#  <br> COLLEGE 

## Program Review - Overall Report

Instructional: Mathematics

## Overall Trends

What overall trends do you see in success, retention, program of study, educational planning, and awards over the past 3 or more years?

## Success:

The following numbers represent school year (2015 means 2015-2016 school year, etc.) and success rates: 2015 63.9, 2016 62.3, 2017 61.1, 2018 63.2, 2019 67.9, 202065.5

Success rates climbed in 2019-2020 with the implemation of AB 705 support courses, even with the emergency approved distance education during the Spring 2020 semester. The 2020-2021 data may show that the spike in 2019-2020 was a one off year or the big changes made in that semester were effective but only in a face-to-face setting. It is worth continuing to monitor as we move forward and our courses go back to face-to-face.
As we do return back from the pandemic, it is worth noting the discrepancy in success rates across stictly face-to-face courses ( $66.5 \%$ ) and either hybrid or online courses (51.1\%).
Course-Level: MAT-10, MAT-11, MAT-12, MAT-12H, MAT-1A. MAT-1B, MAT-1C. MAT - 2. M...


Face-to-Face Only Success Rates (Non-online)

Data Review

| Discipline-Level: MAT |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
| Gender | Enrolled | Success | Success <br> Rate | DI <br> Close <br> Gap |  |  |
| Female | $\mathbf{1 8 , 5 4 8}$ | $\mathbf{1 2 , 5 0 7}$ | $\mathbf{6 7 . 4 \%}$ | $\mathbf{0}$ |  |  |
| African American | 1,053 | 691 | $65.6 \%$ | 0 |  |  |
| Asian | 1,765 | 1,396 | $79.1 \%$ | 0 |  |  |
| Hispanic | 11,485 | 7,377 | $64.2 \%$ | 1 |  |  |
| Native American | 59 | 45 | $76.3 \%$ | 0 |  |  |
| Pacific Islander | 65 | 42 | $64.6 \%$ | 0 |  |  |
| Two or More | 291 | 206 | $70.8 \%$ | 0 |  |  |
| Unknown | 155 | 109 | $70.3 \%$ | 0 |  |  |
| White | 3,675 | 2,641 | $71.9 \%$ | 0 |  |  |
| Male | $\mathbf{1 8 , 9 7 5}$ | $\mathbf{1 2 , 4 4 2}$ | $65.6 \%$ | 0 |  |  |
| African American | 857 | 509 | $59.4 \%$ | 1 |  |  |
| Asian | 2,544 | 1,984 | $78.0 \%$ | 0 |  |  |
| Hispanic | 10,717 | 6,652 | $62.1 \%$ | 1 |  |  |
| Native American | 38 | 24 | $63.2 \%$ | 0 |  |  |
| Pacific Islander | 67 | 49 | $73.1 \%$ | 0 |  |  |
| Two or More | 372 | 247 | $66.4 \%$ | 0 |  |  |
| Unknown | 205 | 131 | $63.9 \%$ | 0 |  |  |
| White | 4,175 | 2,846 | $68.2 \%$ | 0 |  |  |
| Total | $\mathbf{3 7 , 5 2 3}$ | $\mathbf{2 4 , 9 4 9}$ | $\mathbf{6 6 . 5 \%}$ | $\mathbf{0}$ |  |  |

Hybrid and Online Success Rates

| Discipline-Level: MAT |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Gender | Enrolled | Success | Success <br> Rate | DI |  |
| Close |  |  |  |  |  |
| Gap |  |  |  |  |  |$|$

## Retention:

Our retention rate over the past six school years (2015 to 2020) has remained stable at just over $80 \%$. There appears to be no meaningful difference in any given year.


## Data Review

## Program of study:

a. Mathematics:

Our program has seen growth each year over the past 5 years, with the latest year having a large increase of $27 \%$ in the size of the program. Stundents from 121 in 2015-2016 to 205 in 2019-2020.

| Gender by Ethnicity | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ Female | 57 | 64 | 74 | 70 | 84 |
| Asian | 5 | 12 | 8 | 9 | 7 |
| Black | 1 | 3 | 7 | 5 | 7 |
| Hispanic/Latino | 34 | 33 | 38 | 39 | 42 |
| Nat Hawaii or Other PI |  |  |  |  | 1 |
| Two or More Races | 1 | 1 | 3 |  |  |
| Unknown/Unreported |  |  |  | 2 | 4 |
| White | 16 | 15 | 18 | 15 | 23 |
| $\square$ Male | 62 | 65 | 92 | 91 | 121 |
| Asian | 10 | 5 | 11 | 15 | 14 |
| Black | 3 |  | 4 | 3 | 2 |
| Hispanic/Latino | 30 | 46 | 60 | 57 | 80 |
| Nat Hawaii or Other PI | 1 |  |  |  | 1 |
| Two or More Races | 5 | 2 | 1 |  |  |
| Unknown/Unreported |  |  |  |  | 1 |
| White | 13 | 12 | 16 | 16 | 23 |
| $\square$ Unreported | 2 | 1 |  |  |  |
| Unknown/Unreported | 1 | 1 |  |  |  |
| White | 1 |  |  |  |  |
| Total | 121 | 130 | 166 | 161 | 205 |

b. Mathematics and Sciences:

The math and science program has grown over the last few years by $11 \%$, however most of that growth occurred in 2017-2018. We have actually declined in size each year over the last two years.

