

# College of San Mateo

## 2018-19 Instructional Program Review

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### Program Name

Please select your program. For CTE programs, use the [2018-19 CTE Instructional Program Review form](#).

Mathematics

### Division

Please select your division

Math/Science

### Submission Date

### Description of Program

File upload

[math.program.review.10.22.18.q1.doc](#)

### 2a. Describe the results of your previous Program Review's action plan.

If your answer is more than 2000 characters (approximately 300 words), please upload a Word document below (10 MB or less). If you're not sure, please upload your answer. Please upload text only; we cannot ensure that non-text such as images, diagrams, or charts will be retained in the final submission.

We had hoped to have more full-time-hires since the last Program Review, but have not been granted any yet. We were provided with two full-time-temporary faculty for 2018-2019. The department will request four full-time hires in 2019. We wanted to have more accelerated programs at the last Program Review; this came about in large part due to our response to AB705, where many lower-level courses were eliminated and support courses were and are being developed.

### 2b. Program coherence and effectiveness: Explain any curriculum changes since last program review, including SLO alignments.

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As mentioned earlier, we eliminated Math 811, 802, 110, 111, 112, 122, and 123 (last section fall 2018). Math 242 will become Math 243 (one extra unit to include trigonometry). Math 820 and 890 were added "Just-In-Time" support classes to Math 120 and Math 190, respectively. Development is in progress for support courses for implementation in Fall 2019 for Math 241, 225 and possibly Math 130 and 125. The department is working collaboratively with our sister colleges toward AB705 compliance. We do not have SLO data for these new courses yet; SLO results for upper level courses have been consistently good.

### 2c. Student success and equity: Discuss what your program has done to address equity gaps between student populations and between modes of delivery (online, hybrid, and face-to-face), describing your successes, works in progress, and/or ongoing challenges.

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We have been able to increase the success rate among African-Americans, from 47.4% in 2015-2016 to 53.3% in 2017-2018. The success rate among Hispanics has risen from 48.4% in 2015-2016 to 50.8% in 2017-2018. The Native American success rate has increased from 33.3% in 2015-2016 to 62.5% in 2017-2018, although in each year we have a small sample size (under 10 each year). The success rate among those with a disability has consistently been about 53% for the past few years, compared to about 60% for those without disability. We hope to work with DRC to help close the gap. Students who were First Generation College students have consistently been about 10% behind Non-first Generation students in terms of success. META and METAS, grand funded Math/Science division programs currently provide support for most of the above mentioned groups, as do many CSM learning communities; the department through the Math Resource Center, plans to work collaboratively with existing support programs to increase student awareness and participation in available support. For online/hybrid courses, we have been able to reach comparable success rates with traditional, face-to-face courses; for Fall 2015-2017, our Math 200 had 51% success rate compared to 53% with the traditional mode; Math 120 during Fall

2015-2017 had a 62% success rate compared to a 60% rate by traditional mode; our Math 110 had a much higher success rate from 2015-2017 (67% by distance versus 45% under traditional mode).

**2d. Provide an update on any long-term plans that are still in progress (if applicable).**

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We have added a new computer classroom in 18-204, a classroom which fits 40 students with every desk having a computer available and the seats are designed to easily convert to group work. Every student is also equipped with a mini-whiteboard as the instructor deems necessary. We may be asking for another such classroom if there is a need for it. The department request for document cameras in math classrooms has been put on hold until planned campus technology updates occur. The use of whiteboard paint on classroom walls is currently being tested in the old math computer room, 16-111. If the paint is durable under the intense usage it is experiencing, the department will ask to have more math classrooms painted. In the meantime, the department is researching other options, including additional white boards.

**3a. Course and program assessment. Discuss the results of your program assessment. Explain any strategies, research, initiatives, curriculum development or other activities intended to improve student learning and promote educational equity in your discipline, either at the course or program level.**

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The entire department assessment program needs to be revamped due to curricular changes. We will be assessing the effectiveness of our curricular changes in the next few years as it relates to AB705. The basic intent is the get students to through a transfer level math courses as soon as possible. For upper level courses, we will track how effective our Math 225 (Trig + Precalculus) course is compared to the 2 separate courses Math 130 (Trig) and Math 222 (Precalculus). We will be looking into having our Math 243 replace Math 242 plus the Math 130 (Trig) prerequisite.

**3b. General Education / Institutional assessment. Discuss participation in any General Education, Core Competencies, institutional or interdisciplinary assessment activities.**

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None

**4a. Provide a brief description, including actions, measurable outcomes, and timelines**

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In the next few years we will track student success in Math 120, Math 120+, Math 190, and Math 190+ and any other additional "plus" courses. We hope to increase the number of sections of Math 225, and to begin offering Math 243.

**4b. What will your program do to increase student success and promote student equity in the next two years? What kind of professional development and institutional support will be engaged and enacted to meet these goals?**

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We are increasing the number of "Just-In-Time" courses that we offer, of which presently the greatest amount are matched with Math 120 and Math 190. For professional development, instructors frequently meet together and workshops are held to discuss strategies in teaching the "Just-In-Time" courses. A core of full-time faculty leads will continue to drive this process. As stated above, through the Math Resource Center, the department plans closer collaboration with student support entities currently at CSM.

**4c. Describe other professional development activities and institutional support and collaborations that would most effectively ensure that the program achieve its goals and plans.**

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Faculty attend conferences and hold meetings with other Math faculty within the district, to address how best to help students succeed in our courses.

