Report:	Assessment Plan Details for: Department of Mathematics & Computer Science
	Report Generated by TaskStream
Workspace:	Operational Plan & Assessment Report - OPAR
Assessment Plan:	2009-10 Cycle: Assessment Plan and Assessment Findings
Assessment Plan Template:	OPAR Assessment Plan
Report Generated:	Thursday, March 10, 2011

Measures and Findings

Department of Mathematics & Computer Science Unit Goals

1. Increase enrollment and graduation rates

Increase retention and graduation rate in all degree programs

2. 80% Retention

At least 80% of undergraduate and graduate students enrolled in fall 2009 that are not graduated during the year will re-enroll in fall 2010.

Mapped to:

- FSU Strategic Priorities, Initiatives, and Indicators: 1.1.5.,
- USA- SACS- Comprehensive Standards (Section 3): 3.3.1.1

Measures & Findings

2. Success rate in gate keeper courses
Direct - Other

Details/Description: The Department will monitor the success rate in gate keeper courses Math121 and Math123.

Acceptable Target: Criteria for success will be academic year average success rate of 67% for Math121 and 68% for Math 123.

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for 2. Success rate in gate keeper courses

Summary of Findings: The data for spring 2010 for Math 121 and Math123 show success rates of 61% and 64.8%. (The success rate is the students securing A, B or C grades).

Acceptable Target Achievement: Not Met

Recommendations : We will continue to work in this direction in 2010-11 academic year to achieve the stated target of success rates of 67% for Math 121 and 68% for Math 123 by strengthening academic support in these classes.

Reflections/Notes :

Substantiating Evidence:

ABC Rates-Math121-Math123-spring2010.xlsx (Excel Workbook (Open XML))

Retention of Undergraduate and Graduate Students
Direct - Other

Details/Description: The assessment means is the actual percentage of undergraduate and graduate students enrolled in fall 2009 that are not graduated during the year will re-enroll in fall 2010.

Acceptable Target: Criteria for Success: If the percentage is at least 80%

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for Retention of Undergraduate and Graduate Students

Summary of Findings: The analysis of retention data for spring 2010 shows that the department has been able to re-enroll only 72% of its students

Acceptable Target Achievement: Not Met

Recommendations : We will continue to work in 2010-11 academic year on strategies like better advisement and academic support to enhance the retention of students to our acceptable target of 80% or higher.

Reflections/Notes :

Substantiating Evidence:

Retention Data Spring 10.PDF (Adobe Acrobat Document)

5. Increase enrollment in MS Mathematics program

Measures & Findings

Increase enrollment in MS Mathematics program by improving the advertisement of the program and converting at least two courses online format.

Mapped to:

- FSU Strategic Priorities, Initiatives, and Indicators: 1.1.1., 1.4.5., 1.6.2.,
- USA- SACS- Comprehensive Standards (Section 3): 3.3.1.2

graduate courses converted online

Direct - Other

Details/Description: The assessment means for this outcome is the actual number of graduate courses converted online for the fall 2010.

Acceptable Target: The Department will be successful for this outcome if the above number is at least two.

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for graduate courses converted online

Summary of Findings: The faculty in the department is working on converting four graduate courses into online format. By the end of spring 2010, about 70% of the conversion is complete. We will be able to complete at least 80% of the conversion by the beginning of fall 2010.

Acceptable Target Achievement: Not Met

Recommendations : We will continue with the conversion to achieve 100% conversion of these four graduate courses in online format in 2010-11. We will also add at least two more new graduate courses for online conversion in 2010-11 academic year.

Reflections/Notes :

Substantiating Evidence:

Graduate Faculty Meeting (2).docx (Word Document (Open XML))

On line courses 2 year plan.docx (Word Document (Open XML))

2. Enhance student achievement

Enhance the levels of student achievement in program and service courses

3. Implement assessment of logic and problem solving

Implement assessment methods of logical thinking and problem solving skills in order to develop a baseline of student abilities.

Mapped to:

- FSU Strategic Priorities, Initiatives, and Indicators: 1.2.2., 1.2.3.,
- USA- SACS- Comprehensive Standards (Section 3): 3.3.1.1

Measures & Findings

(NSSE) part 11. Thinking Critically and Analytically.

Indirect - Survey

Details/Description: As an indirect means of assessment we will use the National Survey of Student Engagement (NSSE) part 11. Thinking Critically and Analytically.

Acceptable Target: Criteria for success will be a score of 3.00 or better.

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for (NSSE) part 11. Thinking Critically and Analytically.

Summary of Findings: The NSSE data will not be available until Fall 2010. Therefore, we have looked at our senior survey data for spring 2010 or enhancing students' analytic schools. The satisfaction rate is 3.64.

Acceptable Target Achievement: Met

Recommendations : Because the NSSE data is usually not available until fall of each academic year, we plan to use senior survey data in our opeartional plans.

