Mathematics and Computer Science Department

2020-21 PIE Report Narrative

The Math & Computer Science Department submitted all courses that have been taught online since March 2020 for FOMA DL approval. This process involved the work of several curriculum chairs to complete this task. Upon learning that the campus will be reopening in Fall 2021, all courses that were submitted for FOMA DL approval would not be eligible to be taught online for faculty who would remain online. During the March 2021 department meeting, the department approved to change all courses to partially DL and fully DL courses.

The number of Math and Computer Science faculty who are SPOT-certified increased. This was due to the fact that all faculty who wish to continue to teach online in Fall 2021 must be SPOT-certified. The number of online classes that will eventually be offered will be dependent upon the President granting an extension of the FOMAR waiver and/or approved HR accommodations.

The Math & Computer Science Department hired one new full-time computer science faculty member: Dominck Atanasio. Hopefully, this new hire will allow this program to grow and meet student demand. Based on the huge demand for computer science courses, Jimmy Tamayo taught computer science classes this year and will continue to do so during the 2021-2022 academic year.

Martha Hall joined the Math & Computer Science Department from the LERN Department. This brought the number of full-time faculty to 44 for the 2020-2021 academic year. This number includes two faculty who are on 100% reassigned time.

The Department had two faculty members leave the College. Mariano Arellano resigned his position and Joan Sholars retired. This brings the number of full-time faculty starting the 2021-20211 academica year to 42. The Department will be requesting two faculty positions in 2021-2022 to replace these faculty members.

The number of adjunct faculty is 57. The adjunct faculty is comprised of 3 computer science professors, 53 math professors, and 1 math/computer science professor. Janet McMullin continues to be the adjunct faculty coordinator.

Lisa Morales received CARES Act funding to purchase 500 licenses for Padlet. This software works as a virtual whiteboard and provides for greater accessibility for students who have just a pencil and paper and camera to take pictures of their work and still engage with the class. It also has a built-in writing element for anyone who has a tablet so it creates a more equitable playing field. These licenses were made available to all faculty in the Natural Sciences Division.

Baochi Nguyen, Krysten DeWilde, and Jimmy Tamayo attended the 3rd Bi-Annual Equity Summit hosted by Skyline College. This conference focused on addressing equity issues affecting students in the STEM fields.

Baochi Nguyen and Krysten DeWilde were nominated to attend the Racial Equity in Mathematics Leadership Institute hosted by the University of Southern California. This institute is a professional development opportunity focused on creating a movement for closing racial equity gaps in introductory transfer-level math courses for Black, Latinx, Native American, and Pacific Islander students. The training will consist of one three-hour session and five two-hour live sessions starting in late May 2021 and concluding early August.

Martha Hall and Stephen Lancaster attended a conference on Authentic Assessments. Martha presented what she learned from the conference during the May 2021 department meeting.

Jimmy Tamayo, Matt Judd, and John Vitullo discussed the idea of making the current Natural Sciences Division computer lab in 61-3311 available for computer science classes during certain parts of the day. This is due to the growing computer science program and the need for additional computer science lab space. While a solution for new lab space is being determined, especially with the new science building placed on hold, the offer to use 61-3311 is very welcome and greatly appreciated by the department. The use of 61-3311 will assist in the scheduling of the growth of computer science classes that was possible during the 2020-2021 academic year due to the fact that there was no restriction on lab space in the remote environment. A second idea to address the lack of computer lab space issue is to request funding for a class set of laptops. These laptops could be used in any classroom in Building 61, thus giving additional freedom to schedule computer science classes. When not being used for a computer science class, these laptops could be used in a math class that is hybrid, that utilizes ALEKS, or that is working on a computer project. In the future, the ideal location for an additional computer science lab is 61-1420, which will keep the computer science program in the same location.

Once the new Science Building project resumes, it will be preferred by the Department that we acquire 61-2312 (which is currently used as an anthropology classroom) and 61-2320 (which is the large stadium-seating classroom).

There will be insufficient office space for full-time faculty and any future new full-time hires when the campus returns face-to-face. We currently have no offices for Eric Kaljumagi and Martha Hall. Additional office space is needed. Several ideas include conversion of the conference room (61-1660) into a faculty office or a partial conversion of the adjunct office (61-1650) into a faculty office. The Math & CS Department's vision was to have all full-time and adjunct faculty in close proximity to classrooms, tutoring centers, and offices in Building 61. This centralized model makes it easy for students to take advantage of faculty office hours. The model also allows improved faculty interaction and generally promotes a cohesive program. There are more opportunities for full-time faculty mentoring adjunct and new hires, discussions about best practices, and impromptu brainstorming sessions.

The AB 705 Committee merged with the Corequisite Committee for continuity. This committee continues to oversee the implementation of AB 705 guidelines. This committee develops and distributes surveys, summarizes and shares the results of surveys with the department, and keeps corequisite courses and resources updated on the corequisite website. Committee members are the contacts for faculty teaching corequisite courses. The committee is compiling a list of promising practices to share, and is investigating early interventions for students who are struggling in math classes. The committee brought the idea of having a point-person to facilitate the collection and sharing of class materials to the department, and Lisa Morales submitted a reassigned time request to be this facilitator. Members include David Beydler (chair and campus AB 705 Math Coordinator), Dolores Chavez, Krysten DeWilde, Irving Lai, Stephen Lancaster, Kambiz Khoddam, Lisa Morales, Baochi Nguyen, Quyen Nguyen, Debbie Rivers, Melody Summers, Joe Terreri, Jeff Wakefield, and Laura Wohlegzogen.

