Program Review

Summary and Reflections with Unit Goals, Action Plans, and Updates

Instructional Program - Mathematics (MATH)

Executive Summary

Describe the successes and challenges your unit has faced since the last comprehensive review.
Mission
The Department Mission remains the same as stated below:
The Math Department of San Diego Mesa College seeks to cultivate a culture of mathematical excellence in an equity-minded and inclusive forum that equips students for success in their future endeavors. We foster their curiosity and appreciation for math while empowering them to expand their abilities to think and to communicate effectively.

Overview of faculty
The math department currently has 13 full-time faculty, all of whom are tenured. The department also has 1 dual math/engineering faculty member. Our department has 3 PRO-RATA teaching in Fall 2024 (Harter, Meckstroth, and Belew). There are several faculty members who plan to retire in the next 4 to 5 years, one of which has retired this past Spring semester (Belew). Most will likely be back as pro-rata, but it leaves the department with a huge deficiency especially as it pertains to faculty hired specifically to teach the E-STEM calculus sequence. But, with the recent legislation we have faculty who have not taught the calculus series that are moving into the E-STEM calculus series. There is a concern for San Diego Mesa College to maintain its standard of mathematical preparation. We are seeing declining preparation in the calculus sequence as well as in the sciences. With the HSI Curriculum Workgroup we are encouraging interdisciplinary discussions to apprise math faculty of the importance of adequately preparing our students for their math and science courses.

Describe the successes and challenges your unit has faced since the last comprehensive review.
Mesa Math faculty have responded amazingly well given the many challenges we have faced in the past 6 years. The math and science disciplines have been hit with what feels like a meteor shower in the form of new legislation AB705 and AB1705, with the pandemic alongside. Several faculty members are doing important work outside of the department and many have participated in several professional development opportunities. Some of these are listed mentioned below.

- PUENTE
- FIGs
- CEER
- INSPIRE
- CCAP
- Professional Development Coordinator
- STEMCORE (duration of a HSI STEM grant)
- HSI Activity Director
- Summer Cruise
- Jumpstart
- Pathways workgroups
- Equity Minded Workgroup
- SHIFT
- AMATYC
- Humanizing STEM
- Community of Practice for Math 116 and Math 104/141 in Fall 2022
- Peer Mentoring Math Faculty Liaisons
- Curriculum Retreat in Summer 2024
- Innovative Course Coordinator
- ESCALA
- STEM Lab Redesign
- California Education Learning Lab for Data Science

More Mesa faculty are getting involved in workgroups that support collaboration within the STEM departments. We have 5 math faculty on the HSI STEM Curriculum Workgroup. Participation in the workgroup helps to bring the STEM faculty together and to examine the optimum pathway for our STEM students' success. It also has been enlightening for our math

faculty to see what concepts are most important to the different science fields. Math faculty can use this knowledge to inform their teaching. We have begun hosting faculty from the sciences at some math department meetings to expand this important dialogue.

Response to pandemic: Most math faculty made the transition to online. Immeasurable innovations were implemented, and many will remain to better serve our students moving forward. We are offering more online classes than pre-pandemic. However, we have diminished the number of offerings online for the past year and kept most of the statistics and terminal courses online or partially online.

For the E-STEM pathway we are practically all face-to-face.

Increased Collaborations:
- Among departmental faculty: With the change in leadership among school dean and chairs, there has been a more positive atmosphere in the math department. While not perfect, more faculty are collaborating with each other in response to the assembly bills and there is more willingness to interact with each other in department meetings. We have set norms in department meetings to listen to each other and shifting the voice to those that are often silent or afraid to speak.
- Interdisciplinary: Our HSI STEM Curriculum Workgroup has become invaluable. The collaboration with STEM faculty have provided great discussions on how to redesign our math curriculum to best support engineering majors. This culminated with a Canvas shell with resources from all disciplines. Initiated dialogue around content coverage in our courses as preparation for other disciplines: Other STEM faculty attended a department meeting to share what they are seeing in terms of algebra and trig readiness. We also exchanged insights into areas of emphasis and how topics are addressed, pedagogical observations etc.
- Math Chairs Collaboration: All 6 math chairs in our district have developed great rapport and collaboration in response to AB1705. We have had several curriculum meetings regarding Option D for AB1705 and culminated in us keeping our Math 141 in the books and using our Math 141X innovative course. In addition, we updated the placement assistant and are currently working with district to create an M60 to allow students with precalculus knowledge to have direct access to Calculus.
- Collaboration with Counseling: Math has been asked to attend Department Meetings with Counseling, EOPS and to communicate changes.

The department is overwhelmingly committed to reducing costs for our students and these collaborations have been integral. Within the last 1-2 years, 75% of our courses have become zero-cost, and the others are all moving quickly in the same direction. These transitions are very labor intensive, but the unwavering commitment of some of our colleagues has generated a “critical mass” of sorts and we have the ball rolling. It will also be important to continue to support the content and to collaborate, but this is one of our most exciting successes across the board.

