



2018-19 Program Review – Math, Science and Applied Technology.

Program Overview

Please verify the mission statement for your program. If there is no mission statement listed, please add it here.

The mission of the Division of Math, Science, and Applied Technology (MSAT) Division at Merritt College is to ensure student access and equity and success by supporting the highest quality of instructional services to programs and departments within the division. (Including online offerings and using technology in innovative ways to reach students).

List your Faculty and/or Staff

Please refer to the program review faculty reports for the following programs:

Math, Astronomy, Physics, Geology, Geography
Biology Chemistry
Business, CIS, Real Estate
Landscape Horticulture, Environmental Management

The MSAT division has one full time staff assistant assigned to the division and one assigned to the Landscape horticulture department. The division also has a laboratory coordinator and a lab technician for the Biology program and the Chemistry department has a lab technician. The division's landscape horticulture department has a grounds coordinator, and a lab technician. (8 classified positions)

The Program Goals below are from your most recent Program Review or APU. If none are listed, please add your most recent program goals. Then, indicate the status of this goal, and which College and District goal your program goal aligns to. If your goal has been completed, please answer the follow up question regarding how you measured the achievement of this goal.

Program goals

1. Manage the division within the performance based funding allocation model: Stay within the allotted FTEF allocation when possible, increase the number of completion awards, Provide opportunities for marginalized student populations
2. Program development. Support new programs within the division develop curriculum and promote programs and courses
3. Process improvement – decrease the number of late payments within the division – ensure that timesheets are submitted in a timely manner. Epafs are moved, monitor budget regularly, track payments.

4. Monitor and support academic programs – use file sharing system, collect syllabi, office hours, other documents, engage in regular communications with faculty and staff via email communications.

within the division using sharepoint file sharing software

- Syllabi, office hours, roster submission dates textbooks etc
- SLO asses

Monitor attendance, office traffic of the division office and lanht areas

Describe your current utilization of facilities, including labs and other space

The MSAT division operates classes throughout the entire campus. We have several math and business courses that are routinely taught in the A building and the P building. Most classes require a smart classroom and improvements have been adequate. The CIS department utilizes two computer labs (P218 and P106) that are used for lab purposes. Faculty office space is limited in the P building. One tenured faculty member has needed an office space large enough to accommodate a industrial printer he purchased for his program.

The majority of classes are taught in the Barbara Lee Science and Allied Health Building (S building). The S building houses the bulk of the biology, math, chemistry, and physical science courses are housed here. There is a state of the art Biology lab, Chemistry lab, Physics/Physical Sciences lab, Through grant funding, the math department redesigned a classroom space to support a discovery based learning teaching approach. The majority of the MSAT faculty teach classes on the 3rd and 4th floor of the S building, and faculty share office suites and cubicles (1 on 3rd floor, 2 on 4th floor)

Division office and conference room is utilized by the faculty and staff on a regular basis. A more efficient way to schedule the conference room must be developed. The division office is rarely staff consistently due to normal business hours. The flow of office traffic should be monitored and assessed regularly for efficiency and to address staffing issues. All students support forms should be scanned and filed. The MSAT division shares this space with the Allied Health and Public Safety Division. Staffing issues with this division have impacted the efficiency MSAT division.

The learning center – Many math and science faculty regularly work and hold office hours in the learning center located on the first floor of the library. Students report that the learning center is often understaffed and in need of more experienced tutors. Faculty who hold office hours in the learning center seem satisfied, but need additional private offices to meet with the students.

The MSAT Landscape Horticulture department and environmental management programs are taught on the in the H building horticulture compound. This is an 8 acre facility with a green house, laff house and classrooms and lab space for instruction. The facility operates all year and is accessed separate from the main campus. Although the facility operates effectively, it is hard to monitor without some form of technology to connect remotely with staff.

Assessment

Which Administrative Unit Outcomes (AUO) did you assess in the past year? What were the results? Please describe the assessment methods used. How did your work lead to program improvement, that is, the development of Program Improvement Objectives (PIO's) as a result of your assessment?

No Administrative Unit Outcomes Assessed

What Administrative Unit Outcomes (AUO) and program improvement objectives (PIO) do you plan to work on in the next 2 years?

Administrative Unit Outcomes / Program Improvement Objectives

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Major Accomplishments

Please describe 1-3 major accomplishments below since completion of the previous program review.

