General Education Annual Course Assessment Form

Course Number/Title: Math 19
GE Area: B4

Results reported for AY: 2015-2016
# of sections: 14
# of instructors: 8

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Department Chair: Maria (Bem) Cayco
College: Science

Instructions: Each year, the department will prepare a brief (two page maximum) report that documents the assessment of the course during the year. This report will be electronically submitted to <curriculum@sjsu.edu>, by the department chair, to the Office of Undergraduate Studies, with an electronic copy to the home college by October 1 of the following academic year.

Part 1

To be completed by the course coordinator:

(1) What GELO(s) were assessed for the course during the AY?

SLO 1: Mathematical concepts courses should prepare the student to use mathematical methods to solve quantitative problems, including those presented in verbal form.

(2) What were the results of the assessment of this course? What were the lessons learned from the assessment?

Assessment data was collected from all 14 sections of Math 19 offered in AY 2015-2016.

Using embedded questions on final exams, we found that 60.0% of the 640 students in the 14 sections of Math 19 performed at the C level or higher on questions related to SLO 1. This is comparable to the 65.1% obtained in 2012-2013 when SLO 1 was last assessed. Furthermore, since Math 19 is well-known to be a particularly challenging bottleneck for STEM majors, and the embedded questions almost all combined some of the more challenging material from the course (exponential modelling, non-right triangle trig) with word problems, we believe that 60% is a reasonable success rate.

Two sample embedded questions used for this assessment are:

* Some archaeologists are digging at what appears to be a pre-Columbian human campsite in California. They find some animal bones with human teeth marks on them. Upon Carbon-14 analysis, it is found that the bones have 75% of their original C-14. About how old are the bones, and hence the campsite? The half-life of C-14 is 5730 years.

* Two ships leave a port at the same time. One travels at 20 mi/h in a direction N 32 degrees E, and the other travels at 28 mi/h in a direction S 42 degrees E. How far apart are the two ships after 2 h?
(3) What modifications to the course, or its assessment activities or schedule, are planned for the upcoming year? (If no modifications are planned, the course coordinator should indicate this.)

No modifications to the course, assessment activities, or assessment schedule are planned for Math 19.

Part 2

To be completed by the department chair (with input from course coordinator as appropriate):

(4) Are all sections of the course still aligned with the area Goals, Student Learning Objectives (GELOs), Content, Support, and Assessment? If they are not, what actions are planned?

Yes, all sections of Math 19 are still aligned with the B4 area goals.

(5) If this course is in a GE Area with a stated enrollment limit (Areas A1, A2, A3, C2, D1, R, S, V, & Z), please indicate how oral presentations will be evaluated with larger sections (Area A1), or how practice and revisions in writing will be addressed with larger sections, particularly how students are receiving thorough feedback on the writing which accounts for the minimum word count in this GE category (Areas A2, A3, C2, D1, R, S, V, & Z) and, for the writing intensive courses (A2, A3, and Z), documentation that the students are meeting the GE GELOs for writing.

N/A