Challenges:
Tutoring continues to be a challenge for us in terms of alignment with our needs. In light of AB1705, tutoring is critical for our students who need extra support. The onboarding process to become a tutor is long and tedious. Students must take ED100 to start to become a tutor and a tutoring assignment isn't a guarantee. While we are in talks with tutoring to address the road blocks, there's still some push-back on their end. The STEM faculty have now resorted to Peer Mentoring for support, and that has been a success (more on that in the data reflection). However, with the grant running out, it is necessary that this program be institutionalized to further support both math and science efforts.

If applicable, describe any major curricular or service changes your unit has engaged in and the impact of those changes since the last comprehensive review.
In response to AB705 and AB1705, we have developed several Math Courses that offer additional support.

Over the last 4 years math has created new entry-level courses that have additional support: Math 96X, Math 104X, Math 116X, and Math 119X. We recently started offering Math 121X, 141X, and 150X.

These courses offer a smaller class size and more time with the instructor. They emphasize group work and collaboration amongst students.
Math 104X, Math 116X and Math 119X have also shortened the path for these students to help students complete their transfer-level math in a year or less.

Summary and Reflection

Our Math 121X, 141X, and 150X are brand new courses in respond to AB1705 and direct access to Calculus. We started offering them last year and are currently keeping track of how students do through their STEM sequence as opposed to just success rates on a single class.

We are excited to say that we will be offering a new course Math 111: Introduction to Data Science I in the Fall of 2025. This was just UCTCA approved and we are waiting for CALGETC approval.

In addition, we are revamping our Math 118: Math for Liberal Arts to a Quantitative Reasoning course that will be UC transferrable. This will give more choices to our liberal arts students who want to pursue a UC since our Math 118 is currently only CSU approved. We will be submitting this curriculum in Spring 2025 for Fall 2026 offering.

Since returning to campus after the pandemic, faculty found most technology was failing. In the classrooms and faculty offices. This year we are seeing the computers replaced and getting functioning projectors in the classrooms. This was difficult since most faculty increased their use of technology during the pandemic.

Last semester, we updated our MS218 room and are excited to have the math studio room that includes movable tables and chairs, individual whiteboards for small student group work, Chromebooks to be used for online math activities, and a large electronic whiteboard. This has become a very popular room used for active learning for our X courses.

We began the Peer Mentoring program 4 years ago and have had growing attendance in the math sessions. We would like to see more students of color as the peer mentors for math.

Since our last program review, our enrollment has increased over the past year. We seem to approach stability as we have decreased our class cancellations the past two semesters.

The math department has had 7 retirements since the last comprehensive review. With these retirements, we have lost faculty hired to teach the E-STEM path. We are in need of more faculty to take over some of the STEM level courses. However, I am happy to say that our FHP request was approved and this Fall semester, we hired a new math faculty who will start next Spring semester.

If applicable, describe the impact of any new resources (human, fiscal, etc) on the unit and/or action plan implementation.

If you assess OUTCOMES, please confirm that the outcomes have been reviewed for accuracy. If you do not assess Outcomes, skip this question.
Reviewed & Accurate

Related Documents for Charts and Graphs

Executive Summary Complete
Yes

Data Reflection

Trends observed in program/service area's data.
Overall, Math has returned to a slightly higher pass rate than the year before the pandemic as you can see below. Refer to Image 2. For the E-STEM pathway, the data by course is illustrated below. Image 3 For this pathway, the courses that have not returned to pre-pandemic are Math 141 and Math 254. We only offer 2 sections of Math 254 and at least one each semester was synchronous. We believe that since this course is so conceptual, that is not the best modality for this course.

Math 141 pass rates pre-pandemic were 70% and now they are 66%. Our department is pushing to offer a Math 141X to help with this disparity. This course brings together all of the fundamental algebra and trigonometry needed for the majors in this pathway. We are also expecting that the increased communication between math faculty and physics and engineering faculty will help.

Summary and Reflection

The data that we found most concerning is that for Math 210A, which is the introductory math course for math elementary education. Refer to Image 4

The pass rate for this critical course for the education pathway has dropped from 75% pre-pandemic to 36% pass rate. It appears that Math 210AX needed. We will also explore other options to help with this decline. This course is crucial for our Elementary Education Program. City College is working on the Curriculum for Math 210AX and Mesa will strive to offer this course Spring 2024.

Our Statistics program has also returned to pre-pandemic rates in terms of student success as can be seen below. Refer to Image 5

Our B-STEM Pathway data shows that our post-pandemic pass rate is actually higher than the pre-pandemic pass rate. The pass rate has returned to the pass rates seen in 2016 and 2017. Image 6 And By Course for B-STEM. Refer to Image 7.

After the decline in enrollment during the pandemic, we can see on the 'Enrollment Data' image that our enrollment has picked up after Spring 2022.

Based on our success rate data (see success rate data image), there are a couple things to note:

*Pre-pandemic, our Math 150 was at a 58% success rate and was one of our lowest pass rates in our department. Currently, it is at a 65% success rate which is a significant increase. In addition, our 150X success rate is outperforming our Math 150 overall, with a 74% success.

*Our 210A in the past had dropped significantly in pass rate and seems to be back with a 72% success. This was noted from my predecessor who did the last program review. We will no longer pursue Math 210AX.

*All of our higher level STEM courses have a pass rate of above 65%. Math 151 is the one that is on the lower end.

*Math Biology track seems to be consistent with success in the 70s and Math 121X with a 73% success.

