



2018-19 Program Review – Instructional

Program Overview

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

The mission of Geology Program at Merritt College is to teach students about the evolution of the earth and foster in them an appreciation and understanding of the processes that created and has changed the Earth over time. Student mastery is demonstrated in their ability to think and write critically about the Earth in a capstone report.

List your Faculty and/or Staff

Teresa Williams

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.

Goal 1 (Assessment) Improve and enhance behavior modification activity sheet. This activity allows students to monitor their behavior and hold them accountable to behaviors they stated that would engage in during the course. (ongoing)

Goal 2 (Program Improvement) Attend Department meeting for different programs and seek input on how to incorporate their curricula into Geography. Improve alignment of Geography with other courses. (ongoing)

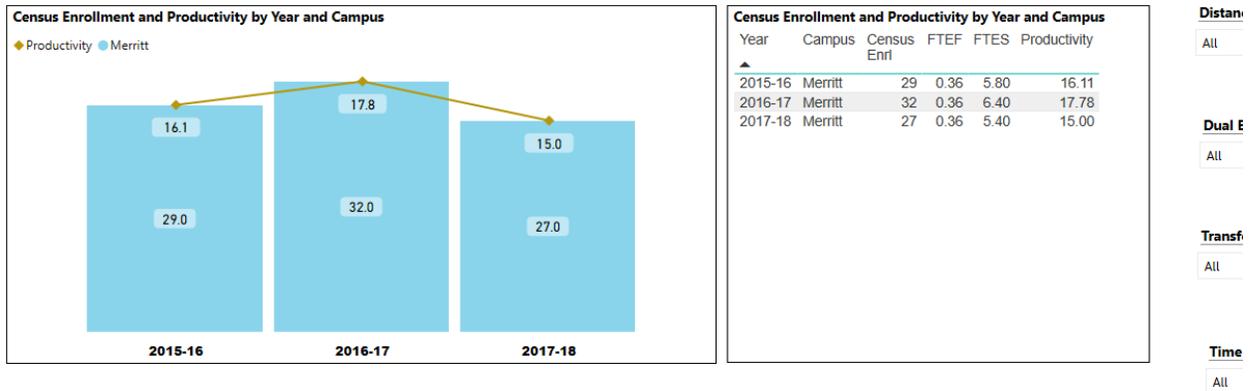
Goal 3 (Natural Hazard Report) Revised Natural Hazard Report Rubric, and provide sample paragraphs and basic computational analysis.

Goal 4 (Interdisciplinary Studies) Speak with other geology faculty at different colleges about how they teach their geography students, and speak with Real Estate and Psychology faculty about how to incorporate their fields into Geology

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

All land and classroom space ins used for lectures, demonstrations, and classroom activities.

