## Survey Results for Mathematics Corequsite Support Courses <br> Fall 2020

Under the implementation of AB705, Citrus College made changes to the following transfer-level math courses: Calculus for Business and Social Sciences (MATH162 + 062), Introductory Statistics (MATH165 + 065), and Pre-Calculus (MATH175 + 075). These changes included students' placement in the math course sequence, classroom redesign, and pedagogy. The purpose of these changes was to increase completion of transfer-level math within a one-year timeframe. To better understand the student experience as a result of these modifications, students were surveyed about their experience in the redesigned corequsite support math courses during the fall 2020 semester. Additionally, due to the COVID-19 pandemic and the transition to remote learning we were interested in understanding students' experience in the remote learning environment. The following is a summary of the survey results.

| Survey results for fall 2020 corequsite math classes | MATH062 <br> Total $N=75$ | MATH065 <br> Total $\mathrm{N}=342$ | MATHO75 <br> Total $\mathrm{N}=95$ |
| :--- | :---: | :---: | :---: |
| 2. How would you rate the helpfulness of each of the following teaching methods and <br> materials used in this course before the campus closed? | $\%$ that rated it moderately or very helpful |  |  |
| 2a. Instructor's lectures | $93.3 \%$ | $94.4 \%$ | $83.2 \%$ |
| 2b. Working in groups | $46.7 \%$ | $67.5 \%$ | $58.9 \%$ |
| 2c. Quality of materials provided (e.g. worksheets, PowerPoint presentations, etc.) | $92.0 \%$ | $92.7 \%$ | $86.3 \%$ |
| 2d. Diversity of format for the content delivered (e.g. video, audio, online, etc.) | - | - | - |
| 2e. Workbook | - | - | - |
| 2f. Textbook | - | - | - |
| 2g. Calculator | - | - | - |
| 2h. Manipulatives (e.g. dice, coins, cards, etc.) | - | - | - |
| 2i. Whiteboard | - | - | - |
| 2j. Movable furniture | - | - | - |
| 2k. Counselor Visit | - | - | - |


| 2I. STEM Center Visit (in class) | - | - | - |
| :--- | :---: | :---: | :---: |
| 2m. Zoom share screen and Zoom whiteboard | $86.7 \%$ | $92.4 \%$ | $84.2 \%$ |
| 3. How would you rate the helpfulness of each of the following teaching methods and <br> materials used in this course after the campus closed? | $\%$ that rated it moderately or very helpful |  |  |
| 3a. Working in groups (Zoom breakout rooms) | - |  | - |


| Survey results for fall 2020 corequsite math classes | MATH062 <br> Total N=75 | MATH065 <br> Total N=342 | MATH075 <br> Total $\mathrm{N}=95$ |
| :---: | :---: | :---: | :---: |
| 3b. Diversity of format for the content delivered in Zoom (e.g. class activity, project, video, audio, online, etc.) | 88.0\% | 91.5\% | 85.3\% |
| 4. During this semester, how often did you use: | \% that used it at least once |  |  |
| 4a. Virtual Instructor Office Hours (including via email, WebAssign, Connect, MyOpenMath, MyMathLab) | 52.0\% | 62.6\% | 56.8\% |
| 4b. Virtual STEM Center tutor (one-on-one) | 5.3\% | 18.7\% | 13.7\% |
| 4c. Virtual STEM Center tutor (study group) | 6.7\% | 15.8\% | 13.7\% |
| 5. How would you rate the helpfulness of: | \% that rated it moderately or very helpful |  |  |
| 5a. In-class tutor (before the campus closed) | - | - | - |
| 5b. Virtual STEM Center tutor (one-on-one) | 18.7\% | 28.1\% | 26.3\% |
| 5c. Virtual STEM Center tutor (study group) | 18.7\% | 26.3\% | 28.4\% |
| 6. How much do you agree or disagree with the following statements (in the online environment)? | \% that rated agree or strongly agree |  |  |
| 6a. The instructor's lectures were effective in helping me learn in the online environment. | 93.3\% | 92.4\% | 81.1\% |
| 6 b. Diversity of content (e.g. class activity, project, video, audio, etc.) were effective in helping me learn in the online environment. | 85.3\% | 92.7\% | 81.1\% |
| 6 c . My instructor helped me succeed in the online environment by reviewing foundations skills right before we tackled more complex problems. | 90.7\% | 92.4\% | 83.2\% |
| 6d. Group work (i.e. working with peers in Zoom breakout rooms) was effective in helping me learn in the online environment. | 50.7\% | 69.6\% | 57.9\% |
| 6e. Working in the Canvas Discussion Boards with my peers was effective in helping me learn in the online environment. | 53.3\% | 61.4\% | 56.8\% |
| 6f. Working with the Zoom share screen and Zoom whiteboard with my peers was effective in helping me learn in the online environment. | 72.0\% | 84.8\% | 72.6\% |
| 6 g . The collaborative learning environment is one reason I participated in Zoom sessions and breakout rooms. | 58.7\% | 77.5\% | 60.0\% |


