



2019-2020 Annual Program Update

Program Overview

Please verify the mission statement for your program. If your program has not created a mission statement, provide details on how your program supports and contributes to the College mission.

The Merritt Bioscience Department provides access to fulfilling, well-remunerated careers in the biotech and biomedical fields, through hands-on training on cutting-edge equipment, with a focus on increasing diversity in science.

List your Faculty and/or Staff

FT:

Gisele Giorgi

PT:

Feather Ives (new hire)

Candy Mintz

Derek Leong

Daniel Michael (new hire)

Shirley Pan

Yohannes Kidane (new hire)

Nathan Peabody (new hire)

Theresa Halula

Bob Macey

Angela Lane

Karen Wedaman (new rehire)

Pallavi Lal (new hire)

Cliff Cockerham.

List your Program Goals from your most recent Program Review or APU. Indicate whether the goal has been completed, is in progress, or no longer applicable. Indicate which College and/ or District goal your program goal aligns to. If your goal has been completed, what evidence supports completion of this goal? How did you measure the achievement of this goal?

1. One additional **Full-time Faculty position**: not completed yet. We were delighted to be included on the prioritization list for ft hires this past year. However, the district cuts made us unable to hire a ft instructor. This has been a PR and APU goal for years. We will join in the faculty prioritization process through the CDCPD again, as we have done every year. I have pushed back my retirement by one year. The MHP suddenly lost the mandated Program Director due to her retirement to Nevada, so new adjunct Feather Ives stepped in. She is very qualified, but is being recruited for a variety of ft jobs at other locations. This speaks strongly to the need for a ft faculty position. The programs need stable, long term leadership.

2. **Permanent technician (staff)**. We are stretched very thin by the lack of technical (and clerical) staff. The need for technical staff has been a major component since the beginning our programs. We managed to make do with part-time staff for the first eight years, but have had no technical assistance, even part-time, for the last two years. Our students, equipment, and faculty morale are suffering. We had to work with 5 different clerical people this past year and only 9 of 13 orders even were placed.

3. **HT clinicals**: thanks to more stable funding for the HT clinical development position we are finally on track to clear up the backlog of clinical rotations by Summer 2020!

4. **Release time to write grant**: we are focusing (unpaid) on the BINA (Biolmaging North America) grant which includes funding for our students, including through CORE CONNECT (which we are launching now). We still have a good chance to obtain the NSF-ATE \$600,000 annual grant if we get institutional support to write it.

5. **Program maintenance**: we have hired several new adjunct instructors who enrich our program greatly. Dr. Nate Peabody is launching the Peabody Foundation at Merritt College: it pays students to get tutored, to prepare them to transfer to 4 year schools. We are rebooting the MGP curriculum thanks to enthusiastic, knowledgeable, dedicated pters. We have developed a research partnership with CSH for our advanced MMP students. We held a new course, biosci 58 over the summer with a record enrollment of 50 students. Our departmental productivity is up due to the MMP curriculum reboot. We have been recognized nationally as leaders in STEM equity and been invited to give talks about it at prestigious conferences (Hi-TEC, ABRF, AIM). The job market is strong, and employers continue to approach us. Most importantly, our students continue to thrive: graduates report high level of satisfaction at their jobs, and they are able to obtain living wages (\$30-\$40/hr).

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

We are housed at **2 locations**: the S building suite (S111, S112, S116, S117, S118, S120) and the 860 Atlantic labs.

