

# **MESA/STEM Academic Success Center**

## **Curriculum and Teaching**

### **2024/2025**

#### **1. What data were analyzed and what were the main conclusions?**

Armando looked at the STEM 100 enrollments over the last few years (F23, W24, S24, U24, F24). Conclusions included:

- The average retention rate was 82% and success rate was 79% - strong rates compared to student groups in other majors. Hispanic students did show lower retention (80%), success (75%), and course GPA (3.41) compared to other groups.
- There was a large percentage of Hispanic students enrolled in the class (95 compared to 28 white).
- First-generation students showed lower retention (77% vs 87%) and success (73% vs 84%) rates, and a slightly lower course GPA (3.46 vs 3.52).

Armando also looked at students who utilized the MESA/STEM Academic Success Center (ASC) over the last two calendar years (2023 and 2024). Conclusions included:

- Most students come into the center for studying purposes.
- The center served 948 (unduplicated) students with 26,027 logins.
- 50/50 male to female ratio, but females averaged far less uses per year.
- Hispanic students make up 68% of the center use.
- In 2023, forty percent of students using the center were first-generation, and that number increased by 2 ½% in 2024.

We also asked two faculty members to evaluate STEM 100 and found that:

- The book is provided at no cost for the student.
- It was recommended that the book be available electronically.
- The messages to the students are welcoming.
- It was recommended that there be a welcoming message in video form.
- It was recommended that the final project includes a list of alums or others willing to provide an informational interview or that the final project includes the option to complete it on researching a major and university.
- It was also recommended that the MESA/STEM website be included as part of an assignment like the Career Center is currently included.
- The course seemed to promote a sense of community and presented clear expectations and support for all the students enrolled.
- It was recommended to use examples relevant to the cultural backgrounds of students in the course (primarily Hispanic).

We also asked two faculty members and the STEM team to evaluate the program and found that:

- The program and center serves as a “home away from home” for STEM students, but more space is needed.

- There is a need for a cover over the space outside by the white board.
- The support areas are “human” with “women in science” posters and pictures of students and personal connections.
- The Industry Coach position is well received and provides a great service for students.
- Tablet loans for students are needed.
- Counseling onsite is an asset, but more counseling hours are needed, including at the LVC.
- The program listens to students’ needs and acts on those needs.
- The website and textbook and calculator loans were identified as assets of the program.
- The online program application is working well.
- Staff are easily accessible.
- It was recommended that more focus be placed on resume development for students.
- The SLOs are missing a cultural identity/belongness assessment component, and the opportunity for students to reflect on the “why.”
- The QR code for the tutoring schedule is readily available to students.
- It was recommended that a welcome sign in multiple languages be available.
- It was recommended that M136 be used as an additional quiet space for students.
- Staff and faculty are caring and approachable.
- It was recommended that the website include a “campus resources” page including links to Basic Needs and Student Wellness, student profiles and “voices,” and a STEM Counseling page.
- It was recommended that a workshop be offered on in-demand STEM careers and opportunities for Alum to connect with current students.
- It was recommended that student-use computers are labeled with software availability.
- It was recommended that signage lets students know it is OK to wear headphones/buds while in the center.
- Workshop videos need closed captioning instead of subtitles.
- It was recommended that the tutorial page be redesigned to make it easier to understand and navigate.

We also surveyed STEM 100 students from the current and past terms. Conclusions included:

- Eighty-six percent of students surveyed felt the teaching methods were helpful.
- Ninety-one percent of students surveyed felt the assignments and homework were relevant to their STEM pathway.
- Ninety-five percent of students surveyed felt the course content was relevant to their STEM major and career goal.
- Time constraints were the most significant barrier to success in STEM 100 (91%).
- Seventy-three percent of students surveyed receive financial aid, and thirty-two percent utilize the MESA/STEM program.
- Suggestions included including practice opportunities in the class to develop recall habits, organizing notes, and other lessons within the course.

We also surveyed students using the center. Conclusions included:

- Eighty-six percent of students surveyed have been part of MESA/STEM for more than one semester.
- Seventy-five percent of students surveyed feel a sense of belonging in the program.
- Fifty-nine percent of students surveyed utilize the center daily.

