

214

**THIS FORM MAY NOT BE REPLICATED
AND UNDER NO CIRCUMSTANCES CAN THE LANGUAGE BE ALTERED**

**Board of Governor's, California Community Colleges
Chancellor's Office - 6870**

DISTRICT USE ONLY

District (Grantee): Chabot-Las Positas CCD
College: Chabot College

Contract (Grant) Agreement

BOG-CCCO USE ONLY

Academic Affairs

Mathematics, Engineering, Science Achievement (MESA) Renewal

Grant Agreement No.: 18 - 034 - 006

Funding Year
(Enactment Year)

2018-19 Total Amount Encumbered : \$ 74,515

RFA # 17 - 034 Articles I - Revised: 07 2017

Articles II - Revised: 05 2014

This grant is made and entered into, by and between, the Board of Governor's, California Community Colleges Chancellor's Office and the aforementioned district, hereafter referred to as the Grantee. The grant shall consist of this Grant Agreement face sheet and the Grantee's application, with all required forms. The RFA Specification and the Grant Agreement Legal Terms and Conditions (listed above), as set forth in the RFA Instructions are incorporated into this grant by reference.

The total amount payable for this grant shall not exceed the amount specified above as "Amount Encumbered".

The term of this grant shall be from July 1, 2018 to June 30, 2019. The Final Report must be submitted within 30 days of the grant end date.

Funding under this grant is contingent upon the availability of funds, and is subject to any additional restrictions, limitations or conditions enacted in the state budget and/or Executive Orders that may affect the provisions, term, or funding of this agreement in any manner.

GRANTEE

Project Director: Maria Rodriguez-Larrain

Total Grant Funds Requested: \$ 74,515

Signature, Chief Executive Officer (or authorized Designee)

Date:

Print Name/Title of Person Signing:

District Address: 7600 Dublin Blvd. 3rd Floor

Ronald Gerhard, Vice Chancellor, Business Services

Dublin, CA 94568

STATE OF CALIFORNIA

Project Monitor:

Agency Address: 1102 Q Street, Suite 4400

Stephanie Ricks-Albert

Sacramento, CA 95811-6539

Bus. Unit	Ref No	Fund	FI\$Cal Prgm	SubTask	Index	Object	Chapter	Statute	Funding Year (Enactment Year)	Amount
6870 -	101 -	0001 -	5675115 -	205 -	4238 -	5432000		2018	2018-19	\$ 74,515
6870 -	-	-	-	-	-	-				

Total Amount Encumbered : \$ 74,515

Signature, Accounting Manager (or Authorized Designee) Budgeted funds are available for the period and purpose of the expenditures stated above.

Date:

Signature, Deputy Chancellor (or authorized Designee)

Date:

Print Name/Title of Person Signing:

Daisy Gonzales, Deputy Chancellor

INITIAL YEAR AWARD AND APPLICATION

**THIS FORM MAY NOT BE REPLICATED
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**Board of Governor's, California Community Colleges
Chancellor's Office - 6870**

DISTRICT USE ONLY

District (Grantee): **Chabot-Las Positas CCD**
College: **Chabot College**

Contract (Grant) Agreement

BOG-CCCCO USE ONLY

Academic Affairs
Mathematics, Engineering, Science Achievement (MESA)

Grant Agreement No.: **17 - 034 - 006**

Funding Year
(Enactment Year)

2017-18 Total Amount Encumbered : \$ **74,515**

RFA # **17 - 034** Articles I - Revised: **07 2017**
Articles II - Revised: **05 2014**

This grant is made and entered into, by and between, the Board of Governor's, California Community Colleges Chancellor's Office and the aforementioned district, hereafter referred to as the Grantee. The grant shall consist of this Grant Agreement face sheet and the Grantee's application, with all required forms. The RFA Specification and the Grant Agreement Legal Terms and Conditions (listed above), as set forth in the RFA Instructions are incorporated into this grant by reference.

The total amount payable for this grant shall not exceed the amount specified above as "Amount Encumbered".

The term of this grant shall be from October 4, 2017 to June 30, 2018. The Final Report must be submitted within 30 days of the grant end date.

Funding under this grant is contingent upon the availability of funds, and is subject to any additional restrictions, limitations or conditions enacted in the state budget and/or Executive Orders that may affect the provisions, term, or funding of this agreement in any manner.

GRANTEE

Project Director: **Maria Rodriguez-Larrain** Total Grant Funds Requested: \$ **74,515**

Signature, Chief Executive Officer (or authorized Designee)

Date:

Print Name/Title of Person Signing:
Lorenzo Legaspi, Vice Chancellor, Business Services

District Address: **7600 Dublin Blvd, 3rd Floor
Dublin, CA 94568**

STATE OF CALIFORNIA

Project Monitor:
Debbie Velasquez

Agency Address: **1102 Q Street, Suite 4400
Sacramento, CA 95811-6539**

Bus. Unit	Ref No	Fund	FI\$Cal Prgm	SubTask	Index	Object	Chapter	Statute	Funding Year (Enactment Year)	Amount
6870	- 101	- 0001	- 5675115	- 205	- 4238	- 5432000	14	2017	2017-18	\$ 74,515
6870	-	-	-	-	-	-	-	-	-	-
Total Amount Encumbered : \$										74,515

Signature, Accounting Manager (or Authorized Designee) Budgeted funds are available for the period and purpose of the expenditures stated above.

Date:

Signature, Deputy Chancellor (or authorized Designee)

Date:

Print Name/Title of Person Signing:
Erik Skinner, Deputy Chancellor

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGE

DISTRICT:	Chabot-Las Positas CCD
COLLEGE:	Chabot College
GRANT NUMBER:	17-034-006

CONTACT NAME: Maria Rodriguez-Larrain EMAIL: mrodriguez-larrain@chabotcollege.edu PHONE: 510-723-6898 FAX: 510-723-7070

Application Budget Summary

Note: *When entering dollar amounts, round off to nearest dollar.
*Submit detail explaining the expenditures by category for each source on separate sheet of paper, as needed.

Object of Expenditure	Classifications	Line	Project Approved Budget	District Match Funds (1)	Other Source(2)	Other Source(2)	Other Source(2)	Other Source(2)
1000	Instructional Salaries	1	20,300	61,700	42,400			
2000	Non-Instructional Salaries	2	18,700	7,900	114,700			
3000	Employee Benefits	3	4,394	17,393	43,100			
4000	Supplies and Materials	4	1,000	0	1,450			
5000	Other Operating Expenses and Services	5	27,255	47,040	6,550			
6000	Capital Outlay	6						
7000	Other Outgo	7						
		Total Direct Costs		71,649	134,033	208,950		
		Total Indirect Costs (4% of line 8) See specific RFA		2,866		16,716		
		Total Program Costs		74,515	134,033	225,666		

- District General Fund = 10%, MESA 100% (see match percentage requirement). Line item match not required.
- Other Sources of funds per project (provide detail sheet for each funding source.)

PROJECT DIRECTOR SIGNATURE:	DATE:	
DISTRICT CHIEF BUSINESS OFFICER/AUTHORIZED SIGNATURE:	DATE:	

FOR CHANCELLOR'S OFFICE USE ONLY

GRANTS AND CONTRACTS UNIT APPROVAL SIGNATURE:	DATE:	
CHANCELLOR'S OFFICE PROJECT MONITOR APPROVAL SIGNATURE:	DATE:	

CHANCELLOR'S OFFICE
CALIFORNIA COMMUNITY COLLEGE

DISTRICT:	Chabot-Las Positas CCD
COLLEGE:	Chabot College
GRANT NUMBER:	17-034-006

Application Budget Detail Sheet

		MESA	District Match Funds	Other Sources: TRIO-STEM
2101	Director			\$90,000
	3% Dean Science and math		\$4,000	
	5% STEM Center Equity Director		\$3,900	
1480	Faculty Sponsor (.5)		\$26,000	\$30,000
1480	Faculty AEW Facilitators	\$6,000		
1480	Faculty Workshops	\$1,900		
1480	Faculty BootCamps	\$2,800		
1480	Faculty Mentors	\$9,600		
	Instructional Assistant 0.2			\$8,400
	5% STEM Center Instructional Assist.		\$2,100	
1410	Counselor Salary		\$27,200	
	Summer Counselor Hours			\$4,000
	10% Division Administrative Asst.		\$6,400	
2340	Student Assistants	\$11,000		\$10,000
2340	AEW Facilitators - Students	\$2,400		
2340	Student tutors	\$5,300		\$12,000
2340	Student Peer Mentors			\$2,700
3840	Benefits			
	Director:			\$34,000
	Faculty Sponsor		\$10,400	\$6,000
	Faculty:	\$4,020		
	Instructional Assist:			\$2,100
	students:	\$374		\$200
	Counselor:			\$800
	3% Benefits for Dean		\$1,608	
	5% Benefits for STEM Center Equity Dir		\$1,560	
	5% Benefits for STEM Center IA		\$945	
	10% Benefits for Division Admin. Asst.		\$2,880	
4301	Office Supplies	\$1,000		\$1,450
5611	MESA Center Facility in-kind match based on actual cost (\$35/hr x 8hours/day x 4 days/wk x 42 wks/year)		\$47,040	
5878	Operating Expenses (Student Activities)			
	MESA Leadership Retreat	\$1,500		
	SACNAS Conference travel/hotel	\$4,000		
	UC Davis PreHealth Conf.	\$500		
	Field Trips	\$1,600		\$2,500
	Southern CA College Tours	\$4,000		
5870	Busses			\$1,200

5888	Other Expenses			
	Meetings	\$1,600		
	Food for Center	\$3,155		
	Bootcamp food	\$300		
	End of the Year Celebration	\$5,000		
	Recruitment Items	\$2,500		
	Workshops	\$600		
	January East Bay Alliance Event	\$1,000		
5220	Director Training/Conferences	\$1,500		\$2,000
5301	Institutional Fees			\$850
7000	Contingency			\$750
	Total Direct Costs	\$71,649		\$208,950
	Indirect Costs	\$2,866		\$16,716
	Grand Totals	\$74,515	\$134,033	\$225,666

Chancellor's Office
California Community Colleges

District: Chabot-Las Positas Community College District
College: Chabot College
RFA Specification Number: 17-034 _____

APPLICATION CONSORTIUM DATA SHEET

Please check here if this proposal is a consortium project.

Complete the following information for each college of the consortium. Use additional sheets if required.
Attach this form directly behind the Contact Page.

District/College or Organization: _____			
Address: _____			
City: _____	State: _____	Zip+4: _____	
Project Contact: _____	Phone: () _____		
Amount of dollars contributed to project by the district/college: \$ _____			
Role of district/college in the consortium design: _____			

District/College or Organization: _____			
Address: _____			
City: _____	State: _____	Zip+4: _____	
Project Contact: _____	Phone: () _____		
Amount of dollars contributed to project by the district/college: \$ _____			
Role of district/college in the consortium design: _____			

District/College or Organization: _____			
Address: _____			
City: _____	State: _____	Zip+4: _____	
Project Contact: _____	Phone: () _____		
Amount of dollars contributed to project by the district/college: \$ _____			
Role of district/college in the consortium design: _____			

Chancellor's Office
California Community Colleges

District: Chabot-Las Positas Community College District
College: Chabot College
RFA Specification Number: 17-034 _____

APPLICATION ABSTRACT

TO BE COMPLETED BY COCCC

Grant Amount: \$ _____

Project Title: Chabot College MESA Program

Project Director: Leticia Reyes

Organization: Chabot College

Address: 25555 Hesperian Blvd.

City: Hayward

State: CA

Zip + 4: _____

94545

—2447

Phone: (510) 723-9858

(Summarize – no more than 3 pages)

The Chabot MESA Program will benefit all Chabot students, but will focus efforts on underrepresented minorities, in particular Latino, African-American, and Pacific-Islander students. Taking into account the student population at Chabot, we will also be targeting low-income, first-generation students majoring in Science, Technology, Engineering and Math (STEM) disciplines. The program will serve at least 125 students from these targeted populations during our sixth year and expand in subsequent years, if renewed. The Chabot MESA program

A major goal of Chabot's MESA program is to decrease the time to completion of student educational goals. All MESA students meet with counselors and develop/update/track full student education plans. Our program has worked diligently with STEM faculty to decrease scheduling conflicts. We have also partnered with Chabot's successful, new First Year Experience (FYE) program and assisted with the coordination of the STEM cohort of students. The STEM FYE program has been exceedingly popular and student interest has greatly surpassed available slots. Identifying STEM interest early and empowering students with available supports has contributed to student success.

These efforts have supported the success of MESA students over the past five years of program implementation and the closing of the equity gap. Over the past five years, the MESA program has been effective in improving the educational outcomes of its students and has met the required eight Program Objectives. Underrepresented students declaring STEM majors have increased, STEM course success, retention and transfer-ready rates have increased for MESA students and especially in comparison to non-MESA students.

- Latino STEM students have increased from 355 fall 2012 to 539 fall 2016
- MESA GPA has increased from 3.12 fall 2012 to 3.20 fall 2016
- Four year transfer ready rates were 70% for MESA students compared to 16% for non-MESA students fall 2012-summer 2016

GPA's for generally all ethnicities were higher for MESA students (2.55-3.43) than for non-MESA students (2.67-3.09). MESA students had greater success in STEM courses (average 70%) as opposed to

non-MESA students (average 55%). In STEM courses, all ethnicities were more successful in their STEM courses as compared to non-MESA students. For example, 71% of MESA African-American students were successful in their STEM courses compared to 43% of non-MESA African Americans and 61% course success for MESA Latinos vs. 47% non-MESA Latinos.

However, despite this success there is still the need for continuing the MESA program as there is still unmet need at Chabot. There are still a large number of incoming students who come in unprepared for college-level coursework, especially in math. Further, many have difficulty passing gateway STEM courses such as Pre-Calculus and Calculus 1. Recently, our Program assisted with the piloting of a 20to1 Fast Track in Mathematics course, wherein students enroll in both Pre-calculus and Calculus 1 in the same semester. The results of the fall 2015 pilot were extremely successful and the courses were repeated successfully in the spring semester. Our Program continues to refine STEM course scheduling patterns to better serve students. STEM faculty continue to manage the development of roadmaps for students by major and incoming math course to better inform students regarding course scheduling patterns and plan for these to be completed by the end of the 2016-17 period. Chabot has piloted three semesters of the Math 20to1 course (fall 2015-spring 2016) with success rates averaging 74% over the three semesters. This far exceeds the 42% success rate of students taking the regular two-semester Math 20 to Math 1 sequence.

To address these continuing needs, Chabot College has fully committed to providing all of the 13 Core MESA Components which includes frequent, sustained and prolonged academic and student support services, including case management by the MESA Counselor. Over the past funded MESA project period, the college has developed multiple MESA-related components including the establishment of the MESA Center, collaboration with the Chabot STEM Center, a STEM 1 course exploring STEM careers, robust AEW and other workshop offerings, co-curricular and student leadership opportunities, and continuing relationships with 4-year universities and industry partners. The MESA program model has provided the ideal framework for coordinating these various components and integrating them into a cohesive and comprehensive program.

Chabot's MESA Program is made all the more effective by numerous, complementary extramural and intramural awards and programs. The following awards are currently active at Chabot and contribute to the success of Chabot's MESA Program: the U.S. Department of Education - Strengthening Hispanic Serving Institutions (HSI); TRIO Student Support Services, ASPIRE, ESL, STEM and Educational Talent Search; CCCCO Basic Skills Partnership Pilot Program and Basic Skills and Student Outcomes Transformation Program Grant; and a sub-award from the University of California at Berkeley under a National Science Foundation prime award, "Bridges to the Baccalaureate". The MESA program is also a key partner in the Career Pathways Trust (CPT) grants where Chabot has begun a First-Year Experience (FYE) STEM program and developed an Advanced Manufacturing/ Engineering pathway. Faculty Sponsor, Donna Gibson, is part of this group's Local Pathway Action Team while many FYE STEM students become MESA students in their second year.

