



FULLERTON COLLEGE ELEVATING. EXCELLENCE.

Student and Support Services

2022 - 2023 Self-Study

Three-Year Program Review Template

Math Lab

Mathematics and Computer Science

Statement of Collaboration

The program staff listed below collaborated in an open and forthright dialogue to prepare this Self Study. Statements included herein accurately reflect the conclusions and opinions by consensus of the program staff involved in the self-study.

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Authorization

After the document is complete, it must be signed by the Principal Author, the Department Manager, and (when appropriate) the Dean or appropriate Immediate Management Supervisor (IMS) prior to submission to the Program Review Committee.

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1.0 Mission and Goals

[Mission](#), [Vision](#), [Core Values](#) and [College Goals](#) drive all college activities. The Program Review committee would like to understand the connection of your program to the [Mission](#), [Vision](#), [Core Values](#) and [College Goals](#). Summarize how your program supports each area.

Mission: The Fullerton College Math Lab is committed to advancing student learning and achievement by providing consistent access to tutoring and resources for all math students. Students can use the Math Lab to suit their needs, which may include having a set place on campus to complete their math assignments, opportunities to engage with peers in the same level math class, access to computers with internet, or getting assistance from student tutors and instructors. The generous operating hours and modalities of the lab, which include nights, weekends, on-campus tutoring, and virtual tutoring, allow students with different schedules to utilize the various resources. We strive to be a place where students are supported and have a sense of belonging.

Vision: The Math Lab is a place on campus that can help transform lives and inspire positive change. We have seen the impact that the Math Lab has had on our students' views of mathematics, as well as their self-confidence. Students have been able to greatly improve their class grades, as well as their mathematical confidence, through utilizing the Math Lab services. They realize that getting help is not a negative trait, but one of empowerment. As students receive help from tutors, their confidence improves, and they are more willing and able to help others as well. The willingness to seek out guidance from others is a life skill used in college and beyond.

Core Values: The Math Lab operations align with the core values of the college. The Math Lab promotes a sense of community, as a place where math students are always welcome. Each student is greeted when they enter the Math Lab, and students will often arrange their study time to work with peers or with a tutor that they find to be especially helpful. Some students set their schedules to be in the Math Lab when a particular tutor is there, having learned that they work well with certain personalities and techniques.

The Math Lab is committed to equity for all math students that we serve. As technology is utilized more regularly for math homework and instruction, we strive to ensure equitable access to necessary resources. There are computers with internet access and math resources readily available in the Math Lab. This is a great resource for all students, but especially for those who may not have access to reliable internet otherwise. We also have physical copies of course textbooks available for students to refer to while in the Math Lab. As many publishers are moving to digital books (eBooks), fewer students are purchasing costly physical copies of textbooks, and the Math Lab is happy to provide this resource for those who prefer to consult a physical book. Additionally, we have recently obtained an updated magnifier to assist visually impaired students. Our generous hours are intended to serve our entire student population. Students with diverse schedules will find that there is a variety of days and hours to utilize the resources in the Math Lab. From Spring 2020 to Fall 2022, the Math Lab was faced with the challenge of serving students virtually. The Math Lab staff works diligently to provide virtual tutoring through Zoom so that we can continuously assist students that are not on campus.

To serve our diverse student population, the Math Lab employs a diverse group of instructor and student tutors, who have various backgrounds, personalities, and tutoring philosophies. We encourage students to work with a variety of tutors to find individuals that are most compatible with their learning styles.

At the Math Lab, we expect everyone to continue growing and learning. Although tutors differ in their personal styles, they all have the goal of working alongside students to help them understand challenging topics. After

students learn a topic, they are typically encouraged to work on additional examples independently before returning for further tutoring. This policy helps the students realize their own potential and not rely too heavily on tutor help.

College Goals:

The Fullerton College Math Lab supports the College Goals in its operations and policies. We strive to remove barriers to student equity and success. There are several computers with internet access available for students. This not only provides the technology that some students may not have ready access to, but also combines this resource with the availability of timely assistance. Instead of students spending considerable time searching online for solutions, the Math Lab is staffed with live, well-qualified tutors who can help with their assignments. For students that may need to review some prerequisite topics, there are Math Lab Resource worksheets and video lectures available to all students. These resources guide students through a focused topic and then give them the opportunity to try examples on their own.

Tutors in the Math Lab are encouraged to guide students through the problem-solving processes, rather than simply providing a solution. As students receive tutoring and persevere through challenging questions, they not only increase their knowledge about the specific subject but also improve their critical thinking skills. The confidence that students gain in the Math Lab transfers to greater confidence in the classroom, which in turn leads to more engagement, higher assessment scores, and ultimately an increase in course success rates.

The Math Lab fosters a sense of belonging in students, particularly those who attend regularly. We have seen peer-peer and peer-tutor interactions that would not have occurred if not for the Math Lab. Students get to know a variety of instructors and tutors and become increasingly comfortable with them after working together on multiple questions. When students see and interact with these instructors outside of the Math Lab, even with just a “hello”, it promotes this sense of belonging to the campus community.

2.0 Program Description/Data & Trends Analysis

2.1 Describe the purpose, components, and staffing of this program.

The Fullerton College Math Lab is open to all students enrolled in a Fullerton College mathematics course. For the Fall 2022 semester, this includes 4173 students enrolled in 19 distinct courses spread over 133 sections. Table 1 shows the number of students enrolled in Fullerton College mathematics courses by semester since the last program review.

Table 1
Math Student Enrollments
Spring 2019 to Fall 2022 at Census Day

	Spring	Summer	Fall
2019	5978	1262	6719
2020	5928	2048	6567
2021	5047	1278	4477
2022	3329	921	4173

The Math Lab supports students enrolled in these math courses by offering the following services:

- Individual one-on-one tutoring both in-person and virtually, with no appointment necessary
- Mathematics faculty member on duty every hour the Math Lab is open
- Instructional Assistant support all hours the Math Lab is open
- A comfortable and quiet venue for students to work, either independently or collaboratively
- Course-specific Math Lab assignments, chapter reviews, resource worksheets, directed learning activities, as well as instructor-provided worksheets and activities
- Computers for students to access online homework, Canvas, video lectures and other course related materials
- Proctoring services
- Math Lab Canvas page with current Math Lab information and support materials

These services provide students with the support they need to acquire the math skills necessary for timely advancement through their requisite math courses. Math instructors, instructional assistants, and tutors are available to assist students in solving math problems and understanding mathematical concepts. The Math Lab has resources and supplemental materials available for student use both in-print and via Math Lab computers to access a wide range of online materials, DVD lectures, instructional textbooks, Canvas, and online homework platforms. In addition to being a facility where math students can study, receive tutoring, access supplemental resources, and collaborate with classmates, the Math Lab also houses a separate room of computers for students in Computer Science courses and provides all the clerical work necessary to manage this area.

The Math Lab is open Monday through Saturday both in-person (66 hours per week) and virtually (41 hours per week) allowing students ample opportunities to utilize this service. The Math Lab is currently staffed by the Faculty Math Lab Coordinator, the Classified Math Lab Coordinator, two Instructional Assistants, 23 Faculty Math Instructors (at least one present every hour of operation) and five Hourly Tutors.

- 2.2 Staffing – complete the table below. Please list the total number of personnel in each type of position in the department/program. Within each classification in the first column, please list the position titles. For confidentiality, **do not** include the names of any people in the position.

CURRENT STAFF					
Classification (Include position titles)	# of staff in each position title	Percent of employment	Months per year of employment	Source of funding (General / Categorical)	FTE
Managers	1				
Coordinator (4 units of release time)	1	26.7%	10	General	4/15=0.27
Classified	3				
Math Lab Coordinator	1	100%	12	General	12/12=1.00
Instructional Assistants	2	100%	12	General	2[12/12]=2[1.00]=2.00
Faculty (full-time)	9				
The number of full-time Instructors tutoring in the Math Lab varies from semester to semester. For Fall 2022, there are nine full-time Instructors between both Math Lab modalities tutoring an average of 40.83 total hours per week.				General and is either part of load or overload	
Faculty (Adjunct)	14				
The number of adjunct Instructors tutoring in the Math Lab varies from semester to semester. For Fall 2022, there are fourteen adjunct Instructors between both Math Lab modalities tutoring an average of 83.58 total hours per week.				General (Extended Day)	
Hourly - Adult	3				
The number of adult hourly tutors in the Math Lab varies from semester to semester. For Fall 2022, there are three adult hourly tutors working variable hours for an average of 24 total hours per week.					

CURRENT STAFF					
Classification (Include position titles)	# of staff in each position title	Percent of employment	Months per year of employment	Source of funding (General / Categorical)	FTE
Hourly - Student	1				
The number of student hourly tutors in the Math Lab varies from semester to semester. For Fall 2022, there is one student hourly tutor working variable hours for an average of 12 total hours per week.					
Work Study – Tutors	1				
The number of work study student tutors in the Math Lab varies from semester to semester. For Fall 2022, there is one work study student tutor working variable hours for an average of 4 total hours per week.				Federal Work Study is utilized for funding.	
Work Study – Clerical	0				
The number of work study clerical students in the Math Lab varies from semester to semester. For Fall 2022, there are no work study clerical students working each week.					
Professional Experts					
N/A					
	Total FTE				3.27

2.3 Other Resources

OTHER RESOURCES				
Please list each position by classification in the department/program	Services Provided	Number of Hours	Overall Cost	Source of funding (General / Categorical)
Independent Contractors				
N/A				

OTHER RESOURCES				
Please list each position by classification in the department/program	Services Provided	Number of Hours	Overall Cost	Source of funding (General / Categorical)
Volunteers				
N/A				
Interns				
N/A				
Total Hours & Costs				
Total FTE				

- 2.4 Utilize the data provided in the tables above in a discussion of the appropriateness of the staffing levels of this program.