Data Review

| Gender by Ethnicity | $2015-16$ | $2016-17$ | $2017-18$ | $2018-19$ | $2019-20$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| G Female | $\mathbf{1 5 6 3}$ | $\mathbf{1 6 7 6}$ | $\mathbf{1 8 1 3}$ | $\mathbf{1 8 3 7}$ | $\mathbf{1 7 6 4}$ |
| Amer Ind/Alaska Nat | 3 | 1 | 3 | 4 | 1 |
| Asian | 160 | 157 | 184 | 183 | 201 |
| Black | 84 | 109 | 105 | 113 | 112 |
| Hispanic/Latino | 889 | 994 | 1081 | 1111 | 1042 |
| Nat Hawaii or Other PI | 3 | 3 | 5 | 10 | 5 |
| Two or More Races | 48 | 35 | 41 | 35 | 31 |
| Unknown/Unreported | 6 | 8 | 3 | 3 | 16 |
| White | 370 | 369 | 391 | 378 | 356 |
| Male | $\mathbf{1 1 6 1}$ | $\mathbf{1 2 4 7}$ | $\mathbf{1 3 2 5}$ | $\mathbf{1 2 8 7}$ | $\mathbf{1 2 5 1}$ |
| Amer Ind/Alaska Nat | 3 | 1 | 1 |  | 5 |
| Asian | 151 | 175 | 202 | 182 | 198 |
| Black | 53 | 54 | 56 | 52 | 57 |
| Hispanic/Latino | 654 | 736 | 736 | 741 | 664 |
| Nat Hawaii or Other PI | 3 | 2 | 1 | 3 | 3 |
| Two or More Races | 47 | 31 | 36 | 25 | 29 |
| Unknown/Unreported | 4 | 6 | 7 | 12 | 14 |
| White | 246 | 242 | 286 | 272 | 281 |
| Unreported | 24 | 22 | 25 | 27 | 33 |
| Asian | 2 | 5 | 4 | 2 | 2 |
| Total | 2748 | 2945 | $\mathbf{3 1 6 3}$ | 3151 | 3048 |

## Educational planning:

a. Mathematics:

About $15 \%$ completed an education plan.

| Student Educational Pan | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Student did not complete a credit education plan during the term | 80.17\% | 86.15\% | 84.94\% | 90.68\% | 81.95\% | 84.80\% |
| Student developed an abbreviated credit education plan |  | 3.08\% | 0.60\% |  |  | 0.64\% |
| Student developed an abbreviated and a comprehensive credit education plan | 4.13\% | 2.31\% | 2.41\% | 1.86\% | 0.98\% | 2.17\% |
| Student developed a comprehensive credit education plan | 15.70\% | 8.46\% | 12.05\% | 7.45\% | 17.07\% | 12.39\% |
| Total | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |

b. Mathematics and Sciences:

## About 15\% completed an education plan.

| Student Educational Pan | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Student did not complete a credit education plan during the term | 82.13\% | 83.29\% | 84.76\% | 84.45\% | 87.14\% | 84.41\% |
| Student developed an abbreviated credit education plan | 0.47\% | 0.37\% | 0.57\% | 0.44\% | 0.20\% | 0.41\% |
| Student developed an abbreviated and a comprehensive credit education plan | 7.13\% | 2.44\% | 1.90\% | 1.71\% | 1.28\% | 2.80\% |
| Student developed a comprehensive credit education plan | 10.26\% | 13.89\% | 12.77\% | 13.39\% | 11.38\% | 12.38\% |
| Total | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% | 100.00\% |

## Awards:

a. Mathematics degrees:

As our program has grown, so has the amount of awards. Degrees awarded went from 9 in 2015-2016 to 43 in 2019-2020.