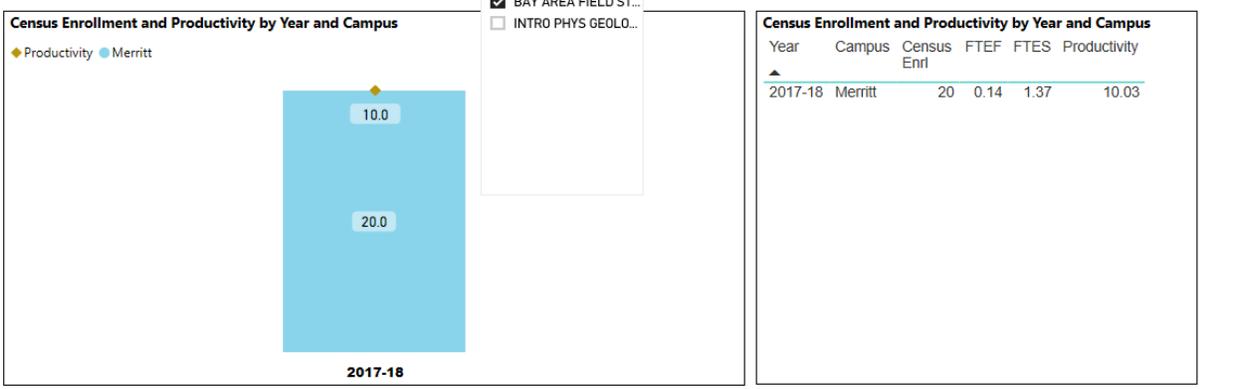
Enrollment Trends



Enrollment Trends by Course

Term	Campus	Section ID	Subject	Catalog No.	Census Enrl	Enrl Cap	Fill Rate	Waitlist Cap	Waitlist Total	FTES	FTEF	Productivity	Instructor	Days	Class Time
Spring 16	Merritt	1162623443	GEOL	1	29	40	72.5 %	26	0	5.80	0.36	16.11	Teresa Williams	TTh	12:30-13:45
Spring 17	Merritt	1172620205	GEOL	1	32	40	80.0 %	26	0	6.40	0.36	17.78	Teresa Williams	TTh	12:30-13:45
Spring 18	Merritt	1182622182	GEOL	1	27	40	67.5 %	26	0	5.40	0.36	15.00	Teresa Williams	TTh	12:30-13:45

Campus Merritt |
 Term Multiple selections |
 Subject GEOL |
 Catlog Description BAY AREA FIELD ST... |
 Credit Degree All



Enrollment Trends by Course

Term	Campus	Section ID	Subject	Catalog No.	Census Enrl	Enrl Cap	Fill Rate	Waitlist Cap	Waitlist Total	FTES	FTEF	Productivity	Instructor	Days	Class Time
Spring 18	Merritt	1182628357	GEOL	21	20	40	50.0 %	13	0	1.37	0.14	10.03	Teresa Williams	S	09:00-14:50

Enrollment Trends Power BI dashboard

Note: Please consider the most recent 3 years when answering the questions below.

Set the filters above to your discipline, and discuss enrollment trends over the past three years

The Physical Geology with Laboratory (Geol 1) trend has changed over the past three years with the productivity of the course varying between 16.1, 17.8, and 15.0. The fill rate was highest Spring 2017 at 80% and was the lowest Spring 2018 at 67.5%. The class time has not changed. Bay Area Field Studies (Geol 21) was offered once, therefore there was not data to compare.

Set the filter above to consider whether the time of day each course is offered meets the needs of students.

The Physical Geology with Laboratory course has only been offered during TTH 12:30 to 13:45. Perhaps an evening class can be offered which will attract more students. Field Studies (Geol 21) is only offered on Sat every three years. Perhaps the course can be offered on Sunday which will attract more students.

Are courses scheduled in a manner that meets student needs and demands? How do you know?

Unknown. The courses have historically been offered at the above times. Maybe in Fall 2019, additional evening Physical Geology with Laboratory (Geol 1) course can be offered in the evening. Field Geology (Geol 21) can be offered on Sunday in Fall 2020.

Describe effective and innovative teaching strategies used by faculty to increase student learning and engagement.

Developing and perfecting the Natural hazard Report which is an interdisciplinary writing and data analysis report for Basic Skills and advanced students. Students state that the report's accompanying lecture, homework and activity sheets has helped them successfully complete their report.

How is technology used by the discipline, department?

The Physical Geology with Laboratory (Geol. 1) report template, lecture notes, activity sheet templates, and videos were developed to be part of an online program that used website, Google Earth, Google Docs, and Word. Bay Area Field Studies (Geol. 21) field guides, lecture notes, and videos are online and can be part of an online program that used website, Google Earth, Google Docs, and Word. Technology (computer, internet and other social media sites) are used in course by the instructor and students.

How does the discipline, department, or program maintain the integrity and consistency of academic standards with all methods of delivery, including face to face, hybrid, and Distance Education courses?

I use transparent grading to maintain consistency in grading, ongoing academic research to maintain educational standards, and action research in the classroom to find creative ways to deliver lectures, assess student work, and enhance student performance in my face-to-face courses.

Curriculum

Please review your course outlines of record in CurricUNet Meta to determine if they have been updated or deactivated in the past three years. Specify when your department will update each one, within the next three years.

Courses							
<input checked="" type="checkbox"/> My Proposals College ▾ Subject ▾ Proposal Type ▾ Status ▾ Sort Options Export							
<input type="text"/> Keyword Search:							<input type="text"/> Search
Institution	Subject	Course #	Title	Type	Status	Reports	
▶ MC	GEOL	001	GEOL 001 - Introduction to Physical Geology	MC Course Modification	In Review		
▶ MC	GEOG	001	GEOG 001 - Physical Geography	MC Course Modification	In Review		
▶ MC	GEOG	001L	GEOG 001L - Physical Geography Laboratory	MC Course Changes only in Non-catalog Info	Active		
▶ MC	GEOG	001L	GEOG 001L - Physical Geography Laboratory	MC Course Modification	In Review		

All courses in Geology were October 2018 and are currently in Review. Next review will be in 2022.