With one instructor on duty, the current staffing levels are insufficient to provide the level of service and support that our students require. Consistently throughout the day, Instructional Assistants are pulled away from their operational duties to cover tutoring sessions when demand is high. Since reopening the on-campus Math Lab after the pandemic, the facility is in need of more student tutors. Many student tutors and adult hourly tutors did not return to work after the pandemic. This has left the Math Lab in dire need of qualified student tutors and adult hourly tutors. These current staffing levels do not meet the student demand for additional services, such as workshops, bootcamps, and review sessions. With the repercussions from AB 705, AB 1705, and COVID-19 learning, many students, now more than ever, need support in basic skills topics required for successful comprehension and completion of course content.

- 2.5 How many students are served? How has this number changed since the last review?

Appendix 2.1 summarizes the number of distinct students the Math Lab served throughout this program review cycle, fall semesters only. Since the last program review cycle, the Math Lab has experienced a dramatic decrease in student utilization, likely due to the COVID-19 pandemic.

- 2.6 Since the previous Program Review Self-Study what significant changes have occurred that impact the services of this program?

Since the last program review cycle, the COVID-19 pandemic has altered Math Lab operations. During the COVID-19 pandemic, the Math Lab shifted to a fully virtual service. This resulted in eliminating the following resources from our daily operations: workshops, bootcamps, review sessions, study hall availability, collaborative workspace, quiet workspace, proctoring services, reference textbooks, and access to computers and Wi-Fi. Generally, all activities that required a physical space or in-person contact were temporarily eliminated from our services. The Math Lab is back in-person and trying to resume pre-pandemic services, however, due to a lack of available funds, staffing, and lowered student attendance, the Math Lab has yet to fully return to pre-pandemic services.

- 2.7 Describe any laws, regulations, trends, policies and procedures or other influences that have an impact on the effectiveness of your program.

AB 705 required our staff to focus tutoring sessions on basic mathematical skills versus the course content in question. Since removing all remedial math courses from department offerings, students need more tutoring sessions, and more time with tutors in individual tutoring sessions, therefore reducing the overall effectiveness of the Math Lab. Appendix 2.1 and Appendix 2.2 show an increase in overall number of tutoring sessions, indicating that since AB 705 was implemented, there is a higher need for tutoring services and Math Lab support.

- 2.8 Provide any other data that is relevant to your self-study, for example, if you collected data to assess an outcome.

Appendix 2.1

Math Lab Student Usage and Tutoring by Course Comparison of Fall Semesters

	Fall 2019				Fall 2020*				Fall 2021*				Fall 2022 (as of 10/31)			
	Math Lab Usage - TimeKeeper			Tutor Logs	Math Lab Usage - TimeKeeper			Tutor Logs	Math Lab Usage - TimeKeeper			Tutor Logs	Math Lab Usage - TimeKeeper			Tutor Logs
Math Course	Distinct Users	Total Visits	Total Hours	Total Sessions	Distinct Users	Total Visits	Total Hours	Total Sessions	Distinct Users	Total Visits	Total Hours	Total Sessions	Distinct Users	Total Visits	Total Hours	Total Sessions
24	38	295	286.4	191	-	-	-	-	-	-	-	-	-	-	-	-
26	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-
30	6	21	18.9	5	-	-	-	-	-	-	-	-	-	-	-	-
31	2	2	1.7	2	0	0	0	0	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-
34	-	-	-	-	-	-	-	-	1	5	0.8	0	-	-	-	-
40	186	1592	1619.5	1241	6	16	3.7	16	6	22	3.1	22	-	-	-	-
41	113	1166	1073.6	406	-	-	-	-	-	-	-	-	-	-	-	-
100	306	2447	2098.5	687	8	40	8.2	40	9	15	3.1	15	92	229	212.6	117
120	316	2955	2862.2	1605	16	78	18.4	78	8	51	13.2	51	102	544	457.8	309
120H	13	229	132.8		0	0	0	0	0	0	0		0	0	0	
121	-	-	-	-	-	-	-	-	2	6	1.5	6	29	93	79.6	51
129	127	1208	1170.3	921	0	0	0	0	-	-	-	-	-	-	-	-
130	94	644	581.6	415	6	31	8.7	31	10	23	4.6	23	28	141	158.6	122
131	-	-	-	-	-	-	-	-	-	-	-	-	9	63	69.4	44
141	198	1669	1718.6	143	11	340	76.4	340	8	50	8.3	50	76	391	413.7	361
141H	12	78	74.5		0	0	0		0	0	0		1	1	0	
142	186	2385	2377.9	1377	16	142	26.5	142	24	288	55.2	288	73	403	437	347
143	-	-	-	-	-	-	-	-	2	3	0.8	3	65	534	584.9	387
144	-	-	-	-	-	-	-	-	-	-	-	-	10	87	109.1	136
151	172	1506	1639.8	1767	17	92	18.4	92	34	347	64.8	347	103	1110	1264.4	1287
151H	5	151	125.6		0	0	0		-	-	-	-	2	3	1.7	
152	93	1752	1571.8	691	9	142	29.1	142	14	95	17.6	95	47	312	254.5	257
171	17	184	160.2	47	2	2	0.7	2	7	77	20.2	77	12	55	35.8	22
172	22	337	303.4	37	1	8	1.8	8	1	23	8.2	23	3	12	7.2	2
251	48	710	724.2	459	8	87	27	87	4	9	3.5	9	15	115	130.4	130
252	23	78	81.6	45978	0	0	0	0	1	6	2.4	6	16	104	92.7	29
253	11	21	22.1	13	0	0	0	0	0	0	0	0	4	17	16.5	6
SEM	3	6	5.6	1	0	0	0	0	-	-	-	-	-	-	-	-
TOTAL	1991	19436	18650.8	11396	100	978	218.9	978	131	1020	207.3	1015	687	4214	4325.9	3607

Note: “-” indicates the course was not offered, “0” indicates the course was offered, but no tutoring sessions were logged.

*Data from Fall 2020 and Fall 2021 reflect students utilizing ONLY virtual tutoring sessions via Zoom not Math Lab resources or collaborative opportunities that the physical Math Lab offered.

Appendix 2.2
Math Lab Tutor Log Session Summary
Spring 2019 – Fall 2022 (as of 10/31)

Math Course	Spring '19		Summer '19		Fall '19		Spring '20		Summer '20		Fall '20		Spring '21		Summer '21		Fall '21		Spring '22		Summer '22		Fall '22	
	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours	Total Sessions	Total Hours
24	316	42.72	-	-	191	24.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	2	0.18	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-
30	97	12.85	-	-	5	0.93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	0	0	-	-	2	0.2	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-	0	0	0	0	-	-	-	-
40	1789	212.67	40	4.35	1241	152.07	349	51.43	0	0	16	3.67	98	18.45	0	0	22	3.07	4	1.27	-	-	-	-
41	257	29.8	5	0.55	406	41.95	207	34.32	-	-	0	0	7	1.28	-	-	-	-	-	-	-	-	-	-
100	714	95.62	159	20	687	95.12	436	61.15	9	1.52	40	8.32	66	11.75	29	5.92	15	305	74	10.97	12	1.4	117	18.32
120	1076	165.87	291	43.85	1605	217.55	524	74.02	40	8.28	78	18.32	85	17.4	8	1.88	51	13.62	20	3.6	57	10	309	43.93
121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	1.33	127	22.87	0	0	51	7.08
129	286	30.07	4	0.5	921	113.67	202	29.23	7	0.82	0	0	1	0.17	4	1.17	-	-	-	-	-	-	-	-
130	1358	174.35	42	5.83	415	51.67	259	34.38	24	3.33	31	8.73	28	5.73	1	0.08	23	4.5	148	30.47	2	0.43	122	0.53
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	4.4
141 141H	1340	154.97	365	39.87	1453	186.25	391	47.4	0	0	340	76.27	21	4.78	37	4.65	50	8.13	24	5.53	58	6	361	50.85
142	1496	162.42	527	62.25	1377	160.87	613	77.6	99	17.72	142	26.52	515	90.12	48	9.13	288	56.1	197	36.8	182	21.92	347	41.1
143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.83	0	0	0	0	387	40.78
144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	14.7
151 151H	1794	251.93	289	42.05	1767	226.8	630	77.53	28	6.28	92	18.35	135	26.38	132	22.8	347	62.72	81	17.55	141	20	1287	196.75
152	967	155.08	192	21.12	691	112.8	481	71.87	13	2.67	142	27.07	252	45.05	34	9.07	95	17.2	219	56.57	136	20.97	257	44.15
171	11	1.8	6	0.63	47	7.13	23	4.97	0	0	2	0.73	2	0.52	0	0	77	20.55	1	0.22	2	0.93	22	5.2
172	22	2.18	0	0	37	5.82	28	5.02	0	0	8	1.75	0	0	0	0	23	8.42	3	0.55	9	1.62	2	0.27
203	67	6.4	-	-	-	-	15	1.42	-	-	-	-	1	0.58	-	-	-	-	6	1.57	-	-	-	-
251	247	42.8	57	9.68	459	72.47	55	9.8	0	0	87	26.97	4	1.42	4	1.58	9	3.45	3	0.43	13	1.67	130	16.15
252	126	21.25	2	0.35	78	14.57	39	6.58	0	0	0	0	43	14.87	1	0.65	6	1.68	3	0.35	0	0	29	5.7
253	11	1.42	0	0	13	2.53	7	1.02	0	0	0	0	0	0	0	0	0	0	11	2.23	0	0	6	0.8
SEM	1	0.02	-	-	1	0.42	0	0	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-
Total	11975	1564.22	1979	251.03	11398	14 87.77	4259	587.74	220	40.62	978	216.7	1258	238.5	298	56.93	1015	506.6	921	190.98	612	84.94	3607	490.71

Note: "-" indicates the course was not offered, "0" indicates the course was offered, but no tutoring sessions were logged.

