

**ASSESSMENT RECORD FOR
DEPARTMENT
OF**

Mathematics

(Academic Department Name)

June 1, 2007 – May 31, 2008

October 15, 2008

(Assessment Period Covered)

(Date Submitted)

Includes Assessment Reports for those Instructional Programs listed below:

Title of Instructional Degree Program

Degree Level

(Associate, Bachelors,
Master's, etc.)

Mathematics

BA

Mathematics

BS

Submitted By: William M. Sliva

(Departmental Chair or Faculty Assessment Representative)

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

BA

(Degree Level)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

October 15, 2008

(Date Submitted)

Expanded Statement of Institutional Purpose Linkage:

Institutional Mission Reference: As a university committed to the liberal arts as fundamental to education and committed to our affiliation with the Presbyterian Church (U.S.A.), Schreiner is dedicated to excellence in preparing students to live purposeful, humane and productive lives in their work, faith groups, families and communities.

College/University Goal(s) Supported: Schreiner is dedicated primarily to educating undergraduate students in the liberal arts, sciences, and professional disciplines, preparing them for entry into specific careers and graduate or professional programs.

Purpose of the degree program: The mathematics degree programs at Schreiner University are to prepare students for further study in mathematics and related fields, or to enter the working world. The purpose of the assessment program is to determine whether students are acquiring the skills needed for mathematical analysis and problem solving.

Intended Educational (Student) Outcomes:

1. The student will be able to define, analyze, and solve mathematical problems.

2. The student will be able to interpret graphic information.

3. The student will be able to use technology for mathematical problem solving.

4. The student will be able to apply mathematical concepts to solving problems in other fields.

5. The student will acquire skills necessary for self-directed learning.

6. The student will be able to communicate mathematical understanding to others.

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

BS

(Degree Level)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

October 15, 2008

(Date Submitted)

Expanded Statement of Institutional Purpose Linkage:

Institutional Mission Reference: As a university committed to the liberal arts as fundamental to education and committed to our affiliation with the Presbyterian Church (U.S.A.), Schreiner is dedicated to excellence in preparing students to live purposeful, humane and productive lives in their work, faith groups, families and communities.

College/University Goal(s) Supported: Schreiner is dedicated primarily to educating undergraduate students in the liberal arts, sciences, and professional disciplines, preparing them for entry into specific careers and graduate or professional programs.

Purpose of the degree program: The mathematics degree programs at Schreiner University are to prepare students for further study in mathematics and related fields, or to enter the working world. The purpose of the assessment program is to determine whether students are acquiring the skills needed for mathematical analysis and problem solving.

Intended Educational (Student) Outcomes:

1. The student will be able to define, analyze, and solve mathematical problems.

2. The student will be able to interpret graphic information.

3. The student will be able to use technology for mathematical problem solving.

4. The student will be able to apply mathematical concepts to solving problems in other fields.

5. The student will acquire skills necessary for self-directed learning.

6. The student will be able to communicate mathematical understanding to others.

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

BA

(Degree Level)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

October 15, 2008

(Date Submitted)

Expanded Statement of Institutional Purpose Linkage:

Institutional Mission Reference: As a university committed to the liberal arts as fundamental to education and committed to our affiliation with the Presbyterian Church (U.S.A.), Schreiner is dedicated to excellence in preparing students to live purposeful, humane and productive lives in their work, faith groups, families and communities.

College/University Goal(s) Supported: Schreiner is dedicated primarily to educating undergraduate students in the liberal arts, sciences, and professional disciplines, preparing them for entry into specific careers and graduate or professional programs.

Purpose of the degree program: The mathematics degree programs at Schreiner University are to prepare students for further study in mathematics and related fields, or to enter the working world. The purpose of the assessment program is to determine whether students are acquiring the skills needed for mathematical analysis and problem solving.