As evidenced in our budget, Chabot has also committed a significant all cash match to fund the MESA Project Director position, MESA-dedicated math courses, and a dedicated MESA Center, among other elements of the proposed Chabot MESA program. The proposed MESA program is a key initiative being undertaken in the Chabot Math & Science Division, as well as part of the college's overall strategic goal to increase student success and transfer. It is important to note that the general fund budget match exceeds the 1:1 requirement. Additional budgeted sources of support also greatly exceed the MESA one year budgeted amount. The Faculty Sponsor's salary as well as the salaries of other administrative support personnel is paid through general match and other sources.

Two recent major federal awards which contribute to the success of MESA students at Chabot are the

TRIO/STEM and Hispanic-Serving Institution Programs. Chabot is funded by the U.S. Department of Education, Office of Postsecondary Education, TRIO Program to conduct a STEM Student Support Services project. The TRIO (not an acronym) Programs provide outreach and student services designed to identify and serve low-income, first-generation college students interested in pursuing STEM fields. The TRIO STEM award provides tutoring, academic advising, counseling, and special workshops. All of these services are also available to MESA students since the TRIO STEM Program shares more than 95% of its participating students with the MESA Program.

Chabot is designated as a Hispanic-serving Institution and received a 5-year award to implement a number of institution-wide activities that support Latino and other low-income student achievement. One of the major activities in the Title V grant focuses on strengthening key student transition points and barriers that impede timely completion with an additional focus on math completion. Currently, Title V grant funds support the Math Jam courses the MESA students attend.

From our past 5 years of experience as a MESA awardee, we have learned what works well and how to design the Chabot MESA Program to meet the needs of our student population. Through tracking and evaluating the outcomes from these projects, we are able to accurately project impact and set realistic and attainable targets. We have also fostered multiple partnerships over the years that directly support the MESA Program's purpose.

Opportunities are continually expanding for Chabot College MESA Students. An MOU between Chabot College and Base 11 is being presented to our District Board in June. Base 11 is a non-profit organization that connects employers, academic institutions, and entrepreneurial opportunities with high-potential, low-resources students who have shown interest and talent but lack access and resources needed to realize their greatest potential. Base 11 is committed to solving two of the country's biggest problems: The growing science, technology, engineering and mathematics (STEM) talent crisis, fueled by the underrepresentation of women and ethnic minorities and the eroding middle class in America.

Chabot's partnership with Base 11 would provide our MESA Students with the opportunity to participate in Summer Fellowships to conduct research with mentors at world-class institutions. Students would receive a stipend to perform hands-on graduate-level research projects while living on a college campus.

We are committed to sharing our successes. Chabot College will disseminate findings and work products through State and regional conferences. Proposals will be submitted to present at meetings of the Academic Senate and the California Community Colleges Association of Occupational Education. We anticipate submitting Call for Presentation proposals for the Research and Planning (RP) Group's Annual Student Success Conference scheduled for October 2017, the fall 2017 Community College League of California's Conference, the Association of Community College Trustees National Conference, and the spring 2018 Association of California Community College Administrators (ACCCA) Conference. We also plan to disseminate project findings campus-wide so that other college divisions can replicate the program model.

**CHANCELLOR’S OFFICE
CALIFORNIA COMMUNITY COLLEGES
ACADEMIC AFFAIRS DIVISION**

**CHABOT COLLEGE MESA PROGRAM
RFA No. 17-034**

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Chabot College Math, Engineering, Science Achievement (MESA) Program Narrative

EXISTING MESA PROGRAMS (10 bonus points)

1. A description of the MESA program:

Chabot College is currently funded by the California Community College Chancellor's Office to conduct the Math, Engineering, Science Achievement (MESA) program, a nationally recognized model for improving the outcomes of underrepresented STEM students who transfer to four-year institutions in calculus-based majors. Currently, our program serves over 125 MESA/ASEM students. Upon enrollment, MESA students join a supportive educational community and are able to utilize a network of existing support structures in the Math, Science and Engineering disciplines that include:

- **An Orientation:** Before the start of the fall term, our Program provides an orientation session where components and expectations are explained and students complete a Mutual Responsibility Agreement (MRA) aligned with participation in the Program. In addition, our STEM 1 (Orientation) course will be available for new students. STEM 1 is an interdisciplinary course that explores career options in STEM and provides hands on activities in biology, computer science, chemistry, engineering, mathematics and physics.
- **The Chabot MESA Center:** This dedicated multipurpose space is a hub for studying, workshops, tutoring, convening study groups, special activities and information sharing.
- **Academic Advising/Counseling and Close Monitoring of Student Education Plans (SEPs).** Students develop multi-year SEPs with their MESA counselor in order to enroll in courses in the most effective sequence and transfer in a timely manner. Scholars will then finalize the SEP with the MESA Director and their faculty mentor. The SEP will be revisited at the beginning of each semester and revised, if necessary, based on students' educational progress and goals.
- **Academic Excellence Workshops (AEW's) and Additional Academic Support:** AEW students are scheduled in the same core math and science classes and taught to successfully master complex technical ideas and principles through a collaborative approach.

a. Administrative responsibilities to include: (up to 2 points)

1. The college process used to ensure the review, submission and reporting of annual CCCCO MIS data.

For the past five years, the Chabot MESA Program has been led by the full-time MESA Program Director, Donna Gibson, who is a tenured Chemistry faculty member. She is supported by several student assistants who maintain student files and intake forms. Her position is supported, in part, through college funds. Chabot's MESA Counselor maintains Student Education Plan files. Ms. Gibson works closely with Chabot's Office of Institutional Research. The mission of the Office of Institutional Research (OIR) is to produce information that is meaningful and useful to the college as a whole as well as to individual college units for the purposes of inquiry, planning, evaluation, accountability, and compliance. The OIR facilitates the collection, validation, production, analysis, dissemination, and thoughtful use of student, staff, program, and community data. All MESA students are tagged in Chabot's MIS system so that we can easily

track their progress on meeting educational outcomes.

Institutional Research plays an integral role in the cycle of planning, assessment and improvement by measuring whether the college and its programs are meeting their goals and addressing the educational needs of our students. The IR Office is staffed by full-time Faculty Coordinator, Carolyn Arnold; a full-time Research Analyst; and student research assistants. Ms. Gibson maintains a detailed timeline of reporting deadlines and meets with Dr. Arnold on a regular basis to review the need for additional data reporting needs. All required CCCC MIS data has been submitted in a timely manner over the 5 years of Chabot's current award.

2. The practice used to ensure the timely submission of application renewals, progress and final reports.

Ms. Gibson maintains a detailed timeline of required reporting dates for progress and final reports and application renewals. She has attended all mandated Program meetings in order to keep informed regarding upcoming news and Program revisions. She also maintains an active and updated list of all participating MESA and ASEM students so that students are accurately tagged in the MIS system.

b. For the program years 2014-15 and 2015-16 report the following: (up to 6 points)

b1. MESA or ASEM* – the total number students served

	2014-15	2015-16
MESA	105	120
ASEM	28	20
TOTAL	133	140

b2. MESA or ASEM* – the total number of students that transferred annually.

	2014-15	2015-16
MESA	25	39
ASEM	10	10
TOTAL	35	49

b3. MESA or ASEM* - student demographic data using the MIS Data Dictionary *Student Basic Elements* to include: SB03 Student Birth-Date; SB04 Student Gender; SB29 Student-Multi-Ethnicity.

Please refer to the end of this Section for this data.

b4. Describe how Academic Excellence Workshops (required), or similar interventions, have improved student success for MESA and ASEM* students.

During the past five years, Chabot's MESA Program has supported MESA and ASEM students by providing drop in tutoring, academic excellence workshops, pre-semester boot-camps in chemistry, math and physics and supplemental instruction for Chabot's Engineering 25 course. Chabot offered our STEM 1 course for the first time in the fall of 2014 that specifically taught

study skills tailored toward STEM students and served as a pipeline for recruiting MESA students and for strengthening their performance. Beginning in the 17-18 academic year, STEM 1 will be offered during both the fall and spring semesters. In addition, our MESA Counselor has developed and offered workshops in time management, study skills, effective goal setting, and test taking strategies tailored to the needs of STEM students.

A major goal of Chabot's MESA program is to decrease the time to completion of student educational goals. All MESA students meet with counselors and develop/update full student education plans. Our program has worked with STEM faculty to decrease scheduling conflicts. We have also partnered with Chabot's successful, new First Year Experience (FYE) program and assisted with the coordination of the STEM cohort of students. The STEM FYE program has been exceedingly popular and student interest has greatly surpassed available slots. Identifying STEM interest early and empowering students with available supports has contributed to student success. Beginning in fall 2017, the MESA Faculty Sponsor will work with our Dean of Academic Pathways and Student Success to launch a new Pre-STEM cohort designed for students interested in STEM but assess into a math level below intermediate algebra.

In addition, our MESA Program assisted with the piloting of a 20 to 1 Fast Track in Mathematics course, where students enroll in both Pre-calculus and Calculus 1 in the same semester. The results of the first three semesters of implementation have success rates averaging 74% which far exceeds the 42% success rate of students taking the traditional two-semester Math 20 to Math 1 sequence. The success of the 20 to 1 Fast Track has ignited the start of a second fast track, our Alternate Pathway to Calculus, in which students take Trigonometry and Pre-calculus in a single semester. These programs greatly benefit our MESA students in shortening the number of semesters needed to meet all transfer requirements. Our MESA Program continues to collaborate with STEM faculty to refine STEM course scheduling patterns to better serve students.

These efforts have supported the success of MESA students over the past five years of program implementation and the closing of the equity gap. Over the past five years, the MESA program has been effective in improving the educational outcomes of its students. Underrepresented students declaring STEM majors have increased, STEM course success, retention and transfer-ready rates have increased for MESA students and especially in comparison to non-MESA students.

- Latino STEM students have increased from 355 fall 2012 to 539 fall 2016
- MESA GPA has increased from 3.12 fall 2012 to 3.20 fall 2016
- Four year transfer ready rates were 70% for MESA students compared to 16% for non-MESA students fall 2012-summer 2016

GPA's for generally all ethnicities were higher for MESA students (2.55-3.43) than for non-MESA students (2.67-3.09). MESA students had greater success in STEM courses (average 70%) as opposed to non-MESA students (average 55%). In STEM courses, all ethnicities were more successful in their STEM courses as compared to non-MESA students. For example, 71% of MESA African-American students were successful in their STEM success compared to 43% of non-MESA African Americans and 61% course success for MESA Latinos vs. 47% non-MESA Latinos.

b5. Briefly describe the MESA center, e.g. location on campus; space (center) size – is it shared or non-shared space; resources (what other resources, state/federal/private are being leveraged to support the college MESA program or MESA and ASEM* students).

The Science and Mathematics Division at Chabot College exists to inspire students to meet their educational goals. The Chabot MESA Center is located within the Science and Mathematics Division building in the heart of Chabot's 94-acre campus. The Center is exclusively used by MESA students, measures 639 square feet, and includes the MESA Director's office, a reception desk, student individual and collaborative work spaces with new desks and chairs, a computer station, multiple white boards, tutoring schedules, and a kitchen. Local Bond Measures have supported the purchase of new furniture, computers, and fixtures (~\$40,000) and will continue supporting future upgrades and improvements when needed. In addition our MESA Program has two dedicated spaces located within Chabot's main STEM Center which is located in an adjacent building. The MESA Counselor has a 108 square foot dedicated office and our Program has a 192 square foot Conference Room which houses our Academic Excellence Workshops.

Chabot College has a history of supporting rigorous academics in Science, Technology, Engineering and Math (STEM). Two recent major federal awards which contribute to the success of MESA students at Chabot are the TRIO/STEM and Hispanic-Serving Institution Programs.

Chabot is funded by the U.S. Department of Education, Office of Postsecondary Education, TRIO Program to conduct a STEM Student Support Services project. The TRIO (not an acronym) Programs provide outreach and student services designed to identify and serve low-income, first-generation college students interested in pursuing STEM fields. The TRIO STEM Program shares more than 95% of its participating students with the MESA Program. Leveraging resources available through the TRIO STEM Grant benefits our MESA students by providing additional funding to support MESA activities. In addition, the college is required to provide early registration to all participating TRIO STEM students, and in so doing, also provides all MESA students priority registration that allows MESA students to register before other continuing and new students.

Chabot is designated as a Hispanic-serving Institution and received a 5-year award to implement a number of institution-wide activities that support Latino and other low-income student achievement. One of the major activities in the Title V grant focuses on strengthening key student transition points and barriers that impede timely completion with an additional focus on math completion.

It is important to note that the general fund budget match exceeds the 1:1 requirement. Additional budgeted sources of support also greatly exceed the MESA one year budgeted amount. The Faculty Sponsor's salary is paid through general match and other sources. No funds for permanent personnel or benefits are budgeted to the MESA Program.

b6. Describe what MESA collaboration, if any, is taking place with other campus programs such as Student Equity, Student Success and Support Program, and/or any other state, federal or local initiatives.

There are collaborative efforts to integrate the MESA program and STEM programs, in general, with existing college programs. The MESA Director has and will continue to be an active participant on the Student Equity Council where Equity funds support the STEM Center IA and the STEM Center Equity Director. The Student Success and Support Program (SSSP) funds MESA's dedicated counseling services. MESA's Director and the Dean of SSSP confer regularly to coordinate services.

The Chabot MESA Program has built strong relationships over the past five years with UC Berkeley outreach programs, including their NIH Bridge to Baccalaureate Program, Transfer Alliance Project and Transfer to Excellence Program. MESA was able to increase partnerships to provide internship opportunities with local businesses and/or programs including Stanford HCOP and the Gladstone Institute. MESA has also participated in the start-up of an East Bay MESA Alliance with MESA programs at Diablo Valley College, Los Medanos College, College of Alameda and the Regional MESA Schools Program Office at California State University East Bay. In collaboration with the East Bay MESA Alliance, Chabot students participated in a family science day at Chabot Space and Science Center as well as competed in a Walk on Water competitions judged by professional engineers. In addition, MESA worked with the Alameda County commission on the Status of Women, Hayward Unified Schools and CSUEB Institute for STEM Education to host a STEM Awareness Day in January of 2016 and plans to duplicate the day in fall 2017.

b7. Describe the MESA director position, assignment, i.e. classification and percent effort.

For the next project period, Leticia Reyes will be responsible for leading the MESA Program at Chabot with administrative oversight from Dean Char Perlas of the Science and Mathematics Division and Donna Gibson, Faculty Sponsor, who served as the MESA Director for the previous project period. Ms. Reyes has eight years of experience working with Chabot special populations as a Counselor Assistant to the Director of federal TRIO Programs (ASPIRE/EXCEL, Educational Talent Search/GEAR UP, and STEM) and has worked closely to support the MESA program for the past year. In her previous positions, she has been the Site Administrator and Finance and Human Resources Assistant for the La Familia Neighborhood Resource Center in Hayward, CA. Her new assignment as the full-time (12-months) MESA Director is a Classified Supervisory position and is at level S250/1. Her percent effort is 100%. Ms. Reyes is responsible for project management and reporting; connecting with Chabot's Institutional Research office regarding data collection; managing day to day operations and supervising staff; and interacting with CCCCO with support from the Grant Development Office regarding post-award accounting. She will also collaborate with industry and community partners and attend all mandated meetings, conferences and trainings.

2. Supplementary Resources – describe the District's efforts to expand the MESA program and/or attract resources from civic, community, foundation, local/global business, federal, private, that have contributed to innovative practices, above and beyond, resources identified in b. 5 above. (up to 2 points)

Chabot College is fully committed to continuing to provide the 13 Core MESA Components.

The following awards are currently active at Chabot and contribute to the success of Chabot’s MESA Program: the U.S. Department of Education - Strengthening Hispanic Serving Institutions (HSI); TRIO Student Support Services, ASPIRE, ESL, STEM and Educational Talent Search; CCCC Basic Skills Partnership Pilot Program and Basic Skills and Student Outcomes Transformation Program Grant; and a sub-award from the University of California at Berkeley under a National Science Foundation prime award, “Bridges to the Baccalaureate”. The MESA program is also a key partner in the Career Pathways Trust (CPT) grants where Chabot has begun a First-Year Experience (FYE) STEM program and developed an Advanced Manufacturing/ Engineering pathway. Faculty Sponsor, Donna Gibson, is part of this group’s Local Pathway Action Team while many FYE STEM students become MESA students in their second year.

