

**LOCAL IMPLEMENTATION PLAN
MAJOR EFFORT FORMAT
Fiscal Year 2018-2019**

Institution/Consortium Name RFCUNY on behalf of NYC College of Technology

- 1. Major Effort's Number:** 3 of 6
- 2. Major Effort's Title:** Mathematics
- 3. Major Effort's Target Population/Proposed Expenditures:**

| Population | # of Students | Proposed Expenditure |
|---|---------------|----------------------|
| General Postsecondary | 371 | \$28,300 |
| Individuals with Disabilities | 30 | \$2,316 |
| Economically Disadvantaged Individuals | 704 | \$53,679 |
| Individuals preparing for nontraditional fields | 297 | \$22,642 |
| Single Parents | 53 | \$4,028 |
| Displaced Homemakers | 45 | \$3,444 |
| Individuals with Limited English Proficiency | 285 | \$21,750 |
| | 1787 | |
| MAJOR EFFORT TOTAL (UNDUPLICATED COUNT): | 1345 | \$136,160 |

4.a. Name and Title of the Director of this Major Effort:

Dean Justin Vazquez-Poritz, School of Arts & Sciences

b. Major Effort Director's Telephone Number: 718-260-5008

c. Major Effort Director's E-Mail Address: JVazquez-Poritz@citytech.cuny.edu

5. Postsecondary Grant Information Form Narrative -

- a. Core Indicators of Performance- This effort addresses core indicator 1P1 technical skill attainment and 3P1 retention.
- b. Need to achieve target performance standard related to CIP -Pass rates for foundational college mathematics courses and retention in Math and Computer Science courses continue to be low. Pass rates are average 44% for mathematics courses. **Fall 2017 pass rates C or better were: MAT 1275 (Algebra & Trig) MAT 1375 (Pre-Calculus) and MAT 1475 (Calculus I)**, The Fall 2016 one year retention rates: Computer Information Systems 60.1%, and Computer Science 65.7%.
- c. Objectives
 1. Computer Science/Mathematics- The objective is to increase the retention and pass rates of approximately 300 associate degree Computer Science majors by tutoring them in support of MAT 1275EN, 1375 and 1475.
 2. Computer Systems Technology – Our objective is increase retention and skills of approximately 250 students enrolled in Computer Systems Technology Program in courses CST 1100 and CST 1101.
 3. Atrium Learning Center-The objective is to increase retention and pass rates of approximately 795 students in MAT 1190e, 1175, 1275 and 1275e by providing drop in, small group and computer assisted (Webwork) tutoring.

d. Activities

1. Computer Science/Mathematics – Students will receive one-on-one attention from a specialized set of student experts in technology and course material by appointment. The latest versions of mathematics software and appropriate learning materials will be available to students. Tutors will assist students in classrooms in targeted course MAT 1275 Enhanced, which is a combined version of MAT 1175 and MAT 1275 f using available laptops and tablets to access homework problem sets on web-work . Prof. Singh will guide and supervise the web-work classroom specialists. Departmental faculty will be advised of the review material covered by student specialists to ensure that they are aware that this instruction is available to our students and promote this help their students. We will also use the Open Lab forum to make additional resources available to students. Professor Singh will run two student training workshops for student specialists to ensure that students receive the proper help and guidance.

2. Computer Systems Technology- Five to six upper level students will provide tutoring and advisement for CST 1100 and CST 1101 students They will assist with course material, internship search, course advisement, time management and exam preparation skills. Professor Satyanarayana will conduct tutor trainings, coordinate tutor schedules and provide advisement.

3. Atrium Learning Center- Drop in and Webwork tutoring will be available to students in MAT 1190e, 1175, 1275e and 1275. These students will either be referred by faculty or simply drop in for tutoring. All tutors will be trained and meet at least monthly with the faculty coordinator.

e. Coordination with external agencies n/a

f. Major Effort Timeline

1. Computer Science/Mathematics- August-December Hire student experts, create materials for students, conduct workshops and one-on one student sessions February-May Hire student experts, conduct workshops and one on one student sessions

2. Computer Systems Technology August- December and February-May Hire tutors, develop schedule advertise program to students, conduct tutoring and advisement, collate program data

3. Atrium Learning Center July- Aug: Arrange for faculty members who will be providing drop-in and computer assisted math tutoring. Recruit and hire staff. Schedule training sessions/meetings. Sept- Dec: Advertise, schedule and provide drop-in tutoring and computer assisted tutorials. Schedule math coordination meetings. Jan-May: Arrange for participating staff. Advertise, schedule and provide drop-in tutoring and computer assisted tutorials June: Collect assessment data.

5. Core Indicator of Performance Evaluation:

| Evaluation Measure | Anticipated Outcome |
|---|---|
| 1.Computer Science/Math – Improved pass rates Baseline Pass fall 2017 rates MAT 1275?? - MAT 1375 –MAT 1475- | Participating students pass rates 3% better than non-participating students |

| | |
|--|--|
| 2. <u>Computer Systems Technology-Improved retention rate-Computer Information Systems (CIS) associate degree program Fall 2016 retention rate 60.1%</u> | At least 75% of participating students will be retained in CIS program |
| 3. Atrium Learning Center – improved pass rates of participating compared to non-participating students | MAT 1275e, 1190e 1275 & 1175 least 3% improvement |

6. Major Effort Staff

| | <u>Name</u> | <u>Title</u> | <u>Time</u> | <u>Salary</u> |
|----|----------------------------|---------------------|-----------------|---------------|
| 1. | Prof. Satyanand Singh | Faculty Coordinator | .04 FTE | \$ 3,274 |
| 2. | To be hired (3) | Sr. student experts | 360 hrs @ \$26 | \$ 9,360 |
| 3. | To be hired (5) | Student experts | 976 hrs @ \$15 | \$14,640 |
| 4. | Prof. Ashwin Satyanarayana | Faculty Coordinator | .04 FTE | \$ 3,274 |
| 5. | To be hired | Tutors | 1333 hrs @ \$18 | \$23,994 |
| 6. | Prof. Kate Poirier | Faculty coordinator | .04 FTE | \$ 3,274 |
| 7. | To be hired | ALC clerical | 500 hrs @ \$16 | \$ 8,000 |
| 8. | To be hired | ALC Math tutors | 3334 hrs @ \$15 | \$50,010 |

Fringe benefits calculated at Faculty effort 51% and part time staff 8.34%.

7. Major Effort Budget

| <u>Category</u> | <u>Code</u> | <u>Major Effort Costs</u> |
|---------------------------|-------------|---------------------------|
| Professional Salaries | 15 | \$9,822 |
| Non-Professional Salaries | 16 | \$106,004 |
| Purchased Services | 40 | |
| Supplies and Materials | 45 | |
| Travel Expenses | 46 | |
| Employee Benefits | 80 | \$13,850 |
| Indirect Costs | 90 | \$6,484 |
| Minor Remodeling | 30 | |
| Equipment | 20 | |
| Major Effort Total | | \$136,160 |