3.0 Strengths, Weaknesses, Opportunities, Challenges (SWOC)

3.1 Based on your analysis in 2.1 through 2.8, what are the strengths of your program?

- The Math Lab staff and hourly tutors reflect the diversity of our student population.
- The Math Lab supports the college goal to strengthen connections with the community – some tutors are Fullerton College alumni who have transferred, and some faculty are adjunct instructors who teach full-time at feeder high schools and other colleges and universities.
- A mathematics faculty member is on-duty every hour the Math Lab is open.
- The Math Lab hours of operation allow students ample opportunities to utilize Math Lab services.
- The Math Lab welcomes any student enrolled in any Fullerton College mathematics course to utilize the Math Lab.
- In Fall 2022, 76.5% of the 162 surveyed students agreed or strongly agreed that the Math Lab has assisted them in their math course.

<i>Question 1: The Math Lab has assisted me in improving my math skills in my math course.</i>		
Answer	Students	Percent
Strongly Agree	57	35.19%
Agree	67	41.36%
No Opinion	29	17.90%
Disagree	7	4.32%
Strongly Disagree	2	1.23%
Total	162	100%
<i>Question 2: If you have used the Math Lab in previous semesters, has the Math Lab better prepared you for your math course this semester?</i>		
Answer	Students	Percent
Yes	52	32.10%
No	14	8.64%
No Opinion	33	20.37%
First Semester	63	38.89%
Total	162	100%

- With accessible faculty and classified Math Lab Coordinators, the Math Lab supports the needs of the Math Department and individual instructors.
- Through faculty survey results, the following strengths were mentioned:
 - Math Lab tutoring services are offered both on-campus and virtually without an appointment.
 - The Math Lab has knowledgeable staff members, who were also referred to as friendly and excellent.
 - The Math Lab allows students to study and collaborate throughout a wide number of hours per week.

3.2. Based on your analysis in 2.1 through 2.8, what are the weaknesses of your program?

- Staffing in the Math Lab previously included two math instructors and 2-3 tutors per hour; now there is funding for only one instructor and one hourly tutor on duty at any given time.
- The Math Lab does not have sufficient funding to schedule an additional instructor during times of higher demand.

- The Math Lab is not able to offer workshops, bootcamps, and review sessions due to the lack of funding, resources, and rooms to facilitate them.
- With the lack of student tutors currently employed, we need skilled tutors in the higher level and more specialized math courses.
- Through faculty survey results, the following weaknesses were mentioned:
 - The Math Lab needs a collaborative workspace/room where students' conversations and activity will not be disruptive to test-takers and students studying independently.
 - There needs to be more course-related resources such as worksheets, lab assignments, and student editions of textbooks for students to check-out while studying in the Math Lab.
 - Student computers in the Math Lab need updating.
 - There is a lack of Math Lab advertising.

3.3 Based on your analysis in 2.1 through 2.8, what opportunities exist for your program?

- The continuous development of resource worksheets may improve our success and retention rates in certain courses.
- Refining our online tutoring may improve our success and retention rates.
- The Math Lab needs a collaborative work location to provide group tutoring and to host review sessions to ensure that all students are successful in their math courses.
- Having more adjunct faculty in the Math Lab could help students who are unable to meet with their instructors.
- Providing paid training for student tutors would enhance their ability to lead course-specific or topic-specific review sessions.
- Continuing the development of the Math Lab Canvas page to provide additional online student resources.

3.4 Based on your analysis in 2.1 through 2.8, what challenges exist for your program?

- Funding for the Math Lab is a challenge. In order to provide effective math tutoring for the students and to keep the Math Lab operating seamlessly, at the very least, the Math Lab must increase its current staffing levels.
- Post COVID-19, the Math Lab has seen a decline in Math Lab attendance and retention.
- The Math Lab offers limited tutoring hours for higher level math courses.
- With the current housing of the Computer Science Lab inside the Math Lab, there is inadequate space for a collaborative room to provide workshops and review sessions.
- With the implementation of AB 705 and with the upcoming implementation of AB 1705, the Math Lab is encouraging qualified tutors to apply to provide adequate assistance for specialized math courses but is finding it a challenge.

4.0 Outcome Assessment

Note: Sections 4.9 and 4.10 are new. Please review before filling out your outcome tables below.

4.1 List your outcomes and complete the expandable table below.

	What are your program outcomes?	When was the Assessment Completed?	When did you analyze the data?	When were changes made?	Number of Cycles Completed
1.	The Math Lab will offer individualized tutoring to students enrolled in any Fullerton College mathematics course.	Ongoing	Fall 2022	Summer 2014	Two
2.	The Math Lab will offer a variety of resources to support students enrolled in any Fullerton College mathematics course.	Ongoing	Fall 2022	Summer 2014	Two
3.	Upon successful completion of Math N01F, students will be able to report progress in selected areas of individualized units of study.	Ongoing	Fall 2022	This was the first cycle that we collected that data	One

4.2 Assessment: Complete the expandable table below.

	Intended Outcomes	How will you determine if the outcome is met?	How will you collect the data?	Can this data be disaggregated at the student level?	What will the results show?
1.	Increase overall Math Lab student usage to 35%* of total students enrolled in math courses. *This metric is based on Fall 2019 pre-COVID data.	If we achieve the 35% threshold.	Timekeeper/Tableau/ Math Lab Tutoring Logs	Yes	Student utilization of Math Lab services.
2.	Have at least 25%* of students enrolled in the Math Lab utilize the Math Lab services at least 15 times throughout the semester. *This metric is based on Fall 2019 pre-COVID data.	If we achieve the 25% threshold.	Timekeeper	Yes	Students find value in the Math Lab services, and Math Lab usage returned to pre-pandemic levels.

3.	Ensure Math Lab student usage by race/ethnicity and gender reflects, within 5%, the corresponding diversity distribution of all students enrolled in mathematics courses.	If the data confirms the percentages are within the 5% threshold.	Timekeeper/Tableau	Yes	The Math Lab is dedicated to serving a diverse student population and identifying and closing equity gaps.
4.	Identify the race/ethnicity and gender groups that are underperforming and/or under participating relative to the total math student population at Fullerton College. Then, perform outreach to those groups.	If data is collected and then outreach is performed.	Tableau	Yes	The Math Lab is dedicated to serving a diverse student population and identifying and closing equity gaps.

4.3 How has assessment of program outcomes led to improvements in services provided to students by this program?

By assessing the outcomes, we will validate that the Math Lab services have an impact on the students utilizing the Math Lab. We can also reassess our outreach efforts to capture a representative sample of the student population at Fullerton College.

4.4 How has assessment of outcomes led to improvements in student learning and achievement?

The assessment of outcomes has led to improved outreach efforts to underperforming and under participating groups. The data collected confirms that students utilizing the Math Lab have a higher success rate than those that do not utilize the Math Lab.

4.5 What challenges remain to make your program outcomes more effective?

As the Math Department is changing curriculum and removing prerequisite math classes to be compliant with AB 1705, the Math Lab will need more student and adult hourly tutors experienced in the specialized math courses. In particular, the calculus sequence. The data tables below (Appendix 4.1 and Appendix 4.2) show a dramatic increase in the need to serve the calculus students. This is apparent in both the number of sessions completed by the calculus students as well as the increased duration of each session. Similar trends can be seen in Math 100, 120, and 141. Bootcamps, workshops, and DLAs have proven to be effective for underprepared students. In the past, the Math Lab offered such workshops during the summer terms in the Computer Science Lab (Room 807A) located inside the Math Lab when no computer science classes were offered. However, the Math Lab will not be able to offer workshops or bootcamps in Room 807A during Fall or Spring semesters because it is being used by the Computer Science

Department. Room 807A does not currently have a space dedicated to group study sessions. Our intended program outcomes would be more effective if we had at least one room designated for group study sessions. We would be able to help multiple students at once struggling with the same concept, which would result in shorter wait times and increased student achievement. The Math Lab needs more space to provide individualized tutoring, group tutoring, collaborative work areas, and to present review sessions to ensure that all students are successful in their Math courses. This could be accomplished by: 1) Dedicating additional rooms to the Math Lab, like the newly acquired rooms 622A and 622B; 2) Reverting control of Room 611L to the Math/CS Division as was originally planned and promised during the previous remodel of this area; 3) Dedicating an area for Math in the Natural Sciences proposed Campus STEM Resource Center; 4) Incorporating additional Math Lab space into the next classroom office building or possibly dedicating space in the 600 building when remodeling. Additional funding is also needed for Math Lab staffing to provide sufficient out-of-class help and student support. The Math Lab would like to make a concerted effort to increase awareness of all Math Lab services. This can be achieved by Math Lab staff visiting classroom during the first part of the semester, posting informational flyers around the campus, publicizing the Math Lab on the Mathematics Department website, and creating a social media account specifically for the Math Lab. By increasing the awareness of the services that the Math Lab can provide to aid instructors in their courses, most of these issues will be easily addressed.

