

Santa Rosa Junior College

Program Resource Planning Process

MESA 2022

1.1a Mission

The mission of the Mathematics, Engineering, Science Achievement (MESA) Community College Program is to serve first-generation, low-income STEM transfer students so they excel in math and science coursework, transfer, and earn baccalaureate degrees in STEM disciplines. At the State level, MESA is administered by the Intervention Programs and Grants subunit under the Educational Services and Support Division of Academic Affairs at the California Community Colleges Chancellor's Office and the University of California MESA Statewide Office.

1.1b Mission Alignment

The MESA Community College Program's mission aligns with the District's Mission and Values by:

- Providing academic support services to improve the retention and persistence of students enrolled in STEM courses at SRJC
- Supporting the District's Student Equity and Achievement (SEA) Program to increase the transfer rates for Native American, DSPS, and Latino student populations
- Creating STEM-specific student support services to improve student access, retention and persistence, and transfer
- Providing STEM career education in order to support the economic vitality and social equity of our Sonoma County, State, and nation
- Challenging students to participate fully in the learning process, balancing course content mastery with relevant pre-professional work experience.

1.1c Description

Established 50 years ago at the California statewide level, MESA programs serve students seeking careers in math, science and engineering fields. Historically, MESA has demonstrated a strong connection between student success in STEM disciplines and campus engagement in major specific enrichment opportunities.

Established in 1999, the Santa Rosa Junior College MESA Community College Program is a dynamic academic support program for transfer students pursuing a baccalaureate degree in a discipline within the college's STEM Cluster. MESA creates and provides a strong community of support for STEM students and is built upon the pillars of building community, academic success, leadership, and professional development.

Effective with the October 1, 2021 to January 31, 2024 CCCCO funding cycle, MESA services must align with the guiding goals of the CCCCO's Vision for Success. Vision for Success goals include:

- Increase degree and certificate attainment
- Increase transfer to four-year institutions
- Reduce excessive unit accumulation by students
- Close equity gaps
- Close regional achievement gaps
- Secure gainful employment.

MESA Programs funded through the CCCCO are required to provide the following student service and academic components:

- * Community building through a dedicated MESA Student Study Center, student computer laboratory, and small-group study rooms
- * Academic support, peer tutoring, and peer supplemental instruction
- * Envisioning through college campus visit and industry field trips
- * Counseling guidance to facilitate timely transfer from SRJC to a 4-year college or university
- * Counseling and academic course planning and the development of individual professional development plans
- * Career preview and professional development opportunities through project-based learning, guest speaker presentations, and internships and fellowships

The service components are operationalized by the following grant mandated administrative components:

- An institutionalized MESA Director position
- Clerical support positions
- Student employee positions for peer-to-peer academic support
- Counseling and retention specialist support positions
- The creation and engagement of a Local Industry Advisory Board
- Ongoing professional development and attendance at CCCCO and MESA SWO Director meetings

The Santa Rosa Junior College MESA Program is a collaborative effort supported by the MESA Statewide Office at the University of California Office of the President, the California Community Colleges Chancellor's Office, local industry sponsors, and the Sonoma County Junior College District.

1.1d Hours of Office Operation and Service by Location

The MESA Student Study Center, located in the Lawrence A. Bertolini Student Services Center, will exceed the in-service timeline advanced by Dr. Frank Chong in the May 16, 2022 gradual reopening plan shared with the college. Expanded hours are required to support the MESA and Avanzando summer projects: the Science Workforce Academy Prep and HOPE/MESA Avanzando Orientation. During summer 2022 and academic year 2022-2023, student services are provided in a hybrid model, including both in-person and remote services.

MESA Hours of Operation are as follows:

- **May 30 through June 12-** Open Tuesdays through Thursdays
- **June 13 through July 24-** Open Monday through Thursdays
- **July 25 through July 31-** Open Monday through Thursday
- **August 1 and beyond-** Open Monday through Friday

In addition to center hours, the program provides evening, Saturday, and weekend service as needed. The MESA Director supervises after-hour, weekend activities, and fieldtrip travel associated with the MESA Community College Program.