Intended Educational (Student) Outcomes:

1. The student will be able to define, analyze, and solve mathematical problems.

2. The student will be able to interpret graphic information.

3. The student will be able to use technology for mathematical problem solving.

4. The student will be able to apply mathematical concepts to solving problems in other fields.

5. The student will acquire skills necessary for self-directed learning.

6. The student will be able to communicate mathematical understanding to others.

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

BS

(Degree Level)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

October 15, 2008

(Date Submitted)

Expanded Statement of Institutional Purpose Linkage:

Institutional Mission Reference: As a university committed to the liberal arts as fundamental to education and committed to our affiliation with the Presbyterian Church (U.S.A.), Schreiner is dedicated to excellence in preparing students to live purposeful, humane and productive lives in their work, faith groups, families and communities.

College/University Goal(s) Supported: Schreiner is dedicated primarily to educating undergraduate students in the liberal arts, sciences, and professional disciplines, preparing them for entry into specific careers and graduate or professional programs.

Purpose of the degree program: The mathematics degree programs at Schreiner University are to prepare students for further study in mathematics and related fields, or to enter the working world. The purpose of the assessment program is to determine whether students are acquiring the skills needed for mathematical analysis and problem solving.

Intended Educational (Student) Outcomes:

1. The student will be able to define, analyze, and solve mathematical problems.

2. The student will be able to interpret graphic information.

3. The student will be able to use technology for mathematical problem solving.

4. The student will be able to apply mathematical concepts to solving problems in other fields.

5. The student will acquire skills necessary for self-directed learning.

6. The student will be able to communicate mathematical understanding to others.

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

BA

(Degree Level)

October 15, 2008

(Date Submitted)

Intended Educational (Student) Outcome:

NOTE: There should be one form C for each intended outcome listed on form B. Intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

1. The student will be able to define, analyze, and solve mathematical problems.

First Means of Assessment for Outcome Identified Above:

1 a. Means of Program Assessment & Criteria for Success: All students will complete the equivalent of MATH 2422: Calculus I, MATH 2423: Calculus II, and MATH 3324: Calculus III with a grade of C or higher.

1 a. Summary of Assessment Data Collected: Three students successfully completed MATH 2422, five students successfully completed MATH 2423 and two students successfully completed MATH 3324.

1 a. Use of Results to Improve Instructional Program: Since all the students successfully completed the courses, no major revisions are planned at this time.

Second Means of Assessment for Outcome Identified Above:

1 b. Means of Program Assessment & Criteria for Success: Overall student performance will also be assessed by means of departmental questions as part of final exams that include assessment of Calculus I and Calculus II questions embedded in the Calculus III final.

1 b. Summary of Assessment Data Collected: One student successfully answered all of the MATH 2422 and 2423 questions that were imbedded in the MATH 3324 final exam. Another student completed MATH 3324 before the implementation of the embedded questions.

1 b. Use of Results to Improve Instructional Program: Since the one student successfully completed all of the embedded questions, no major revisions are planned at this time.

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

BA

(Degree Level)

October 15, 2008

(Date Submitted)

Intended Educational (Student) Outcome:

NOTE: There should be one form C for each intended outcome listed on form B. Intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

2. The student will be able to interpret graphic information.

First Means of Assessment for Outcome Identified Above:

2 a. Means of Program Assessment & Criteria for Success: All students will complete the equivalent of MATH 2422: Calculus I, MATH 2423: Calculus II, MATH 3324: Calculus III and MATH 3330: Applied Statistics with a grade of C or higher.

2 a. Summary of Assessment Data Collected: Three MATH 2422 students, five MATH 2423 students, two MATH 3324 and two MATH 3330 students successfully completed their respective courses with a C or better.

2 a. Use of Results to Improve Instructional Program: Since all of the students successfully completed their respective courses, no major revisions are planned at this time.