4.6 Describe how the program's outcomes are linked to the [college's goals](#).

The Math Lab promotes student success by providing resources and tutoring so that students will deepen and broaden their understanding of mathematical concepts. Helping students to be successful in their math classes will increase course completion rates, which ultimately increases completion of certificate and degree programs and transfer-readiness (Goal 1, Objective 4). By offering students drop-in, free, one-on-one tutoring, the Math lab hopes to improve student critical thinking skills (Goal 1, Objective 3).

As a result of the implementation of AB 705, students can complete their required math courses within two years at Fullerton College. Since the elimination of remedial math courses, the Math Lab has continued to provide support to all math students, including those who may lack foundational math skills, thus bridging the possible equity gap that once existed (Goal 2, Objective 1). The Math Lab demonstrates its commitment to cultivating a culture of equity by increasing the employment of bilingual tutors (Goal 2, Objective 2). The Math Lab strives to create a welcoming environment and encourages collaboration that aids students from any socioeconomic group in developing essential math skills.

Lastly, we strengthen our contacts with alumni and partnerships with local feeder high schools and universities. Many of the tutors in the Math Lab are Fullerton College alumni who have transferred to four-year colleges in the area, and several instructors who tutor in the Math Lab also teach full-time at local feeder high schools or full-time/part-time at other universities or colleges (Goal 3, Objective 1).

4.7 Describe how the program's outcomes support the achievement of the [institution level SLOs](#).

Since the passing of AB 705, the college is no longer permitted to offer basic skills courses. Many of the students come into our courses lacking the foundational math skills necessary to be successful in the currently offered courses. We support the achievement of the institutional level SLOs by providing tutoring that assists students to fill in knowledge gaps in order to complete their math courses. With the recent passing of AB 1705, students will be permitted to enroll directly into the calculus sequence without necessarily having the prerequisite skills needed

to be successful. The Math Lab assists students on their path to completing calculus courses within one year. With this support, students will develop the skills, knowledge, attitude, and ability to complete their transfer requirements, and continue on their path to other colleges or universities or entering the workforce. Students that receive Math Lab support and guidance can write proofs of mathematical theorems (1B, 2A). They can analyze and interpret data using technology (2C), present the findings of their research verbally (1D) and, in writing, using various graphs and diagrams (1B). During one-on-one interactions with an instructor or a tutor, students are expected to communicate effectively both orally and in writing (1B, 1D), accept criticism if mistakes are found in their work (1C), and respond appropriately to changing situations (4A). For example, the Math Lab does not help with test corrections, and sessions are limited to 10 minutes. This means that students are expected and encouraged to find problems similar to the ones they are working on in the textbook (1A). They can also use Math Lab computers to research online and offline resources such as instructional video lessons and graphing calculator tutorials available through publisher materials both virtually and in-person (1C). Additionally, we help students with computations, tables, charts, and graphs (2B) and application problem-solving (2D).

4.8 A. What methods are used to assess the program's success in serving the student population that interacts with your program?

- Student surveys
- TimeKeeper Reports
- Math Program SLO (PSLO) assessment results
- Observations made by Math Lab staff
- Analyzing completion and success rates through Tableau

B. What do the results of the above methods of assessment indicate about the effectiveness of the program?

Most of the students that participated in the Fall 2022 Math Lab survey, 76.5%, rated the Math Lab services as helpful in improving their math skills, which implies that the program is effective. Despite this statistic, we know that we can be more effective in serving students who prefer to work in collaborative groups while continuing to support students who need a quiet study area. This could be achieved by dedicating additional spaces to the Math Lab and by increasing our staffing levels. With AB 705's elimination of most remedial math classes taking full effect in Summer 2022, we still need to focus on the needs of underprepared students over the course of the next several years.

<i>Question 1: The Math Lab has assisted me in improving my math skills in my math course.</i>		
Answer	Students	Percent
Strongly Agree or Agree	124	76.5%
No Opinion	29	17.9%
Strongly Disagree or Disagree	9	5.6%
Total	162	100%

C. How were the assessment results used to make improvements to services provided by this program? Please provide examples.

The Math Lab staff continually collects data on the students who are being tutored as well as observes and monitors the dynamics of the Math Lab. The data and observations are assessed and used to make improvements in the services the Math Lab offers. For example, when we noticed that the demand for statistics tutoring increased, we hired more statistics-centered staff to help facilitate those tutoring sessions. Additionally, with the continuation of online course offerings, the Math Lab decided to permanently offer two modalities, on-campus and virtual tutoring (via Zoom), that is accessible to all students enrolled in Fullerton College math courses. Lastly, based on recent student suggestions to revive the Math Lab workshops and bootcamps, we have determined that, now more than ever, having a group or collaborative space for students learning those difficult concepts is needed, ideally in an area with whiteboards that will facilitate group learning. This is best accomplished by having a separate group tutoring area with a second instructor on duty. This improvement can only come to fruition when the Math Lab obtains more space and funding.

4.9 At least one outcome listed in 4.1 should address the following:

A. List the outcomes that focus on individual student learning or actions.

- Outcome #1: Increase the overall Math Lab student usage.
- Outcome #2: Have at least 25% of students enrolled in the Math Lab utilize the Math Lab services at least 15 times throughout the semester.
- Outcome #3: Ensure Math Lab student usage by race/ethnicity and gender reflects, within 5%, the corresponding diversity distribution of all students enrolled in math courses.
- Outcome #4: Identify the race/ethnicity and gender groups that are underperforming and/or under participating relative to the total math student population at Fullerton College. Then perform outreach to those groups.

B. Identify methods to assess outcomes in such a way that the data can be disaggregated.

When considering Outcome #1 and Outcome #2, TimeKeeper reports and Math Lab tutoring logs allow for the continuous tracking of Math Lab usage, both in distinct visits and in time dedicated to tutoring specific courses. These metrics can be seen in Appendix 4.1 and Appendix 4.2.

To consistently measure the effectiveness of Outcome #3 and Outcome #4, Tableau can disaggregate data by race/ethnicity and gender. In Table 2 and Table 3 in Section 4.10, we can identify the overall completion rates and overall success rates by race/ethnicity and gender of students that visited the Math Lab. Here, completion rates refer to math students who were enrolled in the course at the conclusion of the semester and success rates refer to students who obtained an A, B, C, or P in the course at the conclusion of the semester.

C. Identify a process for using outcome assessment data to improve student services programs.

The Math Lab will continue collecting data via TimeKeeper and Tableau that will provide information pertaining to the success of outcomes listed in Section 4.2. By reviewing the data, the Math Lab will employ skilled tutors to accommodate the demands of the students. With the allocation of a collaborative workspace, the Math Lab will likely appeal to a new subset of students, thus improving Math Lab student utilization, success, and retention rates.

- D. Identify a process for assessing outcomes and collecting data that can be used to build dashboards (where applicable).

We would like to merge the information that Tableau has with information from TimeKeeper to better track the facility usage based not only on gender, race/ethnicity, but also on which math course the student is enrolled in, and eventually their success in that course as well. Currently we are manually obtaining data from TimeKeeper to export into OIE reports via Tableau. We would like to streamline this process via a potential joint TimeKeeper-Tableau Dashboard.

4.10 Outcomes Equity Analysis

- A. Looking at one outcome from 4.9, do you find significant differences by race, ethnicity, gender, and other categories? Describe here what the data shows. What strategies will you use to close the attainment gaps among groups of students? What kinds of professional learning would help?

In the process of completing this cycle's Program Review, we accumulated data regarding overall Math Department completion and success rates based on student Math Lab attendance. This data was categorized by race/ethnicity and gender as shown in Table 2 and Table 3 below. The Math Lab is in the process of obtaining data regarding students who use the Math Lab versus students who do not use the Math Lab. This can be utilized to assess equity gaps and begin outreach to underserved populations. Appropriate professional learning opportunities will be examined upon comparison of analyzed data.