Chabot recently submitted a proposal to the National Science Foundation under the S-STEM initiative for Scholarship funding and to study Chabot’s math fast track learning communities. S-STEM scholarships will target talented, low-income (Pell-eligible) students traditionally underrepresented in the STEM fields. The S-STEM grant proposal includes that all scholarship recipients will be members of our MESA Program. The key elements of the S-STEM funding will be 1) common MESA and TRIO STEM cohort courses and activities; 2) financial support through scholarships; 3) active student support through expanded academic support activities; 4) mentoring by faculty; 5) internships with local industry and educational partners; 6) opportunities for leadership development; 7) increased collaboration among faculty, student support staff, and administrators; and 8) a research study evaluating the success of curricular innovations (e.g. Fast Track courses) and co-curricular supports (e.g., cohort learning communities and supportive services provided in MESA and TRIO STEM programs).

Finally, as evidenced in our budget, Chabot has also committed a significant all cash match to fund the MESA Project Director position, MESA-dedicated math courses, and a dedicated MESA Center, among other elements of the proposed Chabot MESA program. The proposed MESA program is a key initiative being undertaken in the Chabot Math & Science Division, as well as part of the college’s overall strategic goal to increase student success and transfer.

Pages 6-14 list the MESA and ASEM student demographic data requested in Section b3.

Chabot College MESA Student Demographic Information AY 2015-16 and 2014-15

Academic Year	DOB	Gender	Race/Ethnicity	Duplicate
AY2015-16	14-Mar-93	Female	Asian American	
AY2015-16	5-Oct-90	Female	Latino	
AY2015-16	23-Sep-96	Female	Latino	
AY2015-16	10-May-94	Male	White	
AY2015-16	14-May-94	Male	White	
AY2015-16	27-Jul-88	Male	Asian American	
AY2015-16	10-Feb-91	Male	White	
AY2015-16	28-Aug-93	Male	African American	
AY2015-16	9-May-89	Female	African American	

AY2015-16	27-Sep-87	Female	Asian American	
AY2015-16	23-May-92	Male	Latino	
AY2015-16	6-Jun-97	Male	Latino	
AY2015-16	23-Mar-94	Male	Asian American	
AY2015-16	20-Dec-85	Male	Latino	
AY2015-16	24-Aug-96	Female	Latino	
AY2015-16	29-Sep-93	Male	Latino	
AY2015-16	2-Mar-91	Male	Latino	
AY2015-16	21-Jan-91	Female	Asian American	
AY2015-16	25-Sep-93	Male	Asian American	
AY2015-16	11-Jun-93	Female	Latino	
AY2015-16	6-Sep-92	Female	Asian American	
AY2015-16	7-Jan-94	Male	Unknown	
AY2015-16	26-Dec-82	Male	Latino	
AY2015-16	9-May-89	Female	African American	
AY2015-16	15-Feb-94	Male	Filipino	
AY2015-16	2-Nov-95	Female	Latino	
AY2015-16	23-Aug-93	Male	Latino	
AY2015-16	8-Dec-93	Male	Filipino	
AY2015-16	30-Mar-90	Male	Asian American	
AY2015-16	31-Aug-95	Male	Asian American	
AY2015-16	9-Sep-95	Male	Asian American	
AY2015-16	30-Mar-87	Male	African American	
AY2015-16	17-Jun-92	Male	Latino	
AY2015-16	4-Sep-93	Male	Asian American	
AY2015-16	26-Apr-95	Female	Latino	
AY2015-16	16-Nov-91	Male	Latino	
AY2015-16	17-Jun-94	Male	Latino	
AY2015-16	9-May-96	Male	Latino	
AY2015-16	26-Jul-97	Male	Latino	note duplicate
AY2015-16	26-Jul-97	Other/Unknown	Latino	note duplicate
AY2015-16	19-Aug-93	Male	Latino	
AY2015-16	14-Oct-93	Male	Latino	
AY2015-16	19-Oct-87	Male	Latino	
AY2015-16	12-Jun-96	Male	Latino	
AY2015-16	11-Dec-94	Female	Latino	
AY2015-16	26-Aug-90	Male	African American	
AY2015-16	6-Feb-90	Female	African American	
AY2015-16	13-Aug-92	Male	African American	
AY2015-16	2-Dec-79	Female	African American	
AY2015-16	8-May-93	Male	Latino	
AY2015-16	24-Oct-91	Male	Asian American	
AY2015-16	30-May-90	Male	Asian American	

AY2015-16	18-Mar-93	Male	Latino
AY2015-16	5-Jul-95	Female	Asian American
AY2015-16	20-Oct-86	Female	Asian American
AY2015-16	29-Apr-96	Male	Asian American
AY2015-16	8-May-95	Male	Asian American
AY2015-16	20-May-94	Male	African American
AY2015-16	22-Jan-97	Male	Asian American
AY2015-16	6-May-88	Male	Multiracial
AY2015-16	21-May-95	Male	African American
AY2015-16	4-Sep-96	Female	Latino
AY2015-16	6-Jun-91	Male	Filipino
AY2015-16	24-Sep-97	Female	African American
AY2015-16	9-Dec-93	Female	Asian American
AY2015-16	5-Apr-93	Female	White
AY2015-16	10-Jan-95	Female	White
AY2015-16	22-May-90	Female	Pacific Islander
AY2015-16	27-Jul-93	Male	Asian American
AY2015-16	5-Dec-90	Male	Asian American
AY2015-16	8-Aug-92	Male	Multiracial
AY2015-16	29-Jan-94	Male	Asian American
AY2015-16	28-Jun-95	Female	Asian American
AY2015-16	19-Jul-95	Male	Latino
AY2015-16	27-Jun-95	Male	Asian American
AY2015-16	23-Feb-93	Male	Asian American
AY2015-16	25-Feb-90	Female	Latino
AY2015-16	14-Jun-95	Female	Latino
AY2015-16	6-Jul-94	Male	Latino
AY2015-16	6-Jun-92	Male	Filipino
AY2015-16	13-Mar-91	Male	White
AY2015-16	17-Jun-94	Male	Filipino
AY2015-16	3-Apr-97	Female	Asian American
AY2015-16	3-Jun-92	Male	African American
AY2015-16	11-Dec-91	Female	African American
AY2015-16	1-Jan-91	Male	Asian American
AY2015-16	4-Feb-93	Male	Filipino
AY2015-16	11-Dec-95	Male	African American
AY2015-16	28-Dec-93	Male	Latino
AY2015-16	1-Dec-88	Female	Asian American
AY2015-16	2-Sep-95	Male	Asian American
AY2015-16	3-Aug-95	Male	Latino
AY2015-16	20-Apr-94	Female	African American
AY2015-16	4-Jan-93	Male	Latino
AY2015-16	15-Jul-94	Male	Latino

AY2015-16	10-Sep-95	Female	Asian American	
AY2015-16	14-Oct-95	Male	Asian American	
AY2015-16	6-Apr-85	Female	African American	
AY2015-16	6-Jun-81	Female	White	
AY2015-16	13-Jul-94	Male	Latino	
AY2015-16	14-Nov-95	Female	Filipino	
AY2015-16	31-Aug-97	Male	Latino	
AY2015-16	4-Sep-88	Male	Latino	
AY2015-16	21-Jul-96	Female	Latino	
AY2015-16	31-Mar-94	Male	White	
AY2015-16	18-Jan-95	Male	African American	
AY2015-16	28-Aug-86	Male	Asian American	
AY2015-16	14-Jul-95	Male	Latino	
AY2015-16	17-Jun-93	Female	Filipino	
AY2015-16	24-Jul-96	Male	Pacific Islander	
AY2015-16	6-Jun-93	Female	Asian American	
AY2015-16	30-Dec-95	Female	Latino	
AY2015-16	15-Feb-94	Male	Latino	
AY2015-16	17-Jun-97	Male	Asian American	
AY2015-16	25-Aug-92	Male	White	
AY2015-16	30-Dec-96	Male	Latino	
AY2015-16	31-Mar-94	Male	Latino	
AY2015-16	28-Oct-87	Female	Multiracial	
AY2015-16	3-May-93	Male	African American	
AY2015-16	24-Dec-90	Male	Asian American	
AY2015-16	14-Jan-92	Male	Latino	
AY2015-16	23-Apr-95	Female	Latino	
AY2015-16	24-Sep-94	Female	Asian American	note duplicate
AY2015-16	24-Sep-94	Male	Asian American	note duplicate
AY2015-16	6-Oct-93	Male	White	
AY2015-16	26-Nov-81	Male	African American	
AY2015-16	28-May-93	Female	Asian American	
AY2015-16	4-Mar-92	Female	Filipino	
AY2015-16	12-Dec-89	Male	Latino	
AY2015-16	5-Dec-67	Female	Asian American	
AY2014-15	14-Mar-93	Female	Asian American	
AY2014-15	5-Oct-90	Female	Latino	
AY2014-15	23-Sep-96	Female	Latino	
AY2014-15	20-Dec-93	Female	Latino	
AY2014-15	14-May-94	Male	White	
AY2014-15	27-Jul-88	Male	Asian American	
AY2014-15	10-Feb-91	Male	White	
AY2014-15	23-Feb-91	Male	Latino	

AY2014-15	19-Jun-92	Female	African American
AY2014-15	28-Aug-93	Male	African American
AY2014-15	9-May-89	Female	African American
AY2014-15	15-Sep-88	Male	Filipino
AY2014-15	27-Sep-87	Female	Asian American
AY2014-15	23-May-92	Male	Latino
AY2014-15	8-Jul-93	Male	Latino
AY2014-15	24-Aug-96	Female	Latino
AY2014-15	2-Mar-91	Male	Latino
AY2014-15	3-Jul-93	Female	Latino
AY2014-15	27-Sep-93	Male	Latino
AY2014-15	9-Aug-92	Female	Latino
AY2014-15	25-Sep-93	Male	Asian American
AY2014-15	11-Jun-93	Female	Latino
AY2014-15	6-Sep-92	Female	Asian American
AY2014-15	7-Jan-94	Male	Unknown
AY2014-15	26-Dec-82	Male	Latino
AY2014-15	9-May-89	Female	African American
AY2014-15	8-Dec-93	Male	Filipino
AY2014-15	30-Mar-90	Male	Asian American
AY2014-15	7-Feb-92	Male	Asian American
AY2014-15	31-Aug-95	Male	Asian American
AY2014-15	9-Sep-95	Male	Asian American
AY2014-15	17-Jun-92	Male	Latino
AY2014-15	26-Apr-95	Female	Latino
AY2014-15	16-Nov-91	Male	Latino
AY2014-15	28-Jul-95	Male	Latino
AY2014-15	1-Jul-88	Male	Latino
AY2014-15	3-Jun-93	Male	Latino
AY2014-15	17-Jun-94	Male	Latino
AY2014-15	9-Dec-93	Male	Latino
AY2014-15	19-Aug-93	Male	Latino
AY2014-15	26-Jul-92	Male	Filipino
AY2014-15	14-Oct-93	Male	Latino
AY2014-15	19-Oct-87	Male	Latino
AY2014-15	4-Aug-95	Female	Filipino
AY2014-15	10-Aug-92	Male	Latino
AY2014-15	11-Dec-94	Female	Latino
AY2014-15	28-Jun-91	Female	Latino
AY2014-15	29-Jun-95	Male	Latino
AY2014-15	26-Aug-90	Male	African American
AY2014-15	6-Feb-90	Female	African American
AY2014-15	2-Dec-79	Female	African American

AY2014-15	8-May-93	Male	Latino
AY2014-15	24-Apr-88	Female	White
AY2014-15	24-Oct-91	Male	Asian American
AY2014-15	30-May-90	Male	Asian American
AY2014-15	18-Mar-93	Male	Latino
AY2014-15	8-May-95	Male	Asian American
AY2014-15	20-May-94	Male	African American
AY2014-15	6-May-88	Male	Multiracial
AY2014-15	4-Sep-96	Female	Latino
AY2014-15	6-Jun-91	Male	Filipino
AY2014-15	5-Apr-93	Female	White
AY2014-15	10-Jan-95	Female	White
AY2014-15	22-May-90	Female	Pacific Islander
AY2014-15	13-Nov-97	Male	Latino
AY2014-15	18-Apr-91	Male	Asian American
AY2014-15	27-Jul-93	Male	Asian American
AY2014-15	5-Dec-90	Male	Asian American
AY2014-15	29-Jan-94	Male	Asian American
AY2014-15	28-Jun-95	Female	Asian American
AY2014-15	27-Jun-95	Male	Asian American
AY2014-15	11-Nov-88	Female	Asian American
AY2014-15	14-Jun-95	Female	Latino
AY2014-15	6-Jul-94	Male	Latino
AY2014-15	28-Jul-94	Male	Filipino
AY2014-15	6-Jun-92	Male	Filipino
AY2014-15	17-Jun-94	Male	Filipino
AY2014-15	3-Jun-92	Male	African American
AY2014-15	11-Dec-91	Female	African American
AY2014-15	17-Jun-91	Male	White
AY2014-15	22-Jan-94	Female	Latino
AY2014-15	3-Aug-92	Female	African American
AY2014-15	13-Nov-94	Male	Latino
AY2014-15	20-Mar-92	Female	Latino
AY2014-15	28-Dec-93	Male	Latino
AY2014-15	1-Dec-88	Female	Asian American
AY2014-15	2-Jun-87	Male	Asian American
AY2014-15	18-Apr-92	Male	Asian American
AY2014-15	2-Sep-95	Male	Asian American
AY2014-15	3-Aug-95	Male	Latino
AY2014-15	24-Dec-92	Female	Filipino
AY2014-15	20-Apr-94	Female	African American
AY2014-15	4-Jul-84	Male	Latino
AY2014-15	6-Oct-93	Female	Native American and Alaska Native

AY2014-15	21-Jul-94	Female	Latino
AY2014-15	27-Aug-94	Female	Latino
AY2014-15	15-Jul-94	Male	Latino
AY2014-15	14-Oct-95	Male	Asian American
AY2014-15	3-Nov-94	Male	Latino
AY2014-15	6-Jun-81	Female	White
AY2014-15	13-Jul-94	Male	Latino
AY2014-15	4-Sep-88	Male	Latino
AY2014-15	21-Jul-96	Female	Latino
AY2014-15	9-Feb-93	Male	Latino
AY2014-15	18-Jan-95	Male	African American
AY2014-15	22-Feb-93	Male	White
AY2014-15	28-Aug-86	Male	Asian American
AY2014-15	17-Jul-87	Male	Latino
AY2014-15	14-Jul-95	Male	Latino
AY2014-15	17-Jun-93	Female	Filipino
AY2014-15	6-Jun-93	Female	Asian American
AY2014-15	15-Feb-94	Male	Latino
AY2014-15	25-Aug-92	Male	White
AY2014-15	18-Aug-90	Female	Multiracial
AY2014-15	31-Mar-94	Male	Latino
AY2014-15	3-May-75	Male	White
AY2014-15	28-Oct-87	Female	Multiracial
AY2014-15	11-Nov-93	Female	Asian American
AY2014-15	24-Dec-90	Male	Asian American
AY2014-15	14-Jan-92	Male	Latino
AY2014-15	23-Apr-95	Female	Latino
AY2014-15	24-Sep-94	Female	Asian American
AY2014-15	26-Nov-81	Male	African American
AY2014-15	20-Feb-83	Female	African American
AY2014-15	28-May-93	Female	Asian American
AY2014-15	19-Jul-94	Female	Multiracial
AY2014-15	4-Mar-92	Female	Filipino
AY2014-15	28-Oct-90	Male	White
AY2014-15	16-Jan-91	Female	Latino

Note: 1. AY2014-15 includes Fall 2014 and Spring 2015; AY2015-16 includes Summer 2015, Fall 2015, and Spring 2016.