1.2 Program/Unit Context and Environmental Scan

Program-Level Environmental Scan

State-Wide MESA

The Mathematics, Engineering, Science Achievement (MESA) Community College Program provides academic and support services for economically and educationally disadvantaged students majoring in calculus-based fields who seek to transfer to a four-year institution through the collaborative efforts of college faculty, staff, business leaders, students, and four-

year colleges and universities. In academic year 2021, the California Community Colleges Chancellor's Office approved 34 MESA grants to support programs within the state.

Recently, the CCCCO redirected funding expectations to close the achievement gap for first-generation, low-income students by linking MESA performance outcomes to the CCCCO's Guided Pathway and Vision for Success initiatives. The California State Budget in 2021-2022 increased the MESA program funding from a Statewide total of \$2,539,000 per year to \$10,729,000 per year. The MESA program had not received an increase in funding in over 20 years. Based on a Consumer Price Index of 57.71% from 2002-2022, The Chancellor's Office elected to augment the 34 MESA grant programs by \$2,094,537 in 2021-2022. Currently there are 34 MESA program distributed among 30 Community College Districts throughout all regions of the CCCCO. The districts are receiving tiered awards based upon closing metrics aligned with the CCCCO diversity, equity, and inclusion goals. In the last three years, MESA programs throughout the state have reported serving 10,466 students (2017-2018), 10,500 students (2018-2019), and 9,168 students (2019-2020) due to factors associated with a protracted renewal application for funding (RFA cycle) and the onset of the pandemic. The goals for the proposed 2020-2024 funding cycles include improving student performance and transfer and increasing credit retention rate, credit success rate, transfer success rate, degree applicable retention rate, degree applicable success rate, number of degree awards in STEM majors, and the number of students transferring. The California State Budget for fiscal years 2020-2023 appropriated and projects funding for the continuation of MESA programs with the California community college system.

For 2019, MESA students in the transfer pipeline consisted of 56% male and 44% female students who transferred to the following institutions: UC 48%, CSU 47%, Out-of-State and Private 1%. The 2019 MESA transfer class field of study included: 39% Engineering, 26% Life Science, 13% Computer Science, 7% Chemistry and BioChemistry, 6% Mathematics, 6% Other STEM, 2% Physical Sciences, and 2% Non-STEM majors.

2.1a Budget Needs

As evidence by MESA Core Data, the MESA Program does not receive District unrestricted funds in the 4000s and 5000s expenditure categories.

2.1b Budget Requests

Rank	Location	SP	M	Amount	Brief Rationale
0001	Santa Rosa	01	02	\$5,000.00	FWS match; Student employees for clerical and SI functions

2.2a Current Classified Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Coordinator-STEM Student Success Programs	40.00	12.00	Under general direction, assists in the implementation of the District's Department of Education's Hispanic-Serving Institutions – Science, Technology, Engineering, and Mathematics (HSI-STEM) grant, the California Community College Chancellor's Office Mathematics, Engineering and Science Achievement (MESA) program, and District initiatives that support the academic and professional development of Health Science students.

2.2b Current Management/Confidential Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Director, STEM Student Success Programs	40.00	12.00	Under the direction of the Dean of Science, Technology, Engineering and Mathematics (STEM), the Director of STEM Student Success Programs is responsible for the planning, development, implementation, and administration of the federal Department of Education's Hispanic-Serving Institutions – Science, Technology, Engineering, and Mathematics (HSI-STEM) grant, the California Community College Chancellor's Office Mathematics, Engineering and Science Achievement (MESA) program, and other District initiatives that support the academic and professional development of transfer STEM and Health Science students. This position manages data submission, evaluation, budget monitoring, and reporting for each program, and is responsible for guiding student success outcomes to increase STEM degree attainment for Hispanic, low-income, and first-generation students.

2.2c Current STNC/Student Worker Positions

Position	Hr/Wk	Mo/Yr	Job Duties
Student Peer Tutors (15)	40.00	9.00	Peer-academic support; drop-in tutoring and peer facilitated SI
Student Employee – clerical support	15.00	5.00	Provides clerical assistance to support MESA Center activities; SARS appointments

2.2d Adequacy and Effectiveness of Staffing

Under expanded HSI-STEM grant obligations, two areas exist where additional staffing is required.