Table 2
Overall Completion Rates by Gender and Ethnicity
(Enrolled in a Math Course and Attended Lab)

Gender	Fall 2019	Spring 2020	Summer 2020	Fall 2020	Spring 2021	Summer 2021	Fall 2021	Spring 2022	Grand Total
Female	74.9%	71.7%	78.6%	85.1%	78.8%	83.3%	77.9%	77.2%	75.3%
Male	72.4%	65.1%	81.8%	72.9%	71.2%	89.6%	77.7%	74.5%	71.9%
Non-Binary / Transgender	72.4%	79.2%	-	100.0%	-	100.0%	83.3%	87.5%	78.8%
Unknown	75.1%	71.3%	66.7%	50.0%	83.3%	87.5%	70.6%	92.3%	75.3%
Grand Total	73.7%	68.3%	78.6%	78.6%	75.6%	86.8%	77.6%	76.4%	73.6%
Ethnicity	Fall 2019	Spring 2020	Summer 2020	Fall 2020	Spring 2021	Summer 2021	Fall 2021	Spring 2022	Grand Total
American Indian	50.0%	-	-	-	100.0%	100.0%	0.0%	-	60.0%
Asian	80.7%	75.9%	80.0%	100.0%	89.3%	94.4%	92.8%	85.6%	82.3%
Black	63.8%	60.7%	-	-	16.7%	100.0%	44.4%	87.5%	62.5%
Filipino	86.9%	79.4%	100.0%	-	66.7%	87.5%	84.4%	92.9%	84.8%
Latinx	71.4%	65.3%	77.5%	77.4%	73.6%	88.0%	73.8%	69.0%	70.7%
Unknown/Not Reported	69.4%	78.7%	100.0%	100.0%	80.0%	87.5%	81.0%	78.0%	77.8%
Pacific Islander	66.7%	75.0%	-	-	-	-	-	-	70.0%
Two or More	77.8%	71.6%	66.7%	75.0%	93.3%	60.0%	78.8%	80.6%	76.6%
White	75.1%	66.3%	75.0%	66.7%	75.0%	82.3%	77.8%	85.3%	74.1%
Grand Total	73.7%	68.3%	78.6%	78.6%	75.6%	86.8%	77.6%	76.4%	73.6%

Table 3
Overall Success Rates by Gender and Ethnicity
 (Enrolled in a Math Course and Attended Lab)

Gender	Fall 2019	Spring 2020	Summer 2020	Fall 2020	Spring 2021	Summer 2021	Fall 2021	Spring 2022	Grand Total
Female	56.6%	65.3%	64.3%	76.6%	70.3%	72.7%	63.5%	61.5%	61.5%
Male	53.3%	57.6%	72.7%	64.6%	67.9%	80.6%	62.1%	59.1%	57.6%
Non-Binary / Transgender	51.7%	72.9%	-	100.0%	-	66.7%	66.7%	62.5%	61.4%
Unknown	64.2%	64.9%	66.7%	50.0%	66.7%	75.0%	52.9%	65.4%	63.8%
Grand Total	55.1%	61.4%	67.1%	70.4%	69.0%	76.4%	62.5%	60.4%	59.6%
Ethnicity	Fall 2019	Spring 2020	Summer 2020	Fall 2020	Spring 2021	Summer 2021	Fall 2021	Spring 2022	Grand Total
American Indian	0.0%	-	-	-	100.0%	100.0%	0.0%	-	40.0%
Asian	65.9%	68.3%	70.0%	87.5%	89.3%	94.4%	86.9%	78.0%	72.2%
Black	40.5%	46.4%	-	-	16.7%	100.0%	33.3%	43.8%	42.1%
Filipino	71.3%	73.5%	100.0%	-	50.0%	75.0%	77.8%	76.2%	72.7%
Latinx	50.2%	57.1%	60.0%	69.4%	61.3%	73.9%	53.6%	50.6%	53.8%
Unknown/Not Reported	57.4%	78.7%	100.0%	100.0%	80.0%	87.5%	73.8%	66.0%	71.7%
Pacific Islander	66.7%	50.0%	-	-	-	-	-	-	60.0%
Two or More	70.1%	67.6%	66.7%	75.0%	86.7%	60.0%	59.6%	66.7%	67.8%
White	60.1%	62.6%	75.0%	55.6%	75.0%	69.4%	68.3%	70.2%	63.5%
Grand Total	55.1%	61.4%	67.1%	70.4%	69.0%	76.4%	62.5%	60.4%	59.6%

Appendix 4.1
Percent of Tutoring Time Dedicated to Each Math Course
Spring 2019 - Fall 2022 (as of 10/31)

Math Course	Spring '19		Summer '19		Fall '19		Spring '20		Summer '20		Fall '20		Spring '21		Summer '21		Fall '21		Spring '22		Summer '22		Fall '22	
	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent	Total Sessions	Percent
24	316	2.64%	-	-	191	1.68%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	2	0.02%	0	0%	0	0%	0	0%	0	0%	-	-	-	-	-	-	-	-	-	-
30	97	0.81%	-	-	5	0.04%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	0	0%	-	-	2	0.02%	0	0%	0	0%	0	0%	0	0%	-	-	-	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0%	0	0%	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	0	0%	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	0	0%	-	-	0	0%	0	0%	-	-	-	-
40	1789	14.94%	40	2.02%	1241	10.89%	349	8.19%	0	0%	16	1.64%	98	7.79%	0	0%	22	2.17%	4	0.43%	-	-	-	-
41	257	2.15%	5	0.25%	406	3.56%	207	4.86%	-	-	0	0%	7	0.56%	-	-	-	-	-	-	-	-	-	-
100	714	5.96%	159	8.03%	687	6.03%	436	10.24%	9	4.09%	40	4.09%	66	5.25%	29	9.73%	15	1.48%	74	8.03%	12	1.96%	117	3.24%
120	1076	8.99%	291	14.70%	1605	14.08%	524	12.30%	40	18.18%	78	7.98%	85	6.76%	8	2.68%	51	5.02%	20	2.17%	57	9.31%	309	8.57%
121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	0.59%	127	13.79%	0	0%	51	1.41%
129	286	2.39%	4	0.20%	921	8.08%	202	4.74%	7	3.18%	0	0%	1	0.08%	4	1.34%	-	-	-	-	-	-	-	-
130	1358	11.34%	42	2.12%	415	3.64%	259	6.08%	24	10.91%	31	3.17%	28	2.23%	1	0.34%	23	2.27%	148	16.07%	2	0.33%	122	3.38%
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	1.22%
141 141H	1340	11.19%	365	18.44%	1453	12.75%	391	9.18%	0	0%	340	34.76%	21	1.67%	37	12.42%	50	4.93%	24	2.61%	58	9.48%	361	10.01%
142	1496	12.49%	527	26.63%	1377	12.08%	613	14.39%	99	45.00%	142	14.52%	515	40.94%	48	16.11%	288	28.37%	197	21.39%	182	29.74%	347	9.62%
143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.30%	-	-	0	0%	387	10.73%
144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	3.77%
151 151H	1794	14.98%	289	14.60%	1767	15.50%	630	14.79%	28	12.73%	92	9.41%	135	10.73%	132	44.30%	347	34.19%	81	8.79%	141	23.04%	1287	35.68%
152	967	8.08%	192	9.70%	691	6.06%	481	11.29%	13	5.91%	142	14.52%	252	20.03%	34	11.41%	95	9.36%	219	23.78%	136	22.22%	257	7.13%
171	11	0.09%	6	0.30%	47	0.41%	23	0.54%	0	0%	2	0.20%	2	0.16%	0	0%	77	7.59%	1	0.11%	2	0.33%	22	0.61%
172	22	0.18%	0	0%	37	0.32%	28	0.66%	0	0%	8	0.82%	0	0%	0	0%	23	2.27%	3	0.33%	9	1.47%	2	0.06%
203	67	0.56%	-	-	-	-	15	0.35%	-	-	-	-	1	0.08%	-	-	0	0%	6	0.65%	-	-	-	-
251	247	2.06%	57	2.88%	459	4.03%	55	1.29%	0	0%	87	8.90%	4	0.32%	4	1.34%	9	0.89%	3	0.33%	13	2.12%	130	3.60%
252	126	1.05%	2	0.10%	78	0.68%	39	0.92%	0	0%	0	0%	43	3.42%	1	0.34%	6	0.59%	3	0.33%	0	0%	29	0.80%
253	11	0.09%	0	0%	13	0.11%	7	0.16%	0	0%	0	0%	0	0%	0	0%	0	0%	11	1.19%	0	0%	6	0.17%
SEM	1	0.01%	0	0%	1	0.01%	0	0%	-	-	-	-	-	-	0	0%	-	-	-	-	-	-	-	-
Total	11975	100%	1979	100%	11398	100%	4259	100%	220	100%	978	100%	1258	100%	298	100%	1015	100%	921	100%	612	100%	3607	100%

Note: "-" indicates the course was not offered, "0" indicates the course was offered, but no tutoring sessions were logged.