2. Only students enrolled in that academic year (AY14-15 or AY15-16) were included in this report.

Chabot College ASEM Student Demographic Information AY2014-15 and 2015-16

Academic Year DOB Gender Race/Ethnicity

AY2015-16	15-Dec-94	Male	African American
AY2015-16	16-Mar-94	Male	Latino
AY2015-16	12-Apr-93	Male	Asian American
AY2015-16	7-Dec-94	Female	White
AY2015-16	16-Nov-95	Female	Filipino
AY2015-16	24-Apr-88	Female	White
AY2015-16	2-Feb-95	Female	Latino
AY2015-16	27-Jul-97	Male	Multiracial
AY2015-16	26-Oct-92	Male	Latino
AY2015-16	11-Feb-94	Female	African American
AY2015-16	12-May-93	Female	Latino
AY2015-16	6-Feb-94	Male	African American
AY2015-16	26-Jul-96	Male	Multiracial
AY2015-16	8-Sep-87	Female	White
AY2015-16	15-Mar-92	Male	Latino
AY2015-16	19-May-93	Female	Asian American
AY2015-16	14-Jul-92	Male	Asian American
AY2015-16	5-Sep-93	Male	Asian American
AY2015-16	26-Dec-95	Female	White
AY2015-16	31-Aug-95	Male	Asian American
AY2015-16	22-Feb-96	Male	African American
AY2014-15	18-Jun-93	Female	African American
AY2014-15	15-Dec-94	Male	African American
AY2014-15	27-May-91	Male	Latino
AY2014-15	16-Mar-94	Male	Latino
AY2014-15	20-Dec-93	Female	Latino
AY2014-15	29-Jun-94	Female	Asian American
AY2014-15	12-Apr-93	Male	Asian American
AY2014-15	11-Sep-95	Male	Multiracial
AY2014-15	7-Dec-94	Female	White
AY2014-15	20-Sep-94	Female	White
AY2014-15	26-Jun-89	Male	Latino
AY2014-15	16-Nov-95	Female	Filipino
AY2014-15	24-Apr-88	Female	White
AY2014-15	2-Feb-95	Female	Latino
AY2014-15	26-Oct-92	Male	Latino
AY2014-15	11-Feb-94	Female	African American
AY2014-15	22-Jan-94	Female	Latino

AY2014-15	6-Feb-94	Male	African American
AY2014-15	26-Jul-96	Male	Multiracial
AY2014-15	9-May-96	Male	Latino
AY2014-15	8-Sep-87	Female	White
AY2014-15	15-Mar-92	Male	Latino
AY2014-15	14-Jul-92	Male	Asian American
AY2014-15	5-Sep-93	Male	Asian American
AY2014-15	2-Sep-91	Male	Asian American
AY2014-15	31-Aug-95	Male	Asian American
AY2014-15	7-Aug-93	Male	Asian American
AY2014-15	15-Sep-94	Male	Asian American
AY2014-15	19-Mar-94	Female	Asian American
AY2014-15	22-Feb-96	Male	African American

Note: 1. AY2014-15 includes Fall 2014 and Spring 2015; AY2015-16 includes Summer 2015, Fall 2015, and Spring 2016.

2. Only students enrolled in that academic year (AY14-15 or AY15-16) were included in this report.

NEED FOR MESA PROGRAM (20 points)

Chabot College is an open-admission, comprehensive, Hispanic-Serving, urban two-year community college located in the heart of the San Francisco Bay Area economy that includes a mix of traditional manufacturing and high-technology industries. Our campus is located in Hayward, CA, a city in the East Bay Alameda County region. The East Bay's proximity to San Francisco and Santa Clara County has supported the growth of a bustling high-technology region, with 9.7% to 28.8% high-tech employment compared to 5.6% in the United States as a whole (Bay Area Council Economic Institute, 2012). Therefore, students with interests as diverse as biotechnology, software, high-tech manufacturing, telecommunications, Internet, and multimedia occupations, plan to prepare for careers in science, mathematics and engineering in large numbers.

Chabot College draws an ethnically and economically diverse student body from its surrounding cities and has a total headcount enrollment of approximately 14,317 students: 11% are African American, 16% are Asian, 10% are Filipino/Pacific Islander, 39% are Latino, 16% are White and 8% Other (Chabot College Student Characteristics Report, 2016). The high cost of living in the Bay Area is a significant challenge for Chabot students. Eighty-seven percent (87%) of Chabot students work over 20 hours per week, 71% of students live with their parents, and 56% report family income levels of either low or very low based on federal poverty rate guidelines (Chabot College Student Satisfaction Survey, fall 2015). For the period from fall 2012-fall 2015, more than 50% of Chabot students qualified for Board of Governors (BOG) waivers. From the fall 2012-fall 2016 period, the highest percentage of general population low-income students were African American (62-72%), followed generally by Native-Americans, Asian Americans, Latino and Filipino populations. The low income level of Chabot students coupled with their need to work in order to sustain their educational efforts underscores the need for the MESA Program.

Specialized services offered by this project have had an impact on Chabot's low-income and academically talented students.

The Chabot MESA Program will benefit all Chabot students, but will focus recruitment efforts on disproportionately impacted (DI), underrepresented minorities; in particular Latino, African-American, and Pacific-Islander students and other DI populations, such as foster youth, veterans and other low-income, first-generation college students. There are many DI students at Chabot with declared STEM majors. They comprise between 10-12% of the student population, (1,292-1,673 students in fall 2012-fall 2016). The largest ethnic group of STEM majors at Chabot were Latino students, followed by Asian Americans, Filipinos, and African Americans (fall 2013-fall 2016). Over the course of the MESA program, the numbers of these students have increased. For example, the number of Latino STEM students increased from 355 students to 539 students (fall 2012-fall 2016). This demonstrates the continuing need for the MESA program and the success of Chabot's MESA Program in increasing student interest in STEM fields even while the college enrollment decreases. The Chabot MESA program will serve a minimum of 125 students from these targeted populations during the 2017/2018 period and will endeavor to expand this number in subsequent years, if renewed, through the leveraging of additional resources.

Statewide and regional need

According to a recent report by the East Bay Economic Development Alliance, *Regional Intelligence Report* (August 2016), the East Bay economy was strong in 2016 as the region's labor market continued with record high employment levels. As of June 2016, total non-farm employment in the East Bay reached 1,117,200 on a seasonally adjusted basis, a 2.3% increase over the same month in the previous year. The latest job gains are reported to be broad-based across industries, substantiating the robust nature of the region's expansion. From June 2015 to June 2016, the East Bay saw a 2.7% increase in professional science and technology employment. The City of Fremont, adjacent to Hayward, has been a major player in the growth of the Manufacturing industry in the East Bay. The City's 27,000 manufacturing jobs account for 23% of the workforce. The City has also streamlined its permitting process and has added business tax exemptions for biotech and clean-tech companies.

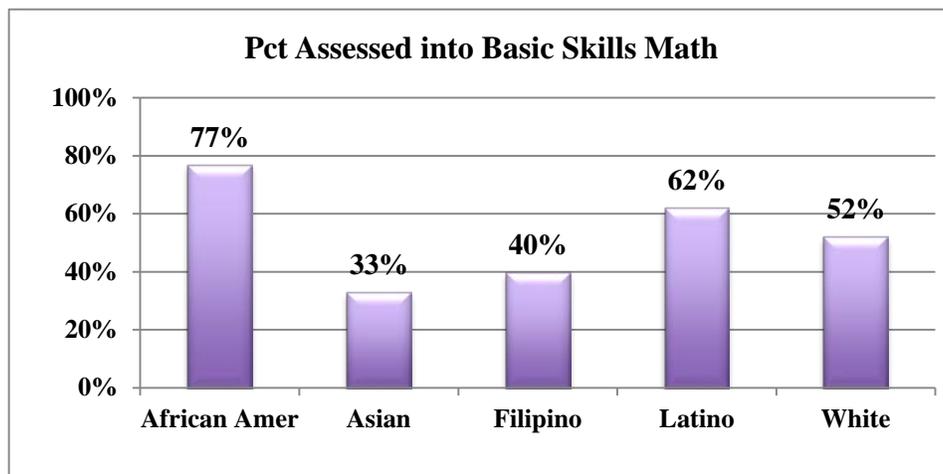
Scientific research and development services are particularly concentrated in the East Bay. This subsector, tied to life sciences, biotechnology, engineering, and clean technologies, is nearly four times more concentrated in the East Bay than in the overall U.S. economy. It is home to the University of California, Berkeley – the country's top-ranked graduate research institution in the country according to the National Research Council. It is also home to three national research laboratories – more than any other region. The East Bay ranks second only to Silicon Valley in terms of the venture capital invested in three key sectors: industrial (clean) energy, semiconductors, and electronic instrumentation. It is also a leading recipient in computer technology, consumer and business products, and biotechnology investments. Therefore, the need for highly-skilled labor in the PSTS industries is key to the East Bay Region's economic development and vitality.

However, students who are pursuing STEM degrees and careers, face barriers similar to those in all California higher education systems. *Over 50% of first-time students in the California State University (CSU) and 70-90% in the California Community College (CCC) systems require*

remediation in math and/or English. A disproportionate number of students who enter college in need of remediation are from underrepresented minority groups.¹ The need for remediation, in turn, can lead students to a prolonged sequence of non-transferable “developmental” English and Math classes, which can add up to three years to students’ undergraduate careers. Increases in tuition and prolonged remediation exacerbate economic pressures that in turn negatively affect completion rates for underrepresented groups. While 25% of degree-seeking community college students complete a certificate, associate degree, or transfer to a four-year university within six years, only 18% of Latino and 15% of African-American students complete their educational goal. Chabot students face the same prolonged sequence of courses with only 23% of new students assessing into college level math (trigonometry or above) in 2016.

Local Chabot College Student Need

Access to careers in math and science requires developing advanced skill sets that are supported by a strong background in mathematics and science. At the same time, growing numbers of academically under-prepared students are entering the community college system. The MESA Program builds upon initiatives Chabot is currently undertaking to increase student retention and success. As indicated in the graph below, in the fall of 2015, large percentages of students of color were assessed into lower than college-level math. (Chabot Institutional Research, 2015).



Exacerbating this slow progress are a one-year persistence rate of 57% of all STEM students and poor outcomes in the gateway math courses [Math 37 (Trigonometry; 43% success rate); Math 20 (Pre-calculus; 62%); and Math 1 (Calculus 1; 58% success rate)] and only 44% of students completing the Math 20 to Math 1 (Pre-Calculus to Calculus) sequence in one year (Chabot Office of Institutional Research). These courses are a strong indicator of a community college student’s likelihood of obtaining a STEM degree, since students who do not pass Calculus, are unable to advance for further study in “calculus-based” STEM disciplines, such as Engineering, Math, and Physics.

¹ Camacho, Anna Marbella, Canada College, *Successful Models in Community College STEM Education*, Paper ID #13992, Seattle – Making Value for Society, 122nd ASEE Annual Conference & Exposition, June 14-17, 2015, Seattle, WA.

For underrepresented students, the gap is even wider. Although the success rate of our STEM programs as a whole is fairly high, when the success rates are broken down by ethnicities a noticeable achievement gap by underrepresented students emerges. For example, in the fall of 2016, only 44% of African American and 50% of Latino students were successful in their STEM courses. Further, 31% of African American students and 24% of Latino students withdrew from their STEM courses before receiving their grades in comparison to the overall withdrawal rate of 23% for STEM students (Chabot OIR Datasets, 2016). For Calculus 1, only 6% of new, incoming students successfully completed Calculus and 69% of those were Asian and White, in comparison to 19% of African and Latino students who passed. However, over the past five years, the MESA program has proven to be effective in improving the educational outcomes of its students. As detailed on page 3, MESA students have consistently had better STEM course success, retention and transfer-ready rates in comparison to non-MESA STEM students.

Progression through the pipeline also impacts rates of degree and transfer at Chabot. The college awards associate degrees in the biological sciences, computer science, engineering, mathematics, and physical sciences. These degrees are not awarded in high numbers, and many students who transfer do so without earning an associate degree. While 12% of new Chabot students declared STEM as their major in the Fall of 2016, (Biology 25%, Computer Science 31% and Engineering 31%) and 57% declare transfer as their educational goal, college-wide, out of the 600 Chabot students who transferred to California State University (CSU) systems in 2015-16, only 62 (10%) students transferred in the STEM fields of biological sciences, engineering, computer sciences, mathematics, or physical sciences. In 2015-16, out of 812 AA/AS degrees awarded, only 30 (4%) graduated with a degree in these STEM fields. Further, graduation and transfer rates are substantially lower for Latino and African-American students.

Chabot has and will continue to work with the local 4-year transfer CSU and UC institutions. A National Institutes of Health (NIH) Bridges to the Baccalaureate program with UC Berkeley's Transfer Alliance Project has strengthened supports for students majoring in the biological and biomedical sciences. Work with California State University East Bay (CSUEB) includes alignment of curricular and non-curricular program elements. Chabot's MESA Program has strengthened connections with industry, leveraged resources, worked with disciplines outside of STEM to provide support in general education areas, and collaborated with other MESA programs to support regional initiatives. Chabot's Program has also connected with our local community to coordinate the Hayward STEM College Exposition, a crucial partnership between institutions of higher education in Hayward. Nevertheless, statistics show that the local Chabot need for special supports to improve student success and transfer are acutely needed.

APPLICATION ANNUAL WORKPLAN

a. Objectives (25 points)

The Chabot College MESA Program has proposed to meet all of the Minimum Objectives listed in the RFA. This is reflected in our Application Annual Workplan which describes the sequence and timeline of activities. The objectives address the needs identified in our Need section.

Outcomes are stated in measurable terms and are quantifiable, when necessary. Objectives and quantifiable outcomes are linked directly to our Procedures and Activities which are described in

the next section and detailed in our Annual Application Workplan. Special attention is given for improvements in serving disproportionately impacted students.

b. Procedures/Activities (20 points)

Chabot College is committed to providing the 13 Core Components of the MESA Program. All components have been integrated into the Annual Workplan which follows this section. The activities directly support meeting the MESA Objectives and outcomes. The 13 Core Components are described here and explain the details of the Procedures/Activities listed in the Annual Application Workplan.

I. Administrative Component

The Chabot MESA Program will be led by the full-time MESA Director, Leticia Reyes. The Director will be supported by several student assistants who will help maintain student files and intake forms. The MESA Program will also be supported by the half-time Faculty Sponsor (Donna Gibson), and percentages of the Dean of Science and Mathematics (Char Perlas), STEM Center Equity Director (Gabriel Chaparro) and the Science and Mathematics Division Administrative Assistant (Kim Bononcini) as shown in budget detail and Program organizational chart. The Chabot MESA Program includes all of the required Administrative Components including funds set aside for the two required statewide meetings.

II. Student Center



The Chabot MESA Student Center and is located within the Science and Math Faculty building. The Center is a non-shared space measuring 639 square feet and includes the STEM Director's office, a reception desk, student individual and collaborative work spaces with new desks and

chairs, computer stations, multiple white boards, drop in peer tutoring, and a kitchen with free coffee and snacks. The space is used for individual quiet time and group study, tutorial services, book and equipment loan activities, computer lab work, general communication center, gathering area/lounge, and adequate space for students to store books and personal items. The MESA Center is currently open Monday -Thursdays, 9am-5pm, and Fridays from 9am – 3pm. It is staffed by the MESA Director, Faculty Sponsor, student assistants and tutors.