Reflections/Notes :

Substantiating Evidence:

May 2010 Graduating Senior Survey (Excel Workbook (Open XML))

2. Assessment plan for two program learning outcomes

Direct - Other

Details/Description: The Department will develop an assessment plan for two program learning outcomes BS in Mathematics and BS in Mathematics Secondary Education Programs.

Acceptable Target: Criteria for success will be establishing a baseline of assessment results.

Implementation Plan (timeline):

Key/Responsible Personnel:

Findings for 2. Assessment plan for two program learning outcomes

Summary of Findings: According to the assessment plan we consider and analyze the assessment results on the following program learning outcomes:
1. Student will be able to demonstrate skills in solving mathematical problems
2. Student will be able to comprehend mathematical principles and logic
Assessment Results BS Mathematics, Math 331 - Fall 2009
•Actual Results:
1.11 students completed embedded problem

Supporting Attachments:

#7 in test 2. Of those, 72.7% showed highly proficient results on outcome one, 9.1% - proficient, and 18.2% not proficient.

In general, students did well on the applied problem involving a linear first-order differential equation; they found the correct solution of the problem and had less computation errors. Solving similar problems in class was indeed beneficial to students.
2.11 students completed embedded problem #9 in test 1. Of those, 90.9% showed highly proficient results on outcome 2; 0% acceptable, 9.1% unacceptable.

Almost all math major students did well on the problem involving a non exact ordinary differential equation; they found the integrating factor correctly. Solving similar problems in class was beneficial to students.
Assessment Results BS Mathematics, Math 361 - Fall 2009
•Actual Results:
1.6 students completed embedded problems in the test 1: #1,2, and test 2: # 7,9. Of those, 33.3% showed highly proficient results on outcome 1; 66.6% - proficient, and 0% not proficient.
Students did not do well on problems involving finding the order of an element in a group under isomorphisms, and homomorphisms.
2.6 students completed embedded problem in the test 1: #3, 7, and test 2: # 5, 6. Of those, 16.6% showed highly proficient results on outcome 2; 83.3% - proficient, and 0% not proficient.
Students did not do well on the problems involving applications of the Theorems of how order of an element changes under homomorphisms and isomorphisms.
Assessment Results BS Mathematics, Math 242 - Fall 2009
•Actual Results:
5 students completed embedded problem 3 in the final exam. Of those: highly proficient are 40%, proficient 40%, and not proficient 20%.
In general, students did pretty well on the selected problem and course especially on calculating and applying differentials.

Acceptable Target Achievement: Met

Recommendations : Math 242
Instructors teaching this course will give students a pretest on Calculus I and II and also will focus more on the material from these courses that the students really need to know.
Math 331
Instructors teaching this course will slightly increase the number of homework assignments on applied problems to help students better understand mathematical models described by differential equations.
In order to help students better understand specific integration techniques the homework assignments involving these methods at the beginning of the course will be slightly increased.
Math 361
Instructors teaching this course will increase the number of problems in the homework assignments on applications of the

Theorems for homomorphisms and isomorphisms. They will demonstrate additional problems in class. They will work on improving student's mathematical writing by clearly explaining their requirements on writing of solutions to mathematical problems.

Reflections/Notes :

Substantiating Evidence:

BSmath-Math361-HP[1].pdf (Adobe Acrobat Document)

BSmath-Math361-P[1].pdf (Adobe Acrobat Document)

BSmathSecEdu-Math361-NP [1].pdf (Adobe Acrobat Document)

BSmathSecEdu-Math361-P[1].pdf (Adobe Acrobat Document)

ExamplesMATH[1].pdf (Adobe Acrobat Document)

ExamplesMATHEd[1].pdf (Adobe Acrobat Document)

Math242Fall2009_BSMathEd [1].docx (Word Document (Open XML))

Math242Fall2009_BSMathematics [1].docx (Word Document (Open XML))

MATH262fall2009-1-HP[1].pdf (Adobe Acrobat Document)

MATH262fall2009-1-P[1].pdf (Adobe Acrobat Document)

MATH262fall2009-2-HP[1].pdf (Adobe Acrobat Document)

MATH262fall2009-2-P[1].pdf (Adobe Acrobat Document)

MATH262fall2009-6-HP[1].pdf (Adobe Acrobat Document)

MATH262fall2009-6-NP[1].pdf (Adobe Acrobat Document)

MATH262fall2009-6-P[1].pdf (Adobe Acrobat Document)

MATH262fall2009BsmathSecEducation [1].doc (Microsoft Word)

Math361-Assessment_Results-report [1].pdf (Adobe Acrobat Document)

Math361Fall2009-BSmath [1].doc (Microsoft Word)

Math361Fall2009-BSmath-outcome_2_Grade_Distr(1).xls (Microsoft Excel)

Math361Fall2009-BSmathSecEdu-outcome_2_Grade_Distr(1).xls (Microsoft Excel)

Math361Fall2009-BSmathSecondaryEducation [1].doc (Microsoft Word)

