

PROGRAM INFORMATION

Date submitted: May 30, 2013

Degree Program(s):	BA Math/BS Applied Math	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 Bern 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 #)	MH 308	(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

<p>Enter the number and text of the SLO in this box (we post reports by SLO)</p> <p>Goal 3 Ability to Perform Standard Mathematical Computations Specific LOs to be assessed are</p> <ol style="list-style-type: none"> 1) Ability to evaluate limits. 2) Ability to calculate derivatives and integrals. 3) Ability to compute Maclaurin, Taylor and Laurent series and the ability to test series for convergence and divergence. 4) Ability to apply properties of algebraic and transcendental functions. <p>Assessment point is Math 138 Complex Analysis</p>
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Initial Evidence of Student Learning:

[SEMESTER/YEAR] Embedded Quiz/Exam/Final Questions in Math 138 Complex Analysis taught by Samih Obaid in Spring 2012 were used to assess the learning objectives of Goal 3. The assessment report was submitted in July 2012. For LO 1 students averaged 75%, for questions related to LO2 students averaged 86%, 94% on derivatives and 94%, 79%, 84%, 78% in integrals, for questions related to LO3 on convergence of series students averaged 89%, 91%, and 82%, and for questions related to LO4 on transcendental functions students averaged 75%, 78%, 77%, and on one difficult question they only averaged 49%. The report was reviewed by the Math Dept chair and the Undergraduate Curriculum committee.

Change(s) to Curriculum or Pedagogy:

[SEMESTER/YEAR] No changes required at this time. There is an ongoing discussion about the scope of learning objective #3 and the best way to assess it.

Evidence of Student Learning after Change.

[SEMESTER/YEAR]

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

Goal 2 Ability to Communicate Mathematics Effectively

The ability to read mathematics with understanding and to communicate mathematical ideas with clarity and coherence. Specific LOs to be assessed are

- 1) Ability to state a problem accurately, articulate assumptions, and describe a method of solution.
- 2) Ability to conduct independent investigation of mathematical concepts at the undergraduate level.
- 3) Ability to give written reports and oral presentations that include mathematical context which is mathematically accurate yet accessible to classmates.

Assessment point is Math 104 History of Math for the BA Math and Math 161B Applied Statistics II for the BS Applied Math.

Initial Evidence of Student Learning:

[SEMESTER/YEAR] Student projects in Math 104 Complex Analysis taught by Richard Pfiefer in Spring 2013, assessment report submitted in Summer 2013 and student projects in Math 161B taught by Martina Bremer in Spring 2013, assessment report to be submitted in Summer 2013. Math 104 students were required to give a 10 minute presentation to the class on a topic of their choosing. Projects were graded by the students and most received a grade of 80-90% or 90-100%. Student communication skills as exhibited in the Math 104 presentations seemed to be at least satisfactory for all of the students and very good for most of the students. Professor Bremer's report has not yet been submitted.

Change(s) to Curriculum or Pedagogy:

[SEMESTER/YEAR] No changes required at this time. There is an ongoing discussion about the best way to improve the communication skills of our students.

Evidence of Student Learning after Change.

[SEMESTER/YEAR]

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An assessment of the Math Dept Supplemental Instruction is ongoing. Data is gathered to determine the effect of Math Dept. workshops on the passing rates of students in the crucial lower division Precalculus and Calculus courses taught by the Math Dept. Several experiments are being underway with regards to teaching math online and variations in the developmental Math program STATWAY and Early Start.

Initial Evidence of Student Learning:

[SEMESTER/YEAR] Student projects in Math 104 Complex Analysis taught by Richard Pfiefer in Spring 2013, assessment report submitted in Summer 2013 and student projects in Math 161B taught by Martina Bremer in Spring 2013, assessment report submitted in Summer 2013.

Change(s) to Curriculum or Pedagogy:

[SEMESTER/YEAR] No changes required at this time. There is an ongoing discussion about the best way to improve the communication skills of our students.

Evidence of Student Learning after Change.

[SEMESTER/YEAR]