*Math 104, 104X, 116, 116X, 141, and 141X are alarming. Math 104X and 116X are doing worse than the regular courses and there could be several reasons for that. One reason could be due to them being the lowest courses we offer and students in the lowest band enroll in one of these two courses. The amount of time in and out of the classroom could be overwhelming for students and without Math 92 or 96, the students are struggling in a higher class. Another reason could be the lack of professional development after the pandemic for faculty. As seen in the 'Pre-Pandemic Image for Xs,' 116X and 104X were performing slightly better than the regular courses. During pre-pandemic, we had communities of practice in place where faculty met together and spoke weekly about assessments and developed active learning techniques. After the pandemic, that slowly went away and new faculty were assigned without any proper training for the Xs.
Regardless of the reason, this is extremely worrisome and as a department, we need to develop ways to support both faculty and students in those courses. In addition, bringing in the faculty who teach Math 150X to the table will be a good start of the conversation as well as more embedded tutors in our X courses. There is a clear need to additional support in these courses.

As a side note, Math 141X was taught once last semester with an adjunct who was not prepared to teach it so that could be a reason why the success is so low.

Our Statistics program and Math for liberal arts has also returned to pre-pandemic rates in terms of student success as can be seen below.

Describe any equity gaps in the data. Are there differences and/or patterns observed by demographics (e.g.race/ethnicity, gender, age, etc.)
Below we can see that most of our students within each ethnicity have had pass rates return to pre-pandemic rates.

Of our minoritized students, our Latinx students have been more resilient post-pandemic with pass rates returning to what they

had been previously.

Our students who have suffered lower pass rates than pre-pandemic include our African American, Native American and Multi-Ethnic students.

While pre-pandemic, each of these ethnic groups had seen rising pass rates, they have fallen to levels going back several years.
Refer to Image 8

The effects of the pandemic on our students of color is clearly indicated by the Equity Gaps by Ethnicity and Year. The equity gaps for our African American and Latinx students have grown larger over the last few years.

Refer to Image 9

We also see the effects of the last few years on our retention rates for some of our most vulnerable student groups. Our African American and Latinx students were severely impacted. Several faculty participated in the effort to contact our students of color to offer support and encouragement to return to classes. Many of our students had to leave school to work to help support their families at the onset of the pandemic. Others did not have the technology at home needed to make the move to online classes. The chart shows the retention rates for
our African American and Latinx students in comparison to the overall retention rate.

Refer to Image 10

For 2021/2022 separately since this is the only year with the added identifications of gender:
Surprisingly, females tend to have higher pass rates than males throughout most years. Our non-binary students have lower pass rates and those students who did not report their gender had the highest pass rate (these last two categories have just been added in the year 2021/2022).

Refer to Image 11 and 12

Looking at our 'Overall Equity Analysis' image, we continue to see equity gaps in our African American, Latinx, and Pacific Islander students. Analyzing our Math 150 and 150X's, we see the following:

Math 150
Equity Gap: -10.6%
Success Rate for Latinx: 57.7%

Math 150X
Equity Gap: -12.8%
Success Rate for Latinx: 67.2%

While the equity gap still persists in our 150 and 150X, we can see a higher percentage of Latinx students passing Math 150X. However, the equity gaps have gone larger for those underrepresented students in the other X courses. As I stated above, our department needs to take a look at what exactly is happening in our X courses that are preventing students to succeed.

For the past three years, we have added a math component to the Puente project. Students in Puente are enrolled as a cohort in an English and Personal Growth course for two semesters. In the Fall, students have an option to take Math 119 and in the Spring, students can either take the math course for Business/Biology track or the math course for the E-STEM track. Based on our 'Puente Success Rate' data, we see that overall, students in Puente have a higher success rate 88% compared to the rest of Latinx students at Mesa College. In addition, the retention rate for Puente students is higher with a 94% (see Puente Retention Rate image) and so is their GPA with overall 3.14 (see Puente GPA image). This indicates that the Puente project works and it has to do with the sense of community and familia that is built around the program. We can use some of those equity minded practices in our X courses as we have these conversations as a department.

When we look at the data by gender, while we see more male enrollment, the success rate and retention rate for females are slightly higher (see Gender Success Rates image). This was true for every individual course, which I found very interesting.

Related Documents for Charts and Graphs
Enrollment Data.PNG;
Image 10.png;
Image 11.png;
Image 12.png;
Image 2.png;
Image 3.png;
Image 4.png;
Image 5.png;
Image 6.png;
Image 7.png;
Image 8.png;
Image 9.png;
Overall Equity Analysis.PNG;
Pre-Pandemic Xs.PNG;
Puente GPA Image.PNG;
Puente Retention Rate.PNG;
Puente Success Rate.PNG;
Success by Gender.PNG;
Success Rate Data.PNG;
Peer Mentoring by Ethnicity.PNG;
Peer Mentoring Overall.PNG

Describe the discussion(s) that took place about the unit's learning outcomes assessment data.
The common thread in our math department meetings is how to best address the learning loss our students have after learning online and the social anxiety they are experiencing as a result of the isolation during the pandemic. In addition to that, our students have had increasing stress placed upon them during the last few years.