1. Planned and completed 2018 – 2019 academic schedule for the division based on an FTEF allocation given by the VPI
2. Fall 2019/Spring 2019 Developed and piloted Math 240/Math 230/ support courses and curriculum in math to align with the new funding state funding model
3. Successfully initiated year 1 initiative of the Guided pathways grant.
4. Increased enrollment, internships and job placement through associations with community partners.

Engagement

How have the administrators and staff in this area been engaged in institutional efforts such as committees, presentations, and department activities? Please list the committees your staff participate in.

Professional Development Committee, Curriculum Committee, Strategic Enrollment Management Committee, Technology Committee, Student Learning Outcomes and Assessment, Guided Pathways, LatinX Graduation Committee, Career Education Committee, District CE Committee, District Dual Enrollment Committee, District Deans and VPI Committee,

Discuss how the administrators and staff have engaged in community activities, partnerships and/or collaborations.

The Dean has been engaged in STEM outreach efforts to bring opportunities in technology to urban youth. He has been involved in the Techathon (sponsored partially by Google) whose aim is to increase excitement in STEM from urban youth. Also trying to connect with Onyx Scholars to connect with African American youth. LatinX graduation, STEM day, Mya Edgerly, meeting with black police officers in Pinole, dual enrollment OUSD, Oakland Youth Empowerment group, Hackathon, Sankofa, member of PAAAA, work with CIS advisory group to find solutions to technology. Howard West, Facebook, Natural History advisory board to create a more viable ENVMT program. Looking for someone to spearhead drone initiative. Currently being run by Business Department, but there is an interest in Computer Science to take this on.

Prioritized Resource Requests Summary

In the boxes below, please add resource requests for your program. If there are no resource requested, leave the boxes blank.

Resource Category	Description/Justification	Estimated Annual Salary Costs	Estimated Annual Benefits Costs	Total Estimated Cost
Personnel: Classified Staff	Staff Assistant to the Dean for office administrations.	\$50,000	\$35,000	\$85,000
Personnel: Student Worker	2 Student workers for three semesters per year	\$20,000	0	10,000
Personnel: Part Time Faculty				
Personnel: Full Time Faculty				

Resource Category	Description/Justification	Total Estimated Cost
Professional Development: Department wide PD needed		

Professional Development: Personal/Individual PD needed	The deans needs SWF and Perkins ongoing training to keep current with new state policies and procedures. Ongoing budget training BI tool training Administrative oversight / Staff management Digital file storage conventions / data security Program review strategies	\$5000.00

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Supplies: Software	PDF editor software File sharing	
Supplies: Books, Magazines, and/or Periodicals		
Supplies: Instructional Supplies		
Supplies: Non-Instructional Supplies	Office supplies, printer supplies Printer 2 industrial scanners Laptop computer	\$5000.00
Supplies: Library Collections		

Resource Category	Description/Justification	Total Estimated Cost
Technology & Equipment: New	New 35 inch computer screens for all deans and Staff assistant similar to those used at district to monitor budgets. To be paid with SWF	\$6500.00
	Windows Laptop computer for division HP All in one printer/ scanner	\$2000 \$600
Technology & Equipment: Replacement	Replace commercial copier machine the Suite 438 for both Division 2 and 3.	\$10,000 lease

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Facilities: Classrooms		
Facilities: Offices	Re-organize the store room in S 438 to accommodate two desks for the associate dean and grant coordinators. We need cubicle dividers.	\$15,000
Facilities: Labs		
Facilities: Other		

Resource Category	Description/Justification	Total Estimated Cost
Library: Library materials		
Library: Library collections		

Resource Category	Description/Justification	Total Estimated Cost
OTHER Office:	Advisements from ergonomic assessment – Being addressed by district Human Resources.	