- Ninety-six percent of students surveyed reported that the program has helped them feel academically supported.
  - Students reported that work and family situations have limited their ability to use the center/program.
  - Students surveyed reported that they use most of all the services provided with the largest (89%) being the study center.
  - Most students completing the survey were Hispanic (63%), male (67%), are on financial aid (69%) and use the program/center (69%).
  - Students expressed the following resources that contributed to their sense of belonging in the program:
    - Resources to help their success
    - Dorine
    - Tutors
    - Counseling
    - Friends
    - Friendly people and lots of support
  - Additional support/services that would help students succeed included:
    - Longer hours
    - Practice materials
    - Research opportunities
    - More tutors, especially in computer science
    - Larger space for tutoring and group study
2. Based on the data analysis and looking through a lens of equity, what do you perceive as *challenges* with student success or access in your area of focus?
- Ensuring female students feel comfortable in the center.
  - Ensuring the center is serving low-income, first-generation STEM students as a priority, and the program/center features these students' successes.
  - Provide services for our LVC students.
  - Workshops online are closed captioned and students with disabilities have access to services equitably.
3. What are your plans for change or *innovation*?
- a) Explore the options to offer the STEM 100 textbook electronically.
  - b) Develop a welcome video for STEM 100.
  - c) Include an assignment in STEM 100 featuring the MESA/STEM program like the Career Center assignment.
  - d) Ensure STEM 100 materials have culturally relevant materials throughout the content.
  - e) Redesign the tutoring site online to be more user friendly.
  - f) Secure M136 for group study space.
  - g) Provide covered space over the outside whiteboard.
  - h) Establish a tablet loan program.
  - i) Expand MESA/STEM services to LVC.
  - j) Work with the Industry Coach to expand services to students regarding resume development.
  - k) Purchase a "welcome" sign in multiple languages.
  - l) Expand our website to include a campus resources page including links to Basic Needs and Student Wellness, student profiles and "voices," a "STEM Counseling" page, and culturally relevant images.

- m) Create a workshop on in-demand STEM careers and connecting with Alums.
- n) Label student-use computers with available software.
- o) Place signage within the center regarding headphone/ear bud use.
- p) Ensure all videos on website are closed captioned.

4. How will you *measure* the results of your plans to determine if they are successful?

- Evaluate course enrollment and program participation
- Further program review evaluation of innovations
- Student and faculty feedback

**Validation for Program Planning Process: If you have chosen to do the Validation this year, please explain your process and the findings.**

1. Who have you identified to validate your findings?  
STEM Success Team during the spring 2025 term
2. Are there specific recommendations regarding the core topic responses from the validation team?  
None

Based on the narratives for the prompts above, what are some program planning initiatives and resources needed for the upcoming years? Use the tables below to fill in **NEW** resources and planning initiatives. ***This section is only used if there are new planning initiatives and resources requested that pertain to the Core Topic only.***

New Program Planning Initiative (Objective) – Core Topic Only													
<b>Title (including number):</b>	<i>3i. Expand Services to LVC</i>												
<b>Planning years:</b>	<i>2025/2026</i>												
<p style="text-align: center;"><b>Description:</b></p> <p><i>Work with the District to identify space at the LVC for MESA/STEM support resources including counseling, tutoring, book loans, study center, “lounge” space, group study, and resource materials.</i></p>													
<p><b>What college plans are associated with this Objective? (Please select from the list below):</b></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 20%;">Ed Master Plan</td> <td style="width: 20%;"><input checked="" type="checkbox"/> Student Equity Plan</td> <td style="width: 20%;"><input checked="" type="checkbox"/> Guided Pathways</td> <td style="width: 40%;">AB 705</td> </tr> <tr> <td>Technology Plan</td> <td>Facilities Plan</td> <td>Strong Workforce</td> <td>Equal Employment Opp.</td> </tr> <tr> <td colspan="4">Title V</td> </tr> </table>		Ed Master Plan	<input checked="" type="checkbox"/> Student Equity Plan	<input checked="" type="checkbox"/> Guided Pathways	AB 705	Technology Plan	Facilities Plan	Strong Workforce	Equal Employment Opp.	Title V			
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New Program Planning Initiative (Objective) – Core Topic Only	
<b>Title (including number):</b>	3g. Provide covered space over the outside whiteboard.
<b>Planning years:</b>	2025/2026
<b>Description:</b> <i>Work with the District to fund and install a covered space over the outdoor whiteboard.</i>	
<b>What college plans are associated with this Objective? (Please select from the list below):</b>  <div> <div>Ed Master Plan</div> <div>X</div> <div>Student Equity Plan</div> <div>X</div> <div>Guided Pathways</div> <div>AB 705</div> </div> <div> <div>Technology Plan</div> <div>X</div> <div>Facilities Plan</div> <div>Strong Workforce</div> <div>Equal Employment Opp.</div> </div> <div> <div>Title V</div> </div>	