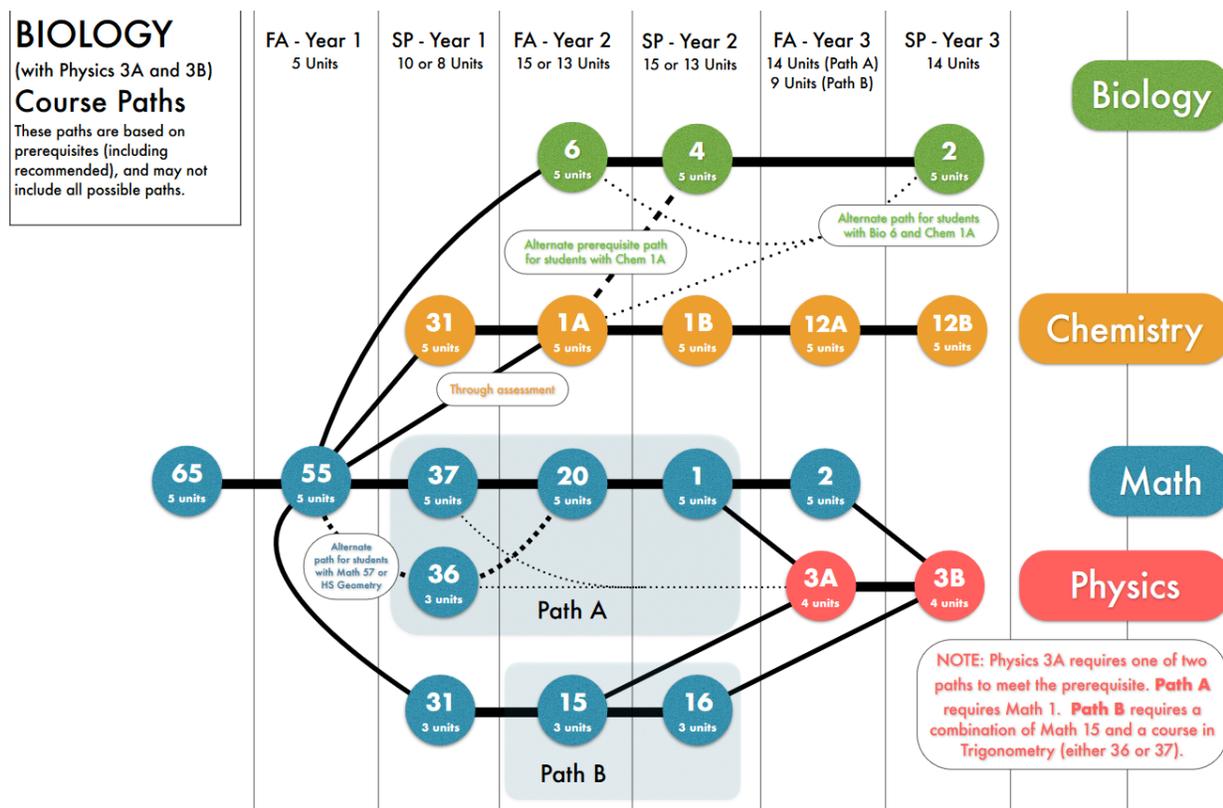
Chabot College MESA Center

In addition, the MESA program has dedicated space allocated in Chabot’s main STEM Center. The Chabot STEM Center occupies 4,774 square feet, contains 75 computers for student use and open study areas. The STEM Center is located adjacent to the Science and Math Faculty Building which houses the MESA Center. The MESA Program has a 108 square foot office for the MESA Counselor as well as a 192 square foot conference room for Academic Excellence Workshops housed within the main STEM Center. The STEM Center has drop in peer tutoring available in biology, chemistry, computer science and mathematics. The STEM Center is open Monday -Thursdays, 9 AM-7 PM, and Fridays from 9 AM – 5 PM and Saturday mornings. In addition the STEM Center is staffed by STEM faculty and two full time learning assistants.

III. Student Clustering

Over the past several years, the Chabot STEM faculty have worked collaboratively to develop roadmaps that show suggested course combinations by semester by major requirements. The roadmaps are used in Chabot’s scheduling to ensure that sections of the courses clustered do not overlap. Overlapping sections were identified by faculty as an obstacle that students faced when

learning to successfully navigate even a well-planned SEP. Our MESA counselor refers to the roadmaps when developing SEPs and we encourage students to take the recommended course clusters, thereby helping to ensure MESA students taking particular courses are in the same section. A sample roadmap for a biology major and the significant course groupings offered fall 2017 are shown below.



Cluster 1
CHEM 31 (20056): TR 1p – 2:15p and R 2:40p – 5:30p
MTH 37 (22103): TR 9:30a – 11:45a
or
MTH 36 (23019): MTWR 9a – 11:05a
or
MTH 31 (20634): MW 11:30a – 12:45p

Cluster 2
BIOL 6 (21276): TR 7:45a – 9a and R 9:10a – 12p
CHEM 1A (20048): MW 7:30a – 8:45a and 9a – 11:50a
MTH 20 (23333): TR 4:30p – 6:45p
or
MTH 15 TR 5:30p – 6:45p

Biology - 3 series

3 series - For BIOL majors who need to take PHYS 3A & PHYS 3B

Cluster 3
BIOL 4 (21552): TR 1p – 2:15p and R 2:30p – 5:20p
CHEM 1B (20342): MW 5:30p – 6:45p and 7p – 9:50p
MTH 1 (20624): MW 12p – 2:15p Or
MTH 16 (Spring)

Cluster 4
CHEM 12A (20587): MW 1p – 2:15p, M 2:20p – 3:25p and T 1p – 5:30p
MTH 2 (20628): MW 9a – 11:15a
PHYS 3A (22604): T 8:30a – 11:20a and R 8:30a – 11:20a

In addition, we have started to offer two compressed math pathways (fast tracks). One track where students complete trigonometry and pre-calculus and the second track where pre-calculus

and calculus 1 are taken in a single semester. We encourage our MESA students to enroll in the math fast tracks when appropriate. In the first three pilot semesters of the pre-calculus/calculus 1 program, the success rates for the fast track is more than twice that of the traditional course pattern. We are only in the first pilot semester for the trigonometry/pre-calculus track but preliminary data shows increased success rates over the traditional pattern as well.

IV. Academic Excellence Workshops (AEW's)

The Chabot MESA Program has offered a variety of Academic Excellence Workshops (AEWs) over the past five years. These include AEWs for organic chemistry and the first semester of physics. Depending on student enrollments in courses, we have also had AEWs for pre-calculus, calculus 1, calculus 2, cell and molecular biology, computational methods in engineering, introductory chemistry and general chemistry 1A and 1B. AEW's are typically facilitated by students however, we have had faculty facilitators for AEW's in first semester physics and the computational methods in engineering courses. Success of our AEWs is shown by the higher success rates of MESA students in STEM courses (average 70%) as compared to non-MESA students (average 55%).

In addition to the AEW's offered during the semester, we have also offered boot-camps based on AEW principles in the weeks prior to a semesters start. Boot-camps have successfully been offered during winter break in physics, chemistry and mathematics. The boot-camps are facilitated by faculty with the goal of giving MESA students a head start and introduction to course material prior to the start of the semester. Other MESA workshops have included a focus on career development and study skills: Time Management; Resume Building, Interviewing Skills, Effective Goal Setting, and Test Taking Strategies.

V. Academic Counseling

One of the cornerstones of our program is the development of Student Education Plans (SEPs) for each MESA student early on in the first semester of the program. To accomplish this, students learn of the SEP process at the orientation and each continuing MESA student is required to update their SEP each semester. The SEP is designed to minimize the time necessary for students to transfer and complete their degree. Each MESA student will have access to a minimum of one hour per semester of individual counseling with the MESA counselor to monitor progress, update academic plans, customize SEPs and receive career and transfer advice.

MESA students' academic progress is monitored throughout the semester by the use of a grade-tracker program by the MESA Counselor, Faculty Sponsor and/or Faculty Mentors. Students are encouraged to attend workshops offered by the MESA Counselor in study skills, test-taking strategies and time management.

VI. MESA Orientation Program

Before the start of the fall term, we will provide an orientation session where the program components and expectations will be explained and students will be asked to complete a Mutual Responsibility Agreement (MRA) for participating in the program. During the orientation,

students will also participate in individual and team science and math centered activities. Former MESA students will be invited to attend and provide a student panel for questions. New students will also have an opportunity to develop a partnership with current participants. These partnerships will help new students navigate their first semester/academic year, meeting twice per semester at the MESA center in an informal mixer environment. For students entering the program after the orientation date, individual meetings with the MESA Director and/or Faculty Sponsor will cover information from orientation.

In addition, our STEM 1 (Orientation) course will be available for new MESA students. STEM 1 is an interdisciplinary course that explores career options in STEM and provides hands on activities in biology, computer science, chemistry, engineering, mathematics and physics. Laboratory skills and tools such as Excel graphing, simple coding and presentation skills are also covered as well as the role of science as a human endeavor and the power of scientific inquiry to explore the interdependence of scientific fields.

VI. Student Support Services

Each MESA student will be case managed by a MESA counselor who will meet with each MESA student for at least one hour per semester to provide individual counseling, personal advising, assistance with academic planning and receive career and transfer advice. Assistance with college applications will be provided by the Chabot Career and Transfer Center and the UC Berkeley Transfer Assistance Project.

For each MESA student who places below college level on the placement test and diagnostic assessment or becomes at-risk for failing a course, the MESA Program Director, in collaboration with the MESA Counselor, will initiate and develop an intervention plan that includes one or more of the following interventions: (1) Enroll the student in the Chabot Student Success Courses (PSCN 15); (2) Attend ongoing AEW's and academic tutorials offered through MESA program, Study Skills, Time-Management Skills, etc; (3) Attend individual and/or group tutoring provided in the MESA Math/Science Center; and/or (4) Meet regularly with faculty mentor. MESA Counselor, Faculty Sponsor and/or Faculty Mentor will also review academic progress for each MESA student using a grade tracker system.

Chabot has instituted a joint MESA-TRIO STEM Faculty-Student Mentoring Program. This Program requires a commitment by students and faculty and they, in turn, enjoy benefits associated with participation. Faculty have direct communication with their assigned mentee, monitor and give feedback, review course plans prior to registration and double check that each mentee has met with a counselor regarding their Student Education Plan. Benefits to faculty include increased understanding of student needs, increased knowledge of college resources, and additional remuneration. Students commit to meet with their Faculty Mentor at least twice a semester and communicate with their mentor at least once per month. Meetings are held at least once at the beginning of each semester and again prior to registration of courses to discuss their course schedule. Students will also attend a mixer meeting with other student mentees and faculty mentors. Students will submit their Grade Tracker Spreadsheet through our Canvas program site at least twice throughout the semester. Students benefit from support and guidance, increased access to information, connection to resources and increased networking opportunities.

VII. Student Outreach and Identification of MESA Participants

Outreach, identification and recruitment of MESA participants will come from two pools of students: new, first-time entering college students and current Chabot STEM major and non-major students. New students will be recruited from local high schools through our Early Decision Program and our First Year Experience (FYE) Programs. Beginning fall 2017, Chabot will be adding a FYE Pre-STEM Pathway to our already existing FYE STEM Pathway. The faculty lead of our FYE STEM Pathway is also the Faculty Sponsor for our MESA Program, so information on both the FYE Programs and MESA are distributed to students during high school visits throughout the year. In addition, Chabot has been hosting counselors from local high schools for an information day, where MESA Program information is also distributed.

MESA students who are currently Chabot students will be identified and recruited through several avenues. Representatives for our MESA program will make classroom visits to share information and distribute applications in sections of STEM courses during the fall and spring semesters. In addition, flyers are posted around campus including all STEM buildings. Flyers as well as applications are also available in our main STEM Center, on-line with a link for interested students on our webpage, and electronic versions are emailed to all STEM faculty. In addition, to specifically target underrepresented populations, presentations will be given to several of our special programs, including Puente and Daraja/Umoja. We also plan to collaborate with our Hispanic Serving Institution Grant team to identify possible participants. Classroom visits to our General Education science and non-calculus-based science classes (e.g., Chemistry 10, Biology 10, Physics 11) will be made to attract students who may not yet have declared a STEM major. Finally, we will recruit students through Chabot student STEM clubs and tabling at Gladiator Days and other student engagement activities held on campus.

VIII. MESA Campus Council

The Faculty Sponsor of the Chabot MESA Program will co-chair the STEM Advisory Council with the STEM Center Equity Director. The STEM Advisory Council will consist of the MESA Program Director, Faculty Sponsor, Dean of Science and Mathematics, the MESA Counselor, STEM Faculty and the STEM Center Learning Assistant. The STEM Advisory Council will also include a student representative(s) from the MESA program and/or Chabot College student government. The group will meet to discuss MESA program progress, MESA students, and suggestions for program modifications and improvements. Input from the participants will assist the director in planning for subsequent semesters or for the renewal process. The STEM Advisory Council will also discuss issues as they relate to disproportionately impacted populations in STEM and bring recommendations to both the Equity Committee, SSSP Committee and Transfer Center.

IX. Professional Development

The Chabot MESA Program Director will participate in the collection and submission of CCCCO MIS data as it pertains to MESA students and will attend the training(s) necessary to use the CCCCO MIS system. She will also coordinate the professional development of MESA faculty and staff. Chabot MESA faculty will have opportunities to explore best practices in

pedagogy, visit other MESA program in the region and meet with industry partners. Many STEM faculty regularly attend SACNAS Equity in STEM Conference the Research & Planning Group's Strengthening Student Success Conference. This conference provides a unique opportunity for a wide cross-section of California community college professionals - including faculty, deans, program directors, student services faculty and staff, researchers and planners - to engage each other about strategies for building institutional effectiveness, supporting student learning, and increasing equitable outcomes. This conference has served as an incubator of innovative practices for MESA and provides an opportunity to collaborate with internal and external partners.

X. Student Organizations

The Chabot MESA Program will support existing student organizations by encouraging MESA students to participate in and take on leadership positions within the clubs. In addition, the MESA Program will work with existing student clubs to sponsor events and to support improvements for all STEM majors. Currently, Chabot has several STEM student clubs including the Biology Club, Chemistry Club, Computer and Engineering Club, Mathematics Club and Physics Club. In addition, a student chapter of SACNAS (Society for the Advancement of Chicano and Native American Scientists) is in the chartering process. Many of our student clubs are affiliated with national organizations such as the American Chemical Society and American Association of Physicists.

In addition, the MESA program provides multiple opportunities for students to develop their leadership skills throughout the year. This includes the attending the SACNAS Equity in STEM Conference (6 students), the MESA Statewide Leadership Conference (5 students) and the weekend-long MESA Statewide Leadership Retreat (7-13 students each year).

Finally, the MESA program also partners with the Student Senate of Chabot College (SSCC). The SSCC supports MESA activities, provide leadership opportunities for students as officers in the student government, and sends a representative to the MESA Community College programs.

XI. Local Business and Industry Council

Chabot will establish a Regional Partners group that will meet at least twice each year to build on its existing partnerships and relationships. The group will include representatives from CSUEB, UC Berkeley's NIH Bridges Program, SFSU Math/Science Education Center, SFSU MEP program, Hayward Unified School District, Lawrence Hall of Science, the Exploratorium, Growth Sector and partners already involved in the Hayward Promise Neighborhood Grant. We will also extend invitations to contact local businesses such as Anthera Pharmaceuticals, Planet Biotechnology and Mendel Biotechnology, Inc. to establish industry partnerships for MESA internships and career opportunities, to participate in Regional Partners meetings, and to recruit guest speakers. There are numerous biotech and pharmaceutical companies in addition to engineering firms located in the Chabot service area. We have been active participants with the Career Pathway Trust work where MESA faculty collaborate with local school districts and industry in the Advanced Manufacturing/ Engineering fields. Finally, for the Walk on Water Engineering Competition, students' designs were judged by engineers from Glass Point Solar.

The MESA Program also partners with the City of Hayward through a five year grant that allows MESA students to work as math and science tutors in Hayward middle and high schools.

Opportunities are continually expanding for Chabot College MESA Students. An MOU between Chabot College and Base 11 is being presented to the Board at the June 20th, 2017 Board Meeting. Base 11 is a non-profit organization that connects employers, academic institutions, and entrepreneurial opportunities with high-potential, low-resources students who have shown interest and talent but lack access and resources needed to realize their greatest potential. Base 11 is committed to solving two of the country's biggest problems: The growing science, technology, engineering and mathematics (STEM) talent crisis, fueled by the underrepresentation of women and ethnic minorities and the eroding middle class in America.