Data Reflection Complete
Yes

Practice Reflection

Describe current practices your program/service area has engaged in that you believe impact the above data trends and equity gaps.
Some best practices currently used by faculty:
- Come to the class half an hour early to have cookies or other treats on test day to foster community and lower anxiety.
- Allowing formula cards on exams.
- Offering optional midterms to replace one of the first two exams.
- Allowing the final exam to replace an exam, giving students the motivation to learn the material, giving another chance to demonstrate knowledge, and also increase their grade.
- Having students do projects instead of traditional exams. This way students can seek help from the instructor along the way. The projects illustrate how math can be used in the real world.
- Allowing students to do quizzes in pairs and share in video format. Some students really enjoy this while others not so much.
- Offering office hours in a classroom so that students can work together.
- Allowing extra time on exams dependent on room availability.
- Reviving Communities of Practice for our Support courses.

Aside from these best practices, our math department is committed to support our STEM faculty. In our Curriculum Work Group, we have interdisciplinary faculty that guide conversations to support STEM students. This has involved a STEM Canvas shell that contains resources for all faculty to obtain, including applications to the sciences and discussion of content

relevancy. In terms of curriculum, we have encountered a hidden pre-requisite, Math 254 (Linear Algebra), that affects engineering students. We are currently working with articulation officers to see the impact of engineering degrees.

Update is under the Year 3 update.

What other factors (internal or external) might also impact the above data trends and equity gaps?
N/A

Related Documents for Charts and Graphs

Practice Reflection Complete
Yes

Mid-Cycle Updates

YEAR 2 Updates (2023 - 2024)

Provide any edits or updates to the prompts originally documented in the Executive Summary section for Year 2.
The only update was the current contract faculty member count since we just had a recent retirement and the addition of the California Education Learning Lab for Data Science.

Provide any edits or updates to the prompts originally documented in the Data Reflection section for Year 2.
No edits on the Data Reflection

Review Outcomes Report. Review the unit's outcomes assessment process for 2022 - 2023. Discuss connections to unit goals/action plans/resource requests.
Outcomes will continue to be a conversation at our department meetings.

Provide any edits or updates to the prompts originally documented in the Practice Reflection section for Year 2.
Yes, the update was at the end regarding the curriculum workgroup and interdisciplinary work done to support STEM students.

YEAR 3 Updates (2024 - 2025)

Provide any edits or updates to the prompts originally documented in the Executive Summary section for Year 3.
Yes, I updated the current full time faculty count, professional development list, our increased collaborations, and challenges. I also removed the challenges within our department as the atmosphere has changed a bit in our department. I also included the math studio room update. In addition, we now have a new full time faculty member in math to help with the X-courses leading up to STEM, David Rubinstein. I do want to make a note that we also have one full time faculty member, Katherine Naimark that is currently on medical leave.

I want to add further curriculum developments that have impacted math. For the past year, the math chairs have been busy with advocacy work to protect our prep courses (Trig and Precalculus) for the STEM track. We have met with our local Board of Trustees, met with the SDCCD Chancellor, assembly members, published an oped, participated in regional conferences with math, went to Board of Governors, and actively met with CSUs and UCs. This has been an exhausting task with lots of back and forth from the State Chancellor's Office. I am happy to inform that a new memo has been released this past December where our Trigonometry and Precalculus courses are protected and students will now have a choice to enroll in these courses. Students will still have access to Calculus through our Math 150X so we are compliant when it comes to the law.

Our advocacy work is not over. We will continue to advocate for student choice especially for our returning students, veterans, and single parents. We are actively working with FACCC to have stand a lone pre-transfer courses, such as Algebra, for students to have below transfer options. I want to make a clarification that our goal is not to revive the past pathway. We realize that this cause equity gaps and do not want to go back to that.

Provide any edits or updates to the prompts originally documented in the Data Reflection section for Year 3.
Updated current enrollment trends, success rates, and discrepancies between regular courses and X courses. Based on this analysis, our department has a lot of work to do regarding the effectiveness of our support courses as they are not producing the results that we would like.

I do want to address here the need for institutionalization of our Peer Mentoring program. As you can see in the Peer Mentoring Overall image, our Peer Mentoring program is a huge success when it comes to increasing success rates. In Fall 2023, we had success of 81% peer mentees compared to a 74%. In Spring 2024, we had a success of 88% peer mentees

compared to a 75%. When disaggregated by ethnicity, our Latinx students have had a greater success by attending peer mentoring sessions for Fall 2023 with 87% Latinx and for Spring 2024 with 82% success. We currently have 3 peer mentor liaisons for our Math 150, 151, and 252 who are supporting our peer mentors along the way. This is a much needed program and very necessary for math with all the curriculum changes due to AB1705. If we want to be the college of equity and excellence, I would like to advocate to institutionalize this program as it is a program that has increased our success in our math department.