| Degrees |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gender x Etnicity | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | Total |
| $\square$ Female | 2 | 3 | 10 | 8 | 16 | 39 |
| Asian |  |  |  | 1 | 1 | 2 |
| Black | 1 |  |  |  | 1 | 2 |
| Hispanic/Latino | 1 | 3 | 4 | 4 | 10 | 22 |
| Two or More Races |  |  | 1 |  |  | 1 |
| White |  |  | 5 | 3 | 4 | 12 |
| $\square$ Male | 7 | 8 | 16 | 20 | 27 | 78 |
| Asian |  | 1 | 4 | 4 | 6 | 15 |
| Black |  |  | 1 | 1 |  | 2 |
| Hispanic/Latino | 3 | 6 | 6 | 9 | 14 | 38 |
| White | 4 | 1 | 5 | 6 | 7 | 23 |
| Total | 9 | 11 | 26 | 28 | 43 | 117 |

b.Mathematics and Sciences degrees:

This roughly follows the same trend of growth in the program with a steady decline in the last two years. Degrees awarded went from 138 in 2015-2016 to 193 in 2019-2020.

| Gender x Etnicity | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ Female | 87 | 98 | 141 | 113 | 104 | 543 |
| Asian | 8 | 11 | 16 | 14 | 16 | 65 |
| Black | 2 | 4 | 13 | 4 | 6 | 29 |
| Hispanic/Latino | 45 | 43 | 78 | 63 | 52 | 281 |
| Nat Hawaii or Other PI |  |  |  | 2 |  | 2 |
| Two or More Races | 7 | 5 | 4 | 1 | 2 | 19 |
| White | 25 | 35 | 30 | 29 | 28 | 147 |
| $\square$ Male | 47 | 59 | 86 | 73 | 88 | 353 |
| American Indian or Alaska Nati |  | 1 |  |  |  | 1 |
| Asian | 5 | 4 | 16 | 17 | 20 | 62 |
| Black | 4 | 3 | 2 | 3 | 2 | 14 |
| Hispanic/Latino | 22 | 30 | 43 | 35 | 33 | 163 |
| Two or More Races | 4 | 1 | 3 | 2 | 3 | 13 |
| Unknown/Unreported | 1 |  |  | 1 | 1 | 3 |
| White | 11 | 20 | 22 | 15 | 29 | 97 |
| $\square$ Unreported | 4 | 3 | 3 | 4 | 1 | 15 |
| Asian |  |  |  |  | 1 | 1 |
| Black | 1 |  |  |  |  | 1 |
| Hispanic/Latino | 2 | 2 | 3 | 1 |  | 8 |
| Unknown/Unreported | 1 | 1 |  | 1 |  | 3 |
| White |  |  |  | 2 |  | 2 |
| Total | 138 | 160 | 230 | 190 | 193 | 911 |

## Disaggregated Student Subgroups

Look at the disaggregated student subgroups in success, retention, program of study, educational planning, and awards for your area. Are there any equity gaps that you will address in the next 3 years?

## Success:

Over the Summer 2015 - Fall 2020 timeframe, it appears that the success rates between female and male subgroups are very similar. However, African American and Hispanic groups have been performing meaningly worse than the other groups. We can see that the Asian subgroup is performing at a significantly higher success rate than the rest, however there would still be a meaningful difference between our White student population success rates compared to African American and Hispanic students. These gaps appear to be the same even if we only look at the 2015-2018 data, so we have not made progress in this area.

Data Review

| Discipline-Level: MAT |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gender | Enrolled | Success | Success <br> Rate | DI | Close Gap |
| Female | 23,665 | 15,109 | 63.8\% | 0 | 0 |
| African American | 1,468 | 850 | 57.9\% | 1 | 89 |
| Asian | 2,112 | 1,640 | 77.7\% | 0 | 0 |
| Hispanic | 14,346 | 8,756 | 61.0\% | 1 | 563 |
| Native American | 79 | 51 | 64.6\% | 0 | 0 |
| Pacific Islander | 83 | 53 | 63.9\% | 0 | 0 |
| Two or More | 395 | 266 | 67.3\% | 0 | 0 |
| Unknown | 209 | 130 | 62.2\% | 0 | 4 |
| White | 4,973 | 3,363 | 67.6\% | 0 | 0 |
| Male | 22,081 | 14,042 | 63.6\% | 0 | 56 |
| African American | 1,063 | 608 | 57.2\% | 1 | 72 |
| Asian | 2,892 | 2,213 | 76.5\% | 0 | 0 |
| Hispanic | 12,339 | 7,429 | 60.2\% | 1 | 595 |
| Native American | 41 | 25 | 61.0\% | 0 | 2 |
| Pacific Islander | 83 | 55 | 66.3\% | 0 | 0 |
| Two or More | 416 | 268 | 64.4\% | 0 | 0 |
| Unknown | 243 | 153 | 63.0\% | 0 | 2 |
| White | 5,004 | 3,291 | 65.8\% | 0 | 0 |
| Total | 45,746 | 29,151 | 63.7\% | 0 | 0 |

## Data Review



## Retention:

Over the Summer 2015 to Fall 2020 timeframe, we can see that African American females have a lower retention rate that the other groups. Historically both Hispanic Males and Females have shown up here as well, so it is worth mentioning that even though they are not highlighted, they are not far away from returning in the future.