1. The college needs to plan now to sustain STEM support by institutionalizing the classified Coordinator, Student Success Program position. Currently 67% the classified Coordinator-Student Success Program position is paid through the College's SEA program, 17% through STEM Dean Department funds, and 16 % from HSI-STEM federal funds. Additionally, there is concern SEA funding will no longer assume salary and benefit cost of living adjustments for this position.
2. Under the CCCCO's Vision for Succss and the HSI-STEM grant, greater emphasis is placed on designing, implementing, and maintaining a STEM workkforce development project, specifically STEM internship and research employment opportunities for current SRJC STEM students. For this specialized work, a 50% Work Experience (job developer) facutly assignment is needed to address the adequacy of staffing.

2.2e Classified, STNC, Management Staffing Requests

Rank	Location	SP	M	Current Title	Proposed Title	Type
0001	Santa Rosa	01	02	None in STEM; See CE positions	STEM Internship/Job Developer (50%)	Classified
0002	Santa Rosa	01	02	Coordinator - STEM Student Success Program	Coordinator - STEM Student Success Program (100 %)	Classified

2.3a Current Contract Faculty Positions

Position	Description
None	

2.3b Full-Time and Part-Time Ratios

Discipline	FTEF Reg	% Reg Load	FTEF Adj	% Adj Load	Description
Does not apply	0.0000	0.0000	0.0000	0.0000	MESA has no faculty payroll

2.3c Faculty Within Retirement Range

Does not apply.

2.3d Analysis of Faculty Staffing Needs and Rationale to Support Requests

MESA has no Academic Affairs faculty positions assigned to the program.

MESA currently has a shared counselor assigned to the HSI-STEM grant. MESA's CCCC funding requires "*a dedicated MESA counselor...with an adequate number of hours to meet the needs of MESA students.*" In order to comply with MESA's case management and student personal counseling requirements, to establish an early alert system, to coordinate with campus Matriculation and Articulation, and to work with the MESA Director to offer a MESA Orientation Program, the current shared assignment needs to be supplemented with a 40% dedicated MESA counselor assignment.

2.3e Faculty Staffing Requests

Rank	Location	SP	M	Discipline	SLO Assessment Rationale
0001	Santa Rosa	01	02	STEM transfer advising and retention specialist	Enhanced Ed Plan w/ Individual Development Plan (P-SLO); Student enrichment activity (P-SLO); retention case management

2.4b Rationale for Instructional and Non-Instructional Equipment, Technology, and Software

Because all assigned staff will work in-person and telecommute, additional desktop computer workstations must be provided.

2.4c Instructional Equipment Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
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2.4d Non-Instructional Equipment and Technology Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
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2.4f Instructional/Non-Instructional Software Requests

Rank	Location	SP	M	Item Description	Qty	Cost Each	Total Cost	Requestor	Room/Space	Contact
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2.5a Minor Facilities Requests

Rank	Location	SP	M	Time Frame	Building	Room Number	Est. Cost	Description
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2.5b Analysis of Existing Facilities

MESA, under the HSI-STEM initiative, requires one additional confidential work office.

3.1 Develop Financial Resources

The MESA Community College Program is currently categorically funded through the California Community Colleges Board of Governors, Educational Services and Support, grant agreement number G0092. The total funding of \$281,735 supports the program from October 1, 2021 to January 31, 2024. At the end of year 3-year funding cycle, the Sonoma County CCD must submit a new, multi-year application in a competitive review. Continued funding is contingent upon completion of the approved prior year's objectives, submission of semester MIS special population data, and the submission of a new application. A dollar-for-dollar match is required and can be satisfied through a combination of District General Fund, Other Sources, and In-Kind dollars.

3.2 Serve our Diverse Communities

3.3 Cultivate a Healthy Organization

Because valuable, relevant professional development contributes to employee engagement and collegiality, the MESA Community College Program allocates grant dollars to support the staff travel and professional development.

Each fall MESA hosts a student “Backpack Essentials” day to address the financial need of students enrolled in the program. To address food scarcity issues, the MESA Center provides year-round and special event food in accordance with funding guidelines and when linked to a STEM engagement activity. Students have access in the MESA Center to the free use of lockers, a refrigerator, and a microwave oven.

3.4 Safety and Emergency Preparedness

Safety Trainings

District evacuation route maps are posted in each staff office and the main MESA Student Study Center.