Chabot's partnership with Base 11 would provide our MESA Students with the opportunity to participate in Summer Fellowships to conduct research with mentors at world-class institutions. Students would receive a stipend to perform hands-on graduate-level research projects while living on a college campus.

XII. Pro-Active Liaisons with MSP/MEP

Chabot College is fortunate to have three highly respected four year institutions nearby that have MSP and/or MEP programs. We have a close and long-standing relationship with our largest feeder 4-year institution, CSUEB. We are currently part of the CSUEB Gateways STEM Institute-led P20 Basic Skills Consortium that works on curriculum alignment in developmental math while regularly aligning curriculum in our other Math/Science Division courses. Chabot has also sent a team of judges to the CSUEB MESA Day Competition for the past several years and Chabot MESA students serve as tutors in local high schools as part of the CSUEB Math-Science Teacher Initiative (MSTI). We also work with The Institute for STEM Education at CSUEB and the Alameda County Commission on the Status of Women to organize a STEM day where about 75 high school students came from Hayward High to Chabot for tours, presentations and hands-on activities in STEM. At San Jose State University, we attend the day for Counselors of Engineering and Science majors and we send MESA students to summer research internships as part of UC Berkeley's NIH Bridges to Baccalaureate program.

In addition to CSUEB, we are participants in the EBMA (East Bay MESA Alliance) where students participated in the Walk on Water Engineering Competition, where students designed devices that would enable them to walk on water. The EBMA is an inter-segmental regional collaboration in mathematics, engineering and science education for economically disadvantaged and underrepresented student populations. Partners include Cal State East Bay (through East Bay MESA Schools Program), Diablo Valley College, and Los Medanos College. Its mission is to work collaboratively to enhance the pipeline of MESA programs in the East Bay Region and offer our students an enriched experience.

Finally, we now have a MSP at Hayward High School so we are planning to collaborate with them on joint activities such as college tours and STEM-focused enrichment activities as well as including the MSP in the EBMA.

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
1. INCREASE THE NUMBER OF ECONOMICALLY AND EDUCATIONALLY DISADVANTAGED STUDENTS PURSUING DEGREES IN MATHEMATICS, ENGINEERING, SCIENCE, AND TECHNOLOGY WHO ARE ELIGIBLE TO TRANSFER TO A FOUR-YEAR COLLEGE OR UNIVERSITY	1.1 DEVELOP MATERIALS FOR MESA ORIENTATIONS AND INFORMATION SESSIONS FOR LOCAL HIGH SCHOOLS, INCOMING CHABOT STUDENTS AND EXISTING CHABOT STUDENTS	PROVIDE LOCAL HIGH SCHOOLS, STEM CENTER, COUNSELING AND STEM FACULTY WITH MESA FLYERS AND BROCHURES	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR)
	1.2 IDENTIFY, CONTACT/EMAIL AND RECRUIT CURRENT CHABOT STUDENTS WHO SELF-DECLARE AS STEM MAJORS USING EXISTING COLLEGE ENROLLMENT DATA	IDENTIFY AND CONTACT 50 EXISTING STEM MAJORS FOR RECRUITMENT TO MESA PROGRAM	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR)
	1.3 PARTNER WITH CHABOT COLLEGE FIRST YEAR EXPERIENCE PRE-STEM AND STEM COHORTS FOR RECRUITING PURPOSES	RECRUIT 10 NEW MESA STUDENTS FROM FYE COHORTS	8/17/17-12/20/17	DONNA GIBSON (FACULTY SPONSOR)
	1.4 PROVIDE PRESENTATIONS ON MESA PROGRAM TO LOCAL HIGH SCHOOLS,	CONDUCT A MINIMUM OF 1 PRESENTATION AT EACH OF 6 LOCAL HIGH SCHOOLS	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR)
	1.5 PROVIDE PRESENTATIONS ON MESA PROGRAM TO STEM CLASSES AND SPECIAL PROGRAMS INCLUDING PUENTE, DARAJA AND CHABOT TRIO EDUCATIONAL TALENT SEARCH	RECRUIT 20 NEW MESA STUDENTS FROM EXISTING CLASSES AND SPECIAL PROGRAMS	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR)
	1.6 PARTICIPATE IN GLADIATOR DAY, CLUB RUSH DAY AND OTHER STUDENT ENGAGEMENT EVENTS	RECRUIT 10 NEW MESA STUDENTS FROM STUDENT ENGAGEMENT ACTIVITIES	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR)
	1.7 COLLABORATE WITH NEW CHABOT EL CENTRO STUDENT CENTER AND HISPANIC-SERVING INSTITUTION (HSI) GRANT COORDINATORS	INCREASE THE # OF MATH JAM SECTIONS BY 4 SECTIONS	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR)
		PERFORM INTENTIONAL OUTREACH TO DISPROPORTIONATELY IMPACTED STUDENTS TO MARKET BOTH MATH JAM AND MESA		
		INCREASE MATH JAM ENROLLMENTS BY 10% ANNUALLY AND, RECRUIT, AT MINIMUM, 5 NEW MESA STUDENTS FROM MATH JAM OUTREACH		

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
2. IMPLEMENT EFFICIENT PROCESSES AND PRACTICES AND UTILIZE EXISTING COLLEGE TRANSFER CENTERS TO GARNER GREATER MESA STUDENT TRANSFERS TO FOUR-YEAR COLLEGES AND UNIVERSITIES	2.1 MEET WITH STUDENTS TO DEVELOP AND EVALUATE STUDENT EDUCATION PLANS (SEPs) BY THE END OF THE FIRST SEMESTER AND BEFORE REGISTRATION FOR SPRING SEMESTER	95% MESA STUDENTS WILL HAVE AN SEP BEFORE END OF FIRST SEMESTER IN PROGRAM	8/17/17-11/15/17 AND 2/15/18-4/15/18	MESA COUNSELOR AND DONNA GIBSON (FACULTY SPONSOR)
	2.2 MEET WITH TRANSFER CENTER COORDINATOR EACH SEMESTER TO DISCUSS NEEDS OF MESA STUDENTS	PROVIDE INPUT FOR TYPES AND SCHEDULES OF WORKSHOPS OFFERED THROUGH COLLEGE TRANSFER CENTER	8/17/17-11/15/17 AND 2/15/18-4/15/18	LETICIA REYES (MESA DIRECTOR). DONNA GIBSON (FACULTY SPONSOR)
	2.3 CONDUCT TRANSFER AGREEMENT GUARANTEE WORKSHOP IN COLLABORATION WITH TRANSFER CENTER	60% OF TRANSFER-READY MESA STUDENTS WILL ATTEND WORKSHOP	SEPTEMBER 2017	MESA COUNSELORS AND TRANSFER CENTER COORDINATOR
	2.4 CONDUCT COMMON APPLICATION, AND PERSONAL STATEMENT WORKSHOPS IN COLLABORATION WITH TRANSFER CENTER	60% OF TRANSFER-READY MESA STUDENTS WILL ATTEND WORKSHOPS	OCTOBER 2017	MESA COUNSELORS AND TRANSFER CENTER COORDINATOR
	2.5 HOST 2 COLLEGE REPRESENTATIVES AS GUEST SPEAKERS FOR MESA STUDENTS PER SEMESTER	75% MESA STUDENTS WILL ATTEND A MINIMUM OF 1 PRESENTATION	8/17/17-11/15/17 AND 2/15/18-4/15/18	LETICIA REYES (MESA DIRECTOR)
	2.6 DISTRIBUTE TRANSFER CENTER ACTIVITY SCHEDULE TO MESA STUDENTS	AT MINIMUM, 75% OF TRANSFER-READY MESA STUDENTS WILL MEET WITH UNIVERSITY REPRESENTATIVES SCHEDULED THROUGH THE TRANSFER CENTER ON THE CHABOT CAMPUS	8/17/17-11/15/17 AND 2/15/18-4/15/18	LETICIA REYES (MESA DIRECTOR)

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
3. IMPLEMENT STRATEGIES TO INCREASE THE RATE AT WHICH MESA STUDENTS ARE DEEMED TRANSFER READY IN STEM (SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS) MAJORS	3.1 NEW MESA STUDENTS MEET WITH COUNSELORS AND DEVELOP SEPs DURING FALL SEMESTER. STUDENTS ALSO ATTEND ORIENTATION.	100% OF NEW MESA STUDENTS WILL HAVE AN SEP BY OCTOBER OF 2017 AND ATTEND ORIENTATION.	8/17/17-10/31/17	LETICIA REYES (MESA DIRECTOR) AND MESA COUNSELORS
	3.2 CONTINUING MESA STUDENTS MEET WITH COUNSELORS TO UPDATE STUDENT EDUCATION PLANS DURING FALL AND SPRING SEMESTERS	85% OF CONTINUING MESA STUDENTS WILL HAVE SEP UPDATED EACH SEMESTER	8/17/17-11/15/17 AND 2/15/18-4/15/18	LETICIA REYES (MESA DIRECTOR) AND MESA COUNSELORS
	3.3 MEETINGS BETWEEN STEM FACULTY TO CONTINUE IMPROVEMENTS ON STEM COURSE SCHEDULE FOR 2016-2017 ACADEMIC YEAR	ATTENDANCE BY A FACULTY REPRESENTATIVE FROM EACH DISCIPLINE AT MEETINGS	11/15/17-1/15/18	DONNA GIBSON (FACULTY SPONSOR) AND CHAR PERLAS (DEAN S&M)
	3.4 ASSIGN MESA STUDENTS TO A MESA FACULTY MENTOR	75% MESA STUDENTS WILL BE ASSIGNED FACULTY MENTOR	8/17/17-11/15/17	DONNA GIBSON (FACULTY SPONSOR)
	3.5 SCHEDULED MEETINGS BETWEEN STUDENTS AND MESA FACULTY MENTORS	90% OF ASSIGNED MESA STUDENTS WILL MEET WITH MESA FACULTY MENTOR AT LEAST ONCE/SEMESTER	8/17/17-12/20/17 AND 1/16/18-5/26/18	DONNA GIBSON (FACULTY SPONSOR)
	3.6 MEET WITH MATH FACULTY TO SUPPORT FAST TRACK IN MATH PROGRAMS	HAVE A MINIMUM OF 10 MESA STUDENTS PARTICIPATE IN MATH FAST TRACKS	8/17/17-12/20/17 AND 1/16/18-5/26/18	DONNA GIBSON (FACULTY SPONSOR)

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
4. IMPROVE THE ACADEMIC PERFORMANCE OF MESA STUDENTS	4.1 PROVIDE MESA ORIENTATION AT THE START OF THE FALL SEMESTER FOR INCOMING AND NEW MESA STUDENTS	HAVE A MINIMUM OF 25 NEW MESA STUDENTS ATTEND	8/17/17	LETICIA REYES (MESA DIRECTOR)
	4.2 PROVIDE DROP IN TUTORING IN BIOLOGY, CHEMISTRY, COMPUTER SCIENCE, ENGINEERING, MATHEMATICS AND PHYSICS COURSES	MESA STUDENTS WILL HAVE EQUAL TO OR GREATER THAN NON-MESA STUDENTS SUCCESS RATES IN SUPPORTED COURSES	8/17/17-12/20/17 AND 1/16/18-5/26/18	DONNA GIBSON (FACULTY SPONSOR)
	4.3 PROVIDE ACADEMIC EXCELLENCE WORKSHOPS IN CALCULUS, PHYSICS, ORGANIC CHEMISTRY, ENGINEERING 25 (APPROXIMATELY 4 PER SEMESTER)	MESA STUDENTS WILL HAVE EQUAL TO OR GREATER THAN NON-MESA STUDENTS SUCCESS RATES IN SUPPORTED COURSES	8/17/17-12/20/17 AND 1/19/18-5/26/18	DONNA GIBSON (FACULTY SPONSOR)
	4.4 PROVIDE ONE WEEK INTENSIVE MATH BOOTCAMP FOR 15 PRE-CALCULUS AND CALCULUS 1 STUDENTS PRIOR TO SPRING SEMESTER STARTING	INCREASE SUCCESS RATE FOR MESA STUDENTS PARTICIPATING IN MATH BOOTCAMP BY 10%	1/2/18-1/13/18	DONNA GIBSON (FACULTY SPONSOR) AND MATH FACULTY MEMBER
	4.5 PROVIDE ONE WEEK INTENSIVE CHEMISTRY BOOTCAMP FOR 15 STUDENTS DURING FALL SEMESTER	HAVE 50% OF PARTICIPATING STUDENTS PASS PLACEMENT TEST INTO CHEMISTRY 1A	9/2/17-11/13/17	STEM CENTER LEARNING ASSISTANT AND HARJOT SAWHNEY (CHEMISTRY FACULTY)
	4.7 PROVIDE ONE WEEK INTENSIVE PHYSICS BOOTCAMP FOR 15 STUDENTS PRIOR TO FALL AND SPRING SEMESTERS	INCREASE SUCCESS RATE IN PHYSICS 4A FOR MESA STUDENTS PARTICIPATING IN BOOTCAMP BY 10%.	1/2/18-1/13/18	SHANNON LEE (PHYSICS INSTRUCTOR)

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
5. INCREASE THE LEADERSHIP SKILLS AND RAISE THE EDUCATIONAL EXPECTATIONS OF MESA STUDENTS	5.1 PROVIDE 5 STUDY GROUP LEADER AND AEW FACILITATOR POSITIONS PER SEMESTER FOR MESA STUDENTS	INCREASE CONFIDENCE AND LEADERSHIP SKILLS OF STUDY GROUP LEADERS AND AEW FACILITATORS (MEASURED BY PRE AND POST SURVEYS)	8/17/17-12/20/17 AND 1/16/18-5/26/18	DONNA GIBSON (FACULTY SPONSOR)
	5.2 PROVIDE 15 MESA STUDENTS OPPORTUNITY TO ATTEND ENGINEERING DESIGN WORKSHOPS	RECRUIT 5 NEW MESA STUDENTS/YEAR AND HAVE 15 MESA STUDENTS PARTICIPATE	8/17/17-12/20/17 AND 1/16/18-5/26/18	DANIEL QUIGLEY (ENGINEERING INSTRUCTOR)
	5.3 PROVIDE SUPPORT TO STUDENT STEM CLUBS ACTIVITIES	HAVE 25% OF MESA STUDENTS ACTIVE IN A STUDENT CLUB	8/17/17-5/26/18	LETICIA REYES (MESA DIRECTOR)
	5.4 PROVIDE AT LEAST 2 GUEST SPEAKERS PER SEMESTER	HAVE 45 STUDENTS ATTEND EACH PRESENTATION	8/17/17-5/26/18	LETICIA REYES (MESA DIRECTOR)
	5.5 ATTEND STATEWIDE LEADERSHIP RETREAT	HAVE 6 STUDENTS ATTEND THE RETREAT	4/10/18	LETICIA REYES (MESA DIRECTOR)
	5.6 PROVIDE OPPORTUNITIES FOR STUDENTS TO ATTEND CONFERENCES/WORKSHOPS OFF CAMPUS	HAVE 20 STUDENTS ATTEND VARIOUS CONFERENCES/WORKSHOPS THROUGHOUT THE YEAR	8/17/17-5/26/18	LETICIA REYES (MESA DIRECTOR)
	5.7 PROVIDE OPPORTUNITIES FOR TOURS TO 4 YEAR COLLEGES/UNIVERSITIES	HAVE 40 STUDENTS ATTEND VARIOUS CAMPUS TOURS	8/17/17-5/26/18	LETICIA REYES (MESA DIRECTOR)