See Resource Request attached.

Program Review Signature Page:



Program Review Lead

05/28/2025

Date



Sean Abel (May 28, 2025 13:29 PDT)

Program Dean

05/28/2025

Date



Vice President, Academic Affairs

06/17/2025

Date











# MESA\_STEM Curriculum and Teaching Design Program Review May 2025

Final Audit Report

2025-06-17

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By:	Christine Reed (creed@hancockcollege.edu)
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 Agreement completed.

2025-06-17 - 9:40:38 PM GMT

## MESA/STEM YEARLY PLANNING 2024/2025

1. Has your program mission or primary function changed in the last year? No
2. Were there any noteworthy changes to the program over the past year? Continued to receive increased funding from the state for the MESA grant.
3. Is your two-year program map in place and were there any challenges maintaining the planned schedule? We update on an annual basis the program maps for the traditional university-bound STEM majors (those supported by MESA). There are 31 of them.
4. Were there any staffing changes? None
5. What were your program successes in your area of focus last year? Continued to increase the number of course sections with embedded tutors; developed partnership with the IT department to provide an Industry Coach position to serve both departments; worked with the College Advancement office to develop a MESA/STEM Alum group and event; and worked with a faculty team in Chemistry and in Math to develop two online skills labs to help students prepare for course in Chemistry and pre-calculus and calculus.

### Learning Outcomes Assessment

- a. Please summarize key results from this year's assessment.

Fall 2024	MESA Program SLO #3 – Within 2 semesters of admission to the program, MESA students will have an educational plan that outlines the requirements needed for transfer to a four-year university.	98.4%
Fall 2024	STEM 100 SLO #3 – Upon completion of the course, students will have established and evaluated realistic career and educational goals and integrated said goals into a specific plan.	89.7%
Spring 2025	MESA Program SLO #1 – After participating in AEW's, MESA students will demonstrate a commend of collaborative work skills in the chosen field of study and exhibit the appropriate study skills to master the material.	89.7%
Spring 2025	MESA Program SLO #5 – By the end of spring term of their final year at AHC, MESA students will have developed the confidence required to successfully navigate the academic process at the accepted transfer institution.	98.8%

Goal = 0.70 or higher.



- b. Please summarize your reflections, analysis, and interpretation of the learning outcome assessment and data.

The SLO data results are really solid, and our students are performing well above our goal of 70%.

- c. Please summarize recommendations and/or accolades that were made within the program/department.

- We saw an increase in the number of MESA approved students participating in AEW/RS in Spring 2025.
- Almost 100% of MESA students have an updated CSEP on file.
- Almost 100% of our MESA students transferring to university in F25 have confidence in themselves to navigate the transitioning process.

- d. Please review and attach any changes to planning documentation, including PLO rubrics, associations, and cycles planning.

None

**Distance Education (DE) Modality Course Design Peer Review Update (Please attach documentation extracted from the *Rubric for Assessing Regular and Substantive Interaction in Distance Education Courses*)**

- a. Which courses were reviewed for regular and substantive interactions (RSI)? None this year.
- b. What were some key findings regarding RSI? N/A
- Some strengths: N/A
  - Some areas of possible improvement: N/A
- c. What is the plan for improvement? N/A

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See Resource Request Attached.

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Building maintenance, furniture requests, repairs
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## FACILITIES

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