Review Outcomes Report. Review the unit's outcomes assessment process for 2023 - 2024. Discuss connections to unit goals/action plans/resource requests.
As a department, we have decided to update our CLOs at the end of Fall and assess them in the Spring. The CLOs were outdated and we decided that after all these assembly bills, we would like to be more intentional with our assessment of our outcomes. During our January outcomes assessment meeting, the math department met to discuss outcomes. Together, we were able to create questions that matched our CLOs. These conversations were so fruitful and gave the math faculty excitement to assess them. We are behind on the CLO game since the pandemic but this spring semester, we are assess Math 116, 116X, 121, 121X, 122, 119, 119X, 118, 210B, 212, and 245. We will assess the rest in Fall 2025. The course coordinators now have a clear role on what their responsibilities should be and we will actively be working together this semester to get these CLOs assessed.

Provide any edits or updates to the prompts originally documented in the Practice Reflection section for Year 3.
Back when AB705 hit, we had communities of practice where faculty met regularly, spoke about assessments, best practices, and common challenges. These were critical for the development of the X courses. I am happy to say that using AB1705 funds, we are now bringing back the communities of practice for our Math 121X and 150X. In addition, we had a great curriculum retreat back in the summer where faculty were able to talk about how to emphasize topics from Trigonometry and Precalculus to best support the STEM track. Our faculty are very busy with course redesign and curriculum development.

YEAR 4 Updates (2025 - 2026)
Provide any edits or updates to the prompts originally documented in the Executive Summary section for Year 4.
In terms of our full time faculty, we have had two resignations, one from Moe Ebrahimi and the other from Katherine Naimark. In addition, we have Michael Brown and Alison Damoose retire in the past year. That brings us down to 11 full time faculty members and we expect more retirements. Ron Sandvick is retiring this spring semester and Shahrokh Parvini is expected to retire one year from now. While some come back as pro-rata, there is a need for more contract faculty. While our department is grateful for having a new faculty hire every year, the rate at which we are having retirements is affecting our program. With all the assembly bills to comply, the majority of the work has fallen on us and it has become a heavy load. I am submitting multiple FHP requests to address the loss of full time faculty.

Right now, we are relying on hiring new adjuncts to supplement the void in our department. However, we want to set them up for success by providing them with adequate support. We are looking to use AB1705 funds for additional professional development for our new adjuncts as well as expand our course coordinator roles.
Tutoring is still an issue and we understand their budgetary cuts.

We also resubmitted Math 111 for Cal-GETC approval and are waiting for Math 118 this spring.

Provide any edits or updates to the prompts originally documented in the Data Reflection section for Year 4.
Slight increases in our Math 150X success but we are trying to get data from the district office to obtain more robust data, such as completion through the STEM sequences.

I would like to reiterate the need for institutionalization of our Peer Mentoring program. I wrote it in Year 3 and want to write it in Year 4 again.

As you can see in the Peer Mentoring Overall image, our Peer Mentoring program is a huge success when it comes to increasing success rates. In Fall 2023, we had success of 81% peer mentees compared to a 74%. In Spring 2024, we had a success of 88% peer mentees compared to a 75%. When disaggregated by ethnicity, our Latinx students have had a greater success by attending peer mentoring sessions for Fall 2023 with 87% Latinx and for Spring 2024 with 82% success. We currently have 3 peer mentor liaisons for our Math 150, 151, and 252 who are supporting our peer mentors along the way. This is a much needed program and very necessary for math with all the curriculum changes due to AB1705. If we want to be the college of equity and excellence, I would like to advocate to institutionalize this program as it is a program that has increased our success in our math department.

Summary and Reflection

Review Outcomes Report. Review the unit's outcomes assessment process for 2024 - 2025. Discuss connections to unit goals/action plans/resource requests.
We have successfully completed all of our unit outcomes assessment and have administered all CLOs for all courses. All that needs to be done is to input them on Nuventive. I am very proud of our department for their commitment to address this and the conversations that have revolved around outcomes have been very fruitful.

Provide any edits or updates to the prompts originally documented in the Practice Reflection section for Year 4.
We are continuing with Communities of Practice for our X courses and are currently developing one for our data science class. We are also expanding the role of the course coordinators so that they may have workshops during FLEX week to support adjuncts and other instructors who are teaching it for the first time. Overall, there is a positive outlook when it comes to our practices and a common agreement towards active learning.

YEAR 5 Updates (2026 - 2027)
Provide any edits or updates to the prompts originally documented in the Executive Summary section for Year 5.

Provide any edits or updates to the prompts originally documented in the Data Reflection section for Year 5.

Review Outcomes Report. Review the unit's outcomes assessment process for 2025 - 2026. Discuss connections to unit goals/action plans/resource requests.

Provide any edits or updates to the prompts originally documented in the Practice Reflection section for Year 5.

Unit Goals, Action Plans, and Updates

Goal 1: Complete the Studio Room Redesign

Unit Goal: 1. Community: this room will provide collaborative workspaces, whiteboards, Chromebooks and an electronic whiteboard.
2. Stewardship: this room will include up to date technology that students can utilize in class for Desmos activities and Programming activities.