Data Review

| Discipline-Level: MAT |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :---: |
| Gender | Enrolled | Retained | Retention <br> Rate | DI | Close <br> Gap |  |
| Female | $\mathbf{2 3 , 6 6 5}$ | $\mathbf{1 9 , 2 6 4}$ | $\mathbf{8 1 . 4 \%}$ | $\mathbf{0}$ | $\mathbf{1 5 7}$ |  |
| African American | 1,468 | 1,161 | $79.1 \%$ | 1 | 40 |  |
| Asian | 2,112 | 1,873 | $88.7 \%$ | 0 | 0 |  |
| Hispanic | 14,346 | 11,531 | $80.4 \%$ | 0 | 282 |  |
| Native American | 79 | 64 | $81.0 \%$ | 0 | 1 |  |
| Pacific Islander | 83 | 65 | $78.3 \%$ | 0 | 3 |  |
| Two or More | 395 | 311 | $78.7 \%$ | 0 | 12 |  |
| Unknown | 209 | 161 | $77.0 \%$ | 0 | 10 |  |
| White | 4,973 | 4,098 | $82.4 \%$ | 0 | 0 |  |
| Male | 22,081 | $\mathbf{1 8 , 1 2 1}$ | $\mathbf{8 2 . 1 \%}$ | $\mathbf{0}$ | 0 |  |
| African American | 1,063 | 852 | $80.2 \%$ | 0 | 18 |  |
| Asian | 2,892 | 2,530 | $87.5 \%$ | 0 | 0 |  |
| Hispanic | 12,339 | 9,956 | $80.7 \%$ | 0 | 176 |  |
| Native American | 41 | 37 | $90.2 \%$ | 0 | 0 |  |
| Pacific Islander | 83 | 71 | $85.5 \%$ | 0 | 0 |  |
| Two or More | 416 | 341 | $82.0 \%$ | 0 | 0 |  |
| Unknown | 243 | 195 | $80.2 \%$ | 0 | 4 |  |
| White | 5,004 | 4,139 | $82.7 \%$ | 0 | 0 |  |
| Total | $\mathbf{4 5 , 7 4 6}$ | $\mathbf{3 7 , 3 8 5}$ | $\mathbf{8 1 . 7 \%}$ | $\mathbf{0}$ | $\mathbf{0}$ |  |

## Data Review



## Program of Study:

a. Mathematics:

It appears our program has seen growth each year over the past 5 years, with the latest year having a large increase of $27 \%$ in the size of the program. It appears white females, Hispanic/Latinx males, and white males make up the majority of this increase. It's interesting that Hispanic/Latinx males increased this last year by $40 \%$ however Hispanic/Latinx females only increased by $8 \%$. Another trend is that the disparity between number of males and females in the program is growing to be a significant gap- $60 \%$ are male, $40 \%$ are female.

| Gender by Ethnicity | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ Female | 57 | 64 | 74 | 70 | 84 |
| Asian | 5 | 12 | 8 | 9 | 7 |
| Black | 1 | 3 | 7 | 5 | 7 |
| Hispanic/Latino | 34 | 33 | 38 | 39 | 42 |
| Nat Hawaii or Other PI |  |  |  |  | 1 |
| Two or More Races | 1 | 1 | 3 |  |  |
| Unknown/Unreported |  |  |  | 2 | 4 |
| White | 16 | 15 | 18 | 15 | 23 |
| $\square$ Male | 62 | 65 | 92 | 91 | 121 |
| Asian | 10 | 5 | 11 | 15 | 14 |
| Black | 3 |  | 4 | 3 | 2 |
| Hispanic/Latino | 30 | 46 | 60 | 57 | 80 |
| Nat Hawaii or Other PI | 1 |  |  |  | 1 |
| Two or More Races | 5 | 2 | 1 |  |  |
| Unknown/Unreported |  |  |  |  | 1 |
| White | 13 | 12 | 16 | 16 | 23 |
| ■ Unreported | 2 | 1 |  |  |  |
| Unknown/Unreported | 1 | 1 |  |  |  |
| White | 1 |  |  |  |  |
| Total | 121 | 130 | 166 | 161 | 205 |

## b. Mathematics and Sciences:

The math and science program has grown over the last few years by $11 \%$, however most of that growth occurred in 2017-2018. We have actually declined in size each year over the last two years. The proportion of female to male students has remained somewhat consistent over the years with roughly $58 \%$ female and $42 \%$ male.