CurriQunet Meta

Please summarize the Discipline, Department or program of study plans for curriculum plans for improvement. Below, please provide details for individual course improvement. Add plans for new courses here.

All courses are being modified to completely online. No new courses are expected.

Assessment – Instructional

Student Learning Outcomes Assessment

List your Student Learning Outcomes

- I. Identify, describe, and classify earth materials, formations, and structures
- II. Read, write, present, and critically evaluate geologic reports, professional papers and maps
- III. Synthesize information from a variety of disciplines to solve geologic problems

Were there any obstacles experienced during assessment? What worked well? (Mainly based on evidence in the report, attach other evidence as necessary)

Grade Components

- 2 Exams@ 50 points each (based on the report) 100 points total
- Final Exam 50 points total
- Report 300 points total
- Labs (complete 85% of the labs to pass the class) 50 points total
- Homework/Activity Sheets (based on the report) 50 points total
- 2 Mandatory field trips (if unable to attend, a 2-page geologic report for each field trip not attended is required to pass the class)

No obstacles experienced during assessment because I give students a report rubric, template and fill-in activities to help students complete the report. I redesigned how I calculate grades in the syllabus and now give more points to report writing, completing report-based activity sheets, and made the exams based on the report.

What percent of your programs have been assessed? (mainly based on evidence in the report, attach other evidence as necessary; note: a complete program assessment means all Program Learning Outcomes (PLOs) have been assessed for that program)

Physical Geology Natural Hazard Rubric (Part 1 / Part 2)

Sections	Score	Pts	Comments
Table Page	0	5	Your Name, Class, Day and Time of Class, Date and Time
Property Description			At least five (5) numerical pieces of data, and ten (10) descriptors from the Property Details section of the Redfin.com sheet. Websites <ul style="list-style-type: none"> ➤ Real Estate Website: Redfin.com ➤ Association of Bay Area Governments (ABAG): ABAG.ca.gov
Climate What is the best and worst month for a housewarming party?		10	Pick your best month for a party- (1) provide average high temperature, (2) average low temperature, and (3) average precipitation. List five (5) things specific things that will be occurring at your party like specific foods eaten, specific drinks drank, specific songs played or the names of specific games enjoyed. Repeat the above but for your the worst month. Website <ul style="list-style-type: none"> ➤ United States Climate Data: usclimate.com
Geologic Map Use the geologic time scale and geologic map to describe the geology of the area around your house, identify the rock or sediment under your house, and create the rock of sediment under your house from an igneous rock.		25	Identify the rock or sediment under your house, and the closest igneous rock on the geologic map. Describe how the rock or sediment under the house was created from the igneous rock. Use the rock cycle to help you structure your paragraph. Website <ul style="list-style-type: none"> ➤ National Geologic Map Database - http://ngmdb.usgs.gov/
Natural Hazard Maps Analyze seven ABAG natural hazard maps, assess damages, and obtain earthquake and flood insurance quotes.		35	<ul style="list-style-type: none"> a. Shaking Severity b. Liquefaction Susceptibility c. Earthquake Induced Landslides d. Flooding e. Debris Flow Source Area (or Rainfall Induced Landslides) f. Existing Landslides g. Alquist-Priolo Zone Website <ul style="list-style-type: none"> ➤ Association of Bay Area Governments (ABAG)- ABAG.ca.gov ➤ California Earthquake Authority (CEA)- https://www.earthquakeauthority.com/ ➤ GEICO Flood Insurance (FEMA)- https://www.geico.com/floodinsurance/
Conclusion Create a bullet point list with ten positive and ten negative pieces of data.		15	Do you still want this property? Review your data to determine if still want your property.
Hand Drawings Atmospheric Model Rock Cycle Hydrologic Cycle		15	Atmospheric model should have wind direction arrows, latitude lines, jet streams, cold air mass, and accompanying table. Rock Cycle: Three examples of each rock (igneous, sedimentary, and metamorphic) group and sediment types, three examples of physical weathering, three (3) examples of chemical weathering, and four (4) examples of erosion. Hydrologic Cycle: clouds, arrows, runoff, groundwater, lakes, trees, flow lines
Glossary		10	25 words must be in your report, in alphabetical order .
Previously graded work		10	
Total Points (170)			

I assess 100% student learning outcomes every semester. I use the above rubric to assess the report. Sections of the report show how the SLO's are being assessed: data synthesis and analysis from a variety of sources, interdisciplinary studies, and describe and identify Earth materials.

