

#5

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Monday, December 11, 2023 1:29:06 PM
Last Modified: Monday, December 11, 2023 2:08:58 PM
Time Spent: 00:39:52
IP Address: 160.227.129.231

Page 1: Full-Time Faculty Position Form

Q1

Please enter the following:

Department	Mathematics
Position Title	Math Faculty

Q2**No, the position has not yet been funded**

If this position has already been funded, do you want to continue with the current request?

Page 2

Q3

1. Describe why this position is essential to your program and/or service area. How has the lack of this position impacted your program and/or service area? What will be the impact to the program and/or service area if this position is not filled? (Rubric Criterion 1, 3)(300 words or less)

The activity-based math classroom is a critical component of the Math Pathways program. Teaching and learning is tailored to fit small groups of students as they work through brains-on activities, and class time is spent on collaborative work with just-in-time remediation (atypical pedagogy for math teachers). Additionally, we need to continue evolving classroom activities and lesson plans, for Quantitative Reasoning, one of the options for non-BSTEM majors, and the calculus sequence.

Math Department faculty are stretched thin with other commitments within the department/college. In fall 2022, one full-time faculty member retired and we have yet to receive a replacement hire. In addition, one full-time faculty member is currently 100% reassigned to Interim Dean of MSE. If that faculty member is hired for the permanent position, that puts our department in even greater need to hire a new full-time member. Another full-time member is on partially reassigned time through spring 2026 to write ZTC materials for our Interactive Math on Canvas textbooks. After that, they plan to retire. So the department is operating at a limited capacity moving forward for the foreseeable future.

The Department needs to keep our number of full-time math faculty where we currently are to sustain the efforts put in to transform the department. This will ultimately help grow the Department and subsequently the College. If the position is not filled, the Math Pathways program will stagnate with no math faculty available to begin much of the required work that remains on the to-do list. The Department simply cannot address that to-do list with human resources declining.

Q4

2. What are the racial and gender demographics of the faculty within your program? What steps will your program take to ensure this position will promote faculty diversity to reflect the students the college serves, for example: (Rubric Criterion 1)- Participating in professional development related to equity and diversity in hiring- Participating in professional development related to equal employment opportunity (EEO)- Completing EEO Representative Training- Employing strategies to recruit diverse applicants(300 words or less)

The Math Department has 8 full-time faculty, down from 9 due to a retirement in August 2022. The demographic breakdown is 3 male, 5 female, 1 Latinx, 1 Middle Eastern, 6 White. The department representation closely matches the students with respect to gender. However, the department's representation with respect to race and ethnicity does not come close to representing the students.

The Math Department is committed to continuing to increase the diversity of our faculty. To do this, we have already started recruiting more diverse part-time faculty, which will help grow the pipeline. We need to reach out to communities to recruit potential full-time faculty that better represent our students.

The department will recruit from listservs and other online platforms where diverse faculty are more represented. Such examples are through Umoja, PUENTE, SHPE (Society for Hispanic Professional Engineers), NSBE (National Society of Black Engineers), Lathisms (Mathematical Community for Latinx and Hispanic professionals), P2P (Pipeline to Possibilities that helps to recruit and mentor HBCU grads) and NAM (National Association of Mathematicians).

Q5

3. How will this position improve student learning and achievement, and close equity gaps in access and outcomes in your program? What steps are you taking to close equity gaps in access and outcome, for example: (Rubric Criterion 2)- modify curriculum to reflect the college's diverse student population- close equity gaps- ensuring equitable access to courses that have pre-requisites- removing barriers for students, especially those from historically marginalized groups- adopt/create no cost/low cost textbooks and course materials(300 words or less)

In fall 2023, 45% of the MATH units are taught by full-time faculty, which is down from 53% in fall 2022 due to reassigned time for ZTC work and filling the interim MSE dean position. For fall 2022 the load cushion is 5.33, productivity is 570, and fill rate is 81% (note, this fill rate is the highest from the past five years). Both the productivity and fill rate are well above the college-wide data. Math sees a large proportion of students coming through the college.

Research has shown that if you have diverse faculty that represent the students we serve, the students are more likely to be retained and to succeed. In addition, we have seen an increase in the diversity of our students in the STEM pipeline, but the success rates are still not on par. Based on the demographics of the Math Department, we need to diversify the full-time faculty which would have a great impact on our student population as it validates their social and cultural differences and experiences. The hope is, this will in turn help close the equity gaps for the retention and success of students.

As mentioned in our Annual Update, we are committed to providing support for students to increase access, success, and retention and close equity gaps. Some ways we are doing this is through the redesign of our instructional materials to better serve our diverse students, and updating materials to make them more equity-minded and culturally relevant. In addition, the Math Department is focused on developing Interactive Math on Canvas ZTC textbooks for multiple courses which includes integrating equitable teaching practices into these courses at no cost to students. Along with this equity-minded course redesign, the department will continue addressing the equity gaps caused by instructors' teaching and learning practices as well as continually examine our data to identify any equity gaps.