Data Review

| Gender by Ethnicity | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2019-20 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\square$ Female | 1563 | 1676 | 1813 | 1837 | 1764 |
| Amer Ind/Alaska Nat | 3 | 1 | 3 | 4 | 1 |
| Asian | 160 | 157 | 184 | 183 | 201 |
| Black | 84 | 109 | 105 | 113 | 112 |
| Hispanic/Latino | 889 | 994 | 1081 | 1111 | 1042 |
| Nat Hawaii or Other PI | 3 | 3 | 5 | 10 | 5 |
| Two or More Races | 48 | 35 | 41 | 35 | 31 |
| Unknown/Unreported | 6 | 8 | 3 | 3 | 16 |
| White | 370 | 369 | 391 | 378 | 356 |
| E Male | 1161 | 1247 | 1325 | 1287 | 1251 |
| Amer Ind/Alaska Nat | 3 | 1 | 1 |  | 5 |
| Asian | 151 | 175 | 202 | 182 | 198 |
| Black | 53 | 54 | 56 | 52 | 57 |
| Hispanic/Latino | 654 | 736 | 736 | 741 | 664 |
| Nat Hawaii or Other PI | 3 | 2 | 1 | 3 | 3 |
| Two or More Races | 47 | 31 | 36 | 25 | 29 |
| Unknown/Unreported | 4 | 6 | 7 | 12 | 14 |
| White | 246 | 242 | 286 | 272 | 281 |
| $\square$ Unreported | 24 | 22 | 25 | 27 | 33 |
| Asian | 2 | 5 | 4 | 2 | 2 |
| Total | 2748 | 2945 | 3163 | 3151 | 3048 |

## Educational Planning:

## Mathematics and Mathematics and Sciences programs have about $15 \%$ of students with a educational plan,

 whereas College-wide the rate is about $12 \%$. However, math needs a paid faculty lead to work with a counselor and team up to handle the recruitment and advising of the students considering mathematics.
## Awards:

a. Mathematics degrees:

As our program has grown, so has the amount of awards. It is interesting that the increase in number of awards is primarily in the Hispanic/Latinx group. I think it is telling that only 2 total Asian females and 4 total Black students have earned an award over the last 5 years.

| Degrees |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gender x Etnicity | 15-16 | 16-17 | 17-18 | 18-19 | 19-20 | Total |
| $\square$ Female | 2 | 3 | 10 | 8 | 16 | 39 |
| Asian |  |  |  | 1 | 1 | 2 |
| Black | 1 |  |  |  | 1 | 2 |
| Hispanic/Latino | 1 | 3 | 4 | 4 | 10 | 22 |
| Two or More Races |  |  | 1 |  |  | 1 |
| White |  |  | 5 | 3 | 4 | 12 |
| $\square$ Male | 7 | 8 | 16 | 20 | 27 | 78 |
| Asian |  | 1 | 4 | 4 | 6 | 15 |
| Black |  |  | 1 | 1 |  | 2 |
| Hispanic/Latino | 3 | 6 | 6 | 9 | 14 | 38 |
| White | 4 | 1 | 5 | 6 | 7 | 23 |
| Total | 9 | 11 | 26 | 28 | 43 | 117 |

b. Mathematics and Sciences degrees:

This roughly follows the same trend of growth in the program with a steady decline in the last two years.
However, males did not see a decrease whatsoever. This means males tend to earn an award at a higher rate than females tend to earn an award at a higher rate than females. Again, it is quite remarkable how few Black students, Black males in particular who earn an award.

