

Co-Req Math



ANNUAL

REPORT OF PROGRAM DATA

2021

July 1, 2020 through June 30, 2021



UNIVERSITY of HAWAII®
HAWAII
COMMUNITY COLLEGE

1. Program or Unit Description

Hawaii CC has STEM and non-STEM mathematics pathways. We teach a variety of first-year math courses and offer a single level of remediation for those students who do not place into college-level math courses. Math 98 is targeted for incoming students with math skills below that of a general college-level course but who do not want to spend an extra semester in remediation. Instead, students are able to take a college-level course (e.g. Math 100) with Math 98 as a co-requisite. As a co-requisite course, Math 98 is not a program, and has no specific PLOs. Instead, it follows the SLOs for the individual math courses for which it is co-req'd and the PLOs for the program they belong to (Liberal Arts, Natural Science, etc.).

Math 98 will serve as a co-requisite for Math 100 or Math 115 students who do not place into that course but require remediation. Students will be able to take Math 98/Math 100 or Math 98/Math 115 (after approval from CRC, see below) instead of having to take Math 75X (first semester) and then Math 100 or Math 115 (second semester), thus fast-tracking students towards completion of a college math course within the first year.

2. Analysis of the Program/Unit

[UHCC Annual Report of Program Data \(VARPD\)](#)

Fifty-nine percent of first year Hawai'i CC students enrolled in a math class in their first two semesters. This does not meet the UH System enrollment goal of 100% enrollment in a math class during the first year of study.

The efficiency goal for 2022 is to have 75% of students placed at one-level below college ready to pass college-level math within a semester of enrolling. In 2020-21, 22% of students one level below college-level math passed college-level math in the first semester. This is substantially below the goal of 75%. For students who placed two levels below, the 2022 goal is 70% passing college-level math within one year of enrolling in math. In the 2020-21 year, 41% of students that placed two levels below completed college-level math. In general, our lowest level math placers are still far below the goals set. Interestingly, 59% of students who had no math placement passed college-level math within two semesters of enrolling in 2020-21. Overall, 61% of new students completed a college level math course, which is encouraging.

Looking closer, the ARPD data (see table below) seems to be skewed for the placement of students at one and two levels below college-level math. For students that placed one level below, the ARPD shows 27 total students enrolled and six completed. The actual number of students enrolled in Math 97E and Math 82X, courses that are remediation for students that place one-level below college math, was 169 students. The low completion rate may be due to the high number of students who

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placed two levels below being enrolled in a one-level below course. These students are forced to enroll in the one-level below courses, because we don't offer lower levels of remediation.

Many of our students are part-time, adjust their schedules without the input of an academic advisor, and complete certificates that do not require a math course. The UH System enrollment goal of 100% during the first year of study continues to be unachievable without a system in place that is built into Banner/STAR that requires students to enroll in Math courses in their first year.

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College: **Hawai'i Community College**
Program: **Co-Req Math**

Print ARPD

ENROLLMENT GOAL: 100% of new students enroll in Math in their first year

Table 1. Percent of New Students Attempting Math in their First Year

Fall Semester	New Students ¹	Enrolled in Any Math	% Enrolled	Did Not Enroll	% Not Enrolled
Fall 2018	442	257	58%	185	42%
Fall 2019	495	283	57%	212	43%
Fall 2020	397	235	59%	162	41%

¹ Entering fall as first-time freshmen or first-time at campus transfers, no prior Math courses, classified, degree-seeking only.

EFFICIENCY BY PLACEMENT GOALS:

- By 2021, 75% of students placed at one level below college-ready standards will complete their college-level Math course within one semester of enrolling in Math.
- By 2021, 70% of students placed at two or more levels below college-ready standards will complete their college-level Math course within one year of enrolling in Math.

Table 2. Strategic Directions: College-Level Math Completion by Placement, New Students ¹

Math Placement	AY 2018-19			AY 2019-20			AY 2020-21		
	Enrolled	Completed ²	% Completed College Level	Enrolled	Completed ²	% Completed College Level	Enrolled	Completed ²	% Completed College Level
College	288	175	61%	301	191	63%	265	197	74%
1-level	8	3	38%	52	20	38%	27	6	22%
2+ levels	102	35	34%	90	31	34%	121	50	41%
Technical Math	0	-	-	0	-	-	0	-	-
No Placement	25	17	68%	16	12	75%	34	20	59%
TOTAL	423	230	54%	459	254	55%	447	273	61%

¹ First-time attempters/enrolled in Math; no prior subject history; classified, degree-seeking only.