The College received a memo from the California Acceleration Project (CAP) regarding research that they conducted on the math programs statewide and the math program here at Mt. SAC. In this memo, CAP found that our throughput for first-time transfer-level math students in Fall 2019 was 31% compared to 28% who completed a transfer-level math course within a year-and-a-half pre-AB 705 implementation from Fall 2015 to Fall 2016. This shows that the throughput is slightly higher in the comparison that CAP was examining. CAP also stated that the statewide range for one-term transfer-level completion in Fall 2019 was 17% to 63%, with an average of 40%. This places our math program lower than the statewide average. Math faculty are concerned that this data compares our math program to other programs statewide that may be lowering standards. In addition, CAP noted that during Fall 2020, we offered more remedial math classes than transfer-level classes with a corequisite support class. CAP directly stated "Your college has made large strides in its first two years of implementation, but more must be done to ensure that all students have the best opportunity to make progress on their goals. The urgency of this issue was made clear by both the Board of Governors and Chancellor Oakley during the January meeting." Jimmy Tamayo and David Beydler met with Matt Judd and John Vitullo to discuss this memo, since it is clear that CAP's opinion is that we should completely eliminate our developmental math program. It was expressed that it is the Department's belief that maintaining our developmental math program is in the best interest of our students and the Mt. SAC community. Because of the variety of programs and certificates that the College offers, not all students who enroll at Mt. SAC will seek a class higher than Intermediate Algebra. Having these developmental math courses that students can self-select into is beneficial to them so that they can either have the opportunity to review algebra or complete a course that is sufficient for completion of a certificate or an Associate's Degree. Matt Judd and John Vitullo are very supportive of maintaining these courses for our students. Research ideas are being developed in order to gather data to support the rationale that these courses are in the best interest of our students. This memo was discussed at the April department meeting. All faculty members are supportive of maintaining as much of our developmental math program as possible and the development of the research to support it.

A Math and Computer Science Department Equity Committee was formed. This committee will serve to bridge the equity gap between the data we are collecting and pedagogy. Some of the issues that this committee is beginning to examine are zero-cost textbooks, authentic assessments, and addressing the CAP memo. The committee will also be looking into ways to improve access for students and increase awareness of equity data. Members of this committee include Jimmy Tamayo, David Beydler, Marissa Case, Krysten DeWilde, Kambiz Khoddam, Lisa Morales, Baochi Nguyen, Quyen Nguyen, Laura Wohlgezogen, and Paula Young.

The corequisite model continues to expand. The Calculus Committee (chaired by Tetsuro Kojima) proposed a corequisite course for Math 181. This corequisite, Math 18B, has made it through the WebCMS process. Math 181 + Math 18B will be offered beginning Fall 2021. Frank Tran and Tetsuro Kojima are working on faculty resources for this course. Plans to develop Math 10A as a corequisite for Math 100 are underway as student demand continues to increase for this course. Corequisite courses are now being offered in both regular semesters and intersessions. Corequisite offerings are determined based on student demand trends. The goal is to increase corequisite offerings for transfer-level courses; however, we want to be aware of student demand to avoid canceling low-enrolled sections. All corequisite information and faculty resources can be found on the corequisite website https://www.mtsac.edu/math/corequisite. David Beydler continues to lead the data collection and compilation for corequisite courses.

The AB 705 Math Committee has completed a draft of a Mountie Math Students Poster to promote growth mindset attitude towards math. These posters will be displayed around Building 61 once we return to face-to-face instruction. A webpage is currently being developed with more details about the messages presented on the poster: https://www.mtsac.edu/math/success .

Social distance guidelines continue to be a concern for math and computer science faculty as the College begins plans to reopen the campus for face-to-face classes in Fall 2021. Questions regarding implementation of safety checks, sanitation, air flow, vaccinations, and other logistics, are currently giving those who have concerns for their health and safety hesitation to return in the fall. Discussions regarding Fall 2021 scheduling have taken place during the March and April department meetings. Matt Judd and John Vitullo attended the April meeting to answer questions and to inform faculty of their options.

Jennifer Turner continued to maintain and update the Math & CS Department's website, as well as the shared Canvas repository. This included uploading all faculty resources for corequisite courses, keeping corequisite folders current, and updating course outlines, SLOs, and CMOs. Jennifer was a great resource for faculty as they made the transition to temporary remote instruction.

A Faculty Webpage Committee was formed to inform students about details of their courses before they enroll. This committee worked on a Google form that would then take the information and create text to add to each faculty's department webpage. They are working on

getting webpages accessible directly from the online schedule. The committee members are Krysten DeWilde (chair), David Beydler, Adelina Kaye, Florence Liu, Baochi Nguyen, Quyen Nguyen, Jimmy Tamayo, and Jennifer Turner.

Rene Pyle, James Abbott, and Jennifer Turner developed a successful online tutoring program while the Building 61 tutoring facilities (MARCS) are closed.

Lisa Morales, Paula Young, and David Beydler submitted a SEAP grant proposal to hold Community of Practice (CoP) events with math faculty and other faculty from the Natural Sciences division. The proposal was subsequently approved, and CoP events will be held Fall 2021 (with follow-up Spring 2022).

Hugh Griffith and Jimmy Tamayo received the Educator of Distinction award.