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| :---: | :---: | :---: | :---: |
| 6h. Having tables arranged in groups was effective in helping me learn (before the campus closed). | - | - | - |
| 6i. I gained a sense of community by being in the online environment. | 53.3\% | 72.2\% | 67.4\% |
| 6 j . I gained a sense of responsibility by being in the online environment. | 73.3\% | 81.0\% | 72.6\% |
| 6 k . I gained a sense of belonging to my class as a learning community in the online environment. | 57.3\% | 77.2\% | 65.3\% |
| 7. Which of the following best captures your feeling about this course? | \% that chose each answer(\% that were successful in the course) |  |  |
| 7a.This course is too easy for me. | $\begin{gathered} \hline 2.7 \% \\ (100 \%) \end{gathered}$ | $\begin{gathered} \hline 2.9 \% \\ (100 \%) \end{gathered}$ | $\begin{gathered} \hline 2.1 \% \\ (100 \%) \\ \hline \end{gathered}$ |
| 7b. This course is the right level for me. | $\begin{aligned} & \hline 76.0 \% \\ & (100 \%) \\ & \hline \end{aligned}$ | $\begin{aligned} & 82.5 \% \\ & \text { (92\%) } \end{aligned}$ | $\begin{aligned} & \hline 81.1 \% \\ & (90 \%) \\ & \hline \end{aligned}$ |
| 7c. This course is too difficult for me. | $\begin{aligned} & 18.7 \% \\ & (67 \%) \end{aligned}$ | $\begin{aligned} & \text { 11.1\% } \\ & \text { (52\%) } \end{aligned}$ | $\begin{aligned} & \text { 12.6\% } \\ & \text { (83\%) } \end{aligned}$ |
| 8. When offered, how often did you participate in the Zoom meetings? | \% that chose each answer |  |  |
| 8a. Always | 34.7\% | 44.4\% | 48.4\% |
| 8b. Sometimes | 46.7\% | 42.7\% | 28.4\% |
| 8c. Never | 8.0\% | 7.3\% | 15.8\% |
| 8d. Not offered in these courses | 8.0\% | 2.0\% | 3.2\% |
| 9. Which type of remote learning environment do you prefer? | \% that chose each answer |  |  |
| 9a. Asynchronous instruction | 26.7\% | 14.9\% | 20.0\% |
| 9b. Synchronous instruction | 22.7\% | 28.7\% | 17.9\% |


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| :---: | :---: | :---: | :---: |
| 9c. Combination instruction | $45.3 \%$ | $52.0 \%$ | $55.8 \%$ |


| Results of STEM Center Usage and Helpfulness by students who used the STEM <br> Center | MATH062 <br> Total $N=75$ | MATH065 <br> Total N=342 | MATH075 <br> Total $=95$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 4. During this semester, how often did you use: | $\%$ that used it at least once |  |  |
| 4b. Virtual STEM Center tutor (one-on-one) | $5.3 \%$ | $18.7 \%$ | $13.7 \%$ |
| 4c. Virtual STEM Center tutor (study group) | $6.7 \%$ | $15.8 \%$ | $13.7 \%$ |
| 5. How would you rate the helpfulness of: <br> filtered by students who used the STEM Center | \% that rated it moderately or very helpful |  |  |
| 5b. Virtual STEM Center tutor (one-on-one) | $25.0 \%$ | $78.1 \%$ | $84.6 \%$ |
| 5c. Virtual STEM Center tutor (study group) | $60.0 \%$ | $64.8 \%$ | $69.3 \%$ |