Resource Requests MSAT division - Division II - GATHERED FROM 2018 - 2019 PROGRAM REVIEW

Human Resource Requests

Department	Resource Request	Amount	Requested	Funding Source
MATH	Math lab technician	\$48,000	yes	
MATH	student worker	\$26,000	yes	
MATH	two full-time math faculty	\$180,000	yes	
GEOL/GEOG	none			
ASTR	none			
PHYS	lab technician - permaner	\$24,000	yes	
PHYS	temp F/T physics instruct	\$40,000	yes	
CHEM	p/T evening lab technician		yes	
CHEM	instructional assistant	\$5,000	yes	
CHEM	5 p/t instructors for CHEM	\$4,000	yes	
CHEM	2 f/T instructors - currently hired		yes	
BIOL	lab coordinator (currently hired)		yes	
BIOL	day lab technician (in hiri	\$48,000	yes	
BIOL	evening lab technician - P/T		yes	
BIOL	3 instructional aides	\$5,000	yes	
BIOL	data entry student worke	\$1,000	yes	
BIOL	substitute instructor	0.3 FT	yes	
BIOL	current BIOL faculty	\$142,060	yes	
BIOL	current MICROBIOL facul	\$57,432	yes	
BIOL	NHS Program Director	0.5 FT (half in BI	yes	
BIOL	5 f/T faculty (currently hired)			
LANHT	6 - 10 student aids	\$10,000	yes	
LANHT	FT science lab technician	\$65,000	yes	
ENVMT	program assistant	\$6,000	yes	
ENVMT	Program Director	\$34,000	yes	

Technology and Equipment

MATH	Instructor apps for ipads ,	\$5,000	Yes
MATH	Journal subscriptions etc	\$1,000	yes
MATH	Office supplies	\$5,000	yes
MATH	6 copies of all departmen	\$10,000	yes
MATH	42 laptops/ locking chargi	\$45,000	yes
GEOL/GEOG	photo editing software	\$700	yes
GEOL/ GEOG	dry erase / office supplies	\$300	yes
ASTR	toner, office supplies	\$500	yes
PHYS	toner, office supplies	\$1,000	yes
CHEM	Lab materials	\$8,000	yes
CHEM	department printer	\$400	yes
BIOL	Physiology software upda	\$2,000	yes
BIOL	Consumable chemicals	\$22,200	yes
BIOL	Consumables MicroBIOL	\$7,200	yes
BIOL	iclikcers - NHS program	\$1,000	yes
BIOL	NHS field supplies	\$3,000	yes
BIOL	Office supplies	\$2,000	yes
BIOL	Max Gear sign holder	\$130	yes
BIOL	Anatomy Models	\$49,300	yes
BIOL	Computers for faculty use	\$35,000	yes
BIOL	repair broken anatomy m	\$5,000	yes
BIOL	Autoclave maintenance	\$15,000	yes
BIOL	microscope maintenance	\$3,000	yes
BIOL	Library Materials	\$1,700	yes
BIOL	Models and microscope s	\$10,000	yes
BIOL	Autoclave maintenance (:	\$10,000	yes
BIOL	Microscope maintenance	\$5,000	yes
BIOL	Other lab equipment repa	\$1,000	yes
BIOL	Cadaver purchase	\$3,000	yes
BIOL	Hazardous Waste pickup		yes
LANHT	current software	\$3,000	yes
LANHT	Publications	\$3,000	yes
LANHT	Soil, nursery supplies	\$10,000	yes
LANHT	Office supplies	\$1,500	yes
LANHT	3 laptops	\$12,000	yes
LANHT	20 drafting tables /dimmi	\$11,000	yes
LANHT	Lab equipment	\$40,000	yes
LANHT	equipment repairs	\$59,200 - \$72,200	yes
LANHT	program webpage support	\$2,000	yes
LANHT	program outreach	\$7,500	yes
ENVMT	ARC GIS mapping softwar	\$750	yes

ENVMT ipad for ARC GIS \$839 yes

Facilities

MATH dry erase boards around 1 \$30,000 yes
MATH Locking storage space in classrooms
MATH Office /storage space/ off \$30,000
MATH Dedicated math compute \$10,000
BIOL fume hood /lab maintenance - equip connected to generater
BIOL large lecture space to accommodate at least 80 students
BIOL office space / office suite for BIOL
BIOL maintenance contract for S bldg elevator
BIOL

Professional Development

MATH Student success training \$60,000 yes
MATH stipends for communities of practice yes
MATH Content specific training yes
CHEM STEM teaching speakers
CHEM Mentoring / training for faculty
BIOL trainings/workshops \$5,000 yes
BIOL faculty mentoring for STEM
LANHT trainings/workshops \$18,000 yes what type of training?
ENVMT conference for PT faculty \$4,000 yes