Goal Status: Completed

Beginning Year: 2022 - 2023

Projected Completion Year: 2023 - 2024

Mapping
Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Community - Objective 1:** Use technology to improve communication and accessibility across campus. (✓)
- **Community - Objective 2:** Develop activities, spaces, and programs that support a sense of belonging with a focus on antiracism, historically minoritized groups, and inclusion. (✓)
- **Community - Objective 3:** Build a culture of communication that is evidence based, race conscious, institutionally focused, systemically aware, and equity advancing (✓)
- **Community - Objective 4:** Remove barriers to equitable participation by developing, incentivizing and creating structures for all employees to engage in and design professional learning (✓)
- **Community - Objective 5:** Increase opportunities to be an asset and resource to the external community (✓)
- **Stewardship - Objective 1:** In collaboration with students, develop a climate action plan aligned with state and city goals that includes a timeline to reduce Mesa College's carbon footprint, focuses on climate literacy and student action, and mitigates Mesa's impact on climate change (✓)
- **Stewardship - Objective 2:** Support processes and initiatives that prioritize environmental sustainability and reduce Mesa College's impact on climate change (✓)
- **Stewardship - Objective 3:** Increase student access and schedule efficiency by coordinating schedules among departments/disciplines (✓)
- **Stewardship - Objective 4:** Establish a college-wide practice and schedule that addresses routine maintenance and renewal of equipment, facilities and technology to ensure access to adequate resources and better serve students (✓)
- **Stewardship - Objective 5:** Increase campus understanding, communication of and transparency in budget and resource allocation (✓)
- **Stewardship - Objective 6:** Develop a proactive hiring plan that includes a review of advertising, screening, and interviewing with a goal of establishing a diverse and competent workforce that is reflective of the student population and the local community (✓)

Unit Goals, Action Plans, and Updates

Goal 2: Create new calculus courses Math 121x and Math 150x with agreed upon textbooks.

Unit Goal: 1. Completion: these courses will eliminate 1 and 2 prerequisite courses, respectively. They will also focus on creating zero cost resources for students that are of the same level of mathematical rigor as the agreed upon textbooks in the department.
2. Community: the practices in these courses will allow for more student group work and more time with their instructor.

Goal Status: Completed

Beginning Year: 2022 - 2023

Projected Completion Year: 2024 - 2025

Mapping
Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Community - Objective 1:** Use technology to improve communication and accessibility across campus. (✓)
- **Community - Objective 2:** Develop activities, spaces, and programs that support a sense of belonging with a focus on antiracism, historically minoritized groups, and inclusion. (✓)
- **Community - Objective 3:** Build a culture of communication that is evidence based, race conscious, institutionally focused, systemically aware, and equity advancing (✓)
- **Community - Objective 4:** Remove barriers to equitable participation by developing, incentivizing and creating structures for all employees to engage in and design professional learning (✓)
- **Community - Objective 5:** Increase opportunities to be an asset and resource to the external community (✓)
- **Completion - Objective 1:** Develop pathways that provide students with clarity about degree, certificate, and transfer requirements. (✓)
- **Completion - Objective 2:** Develop cross - functional teams that support student success and include integrated career and transfer counseling. (✓)
- **Completion - Objective 3:** Design and promote programs and services that intentionally target a reduction in equity gaps in completion outcomes (✓)
- **Completion - Objective 4:** Support students' access to resources to mitigate the impact caused by technological and basic needs insecurity (✓)

Action Plans	Updates
Action Plan Status: Active **Action Plan:** Continue to offer 2 sections of Calculus with Support (Math 121X and Math 150x) and gather data on success rates for these students in the course and in the subsequent course. **Action Plan Cycle:** 2023 - 2024	**Submission Date**: 12/03/2024

Unit Goals, Action Plans, and Updates

Action Plans	Updates
	Action Plan Update: We have continued to offer two sections of 150X and three sections of 121X. The agreed textbooks has been zero-textbook cost using OpenStax and any free online version to decrease student cost. The following are the current success rates for the regular and supported classes: 121: 71% 121X: 76% 150: 65% 150X: 74% As we can see, our supported courses have had a significant increase in success rates compared to the regular courses. This is due to the additional time for active learning and remediation. However, we would like to disaggregate this data by who was in the class and how they do in their subsequent courses to really see the impact, especially in the sciences. We will be working with IE to see this impact. **Update Year**: 2024 - 2025 **Action Plan Progress**: Completed
	Submission Date: 11/16/2023 **Action Plan Update**: We offered 2 sections of Math 121X and Math 150X this semester and are doing the same next semeseter. **Update Year**: 2023 - 2024 **Action Plan Progress**: On Track

Goal 3: Create assignments for Math 118 so that it will qualify for the new Leaf Designation.

Unit Goal: 1. Scholarship: these assignments will focus on sustainable practices, climate change and real-life mathematical problems.
2. Community: the assignments will be given as group projects, when possible, to increase student engagement and collaboration.