Q6

4. Has there been or is there evidence to demonstrate that there will be an increase in student demand for your programs and/or services? How are students being adversely impacted without this position? Please discuss supporting data from recent semesters. For example, enrollment trends, waitlist pressures, or wait time for appointments and support services, students served, etc. as they apply to this position. (Rubric Criterion 2)(300 words or less)

While the WSCH for the Math Department has rebounded a little in fall 2022, this goes in line with the overall recent increase in enrollment across the college. Our productivity (WSCH/FTEF) remains among the highest in the college at 570 along with our FTES/FTEF at 18.98. With these numbers and a fill rate of 81%, the Math Department continues to run a very efficient schedule.

Our load cushion has seen a slight decrease from last year's 5.33. Even though this is much lower than the high we saw in fall 2017, the department is growing so the load cushion is likely to increase moving forward. Additionally, since one faculty member is on 100% reassigned time as interim dean of MSE, that faculty member is not teaching and therefore the load cushion will be even higher for fall 2023.

We need more diverse faculty. The only way to increase this diversity is to hire a full-time faculty member. Add this to the fact that with the reform changes, the work in our department is more demanding than ever. This increases the need to replace the full-time math faculty retirement to sustain the successes to date, increase growth rates, and improve Math Pathways.

Q7

5. Which program review goal(s) is this request supporting? Please state how the position will help advance the specific goal(s). Please explain how this position would support historically marginalized groups. (Rubric Criterion 3)

This position supports both of our goals.

Replacing the full-time math faculty member we have lost through retirement in August 2022 will allow us to sustain the reforms we have implemented. The new faculty member will assume a much-needed leadership role within Math Pathways; more specifically, they will review (and revise as needed) materials for one or more courses within Math Pathways, work with other faculty to build new courses and materials (including those for support courses), train new part-time faculty to teach in the student-centered classroom within those courses, and generally help us to improve and expand Math Pathways.

Collaborating with faculty across the college takes time and energy. Math Department faculty are eager to work with Career Education & Engineering to develop just-in-time review math modules for faculty to include in their non-math courses. In addition, faculty in the Math and Business Departments would like to develop and implement contextualized curriculum and classroom materials for Math 178, Business Calculus. Creating the ZTC Calculus sequence learning materials for Canvas is a priority. This will also require working with the Physics and Engineering programs to ensure our courses are up to date.

These collaborations are critical to the success of Math Pathways and directly support both Math Department goals. In addition, this work cannot be done without maintaining the number of full-time faculty we had until we lost one for retirement.

Q8

6. Is this a new position, replacement for a retirement/upcoming retirement or replacement for internal promotion (faculty to administrator), or replacement for other circumstances? Please explain. (Rubric Criterion 3)(100 words or less)

This position is a replacement position for a full-time math faculty member who retired in August 2022. It is essential that we get a new faculty member hired so we can continue the transformational changes seen within the Math Department.

Q9

7. Which strategic priority/priorities is this request supporting? Please state how the position will help advance the specific priority/priorities and the College's mission, vision and values. Note: the more goals addressed the stronger the request (Rubric Criterion 4) Increase equitable access (enrollment) Eliminate equity gaps in course success (passing grade in class) Increase persistence eliminate equity gaps (re-enrolling the subsequent semester or year) Increase completion and eliminate equity gaps (graduating with a degree/certificate, or transferring) Increase hiring and retention of diverse employees to reflect the students and communities we serve (300 words or less)

This request supports all of the strategic priorities. By implementing bold structural changes to basic skills coupled with pedagogical reforms and intensive ongoing professional development, Math Pathways has substantially increased the proportion of incoming students who enroll in (increase equitable access) and successfully complete a transferable math class in just one term. These reforms eliminated any gap in access to transfer-level math courses for both Latinx and African American students as well as the success rates performance gap for Latinx students (eliminate equity gaps in course success). In addition, the success rate performance gap for African American students has been narrowed. Consequently, the department is removing a long-standing barrier to students' attainment of their educational goals (increase persistence, increase completion, and eliminate equity gaps in both).

The Math Department lost one full-time faculty member in August 2022 due to retirement. This person was one of the founding faculty critical in the reforms we have implemented. Hiring and training a full-time math instructor to help lead Math Pathways will enable the department to sustain program outcomes to date, revise and improve recent reforms as needed, and work to completely close any performance gaps. The transition from part-time to full-time faculty is a process that takes time and training. Therefore, we need new faculty soon so we do not lose momentum.

Furthermore, when hiring a full-time faculty member, there are numerous benefits to both the faculty and students. For example, the faculty member has more time to meet with students, guiding and mentoring them. In addition, it is our goal as outlined in our Annual Update to increase the diversity of our full-time faculty (increase hiring and retention of diverse employees). This would benefit our students by increasing their sense of belonging.

Q10

8. Please confirm that you have discussed this faculty position request with the Division Dean and that you understand that Division Deans will be providing feedback to help inform the prioritization process. Note: The Division Dean will be providing feedback to help inform the prioritization process

Yes, I have discussed this position request with the Chair of the Department

Yes, I have discussed this position request with the Division Dean
Note: The Division Dean will be providing feedback to help inform the prioritization process

Q11

If you would like to attach data to support your request in light of the rubric criteria, please upload a PDF, Word, or image file using the button below.

Respondent skipped this question