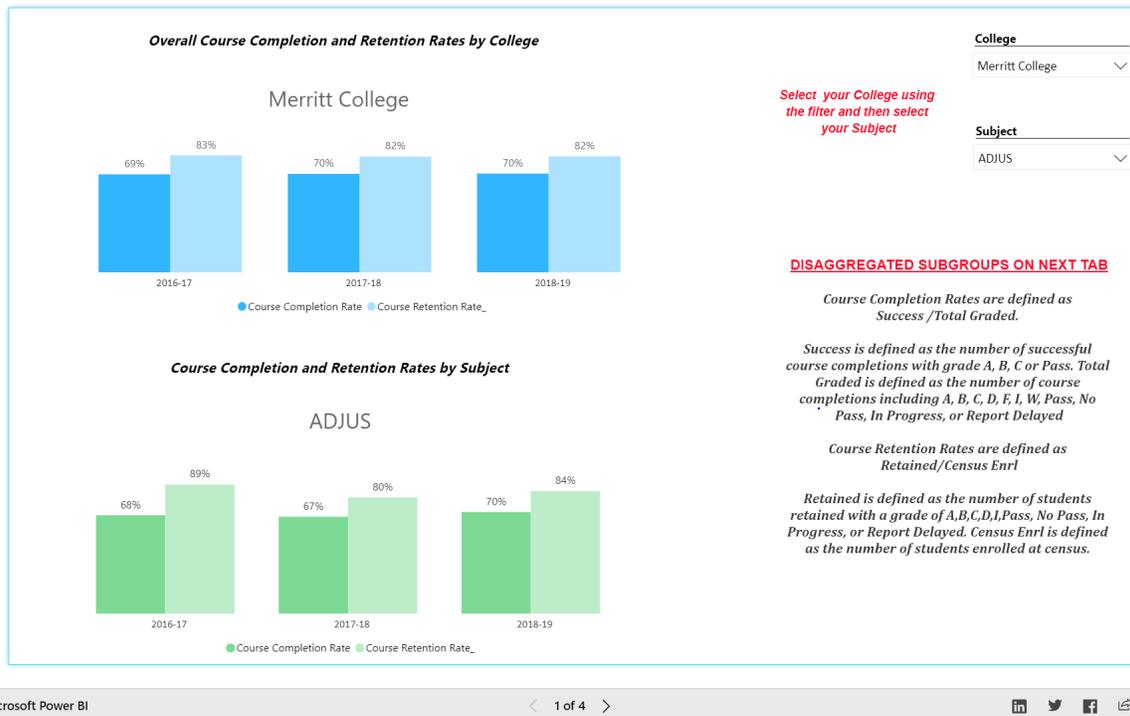
The S Building suite was designed (by us!) for the Merritt Microscopy Program (MMP), but it also houses the Merritt Histotech Program (MHP). This space is completely overutilized: we already reduced our footprint when we moved from the D building to the S building (by 1/2) and we doubled our usage, by adding a new program (MHP). The MHP is in need of ~4,000 sf of space, ideally in the first floor shelled space.

Also, building maintenance issues are a chronic source of problems: **it is unclear if the chem hoods in S118 are safe to use**, or when and how they will be fixed. This severely impedes the training for the MHT.

The Merritt Genomics Program is housed at 860 Atlantic: the space is underutilized. We have been limited by the low number of courses we are allowed to run: we have the faculty to hold more classes, several HS that are interested in DE partnerships, plus we have community partners who are interested in lab rental. We will pursue these options with Merritt administrators.

We have several millions of dollars worth of equipment (purchased and donated). Thus, we are able to fulfill our mission and provide hands-on training on cutting edge equipment. However, we do not have the personnel necessary to maintain the equipment. This is a bit ironic, since our programs actually train technicians who are necessary hires at facilities with much less equipment. The faculty has done much of the maintenance and repair work for the last several years, leading to high levels of burnout. We very much need a permanent technician in order to properly maintain the fantastic equipment which is vital to our programs.

Program Update



[Program Update Power BI dashboard](#)

Using the dashboard, review and reflect upon the data for your program.

Note, Student Services data begins on tab 3.

Describe any significant changes and discuss what the changes mean to your program. Consider whether performance gaps exist for disproportionality impacted students. Focus upon the most recent year and/or the years since your last comprehensive program review. Cite data points from the dashboard to support your answer.

The BI tool is malfunctioning. (To be filled in later.) We continue to have diverse students (matching the overall Merritt population) and high success and completion rates. Thanks to the new curriculum reboot for MMP and the heroic work of instructor Shirley Pan who taught 50 students in the new cytoprep class, our productivity is rising to nearly 16. Students continue to be fully hired, with \$35/hr average starting salary in HT.

Describe the department's progress on Student Learning Outcomes (SLOs) and/or Administrative Unit Outcomes (AUOs) since the last Program Review/APU. If your discipline offers a degree or certificate, please describe the department progress on Program Learning Outcomes (PLOs).