Second Means of Assessment for Outcome Identified Above:

2 b. Means of Program Assessment & Criteria for Success: All students will complete a uniform departmental graphing portfolio project in each of Calculus I, Calculus II, and Calculus III with a grade of C or higher. The Applied Statistics students will complete a portfolio project with a grade of C or higher.

2 b. Summary of Assessment Data Collected: Three MATH 2422 students, five MATH 2423 students and one MATH 3324 student successfully completed the graphing portfolio projects. Two MATH 3330 students successfully completed the portfolio project. One MATH 3324 student completed the course before the implementation of the graphing portfolio project.

2 b. Use of Results to Improve Instructional Program: Since all of the students successfully completed their portfolio and/or graphing portfolio projects, no major revisions are planned at this time.

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

BS

(Degree Level)

October 15, 2008

(Date Submitted)

Intended Educational (Student) Outcome:

NOTE: There should be one form C for each intended outcome listed on form B. Intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

1. The student will be able to define, analyze, and solve mathematical problems.

First Means of Assessment for Outcome Identified Above:

1 a. Means of Program Assessment & Criteria for Success: All students will complete the equivalent of MATH 2422: Calculus I, MATH 2423: Calculus II, and MATH 3324: Calculus III with a grade of C or higher.

1 a. Summary of Assessment Data Collected: Overall student performance will also be assessed by means of departmental questions as part of final exams that include assessment of Calculus I and Calculus II questions embedded in the Calculus III final.

1 a. Use of Results to Improve Instructional Program: Two students successfully completed MATH 2422, two students successfully completed MATH 2423 and two students successfully completed MATH 3324.

Second Means of Assessment for Outcome Identified Above:

1 b. Means of Program Assessment & Criteria for Success: Since all the students successfully completed the courses, no major revisions are planned at this time.

1 b. Summary of Assessment Data Collected: One student successfully answered 75% of the MATH 2422 and 2423 questions that were imbedded in the MATH 3324 final exam. Another student completed MATH 3324 before the implementation of the embedded questions.

1 b. Use of Results to Improve Instructional Program: Since the one student successfully completed 75% of the embedded questions, no major revisions are planned at this time.

ASSESSMENT REPORT FOR

Mathematics

(Instructional Degree Program)

June 1, 2007 – May 31, 2008

(Assessment Period Covered)

BS

(Degree Level)

October 15, 2008

(Date Submitted)

Intended Educational (Student) Outcome:

NOTE: There should be one form C for each intended outcome listed on form B. Intended outcome should be restated in the box immediately below and the intended outcome number entered in the blank spaces.

2. The student will be able to interpret graphic information.

First Means of Assessment for Outcome Identified Above:

2 a. Means of Program Assessment & Criteria for Success: All students will complete the equivalent of MATH 2422: Calculus I, MATH 2423: Calculus II, MATH 3324: Calculus III and MATH 3330: Applied Statistics with a grade of C or higher.

2 a. Summary of Assessment Data Collected: Two MATH 2422 students, four MATH 2423 students, two MATH 3324 and two MATH 3330 students successfully completed their respective courses with a C or better.

2 a. Use of Results to Improve Instructional Program: Since all of the students successfully completed their respective courses, no major revisions are planned at this time.

Second Means of Assessment for Outcome Identified Above:

2 b. Means of Program Assessment & Criteria for Success: All students will complete a uniform departmental graphing portfolio project in each of Calculus I, Calculus II, and Calculus III with a grade of C or higher. The Applied Statistics students will complete a portfolio project with a grade of C or higher.

2 b. Summary of Assessment Data Collected: One of two MATH 2422 students, five MATH 2423 students and two MATH 3324 student successfully completed the graphing portfolio projects. Two MATH 3330 students successfully completed the portfolio project.

2 b. Use of Results to Improve Instructional Program: The one student who was unsuccessful in completing his graphing portfolio project in MATH 2422 did successfully complete his graphing portfolio project in MATH 2423. Because of the success of these students, no major revisions are planned at this time.