappa Phi Honor Society.
- Dr. Clifton Wingard presented "Of Circles, Squares, and Areas" at the annual meeting of the Mississippi Council of Teachers of Mathematics in Biloxi, Mississippi, September 2013.
- Dr. Clifton Wingard presented "This is Radical (and Irrational)" at the annual meeting of the National Council of Teachers of Mathematics in New Orleans, Louisiana, April 2014.
- Dr. Wingard served on the Section NExT Committee for the Louisiana/Mississippi Section of the Mathematical Association of America.
- Dr. Wingard served on the Teacher Education Council and the Assessment Committee for the College of Education.
- Dr. Wingard served as a report reviewer for NCTM/NCATE in the fall and spring semester.

Section V.b
Staff (Accomplishments)
Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

None.

Section V.c
Administrators (accomplishments)
Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

None.

Section V.d
Position(s) requested/replaced with justification
Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

No new positions requested. Dr. Liza Cope began as a tenure-track faculty member in the fall semester 2013.

Section V.e
Recommended Change(s) of Status
Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

None.

Section VI.a
Changes Made in the Past Year
Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

The special degree requirements for the BS degree in mathematics were modified to allow for some flexibility with the language requirement. The student may now take two computer programming languages to satisfy this requirement. Also, two semesters of sign language may be taken to satisfy this requirement.

The College of Education asked that this department begin offering MAT 231 on a regular basis since it was added as a requirement for the elementary education degree. This course has been added to the schedule for both fall and spring semesters.

Section VI.b
Recommended Changes for the Coming Year
Judgment

Meets Standards Does Not Meet Standards Not Applicable

Narrative

None.

Credit Hour Production							
	Summer		Fall		Spring		Total
	UG	GR	UG	GR	UG	GR	
Math							
AY 2014	81	0	1515	0	1238	0	2,834
AY 2013	87	0	1,587	0	1,315	0	2,989
AY 2012	114	78	1,728	0	1,506	0	3,426
AY 2011	102	66	1,814	0	1,442	0	3,424
AY 2010	96	72	2,032	0	1,395	0	3,595
AY Totals							
AY 2014	81	0	1,515	0	1,238	0	2,834
AY 2013	87	0	1,587	0	1,315	0	2,989
AY 2012	114	78	1,728	0	1,506	0	3,426
AY 2011	102	66	1,814	0	1,442	0	3,424
AY 2010	96	72	2,032	0	1,395	0	3,595

Graduates			
	Math	Math Ed	Total
	BS	BSE	
AY 2014	3	0	3
AY 2013	4	3	7
AY 2012	1	3	4
AY 2011	4	3	7
AY 2010	4	3	7

Enrollment by Major						
	Summer		Fall		Spring	
	UG	GR	UG	GR	UG	GR
Math						
AY 2014	1	0	15	0	11	0
AY 2013	5	0	22	0	18	0
AY 2012	3	0	15	0	19	0
AY 2011	0	0	24	0	20	0
AY 2010	6	0	25	0	17	0
Math Education						
AY 2014	0	0	11	0	9	0
AY 2013	2	0	12	0	5	0
AY 2012	5	0	20	0	14	0
AY 2011	5	0	23	0	18	0
AY 2010	3	0	27	0	20	0
AY Totals						
AY 2014	1	0	26	0	20	0
AY 2013	7	0	34	0	23	0
AY 2012	8	0	35	0	33	0
AY 2011	5	0	47	0	38	0
AY 2010	9	0	52	0	37	0