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
6. STRENGTHEN RELATIONSHIPS WITH EDUCATORS, PROSPECTIVE EMPLOYERS IN BUSINESS AND INDUSTRY TO ESTABLISH STUDENTS INTERNSHIPS, SCHOLARSHIPS AND OTHER CAREER OPPORTUNITIES FOR MESA STUDENTS	6.1 CONTACT LOCAL BUSINESSES AND SHARE INFORMATION ON CHABOT'S MESA PROGRAM	IDENTIFY A MINIMUM OF 5 LOCAL BUSINESSES WILLING TO PARTNER WITH CHABOT'S MESA PROGRAM (EITHER THRU DONATIONS AND/OR GUEST SPEAKERS AND/OR INTERNSHIP OPPORTUNITIES)	10/15/16 -5/26/17	LETICIA REYES (MESA DIRECTOR)
	6.2 ATTEND ONE MEETING PER SEMESTER WITH BRIDGES TO BACCALAUREATE PROGRAM AT UC BERKELEY	IDENTIFY AT LEAST 5 MESA STUDENTS FOR SUMMER INTERNSHIP OPPORTUNITY THROUGH BRIDGES TO BACCALAUREATE PROGRAM	10/15/16-5/26/17	LETICIA REYES (MESA DIRECTOR) AND AGNELLO BRAGANZA(BRIDGES PROGRAM LIAISON)
	6.3 HOST TWO CAREER PRESENTATIONS PER SEMESTER	HAVE 25 STUDENTS ATTEND EACH PRESENTATION	9/16/16-5/26/17	LETICIA REYES (MESA DIRECTOR) AND DAN QUIGLEY (ENGINEERING FACULTY)
	6.4 PARTICIPATE IN EAST BAY MESA ALLIANCE & WORK COLLABORATIVELY TO DEVELOP A REGIONAL INDUSTRY ADVISORY BOARD	TO IDENTIFY, AT MINIMUM, 5 INDUSTRY PARTNERS WHO ARE WILLING TO SERVE ON THE REGIONAL INDUSTRY BOARD AND SCHEDULE AT LEAST ONE MEETING BY JUNE 30, 2018.	8/17/17-6/30/18	LETICIA REYES (MESA DIRECTOR)

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
7. ESTABLISH PARTNERSHIPS WITH MESA ENGINEERING PROGRAMS (MEP), MESA SCHOOLS PROGRAMS (MSP), AND CALIFORNIA ALLIANCE FOR MINORITY PARTICIPATION, OR SIMILAR PROGRAMS IN AN EFFORT TO PROVIDE OPTIMUM STUDENT SUPPORT SERVICES	7.1 SCHEDULE MEETINGS WITH EAST BAY MESA ALLIANCE PARTNERS FROM COLLEGE OF ALAMEDA, DIABLO VALLEY COLLEGE, LOS MEDANOS COLLEGE AND CSUEB MSP REGIONAL CENTER	HOLD AT LEAST 2 MEETINGS PER SEMESTER WITH EBMA PARTNERS	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR) AND DONNA GIBSON (FACULTY SPONSOR)
	7.2 PARTICIPATE IN CSUEB MESA DAY	HAVE 10 STUDENTS PARTICIPATE IN MESA DAY AS JUDGES	MARCH 2018	LETICIA REYES (MESA DIRECTOR)
	7.3 PLAN AT LEAST 2 COLLABORATIVE ACTIVITIES SUCH AS WALK ON WATER COMPETITION WITH EBMA PARTNERS	HAVE 15 CHABOT MESA STUDENTS PARTICIPATE IN EACH EBMA COLLABORATIVE ACTITIVTY	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR), DONNA GIBSON (FACULTY SPONSOR)
	7.4 MEET WITH REPRESENTATIVES OF SFSU MEP PROGRAM.	INCREASE IN NUMBER OF STUDENTS TRANSFERRING FROM CHABOT COLLEGE TO SFSU	8/17/17-12/20/17	LETICIA REYES (MESA DIRECTOR) AND DEAN CHAR PERLAS (DEAN)
	7.5 ATTEND SJSU COUNSELING DAY /MEET WITH SJSU MEP PROGRAM	INCREASE IN NUMBER OF STUDENTS TRANSFERRING FROM CHABOT COLLEGE TO SJSU	8/17/17-12/20/17	LETICIA REYES (MESA DIRECTOR) AND MESA COUNSELOR
	7.6 PARTICIPATE IN UCB COMMUNITY COLLEGE ENGINEERING DAY/UCB NIH BRIDGES TO THE BACCALAURETTE PROGRAM	HAVE 10 STUDENTS ATTEND ENGINNERING DAY AND 5 MESA STUDENTS PARTICIPATE IN NIH GRANT	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR)
	7.7 PLAN MEETING WITH NEW MSP AT HAYWARD HIGH SCHOOL	FORM PARTINERSHP WITH HAYWARD HIGH SCHOOL MSP	8/17/17-12/20/17	LETICIA REYES (MESA DIRECTOR)

APPLICATION ANNUAL WORKPLAN (ONE OBJECTIVE PER PAGE)

Objective	Procedures/Activities	Performance Outcomes	Timelines	Responsible Person(s)
8. IMPLEMENT STRATEGIES TO COLLABORATE WITH CAMPUS PROGRAMS SUCH AS STUDENT EQUITY (SB 860) AND STUDENT SUCCESS AND SUPPORT ACT (SB1456) TO LEVERAGE ADDITIONAL RESOURCES AND OPPORTUNITIES FOR MESA STUDENTS, AND TO ENSURE THAT MESA IS INTEGRATED IN THE CAMPUS CULTURE AND INFRASTRUCTURE	8.1 MESA REPRESENTATIVE TO BECOME MEMBER OF EQUITY AND STUDENT SUCCESS COMMITTEE	MESA REPRESENTATIVE WILL ATTEND 100% OF COMMITTEE'S SCHEDULED MEETINGS	8/15/17-5/25/18	LETICIA REYES (MESA DIRECTOR)
	8.2 MEET WITH DEAN OF COUNSELING TO DISCUSS ONGOING NEEDS FOR MESA STUDENT SERVICES	ATTEND A MINIMUM OF 1 MEETING PER SEMESTER	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR) AND DEAN OF COUNSELING
	8.3 MEET WITH DEAN OF SPECIAL PROGRAMS TO DISCUSS COLLABORATIONS AND COMMON NEEDS BETWEEN MESA STUDENTS AND OTHER SPECIAL PROGRAM PARTICIPANTS	ATTEND A MINIMUM OF 1 MEETING PER SEMESTER	8/17/17-12/20/17 AND 1/16/18-5/26/18	LETICIA REYES (MESA DIRECTOR) AND DEAN OF SPECIAL PROGRAMS
	8.4 MESA REPRESENTATIVE TO Co-CHAIR CHABOT COLLEGE STEM ADVISORY COUNCIL	IMPROVE COMMUNICATION OF STEM STUDENT NEEDS ACROSS CAMPUS	8/17/17-12/20/17 AND 1/16/18-5/26/18	DONNA GIBSON (FACULTY SPONSOR) AND GABRIEL CHAPORRO (STEM CENTER EQUITY DIRECTOR)

c. Performance Outcomes/Evaluation Design (10 points)

As detailed in our Annual Application Workplan, all performance outcomes are linked with objectives and procedures/activities. The table on the subsequent pages details our evaluation design. The outcomes of the Chabot MESA Program will benefit the college/district, region and state since increasing student success and transfer in STEM majors benefits Chabot STEM students, which, in turn, benefits the 4-year institutions in the region to which MESA students transfer and thereby benefits the entire state by increasing the number of educated, degreed STEM students who are able to pursue STEM careers, in industries that are a priority for California. In addition, it identifies the objectives, outcomes and methodology we will use to evaluate the effectiveness of the Chabot MESA Program. We will not be using a third party evaluator and will utilize our Office of Institutional Research, District and MESA MIS systems to track outcomes.

Outline of Project Evaluation Design

Objectives measured	Methodology	Outcomes/anticipated findings
<p>1. Increase the number of economically and educationally disadvantaged students pursuing degrees in mathematics, engineering, science, and technology who are eligible to transfer to a four-year college or university</p>	<p>MESA records of outreach to students – student contact lists</p> <p>Chabot MESA program rosters, application/ intake forms and college MIS systems</p> <p>Tracking of major declarations by MESA students monitored by the Office of Institutional Research</p> <p>Records of course schedules of math jam offerings and enrollments</p>	<p>Identify and contact 50 existing STEM major students for recruitment to MESA program</p> <p>Recruit 10 new MESA students from FYE cohorts</p> <p>Recruit 20 new MESA students from existing classes and special programs</p> <p>Recruit 10 new MESA students from student engagement activities</p> <p>Increase the # of math jam sections by 4 sections</p> <p>Perform intentional outreach to disproportionately impacted students to market both Math Jam and MESA</p> <p>Increase math jam enrollments by 10% annually and, recruit, at minimum, 5 new MESA students from Math Jam outreach</p>
<p>2. Implement efficient processes and practices and utilize existing college transfer centers to garner greater mesa student</p>	<p>Records of student SEPs in Banner system</p> <p>Records of sign-in sheets of workshop attendance</p>	<p>95% MESA students will have an SEP before end of first semester in program</p> <p>Provide input for types and</p>

Objectives measured	Methodology	Outcomes/anticipated findings
transfers to four-year colleges and universities	Career/Transfer Center records of meetings with university representatives	<p>schedules of workshops offered through college transfer center</p> <p>60% of transfer-ready mesa students will attend workshop</p> <p>60% of transfer-ready mesa students will attend workshops</p> <p>75% mesa students will attend a minimum of 1 presentation</p> <p>At minimum, 75% of transfer-ready MESA students will meet with university representatives scheduled through the Transfer Center on the Chabot campus</p>
3. Implement strategies to increase the rate at which MESA students are deemed transfer ready in STEM (science, technology, engineering, and mathematics) majors	<p>Records of student SEPs in Banner system</p> <p>Meeting sign-in sheets</p> <p>MESA records of faculty mentor and MESA student participation</p> <p>Class rosters of math fast track courses</p>	<p>100% of new MESA students will have an SEP by October 2017 and attend orientation.</p> <p>85% of continuing MESA students will have SEP updated each semester</p> <p>Attendance by a faculty representative from each discipline at meetings</p> <p>75% MESA students will be assigned faculty mentor</p> <p>90% of assigned MESA students will meet with mesa faculty mentor at least once/semester</p> <p>Have a minimum of 10 mesa students participate in math fast tracks</p>
4. Improve the academic performance of MESA students	<p>Attendance records/sign-in sheets of Orientation meeting</p> <p>Student MIS data of course success</p>	<p>Have a minimum of 25 new mesa students attend the Orientation meeting</p> <p>MESA students will have equal to or greater than non-MESA students success rates in supported courses</p> <p>Increase success rate for MESA</p>

Objectives measured	Methodology	Outcomes/anticipated findings
		<p>students participating in math and Physics 4A Bootcamps by 10%</p> <p>Have 50% of participating students pass placement test into Chemistry 1A</p>
<p>5. Increase the leadership skills and raise the educational expectations of mesa students</p>	<p>Pre/post surveys of study group leaders and student AEW facilitators measured by pre and post surveys</p> <p>Attendance records/sign-in sheets of retreats, conferences/workshops, presentations, and campus tours</p>	<p>Increase confidence and leadership skills of study group leaders and AEW facilitators</p> <p>Recruit 5 new mesa students/year and have 15 mesa students participate in Engineering Design workshops</p> <p>Have 25% of mesa students active in a student club</p> <p>Have 45 students attend presentations</p> <p>Have 6 students attend the retreat</p> <p>Have 20 students attend various conferences/workshops throughout the year</p> <p>Have 40 students attend various campus tours</p>
<p>6. Strengthen relationships with educators, prospective employers in business and industry to establish students internships, scholarships and other career opportunities for mesa students</p>	<p>Records of participation by partners (e.g., donations, guest speakers, internship opportunities, meeting participation)</p> <p>National Clearinghouse transfer data</p> <p>Records from internship sites</p>	<p>Identify a minimum of 5 local businesses willing to partner with Chabot's MESA program</p> <p>Increase in number of students transferring from Chabot college to local MEP programs (SFSU and SJSU)</p> <p>Identify at least 5 MESA students for summer internship opportunity</p> <p>Have 25 students attend each guest speaker presentation</p>

Objectives measured	Methodology	Outcomes/anticipated findings
7. Establish partnerships with MESA engineering programs (MEP), MESA schools programs (MSP), and California alliance for minority participation, or similar programs in an effort to provide optimum student support services	<p>Agenda and minutes of EBMA meetings</p> <p>National Clearinghouse transfer data</p> <p>Attendance records/sign-in sheets of Engineering Day event</p>	<p>Hold at least 2 meetings per semester with EBMA partners</p> <p>Have 10 students participate in MESA day as judges</p> <p>Have 15 Chabot MESA students participate in each EBMA collaborative activity</p> <p>Increase in number of students transferring from Chabot college to SFSU</p> <p>Have 10 students attend Engineering day and 5 MESA students participate in NIH grant</p> <p>Form partnership with Hayward high school MSP</p>
8. Implement strategies to collaborate with campus programs such as Student Equity (SB 860) and Student Success and Support Act (SB 1456) to leverage additional resources and opportunities for MESA students, and to ensure that MESA is integrated in the campus culture and infrastructure	<p>Sign-in sheets of Equity and SSSP committees</p> <p>Records of email, communication materials and planning documents (e.g., Strategic Plan, Integrated BSI/SSSP/Equity Plan, etc.)</p>	<p>MESA representative will attend 100% of committee's scheduled meetings</p> <p>Attend a minimum of 1 meeting per semester</p> <p>Improve communication of STEM student needs across campus</p>

4. PROJECT MANAGEMENT/INSTITUTIONAL COMMITMENT (10 points)

Project Management

The MESA Director (100%), Leticia Reyes, will report directly to the Dean of Math and Science who will provide overall programmatic and fiscal oversight to the project. Ms. Reyes is an experienced staff member with eight years of program administration, budget management and counseling expertise at Chabot. Ms. Reyes has worked with Chabot special populations and student success Programs as a Counselor and Assistant to the Director of federal Trio Programs (ASPIRE/ EXCEL, Educational Talent Search/Gear Up, and STEM). In her previous positions, she held the role of the Site Administrator and Finance and Human Resources Assistant for the La Familia Neighborhood Resource Center in Hayward, CA.

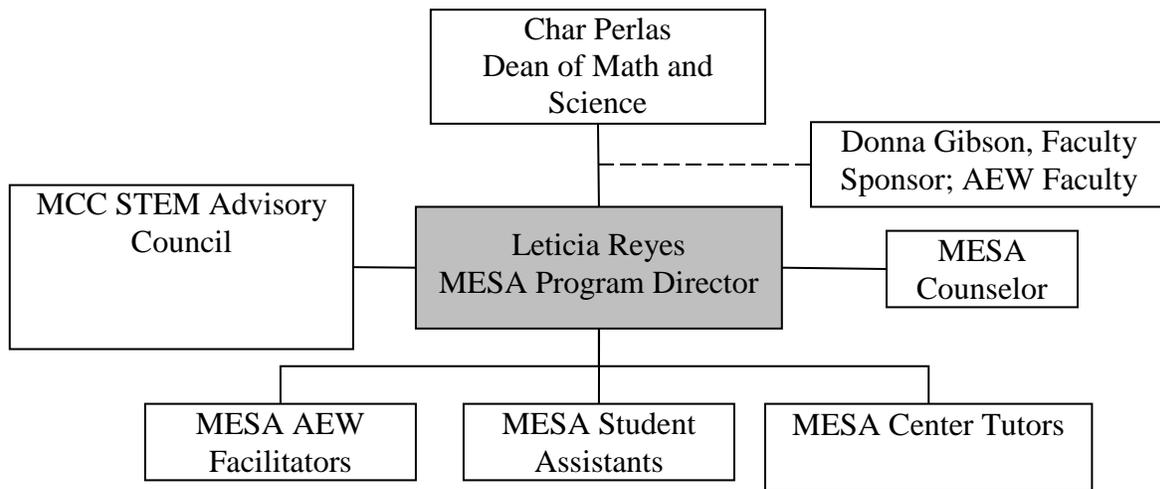
The MESA Director will coordinate the activities of the part-time MESA Student Assistant, the MESA Clustered Faculty and AEW Peer Tutors. She will collaborate with the Chabot STEM

Discipline Leads, the Faculty Sponsor, and the MESA Counselor to deliver MESA program services. She will be responsible for planning and coordinating the day-to-day activities, including the development and implementation of processes and procedures that support project implementation. In collaboration with the Dean, she will also be responsible for monitoring program progress, completing reporting requirements and overseeing the Chabot MESA Program. Her duties will include recruiting MESA faculty, developing outreach and recruitment materials, participating in professional development opportunities, convening Chabot MESA CC/STEM Advisory Council meetings and Regional Partners meetings in order to establish or strengthen cross-campus collaboration and local/regional education and business partnerships.