Building and Area Safety Coordinators

Located on the 3rd Floor of Bertolini, the current identified Building Safety Coordinator is Robert Ethington and the Area Safety Coordinator is Amy Ethington with CalWORKs.

3.5 Establish a Culture of Sustainability

4.1a Course Student Learning Outcomes Assessment

Does not apply.

4.1b Program Student Learning Outcomes Assessment

Does not apply, for MESA does not offer certificates or majors.

4.1c Student Learning Outcomes Reporting

Type	Name	Student Assessment Implemented	Assessment Results Analyzed	Change Implemented
Service/Program	MESA	N/A	N/A	N/A

4.2a Key Courses or Services that address Institutional Outcomes

Course/Service	1a	1b	1c	2a	2b	2c	2d	3a	3b	4a	4b	5	6a	6b	6c	7
Collaborative skill development		X		X	X		X	X	X	X	X	X	X			X
Employee Students as Peer Tutors	X	X		X	X			X	X				X	X		
Field trip travel											X	X	X			
MESA Study Center				X											X	X
STEM Research (Literature Reveiw)		X	X	X	X		X		X	X		X				
STEM Shadow Day					X			X	X		X				X	
Supplemental Instruction in STEM	X	X		X				X	X	X	X			X		

4.2b Narrative (Optional)

Does not apply, MESA does not offer course, certificates or majors.

5.0 Performance Measures

Historic (2018) Performance Measures - Narrative

In order to increase the number of students transferring to a four-year institution with a calculus-based STEM major, MESA utilizes a variety of activities to build community, support academic success, and prepare students for STEM careers. These activities and intended outcomes are detailed below. The performance evidence is derived from: 1) MESA's end-of-year student program involvement student survey; (88% completion rate); (2) SRJC OIR SE Survey data (3) SRJC OIR SE academic and demographic outcome reports.

Activity: MESA Student Study Center

Intended Outcome: The MESA Student Study Center creates a community connection among MESA students, STEM faculty and staff. Students identify with a community of like-minded college students. The MESA Student Study Center is open to all SRJC students.

Performance Evidence: Based on Student Equity survey data, a higher percentage of MESA students feel guided and supported than general District students. Center hour usage demonstrates, MESA students spent over 11,400 combined hours in the MESA Student Study Center during academic year 2017-18.

Activity: Academic Support Services

Intended Outcome: Academic peer tutoring, self-directed study groups, small group webinars, a textbook resource library, and a computer lab with free printing, contribute to the academic success of MESA and STEM students. Provided in the MESA Center, these services enable students to better understand and master course content.

Performance Evidence: MESA Student Equity & Achievement Data, 2017-18 Academic Outcomes shows MESA students benefiting from: (1) an 80% course success rate in comparison to the District average of 74.8%; (2) a course retention rate of 89.1% and; (3) a fall to spring persistence

rate of 95.7%. When surveyed, 75% of MESA students evaluated MESA peer drop-in tutoring as very or extremely valuable. Additionally, 86% stated the drop-in assistance aligned with their coursework needs.

Activity: Transfer Assistance and Advising

Intended Outcome: Through dedicated counseling services, MESA sponsored college visit field trips, and alumni and faculty advising, MESA students are able to define the eligibility requirements for their transfer program. MESA students strive to create an individual development plan that works in concert with their long-term educational plan.

Performance Evidence: When surveyed, 95% of MESA students agreed or strongly agreed the dedicated counseling services in MESA worked with their schedule. 93% of MESA students agreed or strongly agreed they felt more confident making decisions with the help from MESA counseling.

Activity: Career Preview and Leadership Development

Intended Outcome: Through guest speaker presentations, conference participation, workshops to advance workplace skills, and exposure to internships and fellowships, MESA students role-play their future STEM profession, seeing first-hand how a STEM interest manifests first as a transfer major and later as a career path.

Performance Evidence: When surveyed, 97% strongly agreed they received timely messages regarding MESA and SRJC events and offerings. Specifically, 65% reported participating in a college or industry site visit; 63% attended a guest speaker presentation or STEM conference and 45% reported volunteering in a STEM discipline.