Minutes_-_11-17-09[1].doc (Microsoft Word)

Minutes09222009[1].docx (Word Document (Open XML))

MunutesAC09242009[1].docx (Word Document (Open XML))

SLO_1_HP_BS_Mathematics_-_Math_331_Fall_2009_-_Test_2[1].pdf (Adobe Acrobat Document)

SLO_1_P_BS_Mathematics_-_Math_331_Fall_2009_-_Test_2[1].pdf (Adobe Acrobat Document)

SLO_2_HP_BS_Mathematics_-_Math_331_Fall_2009_-_Test_1[1].pdf (Adobe Acrobat Document)

SLO_2_NP_BS_Mathematics_-_Math_331_Fall_2009_-_Test_1[1].pdf (Adobe Acrobat Document)

SLO_Grade_DistributionMath331Fall2009[1].doc (Microsoft Word)

SLO_Math331Fall2009_BSMathematics[1].doc (Microsoft Word)

4. Assess Readiness of upper-level students

Assess readiness of upper level students for careers or graduate work.

Mapped to:

- FSU Strategic Priorities, Initiatives, and Indicators: 1.2.3.,
- USA- SACS- Comprehensive Standards (Section 3): 3.3.1.1

Measures & Findings

(NSSE) part 7. Culminating Senior Experience

Indirect - Survey

Details/Description: As an indirect measure the department will use the National Survey of Student Engagement (NSSE) part 7. Culminating Senior Experience.

Acceptable Target: Criteria for success will be a score of 3.00

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for (NSSE) part 7. Culminating Senior Experience

Summary of Findings: We are unable to assess this measure as the required NSSE data will be available in fall 2010.

Acceptable Target Achievement: Not Met

Recommendations : We will assess this measure in fall 2010 when the relevant data will be available.

Reflections/Notes :

Substantiating Evidence:

capstone course for BS in Computer Science

Direct - Other

Details/Description: Require all students in BS in Computer Science to take a capstone course. The results will be successful if 70% of the students have highly proficient or proficient outcomes.

Acceptable Target:

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for capstone course for BS in Computer Science

Summary of Findings: All of the students have taken the capstone course - CS 490. The proficiency rate in this course is 87%.

Acceptable Target Achievement: Exceeded

Recommendations : We will continue with this capstone course and like to see at least 90% students taking this course be proficient.

Reflections/Notes :

Substantiating Evidence:

CS Capstone Results-Spring 2010.docx (Word Document (Open XML))

departmental Exit Exam

Direct - Exam

Details/Description: Require all students from BS in Mathematics program to take the departmental Exit Exam.

Acceptable Target: The results will be successful if 93% of the students pass the exam.

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for departmental Exit Exam

Summary of Findings: In spring 2010, we graduated one student for MS(Math) degree. The students took the Departmental Comprehensive Exit Exam and successfully passed it.

Acceptable Target Achievement: Exceeded

Recommendations : We will continue with the Departmental Comprehensive Exit Exam for our MS(Math) graduates.

Reflections/Notes :

Substantiating Evidence:

List of MS(Math) Students- Exit Exam.docx (Word Document (Open XML))

3. Enhance student services satisfaction

Increase student services satisfaction

1. Increase students satisfied with advisement

Increase the percentage of students satisfied with advisement from 89.29% to 92%.

Mapped to:

- FSU Strategic Priorities, Initiatives, and Indicators: 1.5.2.,
- USA- SACS- Comprehensive Standards (Section 3): 3.3.1.3

Measures & Findings

1. Advising Survey

Indirect - Survey

Details/Description: University will administer the Academic Advisement Survey and supply the department with results.

Acceptable Target: The criteria for success will be 95% of students selecting Agree or Strongly Agree in response to the item: "I am satisfied with the quality of academic advisement."

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for 1. Advising Survey

Summary of Findings: The spring 2010 data shows that the advisement satisfaction rate of the students for the department is 93.33%

Acceptable Target Achievement: Not Met

Recommendations : We will continue to work with this out come in 2010-11 by faculty assigning more time for advisement during their office hours. We will bring the satisfaction rate to at least 95%.

Reflections/Notes :

Substantiating Evidence:

Advisement Survey (MCS).xlsx (Excel Workbook (Open XML))

2. NSSE Item 12 – Overall Academic Advising

Indirect - Survey

Details/Description: score will exceed the university average for seniors (2.81) in 2007

Acceptable Target:

Implementation Plan (timeline):

Key/Responsible Personnel:

Supporting Attachments:

Findings for 2. NSSE Item 12 – Overall Academic Advising

Summary of Findings: In absence of NSSE data, the survey in May 2010 of the students who graduated from the department was considered. The data shows that the overall average satisfaction rate of the graduated students was 3.26.

Acceptable Target Achievement: Exceeded

Recommendations :

Reflections/Notes :

Substantiating Evidence:

May 2010 Graduating Senior Survey (Average) Results.xlsx (Excel Workbook (Open XML))