Appendix 4.2
Average Tutoring Session Length (in mins) per Math Course
Spring 2019 - Fall 2022 (as of 10/31)

Math Course	Spring '19		Summer '19		Fall '19		Spring '20		Summer '20		Fall '20		Spring '21		Summer '21		Fall '21		Spring '22		Summer '22		Fall '22	
	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length	Total Sessions	Session Length
24	316	8.1	-	-	191	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	2	5.5	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-
30	97	7.9	-	-	5	11.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31	0	0	-	-	2	6	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-	-	0	0	0	0	-	-	-	-
40	1789	7.1	40	6.5	1241	7.4	349	8.8	0	0	16	13.8	98	11.3	0	0	22	8.4	4	19	-	-	-	-
41	257	7.0	5	6.6	406	6.2	207	9.9	-	-	0	0	7	11	-	-	-	-	-	-	-	-	-	-
100	714	8.0	159	7.5	687	8.3	436	8.4	9	10.1	40	12.5	66	10.7	29	12.2	15	12.2	74	18.9	12	7	117	9.4
120	1076	9.2	291	9.0	1605	8.1	524	8.5	40	12.4	78	14.1	85	12.3	8	14.1	51	16	20	10.8	57	10.5	309	8.5
121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	13.3	127	10.8	0	0	51	8.3
129	286	6.3	4	7.5	921	7.4	202	8.7	7	7	0	0	1	10	4	17.5	-	-	-	-	-	-	-	-
130	1358	7.7	42	8.3	415	7.5	259	8.0	24	8.3	31	13	28	12.3	1	5	23	11.7	148	12.4	2	13	122	8.7
131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	6
141 141H	1340	6.9	365	6.6	1453	7.7	391	7.3	0	0	340	13.5	21	13.7	37	7.5	50	9.8	24	12.3	58	6.2	361	8.5
142	1496	8.1	527	7.4	1377	7.0	613	7.6	99	10.7	142	11.4	515	10.5	48	11.4	288	11.7	197	11.4	182	7.2	347	7.1
143	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	16.7	-	-	0	0	387	6.3
144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	136	6.5
151 151H	1794	8.4	289	8.7	1767	7.7	630	7.4	28	13.5	92	12	135	11.7	132	10.4	347	10.9	81	13	141	8.5	1287	9.2
152	967	9.6	192	8.5	691	9.8	481	9.0	13	12.3	142	11.2	252	10.7	34	16	95	10.9	219	15.5	136	9.3	257	10.3
171	11	9.8	6	6.3	47	9.1	23	13	0	0	2	22	2	15	0	0	77	16	1	13	2	28	22	14.2
172	22	6.0	0	0	37	9.4	28	10.8	0	0	8	13.1	0	0	0	0	23	22	3	11	9	10.8	2	8
203	67	5.7	-	-	-	-	15	5.7	-	-	-	-	1	35	-	-	0	0	6	15.7	-	-	-	-
251	247	10.4	57	10.2	459	9.5	55	10.7	0	0	87	18.6	4	21.3	4	23.8	9	23	3	8.7	13	7.7	130	7.5
252	126	10.1	2	10.5	78	11.2	39	10.1	0	0	0	0	43	20.8	1	39	6	16.8	3	7	0	0	29	11.8
253	11	7.7	0	0	13	11.7	7	8.7	0	0	0	0	0	0	0	0	0	0	11	12.2	0	0	6	8
SEM	1	1	0	0	1	25	0	0	-	-	-	-	-	-	0	0	-	-	-	-	-	-	-	-
Total	11975	n/a	1979	n/a	11398	n/a	4259	n/a	220	n/a	978	n/a	1258	n/a	298	n/a	1015	n/a	921	n/a	612	n/a	3607	n/a

Note: "-" indicates the course was not offered, "0" indicates the course was offered, but no tutoring sessions were logged.

5.0 Evaluation of Progress Toward Previous Strategic Action Plans

5.1 List the goals from your last self-study/program review.

- Strategic Action Plan 1: Math Lab Expansion (physical space and services offered)
- Strategic Action Plan 2: Increase Quantity and Quality of Math Lab Tutors
- Strategic Action Plan 3: Offer Workshops, Review Sessions, Bootcamps and Instructor-led Study Groups

5.2 Describe the level of success and/or progress achieved in the goals listed above.

Strategic Action Plan #1: Math Lab Expansion

This goal has not been achieved and continues to be a goal of the Math Lab. The Math Lab needs a room in close proximity to the current facility, ideally 807A, which is a separate room within the current Math Lab. This would provide a space for collaboration between students taking the same math course without interrupting other activities in the Math Lab. Math students of all levels could discuss and collaborate on problems, work together in groups, use whiteboards to share ideas with other students, and have an instructor available to facilitate discussions.

Strategic Action Plan #2: Increase Quantity and Quality of Math Lab Tutors

This goal has not been achieved and continues to be a need of the Math Lab. Over the COVID-19 pandemic, the Math Lab lost 12 student tutors, and we now have a staff of five student tutors. The Math Lab would like to hire enough tutors to cover every hour that the Math Lab is open, ideally this would be about five or more tutors. It is an ongoing process of taking applications, interviewing potential candidates, and performing outreach. As for the quality of tutors, we are working on implementing trainings and hiring tutors with an advanced math background and previous tutoring experience.

Strategic Action Plan #3: Offer Workshops, Review Sessions, Bootcamps and Instructor-Led Study Groups

This goal was being implemented before the pandemic, but the quarantine forced the Math Lab to cancel all workshops and bootcamps during the pandemic. The Math Lab made efforts to maintain the level of support for students, but attendance significantly declined. These workshops, bootcamps, and study groups are still requested by students, but due to lack of funding, this continues to be a need of the Math Lab.

5.3 How did you measure the level of success and/or progress achieved in the goals listed above?

The goals were measured qualitatively with a “yes” or “no” success. These goals were not accomplished. Without the resources or allocation of a space to expand the physical environment, the Math Lab has been unable to reach these goals.

5.4 Provide examples of how the goals in the last cycle contributed to the continuous quality improvement of your program.

We were not successful in reaching the goals from the last program review cycle.

5.5 In cases where resources were allocated toward goals in the last cycle, how did the resources contribute to the improvement of the program?

Resources were not allocated towards the Math Lab goals.

5.6. If funds were not allocated in the last review cycle, how did it impact your program?

Funds and space were not allocated, so we were unable to expand the Math Lab, increase quantity and quality of tutors, nor offer workshops, review sessions, bootcamps and instructor-led study groups.

6.0 Strategic Action Plans (SAP)

Using the tables below, list the strategic action plans (SAPs) for your program. These plans should follow logically from the information provided in the self-study. Use a separate table for each SAP.

SAPs for this three-year cycle:

STRATEGIC ACTION PLAN # 1		
Strategic Action Plan Name:	Math Lab Expansion into 807A as a collaborative learning environment for mathematics students requiring: - Computers (about 12) - Mobile white boards 3-4 round tables with chairs - Tech tables (with charging capabilities)	
List College goal/objective the plan meets:	College Goal #1: Promotes Success for Every Student Objective #3: Improve student critical thinking skills Objective #4: Increase completion of courses, certificate and degree programs, and transfer-readiness	
Briefly describe the SAP, including title of person(s) responsible and timeframe, in 150 words or less.	Investigate the need and feasibility to provide an area (room 807A) where math students of all levels can discuss and collaborate on problems, work together in groups, use whiteboards to share ideas with other students, and have an instructor available to facilitate discussions and provide assistance as needed. The Faculty Math Lab Coordinator, Classified Math Lab Coordinator, Instructional Assistants, and Division Dean are the persons responsible. If properly funded, the timeframe for implementation could be as soon as Fall 2023.	
What <i>Measurable Outcome</i> is anticipated for this SAP?	An increase in the number of students utilizing Math Lab services and improved performance of those students in their math courses.	
What specific aspects of this SAP can be accomplished without additional financial resources?	Obtaining room 807A for Math Lab usage.	
If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.		
Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel		
Facilities	Renovation of classroom – tables, tech tables, chairs, and other renovations (Approx. \$112,250)	One-Time Fund/Program Review/Grant/Other
Equipment	Mobile whiteboards (Approx. \$1000)	One-Time Fund/Program Review/Grant/Other
Supplies		
Computer Hardware	12 computer stations (Approx. \$24,000)	One-Time Fund/Program Review/Grant/Other
Computer Software	Support programs (Approx. \$4000 per semester)	One-Time Fund/Program Review/Grant/Other

Training		
Other		
Total Requested Amount	\$137,250 plus \$4,000 ongoing/semester	One-Time Fund/Program Review/Grant/Other

STRATEGIC ACTION PLAN # 2		
Strategic Action Plan Name:	Increase Quantity and Quality of Math Lab Tutors	
List College goal/objective the plan meets:	College Goal #1: Promotes Success for Every Student Objective #2: Enhance workforce training opportunities Objective #3: Improve student critical thinking skills Objective #4: Increase completion of courses, certificate and degree programs, and transfer-readiness College Goal #2: Cultivate a Culture of Equity Objective #2: Increase equity in hiring and training Objective #3: Increase outreach to and recruitment of students from underserved populations Objective #4: Foster a sense of belonging where all are welcome and student basic needs are met College Goal #4: Commit to Accountability and Continuous Quality Improvement Objective #3: Provide professional and career development opportunities for students, faculty, and staff	
Briefly describe the SAP, including title of person(s) responsible and timeframe, in 150 words or less.	Hire more tutors to meet student demand. Qualified tutors with knowledge of 100-level transfer courses, such as Math 100 (Liberal Arts Mathematics) and Math 120 (Introductory Probability and Statistics) are especially needed, now that more students, in the wake of AB 705, AB 1705, and the COVID-19 pandemic, are taking those courses without previous basic skills enrollment. The Faculty Math Lab Coordinator, Classified Math Lab Coordinator, Instructional Assistants and Division Dean are the persons responsible. If properly funded, and with quality applicants, this SAP could be met within one semester.	
What <i>Measurable Outcome</i> is anticipated for this SAP?	An increase in the number of tutors and an increase in student satisfaction reported in the end-of-semester survey.	
What specific aspects of this SAP can be accomplished without additional financial resources?	None, unless time is donated by qualified students or faculty.	
If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.		
Type of Resource	Requested Dollar Amount	Potential Funding Source

