



Mathematics - Division 20 - Science, Technology, Engineering, and Math - Mathematics

Main

Overview

Academic Year 2024 - 2025

Originator Nari, Jennifer

Division Division 20 - Science, Technology, Engineering, and Math

Department Mathematics

Programs

Co-Contributors

Questions? Find answers in CurricUNET User Manual. (http://www.Gavilan.edu/en/employee-services/office-of-instruction/curricunet/program_reviews/create_pr.html)

Contributor

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Annual Update

1. **Academic Year** 2024 - 2025

Previous Goals Investigate open-source textbooks options for possible implementation into our courses

Proposed Activity to Achieve Goal:

See above.

Responsible Party:

Math faculty

Total Three Year Resource Allocation Request:

0

Timeline to Completion Month / Year:

Fall 2025

How Will You Evaluate Whether You Achieved Your Goal:

Increased proportion of ZTC math class offerings.

End of Year Goal Status In Progress

Please describe your status (No more than 200 words)

Various faculty have used OER resources for Math 8A, 8B, 5.

Did you request the same resources the previous year? If so, what was the result? Has there been a significant change since your request?)

N/A

Planning

The college plans to use ZTC/OER funds to explore the creation of a ZTC pathway in math. We have also used STEM grant funds from Gavilan and San Jose State to expand our lending library of Math textbooks.

Additional Comments

One of the challenges of OER is that many instructors use publisher content and homework platforms, which is enticing because it reduces time grading homework. Various instructors have experimented with OER platforms and they have been found to be lacking.

2. **Academic Year 2024 - 2025**

Previous Goals Explore different modalities for STEM and SLAM math courses (e.g. flipped classrooms, hyflex, asynchronous offerings of Precalculus/Calculus)

Proposed Activity to Achieve Goal:

See above

Responsible Party:

Math faculty

Total Three Year Resource Allocation Request:

0

Timeline to Completion Month / Year:

Fall 2025

How Will You Evaluate Whether You Achieved Your Goal:

Greater success and retention in gateway transfer level math courses

End of Year Goal Status In Progress

Please describe your status (No more than 200 words)

Utilizing grant funds, we have created a Hyflex classroom (PS 102) that enables both in-person and virtual attendance. Some math instructors zoom their classroom lectures so that a recording is available to students outside of class.

Did you request the same resources the previous year? If so, what was the result? Has there been a significant change since your request?)

N/A

Planning

While online offerings are popular in statistics, putting more courses through the POOR process would provide valuable feedback and improve outcomes of the class. To date, one Math 5 instructor has completed that process.

Training for math faculty in the use of the hybrid classroom will improve the utilization of the room.

Additional Comments

We have experimented with offering hybrid classes in Math 8A, 8B, 1ABC, and have found that students prefer face-to-face over the hybrid option. That said, both hybrid and online offerings are quite popular in Math 5, and during the summer, Math 8B is offered as a hybrid class.

3. **Academic Year 2024 - 2025**

Previous Goals Improve onboarding process around math placement

Proposed Activity to Achieve Goal:

See above

Responsible Party:

Math faculty

Total Three Year Resource Allocation Request:

0

Timeline to Completion Month / Year:

Fall 2025

How Will You Evaluate Whether You Achieved Your Goal:

Greater success and retention in gateway transfer level math courses

End of Year Goal Status In Progress

Please describe your status (No more than 200 words)

There have been many changes in placement for math due to various legislative efforts (AB705, AB1705) that have mandated math placement rules for all of our math classes. Placement for students in the STEM pathway has particularly been targeted by these efforts, and we are doing our best to comply while also meeting the needs of our students.

Did you request the same resources the previous year? If so, what was the result? Has there been a significant change since your request?)

N/A

Planning

We have worked with the counseling department to make sure our placement tool is up to date in efforts to comply with these initiatives. We are also reaching out to feeder high school counselors to make them aware of these new placement processes.

Additional Comments

4. **Academic Year** 2024 - 2025

Previous Goals Increase the number of students completing calculus sequence by 10% using Fall 2019 baseline.

Proposed Activity to Achieve Goal:

See above

Responsible Party:

Math faculty

Total Three Year Resource Allocation Request:

0

Timeline to Completion Month / Year:

Fall 2025

How Will You Evaluate Whether You Achieved Your Goal:

Greater success and retention in gateway transfer level math courses

End of Year Goal Status In Progress

Please describe your status (No more than 200 words)

We have created support classes for Math 1A, and have increased recruitment efforts for our Math boot camps (Math 219 and Math 217). In addition, we added more levels to the bootcamp class for Calculus so that students can enroll in the pre-semester bootcamp for more levels than just Math 1A. We have embedded tutors for Math 8A, 8B, 1A and 1B, and Math 5.

Did you request the same resources the previous year? If so, what was the result? Has there been a significant change since your request?)

N/A

Planning

We have developed Math 25 - Pathways to Calculus, a one semester precalculus for students on track for Math 1A. This class will be offered in Fall of '25.

Additional Comments

Many factors affect the success rate of Math 1A, including Covid, changes in the way students are placed in math, and modality. The success rate in Math 1A has been somewhat sporadic, with no clear trend.

Resource Requests

Click Add Item to Enter a Resource Request

Executive Summary

Please provide a brief executive summary regarding program trends and highlights that surfaced in the writing of this report. Summarize, using narrative, your program goals for this year. Your audience will be your Peer Review Team, the program review Committee, President's Cabinet, Dean's Council, ASGC, Academic Senate, Budget Committee and Board of Trustees (300 words or less).

While our enrollments in math have mostly recovered from the devastating effects of the pandemic, its effects on our students are still felt, mostly in the form of under-prepared students. These challenges, combined with the mandates of AB705 and AB1705 have created a challenging few years. We have responded to these challenges with multi-pronged efforts. We have increased outreach for our Math bootcamps - presemester week-long courses that review the math skills needed to do well in Precalculus and Calculus - and created additional levels for the Calculus bootcamp so that students can take it for more than one semester. We added support classes to Math 1A and 8A, and utilized embedded tutoring to give students extra academic support in a wide range of math classes. Many of our faculty have taken the Humanizing STEM course to develop inclusive teaching practices, and much work has gone into revising our placement of students to meet the new regulations of AB705 and AB1705. Math faculty recognize the continued high cost of textbooks as a barrier that impacts student success. We continue to make progress on lowering the cost of courses by adding to our lending library and by experimenting with OER resources. Moreover, both MESA and the STEM Academy have increased their membership, providing more students with access to our lending library for course materials, technology and other academic materials. Our STEM CAP Success Team has developed a CAP specific plan for the process of pathway onboarding. STEM Counselors visit our STEM-based math classes to increase the number of students that have educational plans, which can cut down on their time spent at college and result in quicker transfer times.

Attach Files

If there is any additional information regarding your program that you will like to have uploaded, please attach it here.

Attached File