How has your dept worked together on assessment (planning together)? Describe how your dept works well on assessment? Describe things that went well or obstacles. What aspects of assessment work went especially well in your department and what improvements are most needed?

I am the only one in my program. I make presentation in different department and assess my ability to incorporate their course material into the Earth Science Program at Merritt College.

Collaboration

I work with Dr. Chriss Foster (English Department), Guy Forkner (Real Estate) and others on campus.

Leadership Roles

I am a docent for East Bay Regional Parks and I work with them enhance their Earth Science component.

Planning Process

Dept meetings for Collaboration

I attend English Department meetings, speak with Guy Forkner on campus, and attend Docent Enrichment Programs at various East Bay Regional Park centers.

Data Analysis

I do all data analysis.

What were the most important things your department learned from assessment? Did implementation of your action plans result in better student learning? In other words, how has your department used the results of assessment to improve student learning and/or curriculum? Please be as detailed as possible.

I realize that I am completing my plan and students are supported more with their report writing.

Does your department participate in the assessment of multidisciplinary programs? If Yes, Describe your department's participation and what you learned from the assessment of the program that was applicable to your own discipline.

No.

Does your department participate in your college's Institutional Learning Outcomes (ILOs) assessment? If Yes, Please describe your departments participation in assessing Institutional Learning Outcomes.

No.

What support does your department need from administrators, assessment coordinators and/or your campus assessment committee to continue to make progress in assessment of outcomes and implementation of action plans?

Need supplies.

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

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Course Completion

College: Merritt College | Semester: All | Subject: GEOL | Catalog No.: GEOL 1 INTRO PHYS ... | Academic Year: 2015-16

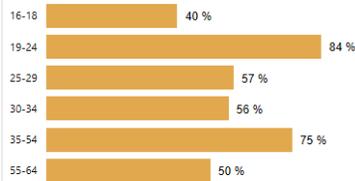
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2015-16	Merritt College	71 %	83 %

Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2015-16	GEOL	71 %	83 %

Age Range



Gender



Ethnicity



Age Range

Age Range	TII Graded	Completions	Completion Rate
16-18	5	2	40 %
19-24	31	26	84 %
25-29	7	4	57 %
30-34	9	5	56 %
35-54	4	3	75 %
55-64	2	1	50 %

Gender

Gender	TII Graded	Completions	Completion Rate
Unknown	2	2	100 %
Female	24	19	79 %
Male	32	20	63 %

Ethnicity

Ethnicity	TII Graded	Completions	Completion Rate
Asian	4	4	100 %
Black / African American	29	15	52 %
Hispanic / Latino	12	12	100 %
Two or More	4	3	75 %
Unknown / NR	3	3	100 %
White	6	4	67 %

College: Merritt College | Semester: All | Subject: GEOL | Catalog No.: GEOL 1 INTRO PHYS ... | Academic Year: 2016-17

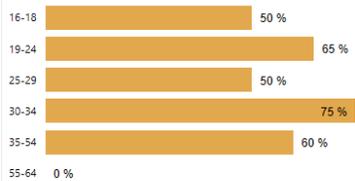
Completion & Retention Rates by College

Academic Year	College	Completion Rate	Retention Rate
2016-17	Merritt College	61 %	80 %

Completion & Retention Rates by Subject

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2016-17	GEOL	61 %	80 %

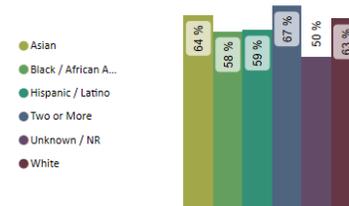
Age Range



Gender



Ethnicity



Age Range

Age Range	TII Graded	Completions	Completion Rate
16-18	2	1	50 %
19-24	40	26	65 %
25-29	8	4	50 %
30-34	4	3	75 %
35-54	5	3	60 %
55-64	2	0	0 %

Gender

Gender	TII Graded	Completions	Completion Rate
Unknown	1	1	100 %
Female	34	21	62 %
Male	26	15	58 %

Ethnicity

Ethnicity	TII Graded	Completions	Completion Rate
Asian	11	7	64 %
Black / African American	12	7	58 %
Hispanic / Latino	17	10	59 %
Two or More	3	2	67 %
Unknown / NR	2	1	50 %
White	16	10	63 %