Personnel	Approx. \$1,000 per week would allow for one additional tutor (Approx. \$39,000 per year)	General Fund/Grant/Program Review/Other
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training	\$2,000 per semester (including summer session)	General Fund/Grant/Program Review/Other
Other		
Total Requested Amount	\$45,000 per year	General Fund/Grant/Program Review/Other

STRATEGIC ACTION PLAN # 3	
Strategic Action Plan Name:	Offer Workshops, Review Sessions, Bootcamps, and Instructor-led Study Groups
List College goal/objective the plan meets:	College Goal #1: Promotes Success for Every Student Objective #3: Improve student critical thinking skills Objective #4: Increase completion of courses, certificate and degree programs, and transfer-readiness College Goal #2: Cultivate a Culture of Equity Objective #4: Foster a sense of belonging where all are welcome, and student basic needs are met College Goal #4: Commit to Accountability and Continuous Quality Improvement Objective #3: Provide professional and career development opportunities for students, faculty, and staff
Briefly describe the SAP, including title of person(s) responsible and timeframe, in 150 words or less.	Investigate the need for and feasibility of offering workshops, review sessions, bootcamps, and instructor-led study groups to students at all levels of mathematics, with specific attention to those students in first year college level courses who, in the wake of AB 705, AB 1705, and the COVID-19 pandemic, may not have recently taken a basic skills course. An investigation could be done relatively quickly, and implementation could happen as early as Fall 2023 with adequate financial support. The Faculty Math Lab Coordinator, Math Department Coordinator, Classified Math Lab Coordinator, Instructional Assistants, and Division Dean are the persons responsible.
What <i>Measurable Outcome</i> is anticipated for this SAP?	An improvement in the performance of participating students in their math courses.

What specific aspects of this SAP can be accomplished without additional financial resources?	None, unless time is donated by qualified students or faculty.	
If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.		
Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel	Approx. \$60/hr. per 2 hr. workshop (48 per semester/summer = \$5,760)	General Fund/Grant/Program Review/Other
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	\$5,760 per semester/summer	General Fund/Grant/Program Review/Other

STRATEGIC ACTION PLAN # 4	
Strategic Action Plan Name:	Develop resource worksheets and further develop the Math Lab Canvas page to provide increased virtual assistance for online students.
List College goal/objective the plan meets:	College Goal #1: Promotes Success for Every Student Objective #3: Improve student critical thinking skills Objective #4 Increase completion of courses, certificate and degree programs, and transfer-readiness College Goal #2: Cultivate a Culture of Equity Objective #1: Remove institutional barriers to student equity and success
Briefly describe the SAP, including title of person(s) responsible and timeframe, in 150 words or less.	From AB 705, AB 1705, and the COVID-19 pandemic, students are entering math courses without the basic skills necessary to be successful in solving problems and understanding new concepts. The Math Lab would like to identify the necessary basic skills for each course and develop resource worksheets/reviews (similar to DLAs) so students can engage in just-in-time remediation individually or collaboratively. Students can then successfully proceed into new material with more confidence and clarity. Students can also utilize these prior to a course and the department can utilize these in bootcamps/workshops. The Math Lab would like to further develop the Canvas page and make these resources available to students virtually. An investigation could be done relatively quickly, and implementation

	could happen as early as Fall 2023 with adequate financial support. The Faculty Math Lab Coordinator, Math Department Coordinator, Classified Math Lab Coordinator, Instructional Assistants, and Division Dean are the persons responsible.	
What <i>Measurable Outcome</i> is anticipated for this SAP?	An improvement in the performance of participating students in their math courses.	
What specific aspects of this SAP can be accomplished without additional financial resources?	None, unless time is donated by qualified staff or faculty.	
If additional financial resources would be required to accomplish this SAP, please complete the section below. Keep in mind that requests for resources must follow logically from the information provided in this self-study.		
Type of Resource	Requested Dollar Amount	Potential Funding Source
Personnel	Approx. \$60/hr. Approx. 2 hours per worksheet. 50 worksheets total. \$6000	General Fund/Grant/Program Review/Other
Facilities		
Equipment		
Supplies		
Computer Hardware		
Computer Software		
Training		
Other		
Total Requested Amount	\$6000	General Fund/Grant/Program Review/Other

7.0 Long Term Plans

Describe the long-term plans (four-six years) for your program. Please consider future trends in your narrative. Identifying financial resources needed for these plans is optional.

The Math Lab will continue offering support services to all students enrolled in Fullerton College Math courses. We hope to expand and tailor these services through personalized support that recognizes the individual needs of our students. The Math Lab would like to expand the current tutoring services that are available to Fullerton College Math students. Expansion of these services would include holding instructor-led collaborative group study sessions located in Room 807A. We would also like to offer tutors trained specifically in our specialized math courses, including, but not limited to, Liberal Arts Mathematics, Statistics, and Calculus. In addition, we would like to expand the use of on-campus and virtual Math Lab support, such as resource worksheets, course-specific worksheets, and course videos on Canvas. Furthermore, the Math Lab would like to reinstate review/topic study sessions to enhance prerequisite skills and hold bootcamps prior to the start of a semester. With the acquisition of Room 807A, located within the Math Lab facility, the Math Lab can provide ample space for workshops, bootcamps, and collaboration without interfering with daily operations. These long-term plans also regularly include analysis of data to close achievement gaps identified within the diverse population of Fullerton College.

7.1 Describe in detail your need for additional resources as listed above (if applicable)

8.0 Self-Study Summary

This section provides the reader with an overview of the highlights, themes, and key segments of the self-study. It should not include new information that is not mentioned in other sections of this document.

Since opening in 1967, the Math Lab has had 55 years to grow and refine its mission, procedures, and policies to serve the ever-changing student population of Fullerton College. The Math Lab offers excellent support to all levels of Fullerton College Mathematics courses and students with a variety of resources. In the wake of AB 705, AB 1705, and the COVID-19 pandemic, the Math Lab recorded a decrease in student attendance. Tutoring services were being utilized at increasing levels pre-pandemic, and instructors started to introduce activities and instructor assignments. The Math Lab would like to reintroduce review/topic sessions that hopefully evolve into an excellent resource that supports student learning and enhances student understanding of concepts as well as provide an opportunity for collaborative discussion among students and faculty. During the process of Program Review, the Math Lab staff and members of the Math Department had the opportunity to meet and discuss the current and future needs of the Math Lab and how we can better serve our students. Additionally, the Math Lab intends to utilize and analyze data to ensure the offered services align with institutional goals and trends of Fullerton College students. In short, the Math Lab needs to increase its staffing levels in all areas, hire additional qualified tutors, and acquire more space to facilitate its expansion goals. As the Fullerton College Math Lab evolves with the aim toward continuous quality improvement, it will continue to play a crucial role in the mathematical development of the students it serves.

9.0 Publication Review

Fullerton College is committed to assuring integrity in all representations of its mission, programs, and services. As such, during the program review self-study process programs are required to document their publications (websites, brochures, magazines, pamphlets, etc.) that are used to promote programs and services to the campus community and community at-large. This review should specify when the publication was last reviewed, if the information in the publication is accurate, and if the information correctly represents the college's mission, programs, and services.

Information on the college's graphic standards is available here: <http://news.fullcoll.edu/campus-communications/web-help/graphics/>.

In the far right column please provide the URL where the publication can be accessed. If it cannot be accessed via the Internet, please provide a sample of the publication with your program review self-study. If you have any questions about what type of publication should be included, please contact Lisa McPheron, Director of Campus Communications at lmcpheon@fullcoll.edu.

For publications that you have identified as inaccurate, please provide the action plan for implementing corrections below.

Publication	Date last reviewed	Is the information accurate?	URL of publication
Website	Fall 2022	Yes	https://math.fullcoll.edu/math-lab/
Virtual Orientation	Fall 2022	Yes	https://www.youtube.com/watch?v=S4fvQNjTmAs&t=5s
Canvas	Fall 2022	Yes	(see screenshots below)

Math Lab Canvas

Below are screenshots of the Canvas page that is available to enrolled students in Math N01F, the Math Lab course.

≡ 12606 MATH N01 F

Immersive Reader

Fall 2022

Home

View Course Stream

View Course Calendar

View Course Notifications

To Do

Nothing for now

Welcome to the Fullerton College Math Lab

Announcements:

The on-campus and virtual Math Lab will be closed Thursday, November 24 - Saturday, November 26 in observance of Thanksgiving.
The Math Lab will reopen in both modalities on Monday, November 28.

Welcome Fullerton College Math and CSCI Students!

Please select the desired page below for more information.

- Math Lab General Info
- Math Tutoring
- CSCI Tutoring
- Course Support Materials
- On-Campus Math Lab Info
- + Additional Resources



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Home



Math Lab General Info

The Math Lab is open to all Fullerton College students registered in a Math or Computer Science course.