Goal Status: Completed

Beginning Year: 2022 - 2023

Projected Completion Year: 2024 - 2025

Mapping
Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Community - Objective 1:** Use technology to improve communication and accessibility across campus. (✓)
- **Community - Objective 2:** Develop activities, spaces, and programs that support a sense of belonging with a focus on antiracism, historically minoritized groups,

and inclusion. (✓)

- **Community - Objective 3:** Build a culture of communication that is evidence based, race conscious, institutionally focused, systemically aware, and equity advancing (✓)
- **Community - Objective 4:** Remove barriers to equitable participation by developing, incentivizing and creating structures for all employees to engage in and design professional learning (✓)
- **Community - Objective 5:** Increase opportunities to be an asset and resource to the external community (✓)
- **Scholarship - Objective 1:** Expand and prioritize professional learning experiences for all employees that create parity in outcomes across racial/ethnic groups and all disproportionately impacted groups (✓)
- **Scholarship - Objective 2:** Evaluate and improve Diversity, Equity, and Inclusion practice in classroom environments, campus activities, departments, schools, and administrative units (✓)
- **Scholarship - Objective 3:** Assess impact of prerequisites and corequisites on student success and revise curriculum, as needed (✓)
- **Scholarship - Objective 4:** Expand the use of innovative and high-quality teaching, learning, and support practices that achieve equitable outcomes and increase student success (✓)
- **Scholarship - Objective 5:** Reduce costs associated with instructional materials to support the elimination of equity gaps (✓)

Action Plans	Updates
Action Plan Status: Active **Action Plan:** Apply for Leaf Status for Math 118 in Spring 2024. **Action Plan Cycle:** 2023 - 2024	**Submission Date**: 12/03/2024 **Action Plan Update**: Math 118 has received Leaf Designation! **Update Year**: 2024 - 2025 **Action Plan Progress**: Completed **Submission Date**: 11/16/2023 **Action Plan Update**: Professor Belden-Hilery is teaching the course this semester and has created an activity relating to the number of trees in Balboa Park over time. **Update Year**: 2023 - 2024 **Action Plan Progress**: On Track

Goal 4: Continue to participate in professional development, with an emphasis on active learning in the classroom.

Unit Goal: 1. Stewardship & Scholarship: help decrease equity gaps and increase success rates.
2. Community: active learning in the classroom will increase student participation, student engagement, and collaboration.

Unit Goals, Action Plans, and Updates

Goal Status: Completed

Beginning Year: 2022 - 2023

Projected Completion Year: 2025 - 2026

Mapping
Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Community - Objective 1:** Use technology to improve communication and accessibility across campus. (✓)
- **Community - Objective 2:** Develop activities, spaces, and programs that support a sense of belonging with a focus on antiracism, historically minoritized groups, and inclusion. (✓)
- **Community - Objective 3:** Build a culture of communication that is evidence based, race conscious, institutionally focused, systemically aware, and equity advancing (✓)
- **Community - Objective 4:** Remove barriers to equitable participation by developing, incentivizing and creating structures for all employees to engage in and design professional learning (✓)
- **Community - Objective 5:** Increase opportunities to be an asset and resource to the external community (✓)
- **Scholarship - Objective 1:** Expand and prioritize professional learning experiences for all employees that create parity in outcomes across racial/ethnic groups and all disproportionately impacted groups (✓)
- **Scholarship - Objective 2:** Evaluate and improve Diversity, Equity, and Inclusion practice in classroom environments, campus activities, departments, schools, and administrative units (✓)
- **Scholarship - Objective 3:** Assess impact of prerequisites and corequisites on student success and revise curriculum, as needed (✓)
- **Scholarship - Objective 4:** Expand the use of innovative and high-quality teaching, learning, and support practices that achieve equitable outcomes and increase student success (✓)
- **Scholarship - Objective 5:** Reduce costs associated with instructional materials to support the elimination of equity gaps (✓)
- **Stewardship - Objective 1:** In collaboration with students, develop a climate action plan aligned with state and city goals that includes a timeline to reduce Mesa College's carbon footprint, focuses on climate literacy and student action, and mitigates Mesa's impact on climate change (✓)
- **Stewardship - Objective 2:** Support processes and initiatives that prioritize environmental sustainability and reduce Mesa College's impact on climate change (✓)
- **Stewardship - Objective 3:** Increase student access and schedule efficiency by coordinating schedules among departments/disciplines (✓)
- **Stewardship - Objective 4:** Establish a college-wide practice and schedule that addresses routine maintenance and renewal of equipment, facilities and technology to ensure access to adequate resources and better serve students (✓)
- **Stewardship - Objective 5:** Increase campus understanding, communication of and transparency in budget and resource allocation (✓)
- **Stewardship - Objective 6:** Develop a proactive hiring plan that includes a review of advertising, screening, and interviewing with a goal of establishing a diverse and competent workforce that is reflective of the student population and the local community (✓)

Unit Goals, Action Plans, and Updates

Action Plans	Updates
Action Plan Status: Active **Action Plan:** Use AB1705 funds to continue with professional development, especially in light of all of the curriculum changes. This will be through means of proposals and curriculum retreats. **Action Plan Cycle:** 2025 - 2026	**Submission Date**: 01/30/2026 **Action Plan Update**: Our goal is to expand our course coordinator roles for a more prolonged PD. We will start by using AB1705 funds and develop workshops for all faculty teaching an X course to incorporate active learning. We used to do this a while back and we are happy to bring it back. Overall, PD has been consistent every semester and we hope to continue. **Update Year**: 2025 - 2026 **Action Plan Progress**: Completed **Submission Date**: 12/03/2024 **Action Plan Update**: We had a curriculum retreat in Summer 2024 to review curriculum for our new innovative course. It was a great retreat filled with great conversations and actionable items for future proposals. This will be ongoing conversations. In addition, we just got approval for a community of practice for our 121X and 150X, spearheaded by Professor Kelly Spoon and Christina Huynh. This will take place in Spring 2025. We submitted a proposal for embedded tutors and that is currently happening in collaboration with the embedded tutoring program. We allocated funds for these students and they will start this Spring as well. We also are looking for an AB1705 coordinator that will be in charge of the proposals. This will lessen the workload for both the dean and the chairs. **Update Year**: 2024 - 2025 **Action Plan Progress**: On Track

Increase CCAP course offerings.