² Completed within one semester for College and 1-level, within two semesters for 2+ and no placement levels.

STUDENT LEARNING GOAL: All students meet course student learning outcomes.

Table 3. Math Course Completion Rates, All Students

Math Course	AY 2018-19			AY 2019-20			AY 2020-21		
	Enrolled	Completed	% Completed	Enrolled	Completed	% Completed	Enrolled	Completed	% Completed
26	174	97	56%	-	-	-	-	-	-
76	7	6	86%	-	-	-	-	-	-
82X	-	-	-	128	78	61%	42	27	64%
100	339	205	60%	323	202	63%	291	224	77%
103	67	38	57%	66	33	50%	69	49	71%
115	71	33	46%	139	101	73%	129	101	78%

Date Last Modified: 2021-11-16

3. Program Learning Outcomes or Unit/Service Outcomes Assessment Results.

- a) List of the Program Student Learning Outcomes or Unit/Service Outcomes
- b) Program or Unit/Service Outcomes that have been assessed in the year of this Annual Review.
- c) Assessment Results.
- d) Changes that have been made as a result of the assessment results.

As a co-requisite course, there are no Program Learning Outcomes for Math 98. This course is linked with the Liberal Arts PLOs (#2 - Think Critically and #3 Reason Quantitatively) and the math courses for which it is co-req'd. Therefore, there is no separate assessment of the Math 98 course; assessment only takes place within a co-req'd Math 100 course. Math 98 was not offered in AY 2020-21. In the future, we will include results for Math 98 when Math 100 is assessed - if a co-req'd section of Math 100 is scheduled.

4. Action Plan

Based on findings in Parts 1-3, develop an action plan for your program or unit from now until your next Review, or as appropriate, update the action plan provided in your last Comprehensive Review. Be sure to focus on areas to improve as identified in ARPD data or unit-developed measures, the results of assessments of student learning or unit/service outcomes, and results of survey and other data used to assess your program or unit. *The action plan may be amended based on new initiatives, updated data, or unforeseen external factors between now and the next Comprehensive Review.

In the last comprehensive review, we were hoping to create an experimental, co-req'd math course to help with remediation for Math 100. Since then, Math 98 was created. We plan to determine success levels of Math 98/Math 100 as compared to the previous pathway (Math 75x followed by Math 100) and will analyze success rates when we have run enough sections for the data to be meaningful.

Our action plan for this year includes proposed improvements to and the expansion of Math 98 as a co-req to Math 115. The following changes will be submitted to the Curriculum Review Committee (CRC):

- 1) Change the numbering of Math 98 to Math 78C for system alignment;
- 2) Add Math 115 a co-requisite option for Math 98, and add it to the course description and Outcomes;
- 3) Change Math 98 from an experimental course to a regular course;

- 4) Adjust the teaching equivalency from 3 TEs to 2.5 TEs to reflect its designation as a lab because it's taught along with the co-req'd course;
- 5) Change the grading option from a standard letter grade to credit/no credit;
- 6) Change the prerequisite from "Math 22 or Placement into Math 26/82x" to "none";
- 7) Update how the course relates to the educational needs, goals, and/or mission of the college.

We plan to continue to offer Math 98 as a co-requisite to Math 100 and, when it has been approved through the CRC process, we will begin to offer it as a co-requisite to Math 115 as well. In the past, we have had successful enrollment and outcomes for Math 98 when it was taught face-to-face. The COVID-19 pandemic and the switch to distance education has made it difficult to run the course due to low enrollment. We plan to continue to try to offer Math 98 as an option for Math 100 and Math 115 in the future to further the goal of the college and the UH System to have all students complete their college-level math courses within the first year of enrollment.

5. Resource Implications -

*** ONE-TIME BUDGET REQUESTS ONLY ***

Detail any resource requests, including reallocation of existing resources (physical, human, financial).

X I am NOT requesting additional ONE-TIME resources for my program/unit.

As stated in the previous review:

Faculty will continue to need resources for training in co-req and pre-college math instruction (i.e. AVID, PD).

There should be funds to send math faculty to instructional workshops at least once per year and to meet with other UHCC faculty at least once per year.

We would like to continue to provide high levels of support for both face-to-face and distance education classes where students are struggling in the form of tutors and peer mentors.

We have lost two faculty positions in the past year and would like to replace them and bring the department back to a full cohort of math faculty.