| Gender x Etnicity | $15-16$ | $16-17$ | $17-18$ | $18-19$ | $19-20$ | Total |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| $\square$ Female | $\mathbf{8 7}$ | $\mathbf{9 8}$ | $\mathbf{1 4 1}$ | $\mathbf{1 1 3}$ | $\mathbf{1 0 4}$ | $\mathbf{5 4 3}$ |
| Asian | 8 | 11 | 16 | 14 | 16 | $\mathbf{6 5}$ |
| Black | 2 | 4 | 13 | 4 | 6 | $\mathbf{2 9}$ |
| Hispanic/Latino | 45 | 43 | 78 | 63 | 52 | $\mathbf{2 8 1}$ |
| Nat Hawaii or Other PI |  |  |  | 2 |  | $\mathbf{2}$ |
| Two or More Races | 7 | 5 | 4 | 1 | 2 | $\mathbf{1 9}$ |
| White | 25 | 35 | 30 | 29 | 28 | $\mathbf{1 4 7}$ |
| Male | $\mathbf{4 7}$ | $\mathbf{5 9}$ | $\mathbf{8 6}$ | $\mathbf{7 3}$ | $\mathbf{8 8}$ | $\mathbf{3 5 3}$ |
| $\quad$ American Indian or Alaska Nati |  | 1 |  |  |  | $\mathbf{1}$ |
| Asian | 5 | 4 | 16 | 17 | 20 | $\mathbf{6 2}$ |
| Black | 4 | 3 | 2 | 3 | 2 | $\mathbf{1 4}$ |
| Hispanic/Latino | 22 | 30 | 43 | 35 | 33 | $\mathbf{1 6 3}$ |
| Two or More Races | 4 | 1 | 3 | 2 | 3 | $\mathbf{1 3}$ |
| Unknown/Unreported | 1 |  |  | 1 | 1 | $\mathbf{3}$ |
| White | 11 | 20 | 22 | 15 | 29 | $\mathbf{9 7}$ |
| Unreported | $\mathbf{4}$ | $\mathbf{3}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{1}$ | $\mathbf{1 5}$ |
| Asian |  |  |  |  | 1 | $\mathbf{1}$ |
| Black | 1 |  |  |  |  | $\mathbf{1}$ |
| Hispanic/Latino | 2 | 2 | 3 | 1 |  | $\mathbf{8}$ |
| Unknown/Unreported | 1 | 1 |  | 1 |  | $\mathbf{3}$ |
| White |  |  |  | 2 |  | $\mathbf{2}$ |
| Total | $\mathbf{1 3 8}$ | $\mathbf{1 6 0}$ | $\mathbf{2 3 0}$ | $\mathbf{1 9 0}$ | $\mathbf{1 9 3}$ | $\mathbf{9 1 1}$ |

If there are any concerning trends over the past 3 or more years, or if equity gaps exist, what is your action plan to address them?
As we see in the data, there are equity gaps present in our African American and Hispanic students success rates. Currently our department is working on equity initiatives and projects to specifically target and eliminate these specific equity gaps.
In particular, We have our support courses for MAT 5, MAT 12, MAT 25, and MAT 36 that are supposed close equity gaps according to research done by the California Acceleration Project. (These classes started Fall 19, but we hope to gather more face-to-face data before making conclusions on the effectiveness.) "Mastery grading" is being implemented by one faculty member to determine the effects on the equity gaps. The department would like to consider changing course caps to 36 students. We offer MAT 12 for Umoja, Puente, Men of Color programs and plan to offer 36 to 1B during the 2021 to 2022 school year.
We are participating in a district-wide Math Summer Institute in Summer 2021 specifically targeting these student populations and giving them every possible resource we can think of (embedded tutors, community of practice, student success coaches, paid resources, paid tuition, and a financial stipend) to help students get through a transfer-level math course this Summer.

## Data Review

We submitted an NSF grant proposal titled "The Gonzalez-Escalante Math Project." This proposal specifically targeted our African American and Hispanic STEM student populations and focused on creating meaningful professional development with the goal of increasing access, interest, and success in math courses. We have three math faculty who were accepted into the "Racial Equity in Mathematics Leadership Institute" for Summer 2021. This institute is sponsored by the USC Center for Urban Education and the state Chancellor's office to achieve the following:

- Cultivating an awareness of race and racism and its manifestations in the math classroom,
- Practicing race-consciousness in an affirmative sense when interpreting data,
- Taking responsibility for "seeing" classroom practices as racialized, and
- Taking the actions necessary to dismantle practices that perpetuate racial gaps in classroom outcomes.

Our department is also actively looking for equity focused professional development that we can use in our upcoming courses.

Is there a resource request associated with this Data Review? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

## Section 1: SLO Assessment Status (Based on Dashboard - Assessment Status)

## Which Disciplines are included in this Assessment? <br> Mathematics

What percent of SLOs in the disciplines you identified above have been assessed? 92\%

Which SLOs have not been assessed and why? Identify both the Course and the associated SLO(s).
MAT 42 is not completely assessed(SLOs 1, 3 and 4) as the course has not been taught since the implementation of AB705 in Fall 2019. We are currently in the process of deciding how we will use MAT 42 in future terms, if at all.

MAT 105(SLO 1) and 136(SLO 1) are new courses which started in Fall 2019. The plan was to assess them during Spring 2020, however we decided to push off the assessments until we returned from the Covid pandemic. We plan to assess these in Fall 2021.

MAT 35 (SLO 1 and 3) have not been assessed for similar reasons as above. We recently rewrote the MAT-35 COR and have not yet had a chance to assess these SLOs due to the Covid pandemic. We plan to do these assessments when we return in Fall 2021.