College
Semester
Subject
Catalog No.
Academic Year

Completion & Retention Rates by College

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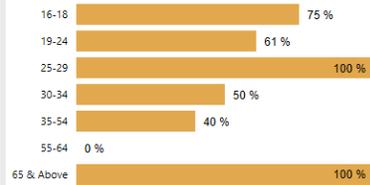
Academic Year

 2015-16

 2016-17

 2017-18

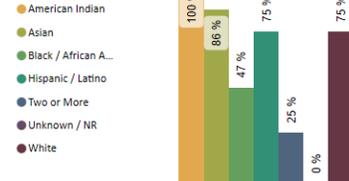
Age Range



Gender



Ethnicity



Age Range

Age Range	Ttl Graded	Completions	Completion Rate
16-18	4	3	75 %
19-24	38	23	61 %
25-29	4	4	100 %
30-34	4	2	50 %
35-54	5	2	40 %
55-64	1	0	0 %
65 & Above	1	1	100 %

Gender

Gender	Ttl Graded	Completions	Completion Rate
Male	28	19	68 %
Female	29	16	55 %

Ethnicity

Ethnicity	Ttl Graded	Completions	Completion Rate
American Indian	1	1	100 %
Asian	7	6	86 %
Black / African American	19	9	47 %
Hispanic / Latino	16	12	75 %
Two or More	4	1	25 %
Unknown / NR	2	0	0 %
White	8	6	75 %

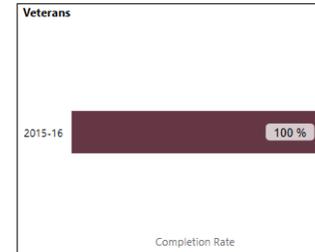
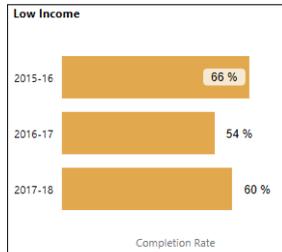
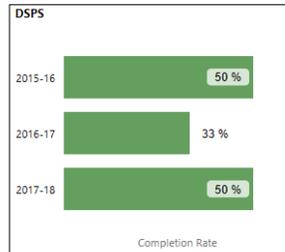
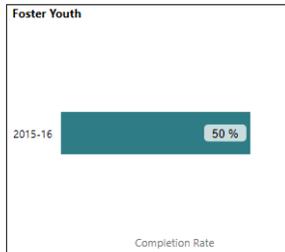
College
Semester
Subject
Catalog No.
Academic Year

Completion & Retention Rates by College

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Completion & Retention Rates by Subject

Academic Year	Subject	Completion Rate	Retention Rate
2017-18	GEOL	61 %	77 %
2016-17	GEOL	61 %	80 %
2015-16	GEOL	71 %	83 %