We have many new adjunct faculty, so we are working hard to train them to do SLOs, with the help of SLOAC, and at dept. meetings. We are working towards an AS in bioscience and rebooting the genomics courses and certificate.

MHP Program outcomes:

- Students will be able to identify tissues, as well as prepare tissue samples for analysis, adhering to guidelines set forth by the American Society for Clinical Pathology (ASCP) and the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).
- Students will demonstrate good laboratory practices, in addition to skilled handling and troubleshooting techniques of histology and genomics-related laboratory equipment.

Met as per ASCP BOT pass rate of 100%

Describe the outcomes and accomplishments from previous year's funded resource allocation request.

Brief description of funded request	Source (any additional award outside your base allocation)	Total Award Amount	Outcome/Accomplishment
Biosci Local Projects	SWF Round 2	\$42,000	We supplemented the courses with extra, hands-on lab time, as requested by our accrediting agency. This was a one-time expense: we have now changed our curriculum to reflect this new requirement. We also continued to develop new clinical rotations. We are finding that this is an ongoing need and recommend that this position be institutionalized along with the required HT Program Director position.

Biosci Regional Projects	SWF Round 2	\$18,000	We have continued to build up our extensive outreach success with a new “train the trainer” initiative to create a lending library for cutting edge microscopy tools and curriculum for K-12 students. We are launching the first training workshop this year, and have recruited stellar faculty to the project. Furthermore, we’ve gained national attention around our STEM equity success and are launching a national internship project.
3 Instructional Aides	Measure B	-	Note: this funding was not executed, due to Peralta policy changes that halted the hiring of any new/ temporary staff

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	We have 3 programs, 2 locations, 3 dozen imaging systems, millions of dollars of donated and purchased equipment to maintain and zero technicians., If we followed industry standards, we'd have 4 full-time technicians.	\$52,000		

Personnel: Student Worker	Assist in maintenance and repairs, excellent opportunity for a student.	\$6,000		
Personnel: Part Time Faculty	We need to institutionalize the positions of Histotech Program Director, Education Coordinator, and Clinical Lab Developer, as mandated by our accrediting agency, NAACLS.	\$36,000		
Personnel: Full Time Faculty	We very much need a new FT hire! We have only 1 full timer who is at retirement age, and 3 vibrant, complex programs, powered by 13 phenomenal adjuncts.	\$100,000		

Resource Category	Description/Justification	Total Estimated Cost
Professional Development: Department wide PD needed	N/A	
Professional Development: Personal/Individual PD needed	The program would benefit greatly by allowing the PD to update their microscopy skills and establish an ongoing research collaboration for the students.	.5-1.0 release time

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Supplies: Software	We would like to be able to train students on state of the art software, rather than just use the freeware.	\$6,000
Supplies: Books, Magazines, and/or Periodicals	We have access to Medline through the Library. However, physical subscriptions to selected top science journals it would allow our students and adjuncts to train in a laboratory situation that is more closely aligned to what they'll find when employed.	\$500
Supplies: Instructional Supplies	Each of our classes needs about \$2,000 in consumables for use within the classroom.	\$8,000
Supplies: Non-Instructional Supplies	We would greatly benefit from reprinting our brochures.	\$1,000
Supplies: Library Collections	Kudos to our library which has us well covered.	\$0

Resource Category	Description/Justification	Total Estimated Cost
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Technology & Equipment: New	We need to increase training time on the microtomes for our MHP students.	\$13,000-\$24,000
Technology & Equipment: Replacement	Digital microscopy camera, computer components. We need to update our decade old computers and replace certain imaging system components.	\$22,000

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Facilities: Classrooms	We just need better maintenance of our current facilities.	N/A
Facilities: Offices	Our part-timers would like to share a cubicle on the fourth floor.	N/A
Facilities: Labs	We just need better maintenance of our current facilities. We have several outstanding work orders, and are very concerned about the safety of our 2 chem hoods in S118.	N/A
Facilities: Other	In the long term, the HT program needs to have dedicated lab space in the first floor of the S building, rather than being crammed into the lovely, but already too small space designed solely for the Microscopy Program.	N/A

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

Resource Category	Description/Justification	Total Estimated Cost
OTHER	Annual equipment maintenance and repairs.	\$6,000

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