## Section 2: Mapping Status (Based on Dashboard - Mapping Status)

## Are all SLOs mapped to at least one PLO? <br> No

If all SLOs are not mapped to at least one PLOs, please explain why.
MAT 52,53, 64,65 are not mapped, however, these courses will not be taught at Norco College any more. Most have been excluded from Norco or deleted by the discipline. MAT 42 may end up being removed from being taught at Norco (the fate is TBD).
(MAT 5 and 11 were mapped recently if they are still showing)
Are the appropriate SLOs mapped to GELOs? (If you have a course that is listed in any general education area, it should have at least one SLO mapped to at least one GELO) Yes

If the appropriate SLOs are not mapped to GELOs, please explain why.
All courses are mapped. (MAT-1C was mapped recently if it still is showing.)

## Section 3: PLO Analysis (Based on Dashboard - Analysis: PLO Direct Assessment)

Which Programs are included in this Assessment?
ADT - Mathematics and AOE - Math \& Science
Please identify the PLO(s) - and name the associated Program(s) - that achieved benchmarks. PLO 1 - ADT: Mathematics. PLO 2 - ADT Mathematics

## Assessment Review

To what to you attribute this success?
Instruction, support from Math success center, student connections to college through STEM club or other programs.
Please identify the PLO(s) - and name the associated Program(s) - that did not achieve benchmarks.
PLO 1: AOE - Math and Science. PLO 2: AOE - Math and Science. PLO 3: AOE - Math and Science
If there are PLOs that did not achieve benchmarks, what do you plan on doing to improve benchmark attainment?
PLO 1 and 2 were never assessed and PLO 3 does not appear to have a complete assessment. The first step would be to assess this program and see where we land in terms of our benchmarks. This will likely need to be coordinated through the research office on campus.

Section 4: Alignment to Career and Transfer
Describe the process used in this area to ensure programs (PLOs) align with career and transfer needs.
For the math ADT, we had to look at our course SLOs and determine which of them appropriately map into the either given PLO.
Describe the activities, projects, and opportunities this program offers to support experiential learning and alignment of programs to career and transfer (e.g. capstone projects, portfolios, service-learning opportunities).
STEM club with visits to local Cal States, UCs and hands-on projects; stats projects by students in some of our stats courses.

Without looking at your current PLOs, describe some program outcomes which would best help your students continue on the path towards their workforce and transfer goals (e.g. subject matter expertise, hands on experience, partnerships, etc.).
Mathematics students need to know how to think abstractly and produce fine-tuned logical arguments.
Review current PLOs. Do the outcomes listed above align with the current program outcomes? I left out that students also need to be able to look at real data or situations and develop mathematical models to analyze using the abstract and logical minds.

# EMP GOAL 1. Expand college access by increasing both headcount and fulltime equivalent students (FTES). 

## GOALS AND ACTIVITIES

What are you doing now in support of this goal?
Offering Dual enrollment courses with a goal of getting students math requirement accomplised, but also a secondary goal of reaching the students to complete thair first couple years of college at Norco College. Creation of a Stats/Data science course. Data science introduction and Calculus based statistics courses are currently being written -- draft CORs were presented to the discipline Spring 2021.
CRC -- Next Phase program. We offer MAT 105/5 and 112/12 at the local prison.
What are your plans/goals (3-year) regarding this goal?
We would like to expand the course offerings to more local high schools.
We would like to recruit more students to be math majors. (However, we need a faculty member that can take on the role as advisor and recruiter.)
We would like to continue to offer MAT 105/5 and 112/12 at the local prison.

## EVIDENCE

Do you have assessment data or other evidence that relates to this goal?
No assessment data at this time. (We need to research how many dual enrollment students continue at Norco College after high school to see if the secondary goal of recruitment is met.)

## RESOURCES

Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

## EMP GOAL 2. Implement Guided Pathways framework.

## GOALS AND ACTIVITIES

What are you doing now in support of this goal?
Creation of support courses is allowing students to immediately access transfer level math course requirement in their pathway.

## What are your plans/goals (3-year) regarding this goal?

Continued growth as possible.
Continue implementating support courses.
The Math learning center coordinator will work with the AB705 coordinator on topics for the DLAs appropriate and sufficient in the Math success center.

## Program Review: Part 1

## EVIDENCE

Do you have assessment data or other evidence that relates to this goal?
Not yet, the shift to emergency online has halted our assessment process. We plan to renew our assessments as needed in Fall 2021.

RESOURCES
Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

## EMP GOAL 3. Close all student equity gaps.

## GOALS AND ACTIVITIES

What are you doing now in support of this goal?
$A B 705$ support courses to get students through their math requirement in one semester. (We need an AB705 coordinator to support the faculty and continue to grow the resources at the Math success center.) Professional development regarding equity.

