

PROGRAM INFORMATION

Date submitted: __May 30, 2013__

Degree Program(s):	MA/MS Math, MS Statistics	Department:	Math
Department Chair:	Brad Jackson	Phone:	4-5173
Report Prepared by:	Brad Jackson	Phone:	4-5173
Next Self-Study due :	Spring 2013	E-mail:	bradley.jackson@sjsu.edu

Note: Schedule is posted at: <http://www.sjsu.edu/ugs/programplanning/>
 The 2013 Math Dept self-review was written by Brad Jackson and Bem Cayco and submitted to Dean Parrish and Undergraduate Studies in Spring 2013 along with the names of 3 potential external reviewers.

ARCHIVAL INFORMATION

Location:	MH 308	Person to Contact:	Brad Jackson	4-5173
	(Bldg/Room #)		(Name)	(Phone)

Assessment schedule is posted at <http://www.sjsu.edu/ugs/assessment>
 Please send any changes to the schedule or to student learning outcomes to Jackie Snell
jacqueline.snell@sjsu.edu

Enter the number and text of the SLO in this box (we post reports by SLO)

Goal 6: The ability to read, understand, and explicate journal articles in mathematics related to students area of specialty.

Initial Evidence of Student Learning:

[SEMESTER/YEAR] The assessment point of this goal and learning objective has been changed to be the required specialist qualifying exam.

Change(s) to Curriculum or Pedagogy:

[SEMESTER/YEAR] Changes to the qualifying exam structure were implemented. The basic qualifying exam on analysis and algebra was eliminated since it was deemed inappropriate for some students especially those interested in math education. Many students had trouble with the analysis portion of the exam. A nonthesis option is under consideration as well.

Evidence of Student Learning after Change.

[SEMESTER/YEAR]

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A new assessment plan for the MS Statistics has been developed. Assessment will begin after the next Math Dept self-review in Fall 2013.

MS Statistics Assessment Plan

MS Statistics

After consulting with curriculum guidelines posted by the American Statistical Society, the guidelines for a Professional Science Masters' Degree posted by SIAM, the Statistics faculty in

the Math Department, and in consultation with the MS Statistics Industrial Advisory Board, the following learning objectives have been chosen as the most important. These student learning objectives will be assessed within the next few years after our upcoming external review in Fall 2014.

Goal 1: Students should develop the ability to communicate statistical ideas and data analysis conclusions effectively to a wide range of audiences. This goal will be assessed in Math 269 Statistical Consulting.

LO 1: Students should be able to locate appropriate scholarly journal articles on a given topic and be able to present the content, methods and results to statistical colleagues in an oral presentation including slides, handouts and demonstrations.

LO 2: Students should be able to communicate statistical concepts and analytical results orally and in writing in a manner understandable to researchers in other fields.

LO 3: Students should be able to write coherent and accurate reports of data analysis problems and analyses thereon.

Goal 2: Students should develop the ability to implement modern methods of computational statistics to analyze potentially large data sets. This goal will be assessed in Math 267 Statistical Computing.

LO1: Understand the theory and methods for generating random variables from both standard and nonstandard distributions.

LO2: Use different methods (deterministic and stochastic) to solve an optimization problem and understand the limitations of these methods.

LO3: Design and appropriate resampling methods to estimate standard errors, construct confidence intervals, and test hypotheses.

LO4: Implement the above methods.

Goal 3: Students should develop the ability to implement applicable statistical models and draw appropriate conclusions in analyzing data from a wide variety of applied problems. This goal will be assessed in Math 261A Regression Theory and Methods.

LO 1: Students should be able to identify an appropriate statistical model to account for the source(s) of variation in a given experiment.

LO 2: Students should be able to fit a statistical model to a given data set, formulate testable hypotheses for the model and draw conclusions from appropriate inference procedures.

Students should be able to formulate their conclusions in the context of the experiment for a general audience of non-statisticians.

LO 3: Students should be able to verify the validity of a chosen model for a given data set.

Initial Evidence of Student Learning:

[SEMESTER/YEAR] No data has been collected yet.

Change(s) to Curriculum or Pedagogy:

[SEMESTER/YEAR] At this time changes in the culminating experience are under consideration.

Evidence of Student Learning after Change.

[SEMESTER/YEAR]