Math Lab Policies

By using the Virtual Lab resources, you are agreeing to abide by the following policies:

[Student Handout - Virtual and OnCampus.pdf](#) ↓

[Math Lab Virtual Tutoring Policy.pdf](#) ↓

Additional Math Lab Information

Additional information can be found on our website:

[Fullerton College Math Lab Website](#) ↗

Contact Us

If you have any questions or concerns please email mathlab@fullcoll.edu for assistance or watch the short orientation video at the bottom of this page.

Suggestion Box

If at any time, you have a comment or concern regarding the Math Lab, please leave a comment through the [Virtual Suggestion Box](#). ↗



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Home

Math Student Information

The Math Lab is open to all Fullerton College students registered in a Mathematics course.

On-Campus Math Lab Hours and Location

On-Campus Hours:

Monday	7:30am - 8:45pm
Tuesday	7:30am - 8:45pm
Wednesday	7:30am - 8:45pm
Thursday	7:30am - 8:45pm
Friday	8:00am - 3:00pm
Saturday	8:00am - 2:00pm
Sunday	Closed

On-Campus Location:

Fullerton College Room 807

Virtual Math Lab Hours and Location

Virtual Hours:

Monday	10:00am - 6:00pm
Tuesday	10:00am - 6:00pm
Wednesday	10:00am - 6:00pm
Thursday	10:00am - 6:00pm
Friday	10:00am - 3:00pm
Saturday	10:00am - 2:00pm
Sunday	Closed

Virtual Location:

Click this [link](#), or enter the following Meeting ID on Zoom: 975 2798 2766

Mathematics Course Availability Schedule

Please use the tabs below to find out when Math Lab instructors are available for tutoring in your math course.

Expand All Collapse All

Math 100

Math 120/121

Math 130/131

Math 141/143

Math 142/144

Math 151

Math 152

Math 171

Math 172

Math 251

Math 252

Math 253

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CSCI Student Information

The Math Lab is open to all Fullerton College students registered in a Computer Science course.

On-Campus CSCI Lab Hours and Location

On-Campus Hours:

Day	CSCI Lab Open for Study Hours	CSCI Lab Open for In-Person Tutoring
Monday	7:30am - 8:45pm	12:35pm - 1:50pm 2:00pm - 3:35 pm
Tuesday	7:30am - 8:45pm	9:30am - 1:15pm
Wednesday	7:30am - 8:45pm	12:35pm - 1:50pm 2:00pm - 3:35pm
Thursday	7:30am - 8:45pm	9:30am - 2:30pm
Friday	8:00am - 3:00pm	CSCI Tutoring Unavailable
Saturday	8:00am - 2:00pm	CSCI Tutoring Unavailable
Sunday	Closed	CSCI Tutoring Unavailable

On-Campus Location:

Fullerton College Room 807

During Fall 2022, the on-campus CSCI Lab will function as a study/computer space when a CSCI instructor is not on duty. In order to utilize the on-campus CSCI Lab, you must have a valid Fullerton College or Cypress College student ID card. When visiting, please see a Math Lab staff member to access the CSCI Lab.

Virtual CSCI Tutoring Hours and Location

Day	Virtual Tutoring Hours
Monday	CSCI Tutoring Unavailable
Tuesday	1:20pm - 2:45pm
Wednesday	CSCI Tutoring Unavailable
Thursday	1:20pm - 2:45pm
Friday	10:00am - 12:00pm
Saturday	CSCI Tutoring Unavailable
Sunday	CSCI Tutoring Unavailable

Virtual Location:

To access the virtual CSCI tutoring, please click this [link](#), or enter the following Meeting ID on Zoom: 975 2798 2766

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Math Lab

Video Supplements & Resources

Here you can find extra course material that may be helpful in your studies. Please click on your desired course to see available resources.

[Math 142 \(Trigonometry\)](#)

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Home

Math 142 Trigonometry

Support Materials

Expand All Collapse All

Resource Worksheets for Prerequisite Material

This tab contains material that helps build the foundational knowledge needed for Math 142.

[ML RWS #1 Simplifying Square Roots with Answer Key.docx](#) ↓

[ML RWS #2 Pythagorean Theorem with Answer Key.docx](#) ↓

[ML RWS #3 Rationalizing the Denominator with Answer Key.docx](#) ↓

[ML RWS #4 Factoring \$ax^2+bx+c\$, \$a=1\$ with Answer Key.docx](#) ↓

[ML RWS #5 Factoring \$ax^2+bx+c\$ with Answer Key.docx](#) ↓

[ML RWS #6 Special Right Triangles with Answer Key.docx](#) ↓

[ML RWS #7 Fractions with Answer Key.docx](#) ↓

[ML RWS #8 Graphing and Equations of Lines with Answer Key.docx](#) ↓

[ML RWS #9 Graphing and Equations of Parabolas with Answer Key.docx](#) ↓

[ML RWS #10 Graphing and Equations of Circles with Answer Key.docx](#) ↓

• Support Materials/Graphs/Graph Paper

Blank Unit Circle

[Word File](#) 

[PDF](#) 

Unit Circle

[Word File](#) 

[PDF](#) 

The Six Basic Trig Graphs

[Blank Graph Paper](#) 

[Completed Graphs](#) 

Polar Graph Paper

[Word File](#) 

[PDF](#) 

• Chapter Reviews

This tab contains reviews for each chapter in Math 142.

Chapter 1

[Word File](#) 

[PDF](#) 

Chapter 2

[Word File](#) 

[PDF](#) 

Chapter 3

[Word File](#) 

[PDF](#) 

Chapter 4

[Word File](#) 

[PDF](#) 

Chapter 5

[Word File](#) 

[PDF](#) 

Chapter 6

[Word File](#) 

[PDF](#) 

Chapter 7

[Word File](#) 

[PDF](#) 

Chapter 8

[Word File](#) 

[PDF](#) 

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On-Campus Math Lab

Campus Check-In Procedure

- As of Aug. 22, 2022, Fullerton College Students will no longer need to go through a check-in area to obtain a wristband before going to class or accessing in-person services.
- Students must be in compliance with the NOCCCD Vaccine Mandate to access in-person classes and services. Students may be asked to show their vaccine mandate status in myGateway or on the Fullerton College mobile app at any time while accessing in-person classes and/or services.
- For questions related to vaccine mandate compliance, please call, 714-992-7160.
- For questions related to contact tracing, please call, 714-992-7053.

Math Lab Check-In Requirements

- Always scan in when entering the Math Lab.
- Bring your attempted work along with any resources (book, notes, etc.) to the tutor.
- For students working on the computers in the Math Lab, please make note of your computer number before asking for a tutor.
- Don't forget to scan out when exiting the lab!

In-Person Math Lab Resources

When accessing the Math Lab in person, the following resources are available to you:

- Study space with designated tables for each math course.
- Computers with DVD lectures.
- Lab assignments and other instructional aids.
- Copies of your textbook.
- Make-up exams (provided with instructor approval only).

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Additional Resources

Textbook and/or Calculator Rentals

Currently enrolled Fullerton College students can request books, textbooks, calculators, and a few other items from the library for pickup. Please click [HERE](#)  for more information.

Tutoring Center

The Fullerton College Tutoring Center is currently offering online tutoring. To access their online appointment system, please visit their [WEBSITE](#) .

Math Success Program (formerly FC Miles)

The Math Success Program is a free online math success program designed to strengthen your math skills and support your math course. For more information and a list of which classes are supported, please visit their [WEBSITE](#) .

Routing & Response Page

Originator ☐ IMS ☐ Program Review Chair ☐ Appropriate President's Staff Member

Originator: *Electronically submit completed Program Review to Division Dean/IMS for review.*

Appropriate Immediate Management Supervisor (IMS): *Select one and provide response if necessary. Forward electronically to appropriate Vice President's Office.*

RESPONSE

Printed name of IMS

Title

Date

☐

I concur with the findings contained in this Program Review.

☐

I concur with the findings contained in this Program Review with the following exceptions (include a narrative explaining the basis for each exception):

Area of exception:

☐

I do not concur with the findings contained in this Program Review (include a narrative explanation):

Appropriate President's Staff Member: *Print Program Review, sign, and route both hard copy and electronic version to Program Review Chair.*

ACKNOWLEDGING RECEIPT

Printed Name

Signature

Title

Date



Fullerton College Mission Statement

MISSION

Fullerton College advances student learning and achievement by developing flexible pathways for students from our diverse communities who seek educational and career growth, certificates, associate degrees, and transfer. We foster a supportive and inclusive environment for students to be successful learners, responsible leaders, and engaged community members.

VISION

Fullerton College will transform lives and inspire positive change in the world.

*Approved by Fullerton College
President's Advisory Council and
accepted by President Schulz
May 2017.*

VALUES

Community

We promote a sense of community that enhances the well-being of our campus and surrounding areas.

Diversity

We embrace and value the diversity of our entire community.

Equity

We commit to equity for all we serve.

Excellence

We honor and build upon our tradition of excellence.

Growth

We expect everyone to continue growing and learning.

Inclusivity

We support the involvement of all in the decision-making process.

Innovation

We support innovation in teaching and learning.

Integrity

We act in accordance with personal integrity and high ethical standards.

Partnership

We work together with our educational and community partners.

Respect

We support an environment of mutual respect and trust that embraces the individuality of all.

Responsibility

We accept our responsibility for the betterment of the world around us.