## Business Calculus with Corequsite Support Survey Results Fall 2019 and Spring 2020

Under the implementation of AB705, Citrus College made changes to transfer-level math courses with the purpose of increasing completion of transfer-level math within a one-year timeframe. These changes included students' placement in the math course sequence, classroom redesign, and pedagogy. To better understand the student experience as a result of these modifications, students were surveyed about their experience in the newly redesigned Calculus for Business and Social Sciences with Corequsite support (MATH162 + 062) during the fall 2019 and spring 2020 semesters. The following is a summary of the survey results.

Comparing MATH062/162 Survey Results	<b>Fall 2019</b> Total N=76	Spring 2020 Total N=47
2. How would you rate the helpfulness of each of the following teaching methods and materials used in this course before the campus closed?	% that rated it moderately or very helpful	
2a. Instructor's lectures	90.8%	85.1%
2b. Working in groups	90.8%	78.7%
2c. <b>Quality of materials provided</b> (e.g. worksheets, PowerPoint presentations, etc.)	92.1%	89.4%
2d. Diversity of format for the content delivered (e.g. video, audio, online, etc.)	82.9%	83.0%
2e. Workbook	68.4%	55.3%
2f. Textbook	60.5%	42.6%
2g. Calculator	88.2%	93.6%
2h. Manipulatives (e.g. dice, coins, cards, etc.)	43.4%	53.2%
2i. Whiteboard	98.7%	91.5%
2j. Movable furniture	85.5%	76.6%
2k. Counselor Visit	67.1%	63.8%
21. STEM Center Visit (in class)	-	70.2%
3. How would you rate the helpfulness of each of the following teaching methods and materials used in this course after the campus closed?	% that rated it moderately or very helpful	
3a. Working in groups (Zoom breakout rooms)	-	68.1%

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3b. <b>Diversity of format</b> for the content delivered in Zoom (e.g. class activity, project, video, audio, online, etc.)	-	76.6%
4. During this semester, how often did you use:	% that used it at least once	
4a. <b>Virtual Instructor Office Hours</b> (including via email, WebAssign, Connect, MyOpenMath, MyMathLab)	53.9%	70.2%
4b. Virtual STEM Center tutor (one-on-one)	71.1%	23.4%
4c. Virtual STEM Center tutor (study group)	61.8%	25.5%
5. How would you rate the helpfulness of:	% that rated it moderately or very helpful	
5a. In-class tutor (before the campus closed)	72.4%	59.6%
5b. Virtual STEM Center tutor (one-on-one)	63.2%	38.3%
5c. Virtual STEM Center tutor ( <b>study group</b> )	64.5%	42.6%
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.	92.1%	83.0%
6b. <b>Diversity of content</b> (e.g. class activity, project, video, audio, etc.) were effective in helping me learn in the online environment.	-	83.0%
6c. My instructor helped me succeed in the online environment by <b>reviewing foundations skills</b> right before we tackled more complex problems.	90.8%	83.0%
6d. <b>Group work</b> (i.e. working with peers in Zoom breakout rooms) was effective in helping me learn in the online environment.	92.1%	63.8%
6e. Working in the <b>Canvas Discussion Boards</b> with my peers was effective in helping me learn in the online environment.	-	55.3%
6f. Working with <b>the Zoom share screen and Zoom whiteboard</b> with my peers was effective in helping me learn in the online environment.	94.7%	80.9%
6g. The <b>collaborative learning environment</b> is one reason I participated in Zoom sessions and breakout rooms.	80.3%	72.3%
6h. Having <b>tables arranged in groups</b> was effective in helping me learn (before the campus closed).	82.9%	87.2%
6i. I gained a sense of <b>community</b> by being in the online environment.	89.5%	55.3%
6j. I gained a sense of <b>responsibility</b> by being in the online environment.	92.1%	80.9%

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6k. I gained a sense of <b>belonging</b> to my class as a learning community in the online environment.	78.9%	68.1%
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 <b>too easy</b> for me.	3.9% (100%)	6.4% (100%)
7b. This course is the <b>right level</b> for me.	65.8% ( <mark>92%)</mark>	83.0% (100%)
7c. This course is <b>too difficult</b> for me.	27.6% (56%)	6.4% (100%)
8. When offered, how often did you participate in the Zoom meetings?	% that chose each answer	
8a. Always	-	55.3%
8b. Sometimes	-	38.3%
8c. Never	-	0.0%
8d. Not offered in these courses	-	0.0%
9. Which type of remote learning environment do you prefer?	% that chose each answer	
9a. Asynchronous instruction	-	12.8%
9b. Synchronous instruction	-	25.5%
9c. Combination instruction	-	57.4%