What are your plans/goals (3-year) regarding this goal?
We plan to continue offering the classes indefinitely as long as the data suggests students are just as successfull with the support route compared to the other options (MAT 65 to 52 to 35 , then MAT 12, 25, 5,11 or MAT 65 to 52 to 35 to 36 , then MAT 10 followed by Calculus sequence).
Continue with professional development regarding equity.

## EVIDENCE

Do you have assessment data or other evidence that relates to this goal?
The assessment data will be completed once we are back on campus and we allow the support program an opportunity to develop.

## RESOURCES

Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left) Yes

## EMP GOAL 4. Implement professional development around Guided <br> Pathways and equity framework; foster a culture of ongoing improvement.

## GOALS AND ACTIVITIES

What are you doing now in support of this goal?
AB 705 communities of practice. These communities are all about faculty supporting each other and continually finding ways to grow as instructors. The goal is to create the best support program for our students. This group will also communicate with the Math success center which will develop DLAs for the support courses.

## Program Review: Part 1

What are your plans/goals (3-year) regarding this goal?
The more the community of practice can meet and grow, the better off the classes will be. Also, the better off the Math success center will be with students attending for DLAs in addition to tutoring.

## EVIDENCE

Do you have assessment data or other evidence that relates to this goal?
No. We only had one true face-to-face semester.

## RESOURCES

Is there a resource request associated with this EMP Goal? (If yes, please complete a Resource Request, which you can access from the main menu to the left)
Yes

## Program Review Part 2

## Curriculum

## Are all your courses current (within four years)?

No
What percentage of your courses are out of date?
$10 \%$ or less
If you have courses that are not current, are they in the curriculum process?
No
For out of date courses that are not already in progress of updating, what is your plan?
MAT 12 DE has not been updated since 07/02/2012. This must have been overlooked as math updated all the courses recently when changing SLOs to Objectives and condensing the new obejectives to SLOs occured.
The plan is to bring this to the discipline to be updated. It should not take long of updated the COR since it is for DE and likely modifications will be minimal.

Do you have proposals in progress for all the DE courses you intend to file? Yes

Do you require help to get your courses up to date?
No

## Program Review Reflections

What would make program review meaningful and relevant for your unit?

What questions do we need to ask to understand your program plans, goals, needs?

What types of data do you need to support your program plans, goals, needs?
I need data from the Dual enrollment courses. Success, retention, and how many students end up enrolling at Norco college after high school.

If there are any supporting documents you would like to attach, please attach them here.

## Resource Requests

2021-2024

What resources do we already have?
None, we had a coordinator for three semesters.
What resources do you need?
AB 705 (community of practice) coordinator, .2 reassign
Request related to EMP goal or Assessment?
EMP Goal 2,EMP Goal 3,EMP Goal 4
\$ Amount Requested
22,000

## Resource Type

BUDGET: Request Ongoing Funding (Professional Development, Department or Program Support, Outreach, Marketing)

## Potential Funding Source(s)

Equity,General Fund,Guided Pathways
The evidence to support this request can be found in:
Data Review,Program Review: Part 1
This request for my area is Priority \#:
3
2021-2024

What resources do we already have?
None
What resources do you need?
Community of practice for support course faculty (professional development). About 15 hours for 15 faculty members per semester (Fall and Summer)
Request related to EMP goal or Assessment?
EMP Goal 3,EMP Goal 2,EMP Goal 4
\$ Amount Requested
49,500

## Resource Type

BUDGET: Request Ongoing Funding (Professional Development, Department or Program Support, Outreach, Marketing)

## Potential Funding Source(s)

Equity,General Fund,Guided Pathways
The evidence to support this request can be found in:
Data Review,Program Review: Part 1
This request for my area is Priority \#:

## Resource Requests

2021-2024

What resources do we already have?
None
What resources do you need?
Faculty lead for Mathematics program recruitment and advising; . 2 FTE
Request related to EMP goal or Assessment?
EMP Goal 1,EMP Goal 2
\$ Amount Requested
22,000
Resource Type
BUDGET: Request Ongoing Funding (Professional Development, Department or Program Support, Outreach, Marketing)
Potential Funding Source(s)
General Fund,Guided Pathways
The evidence to support this request can be found in:
Data Review
This request for my area is Priority \#:
2

## 2021-2024

What resources do we already have?

What resources do you need?
Tenure Faculty
Request related to EMP goal or Assessment?

## \$ Amount Requested

149,000

## Resource Type

FACULTY: New Full time Faculty (Associate faculty requested through Dept. Chair and Dean)
Potential Funding Source(s)
General Fund
The evidence to support this request can be found in:

This request for my area is Priority \#:
4

All parts of my Program Review have been completed and it is ready for review Yes