Unit Goal: Increase CCAP course offerings to gain enrollment.

Goal Status: Archived

Beginning Year: 2023 - 2024

Projected Completion Year: 2024 - 2025

Mapping

Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Completion - Objective 1:** Develop pathways that provide students with clarity about degree, certificate, and transfer requirements. (✓)
- **Pathways and Partnerships - Objective 2:** Expand partnerships with K-12 institutions to enhance program offerings and increase access for minoritized students. (✓)
- **Pathways and Partnerships - Objective 3:** Increase community engagement, experiential learning, integrated career planning, and workforce training to prepare students for future careers (✓)

Unit Goals, Action Plans, and Updates

- **Pathways and Partnerships - Objective 4:** Expand intersegmental pathways to create a seamless transition between Mesa and k-12, non-credit, Universities, and careers (✓)

Action Plans	Updates
Action Plan Status: Active **Action Plan:** Devote half of a department meeting to discuss these courses and the positive aspects of teaching these courses. **Action Plan Cycle:** 2023 - 2024	**Submission Date**: 12/03/2024 **Action Plan Update**: With a decrease in FTEF, this has been a challenge. CCAP has also not increased our productivity so we will have to work together with the CCAP coordinator and future Dean of Instruction for guidance. **Update Year**: 2024 - 2025 **Action Plan Progress**: Barriers Encountered

Develop curriculum for Math 120 for Business Majors

Unit Goal: Develop Curriculum for Math 120 for Business Majors as a response to AB 1705.

Goal Status: Archived

Beginning Year: 2023 - 2024

Projected Completion Year: 2024 - 2025

Mapping
Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Completion - Objective 1:** Develop pathways that provide students with clarity about degree, certificate, and transfer requirements. (✓)
- **Completion - Objective 2:** Develop cross - functional teams that support student success and include integrated career and transfer counseling. (✓)

Action Plans	Updates
Action Plan Status: Active **Action Plan:** Work with Math Department Chairs at Miramar and City so that we can offer Math 120 to our Business majors **Action Plan Cycle:** 2024 - 2025	**Submission Date**: 12/03/2024 **Action Plan Update**: No longer a goal. SDSU has accepted our Math 121 for full articulation without the college algebra. **Update Year**: 2024 - 2025 **Action Plan Progress**: Completed

Unit Goals, Action Plans, and Updates

Single-Semester Precalculus Course

Unit Goal: Create a Single Semester Precalculus Course, Math 141X

Goal Status: Completed

Beginning Year: 2023 - 2024

Projected Completion Year: 2024 - 2025

Mapping
Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Completion - Objective 1:** Develop pathways that provide students with clarity about degree, certificate, and transfer requirements. (✓)
- **Completion - Objective 2:** Develop cross - functional teams that support student success and include integrated career and transfer counseling. (✓)
- **Completion - Objective 3:** Design and promote programs and services that intentionally target a reduction in equity gaps in completion outcomes (✓)
- **Completion - Objective 4:** Support students' access to resources to mitigate the impact caused by technological and basic needs insecurity (✓)

Action Plans	Updates
Action Plan Status: Active **Action Plan:** Offer a section of Math 141X in Spring 2024. **Action Plan Cycle:** 2024 - 2025, 2023 - 2024	**Submission Date**: 12/03/2024 **Action Plan Update**: Math 141X has been developed and is our new innovative course. **Update Year**: 2024 - 2025 **Action Plan Progress**: Completed

Change Names of Math 15 Courses

Unit Goal: Change Names of Math 15 Courses so that they reflect the appropriate Support Course

Goal Status: Completed

Beginning Year: 2023 - 2024

Projected Completion Year: 2024 - 2025

Mapping
Mesa College Strategic Plan: Roadmap to Mesa2030:

- **Completion - Objective 1:** Develop pathways that provide students with clarity about degree, certificate, and transfer requirements. (✓)

Unit Goals, Action Plans, and Updates

- **Completion - Objective 2:** Develop cross - functional teams that support student success and include integrated career and transfer counseling. (✓)
- **Completion - Objective 3:** Design and promote programs and services that intentionally target a reduction in equity gaps in completion outcomes (✓)
- **Completion - Objective 4:** Support students' access to resources to mitigate the impact caused by technological and basic needs insecurity (✓)

Action Plans	Updates
Action Plan Status: Active **Action Plan:** Make appropriate change in curriculum **Action Plan Cycle:** 2023 - 2024	**Submission Date**: 01/30/2026 **Action Plan Update**: This is practically completed. It is in the curriculum process. **Update Year**: 2025 - 2026 **Action Plan Progress**: Completed
	Submission Date: 12/03/2024 **Action Plan Update**: City College has taken the charge in making the curricular edits. This is currently in progress. **Update Year**: 2024 - 2025 **Action Plan Progress**: On Track