Overall, and in terms of MESA’s overarching goal of assisting STEM students to transfer and to improve the transfer success rate among District identified DI populations, MESA contributed to the College’s progress toward having equitable outcomes. MESA students present with a goal of transferring and earning a bachelor’s degree in a STEM discipline. MESA assists (guided and supported) students in order to achieve this multi-step goal: a) MESA provides strong academic advising and assistance, which supports progress in having equitable outcomes in course success (succeeding), for only if students succeed in completing their major preparatory courses are they competitive to transfer to a 4-year institution with a STEM major; b) MESA supports equitable transfer completion (completing), sending more students to universities in the highly competitive UC system than the District, even though MESA serves proportionally a greater number of disproportionately impacted students. The overarching impact of MESA’s activities is reflected in our transfer cohort outcome.

	MESA Students 2017 # of Students = 128 Transfer Cohort: n=28	MESA Students 2018 # of Students = 142 Transfer Cohort: n = 37	SRJC Transfer Students *
University of CA	54%	41%	16%

CA State University	32%	49%	60%
Out of State & Private	14%	10%	25%
Total	28	37	1,448

* SRJC Transfer Students 2016-2017: SRJC Office of Institutional Research

5.1 Effective Class Schedule: Course Offerings, Times, Locations, and Delivery Modes (annual)

Does not apply.

5.2a Enrollment Efficiency

Does not apply.

5.2b Average Class Size

Does not apply.

5.3 Instructional Productivity

Does not apply.

5.4 Curriculum Currency

Does not apply.

5.5 Successful Program Completion

Does not apply.

5.6 Student Success

General Data: District Student Equity Success Factors

For AY 2017-2018, MESA enrolled students performed better than the District population on all student equity success factors, namely course success, course retention, and fall to spring persistence.

Prepared by the Office of Institutional Research on behalf of MESA, AY 2017-2018 MESA enrolled students demonstrated the following Academic Outcomes:

- 80% Course Success as compared to a 75% District-wide Course Success rate
- 89% Course Retention; 87% District Course Retention
- 2.98 Overall Course GPA
- 96% Fall to Spring Persistence; 66% District-wide Fall to Spring Persistence

Of the 2018 transferring MESA students, 83.8% completed their educational goal to transfer in less than 6 years. According to the 2018 CCCC Student Success Scorecard, in California 48.2% of degree, certificate, or transfer seeking students completed their educational goal with 6 years.

5.7 Student Access

Student Access - MESA.

Based on MESA student population data for AY 2017-2018 prepared by the OIR, the program participation numbers for Latinos is nearly twice that of the District; 91% of MESA students identify as neither parent possessing a bachelor's degree; 92% receive need-based financial assistance. The MESA Program has a higher number in comparison to the District of veteran students and twice as many students who identify as Asian or with disabilities. MESA enrollment includes students identifying as African American, Multi-Ethnic, and as foster youth.

5.8 Curriculum Offered Within Reasonable Time Frame

Does not apply.

5.9a Curriculum Responsiveness

Does not apply.

5.9b Alignment with High Schools (Tech-Prep ONLY)

Does not apply.

5.10 Alignment with Transfer Institutions (Transfer Majors ONLY)

Does not apply.

5.11a Labor Market Demand (Occupational Programs ONLY)

Does not apply.

5.11b Academic Standards

Does not apply.

6.1 Progress and Accomplishments Since Last Program/Unit Review

Rank	Location	SP	M	Goal	Objective	Time Frame	Progress to Date
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6.2b PRPP Editor Feedback - Optional

6.3a Annual Unit Plan

Rank	Location	SP	M	Goal	Objective	Time Frame	Resources Required
0001	Santa Rosa	01	01	To implement a STEM Learning Community that supports STEM and MESA students	By fall 2022, SRJC will offer linked gateway STEM courses, forming a STEM directed learning community	October 2021 - June 2023	
0002	Santa Rosa	03	02	To enroll 125 fully eligible student in MESA for AY 2022-2023; integrate MESA with the HSI-STEM Avanzando initiative	Fall 2022 and Spring 2033 CCCCO MIS special population data will demonstate enrollment of at least 125 MESA students	07.01.2022 to 06.30.2023	
0003	Santa Rosa	01	02	As a CCCCO special population, secure priority registation for Avanzando and MESA student groups	By spring 2023, Avanzando and MESA students will have the same priority registration as other district recognized learning communities (Puente, Umoja, Second Chance, etc.)	06.01.2022 - 11.1.2022	Guidance in goverance processing