Donna Gibson, the former MESA Director, will serve as Faculty Sponsor and is a tenured faculty member with over 25 years of teaching experience at both the high school and community college levels. Ms. Gibson holds a Master’s Degree in Chemistry from Cornell University and a Standard Physical Sciences Teaching Credential from the state of New Jersey. She has been a lead faculty member involved in the planning and development process for the Chabot MESA Program proposal and has helped coordinate several grant projects including the Bridge to Engineering Program and the Bay Area Teacher Pathway Program. Over her 20+ years at Chabot College, Ms. Gibson served many years as both the Chemistry Lead Faculty and the Chemistry Stockroom Liaison. In both these roles, she was responsible for budgeting, scheduling and facilitating communication between Science/Math division faculty, administrators, classified staff and students. Ms. Gibson was awarded the 2012 Chabot College Great Teacher Award and the 2016 Chabot Outstanding Faculty Member Award.

Both the MESA Director and Faculty Sponsor will be part of the Chabot MESA CC/STEM Advisory Council along with the STEM Center Equity Director, STEM Center Instructional Assistant, MESA Counselor and a Faculty Mentor representative. The organizational chart details these relationships below.

CHABOT MESA PROGRAM ORGANIZATIONAL CHART



Institutional Commitment

The proposed continuing MESA program is a key element of the multiple student success initiatives being undertaken at Chabot College and is a part of the college's overall strategic goal to increase student success and transfer. The Program directly supports four of the college's Strategic Plan objectives to increase academic success, narrow the achievement gap, provide faculty with high-quality professional development, and strengthen relationships with community partners. It is important to note that the general fund budget match exceeds the 1:1 requirement. Additional budgeted sources of support contribute to the program by more than three times the MESA one year budgeted amount. The Faculty Sponsor's salary is paid through general match or other sources, no funds are budgeted to the MESA Program.

The District and College have committed to institutionalizing the program and have committed significant cash and in-kind matching funds. As evidenced in our Application Budget Summary, no funds for the MESA Director are budgeted to the MESA program. U.S. Federal Department of Education TRIO STEM funding, SSSP and Equity funding are leveraged to support the MESA-dedicated counselors, the STEM Center Equity Director and Instructional Assistant, and a dedicated MESA Center through salary, benefit and other matching funds. Significant general fund match is included for salary, benefit costs. Chabot's recent Hispanic Serving Institution award also significantly supports low income students through a Latino-friendly one-stop resource center and strengthening key student transition points, among other components.

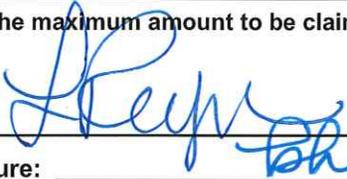
APPLICATION BUDGET SUMMARY

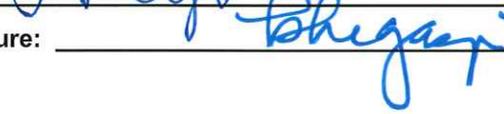
Note: *When entering dollar amounts, round off to nearest dollar.
*Submit an Application Budget Detail Sheet for each funding source reflected here in cash or in-kind. Also explain expenditures by budget category.

Object of Expenditure	Classification	Line	Grant Funds Requested (1)	District Match Funds (2)	Other Source (3a)	Other Source (3b)	Other Source (3c)	Grand Total All Funding Sources
1000	Instructional Salaries	1	20,100	50,220	34,000			104,320
2000	Noninstructional Salaries	2	15,900	8,500	118,500			142,900
3000	Employee Benefits	3	4,210	20,657	35,330			60,197
4000	Supplies and materials	4	5,500	0	1,842			7,342
5000	Other Operating Expenses & Services	5	21,838	47,040	18,800			87,678
6000	Capital Outlay	6						
7000	Other Outgo	7						
Total Direct Costs		8	67,548	126,417	208,472			402,437
Total Indirect (4% of Line 8)		9	2,702		16,678			19,380
Total Program Costs		10	70,250	126,417	225,150			421,817

Note:
General Fund, District Match. For each grant dollar awarded, the recipient district shall provide one dollar in matching funds.
Other Sources of Funds or In-kind Contributions. (Provide an Application Budget Detail Sheet for each funding source.)
Indirect costs cannot exceed four percent (4%) of total direct costs (line 8).

I authorize this total costs proposal as the maximum amount to be claimed for this project and assure that funds shall be spent in compliance with State and federal regulations.

Project Director Signature: 

District Chief Business Officer Signature: 
(or Authorized Designee)

Date: July 6, 2017

Date: July 10, 2017

Chancellor's
Office
California
Community
Colleges

District: Chabot-Las Positas Community College District

College: Chabot College

RFA Specification No.: 17-034

Program Year: 2017-18
Source of Funds: MESA; General Fund/District Match including SSSP & Equity; and U.S. Department of Education TRIO STEM

Object of Expenditure ¹	Classification	Requested Funds	Gen. Fund Dist. Match	Other Sources
1202 (2)	Char Perlas/Dean of Math and Sciences (0.03 FTE x \$134,122)		4,000	
1201	Gabriel Chaparro/STEM Center Equity Director (.05 FTE) - Equity-funded		3,900	
1410	MESA Counselor at Counselor Hourly rate (SSSP-funded): Laura Jimenez-Olvera (8 hrs/wk x 34 weeks x \$60/hr)		16,320	-
1410	Summer Counselor Hours (10 hrs/wk x 8 weeks x \$50/hr)			4,000
1480	Non-instructional Salaries - Faculty Sponsor, Donna Gibson (0.5 FTE)	-	26,000	30,000
1480	Non-instructional Salaries - Faculty AEW Facilitators (4 groups x 32hrs/gp x \$50/hr)	6,000	-	-
1480	Non-instructional Salaries – Other Daniel Quigley (20hrs/semester x 2 x \$50/hr) (Faculty Workshops) Engineering Design	1,900	-	-
1480	Non-instructional Salaries – Other Math, Chemistry and Physics Bootcamp Faculty (\$50/hr x 20 hrs/week x 3 faculty)	2,800	-	-
1480	Non-instructional Salaries - Faculty Mentors (10 mentors x 10 hrs/semester x 2 semesters x \$50)	9,400		-
Academic Salaries	Subtotal	20,100	50,220	34,000
2121(3)	Leticia Reyes, MESA Program Director	-		75,000
2101	Kim Bononcini, Division Administrative Assistant (.10 FTE)		6,400	
2101	STEM Center Instructional Asst (Equity-funded)		2,100	
2101	Instructional Assistant (0.4 FTE)	-		16,800
2340	Student Assistants (\$10.50/hr x 40 hrs/wk x 46 weeks)	9,320	-	10,000
2340	AEW Facilitators Students (4 grps x 16 weeks x 3 hrs/week x \$10.50/hr)	2,100		-
2340	Student Tutors (40 hrs/week x \$10.50/hr x 44 weeks)	4,480		14,000
2340	Student Peer Mentors (2 mentors x 4 hrs/wk x 32 wks x \$10.5/hr)			2,700
Classified Salaries	Subtotal	15,900	8,500	118,500
3840	Char Perlas/Dean of Math and Sciences @ 40% fringe benefit rate		1,608	
	STEM Center Equity Director (Equity-funded) @ 5% fringe benefit rate		1,560	
	MESA Counselor Hourly (SSSP-funded) @ 20% fringe benefit rate		3,264	

Chancellor's
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District: Chabot-Las Positas Community College District

College: Chabot College

RFA Specification No.: 17-034

Program Year: 2017-18
Source of Funds: MESA; General Fund/District Match including SSSP & Equity; and U.S. Department of Education TRIO STEM

Object of Expenditure ¹	Classification	Requested Funds	Gen. Fund Dist. Match	Other Sources
	Summer Counselor Hours @ 20% fringe benefit rate			800
	Faculty Sponsor @ 20% fringe benefit rate		10,400	6,000
	Faculty Non-instructional Salaries @ 20% fringe benefit rate of \$20,100 total for AEW Facilitators, Engineering Design & Bootcamp Faculty, and Faculty Mentors	4,020	-	
	MESA Program Director @ 40% fringe benefit rate			24,000
	Kim Bononcini, Division Administrative Assistant @ 45% fringe benefit rate		2,880	-
	STEM Center Instructional Assistant (Equity-funded) @ 45% fringe benefit rate		945	
	Instructional Assistant @ 45% fringe benefit rate			4,200
	Student Assistants, AEW Student Facilitators, Tutors and Peer Mentors	190		330
Employee Benefits	Subtotal	4,210	20,657	35,330
4301	Brochures/Handouts/Basic Office Supplies	1,000		1,842
4320	Recruitment/promotion items (MESA sweatshirts, t-shirts)	4,500		
Supplies and Materials	Subtotal	5,500	-	1,842
5220	MESA Director Training/Conferences (Mandated In-state meetings/travel)	1,500		2,900
5301	Institutional Fees	-		850
5870	Bus rental for college tours	-		1,800
5878	MESA Student Leadership Retreat (6 students x \$170) + chaperone & travel	1,500		
5878	Society for Advancement of Chicanos and Native Americans in Science (SACNAS) Conference travel/hotel (3 nights x 3 rooms x \$200/night +5 x 400 airfare +300 meals + registrations)	4,000		
5878	UC Davis Pre-Health Conference (5 x \$25 registration) + travel that provides community-college students an pre-health advisors with the information and skills necessary to succeed in the health-professions school admission process.	500		
5878	Field Trips (local travel to Universities and Industry)	1,500		3,250
5878	Southern CA College Tours (lodging and meals)	3,338		10,000
5888	Meetings operating costs (8 meetings x \$200/each)	1,600		
5888	Food for MESA Center study group meetings and workshops (12 months x \$250/month)	3,000		

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 Chancellor's Office California Community Colleges
 College: Chabot College
 RFA Specification No.: 17-034

Program Year: 2017-18
Source of Funds: MESA; General Fund/District Match including SSSP & Equity; and U.S. Department of Education TRIO STEM

Object of Expenditure ¹	Classification	Requested Funds	Gen. Fund Dist. Match	Other Sources
5888	Bootcamp Food (\$100/bootcamp x 3 bootcamps)	300		
5888	Costs associated with the End-of-Year event (key note addresses, lunches)	3,000		
5888	AEW and Workshop Costs (12 x \$50/each)	600		
5888	January East Bay Alliance Event (local travel, lunches)	1,000		
5611	MESA Center Facility in-kind match based on actual cost (\$35/hr x 8 hours/day x 4 days/wk x 42 wks/year)		47,040	
Operating Expenses	Subtotal	21,838	47,040	18,800
6000			-	
	Subtotal	-	-	-
7000				-
	Subtotal	-	-	-
Total Direct Costs		67,548	126,417	208,472
Administration or Total Indirect Costs (4% of Direct Costs)		2,702		16,678
Total Project Costs		70,250	126,417	225,150

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District: Chabot-Las Positas Community College District

College: Chabot College

RFA Specification No.: 17-034

Program Year: 2017-18

Source of Funds: U.S. Department of Education TRIO STEM

Object of Expenditure ¹	Classification	Requested Funds	Gen. Fund Dist. Match	Other Sources
1410	Summer Counselor Hours (10 hrs/wk x 8 weeks x \$50/hr)			4,000
1480	Non-instructional Salaries - Faculty Sponsor, Donna Gibson (0.5 FTE)	-	-	30,000
Academic Salaries	Subtotal	-	-	34,000
2121(3)	Leticia Reyes, MESA Program Director	-		75,000
2101	Instructional Assistant (0.4 FTE)	-		16,800
2340	Student Assistants (\$10.50/hr x 40 hrs/wk x 46 weeks)	-	-	10,000
2340	Student Tutors (40 hrs/week x \$10.50/hr x 44 weeks)	-		14,000
2340	Student Peer Mentors (2 mentors x 4 hrs/wk x 32 wks x \$10.5/hr)			2,700
Classified Salaries	Subtotal	-	-	118,500
	Summer Counselor Hours @ 20% fringe benefit rate			800
	Faculty Sponsor @ 20% fringe benefit rate		-	6,000
	MESA Program Director @ 40% fringe benefit rate			24,000
	Instructional Assistant @ 45% fringe benefit rate			4,200
	Student Assistants @ 1.22% fringe benefit rate of \$42,600 total for Student Assistants, AEW Student Facilitators, Tutors and Peer Mentors	-		330
Employee Benefits	Subtotal	-	-	35,330
4301	Brochures/Handouts/Basic Office Supplies	-		1,842
Supplies and Materials	Subtotal	-	-	1,842
5220	MESA Director Training/Conferences (Mandated In-state meetings/travel)	-		2,900
5301	Institutional Fees	-		850
5870	Bus rental for college tours	-		1,800
5878	Field Trips (local travel to Universities and Industry)	-		3,250
5878	Southern CA College Tours (lodging and meals)	-		10,000
5888	Meetings operating costs (8 meetings x \$200/each)	-		
Operating Expenses	Subtotal	-	-	18,800
6000			-	

Chancellor's
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District: Chabot-Las Positas Community College District

College: Chabot College

RFA Specification No.: 17-034

Program Year: 2017-18

Source of Funds: U.S. Department of Education TRIO STEM

Object of Expenditure ¹	Classification	Requested Funds	Gen. Fund Dist. Match	Other Sources
	Subtotal	-	-	-
7000				-
	Subtotal	-	-	-
	Total Direct Costs	-	-	208,472
	Administration or Total Indirect Costs (4% of Direct Costs)	-	-	16,678
	Total Project Costs	-	-	225,150

5. OVERALL FEASIBILITY OF THE PROJECT (5 points)

Over the past five years, Chabot College has developed multiple components required in the MESA program model while adding new innovations and improvements to the program. Outreach materials have been produced. Orientation schedules and materials have been developed and piloted. The infrastructure for staffing, space, academic support and interventions have been established. Staffing has been secured for all key personnel areas and robust and vibrant MESA Center has been established. Funds have been leveraged from multiple stable funding sources which enhance program delivery and the student experience.

We have learned what works well over these five years to meet the needs of our student population which is reflected in Chabot MESA student outcomes. Through tracking and evaluating the qualitative and quantitative and using formative and summative evaluation methods, we are able to accurately project impact and set realistic and attainable targets. We have also fostered multiple partnerships over the years that directly support the MESA program's purpose and have plans for expanding partnerships. The MESA program model provides the ideal framework for coordinating these various components and integrating them into a cohesive and comprehensive program that will academically prepare students intending to transfer to 4-year institutions in calculus-based STEM majors

6. DISSEMINATION PLAN (5 points)

Chabot College will disseminate findings and work products through State and regional conferences. Proposals will be submitted to present at meetings of the Academic Senate and the California Community Colleges Association of Occupational Education. We anticipate submitting Call for Presentation proposals for the Research and Planning (RP) Group's Annual Student Success Conference scheduled for October 2017, the Fall 2017 Community College League of California's Conference, the Association of Community College Trustees National Conference, and the Spring 2018 Association of California Community College Administrators (ACCCA) Conference. We also plan to disseminate project findings campus-wide so that other college divisions can replicate successful elements of the MESA program model.

Chabot College understands that the documents, reports, materials or grant products produced are public documents. We will establish and post all grant materials on the Chabot MESA Program website. These materials will also be distributed at conferences where we are chosen to present. Materials will also be shared at Regional Partner meetings so that other institutions may adopt them. All documents, reports and materials that are to be disseminated will be reviewed and approved by the Chancellor's Office Project Monitor before dissemination.