Foster Youth

Academic Year	No. of Students	Completion Rate
2015-16	2	50 %

DSPS

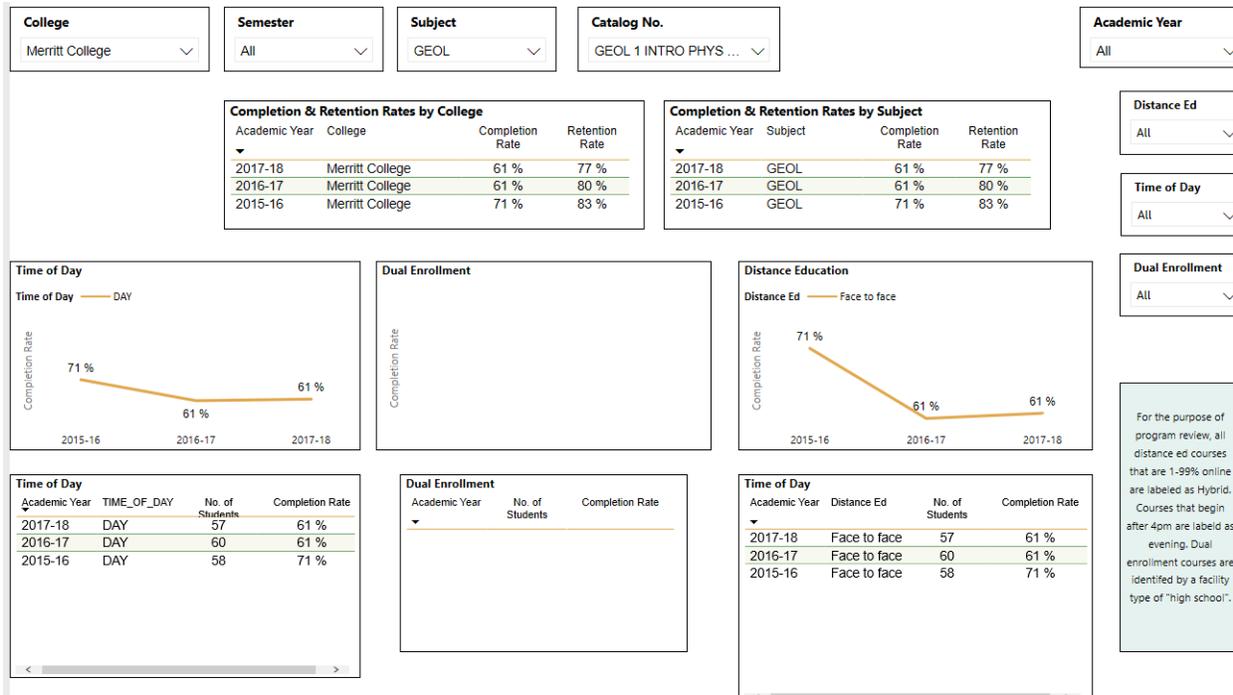
Academic Year	No. of Students	Completion Rate
2017-18	4	50 %
2016-17	3	33 %
2015-16	4	50 %

Low Income

Academic Year	No. of Students	Completion Rate
2017-18	45	60 %
2016-17	40	54 %
2015-16	50	66 %

Veterans

Academic Year	No. of Students	Completion Rate
2015-16	4	100 %



Course Completion Power BI Dashboard

Consider your course completion rates over the past three years (% of student who earned a grade of "C" or better).

Use the filters on the top and right of the graphs to disaggregate your program or discipline data. When disaggregated, are there any groups whose course completion rate falls more than 3% points below the discipline average? If so, indicate yes and explain what your department is doing to address the disproportionate impact for the group.

Age

The completion rate for 2015-2016 shows lowest for the age group 16-18 (40%), and is highest for age groups 19-24 (84%) 35-54 (75%). The remaining age groups are in the 50% range. I need to do more work to assist student in the 16-18 age group by offering more tutoring and assistance with their reports.

However, the completing rate for 2017-2018 shows age group 16-18 (75%), and age group 19-24 (61%). These data are hard to analyze because the course has not changed much in that time period. Maybe my teaching was not as effective and/or students dropped the class for personal reasons.

Ethnicity

Completion rates in the 2017-2018 assessment were Native American (100%), Asian (86%), Latino (75%) and African American (47%), and two or more 25%. Completion rates in the 2016-2017 assessment were Two or More (67%), Asian (64%), White (63%), Black (58%), and Latino (59%). Completion rates in the 2015-2016 assessment were Asian, Hispanic, and NR (100%), Two or More (75%), White (67%), and Black (52%).

The year 2016-2017 stands out because the completion rates were very low and they effected students were White and Black.

Gender

The year 2015-2016 completion rate were Unknown gender (100%), female (79%), and males (63%). The year 2016-2017 completion rate were Unknown gender (100%), female (62%), and males (58%). The year 2017-2018 completion rate were female (55%), and males (68%). The data is inconclusive.

Foster Youth Status

The year 2015-2016 completion rate was 50% for foster youth, and no foster youth enrolled in 2016-2017 and 2017 – 2018.

Disability Status

The years 2015-2016 and 2018-2018 had a completion rate of 50% for Disabled Students, and in 2016-2017 the completion rate dropped to 33%. These data are hard to analyze because the course has not changed much in that time period. Maybe my teaching was not as effective and/or students dropped the class for personal reasons.

Low Income Status

The years 2015-2016 and 2018-2018 has a completion rate of 66% and 60% for Low Income Status, and in 2016-2017 the completion rate dropped to 54%. These data are hard to analyze because the course has not changed much in that time period. Maybe my teaching was not as effective and/or students dropped the class for personal reasons.

Veteran Status

The year 2015-2016 had a completion rate of 100% for Veterans. No veteran enrolled for 2016-2017 and 2017-2018. Veterans were successful in completing this class.

Consider your course completion rates over the past three years by mode of instruction. What do you observe?

Face-to-Face

The completion rates for 2015-2016, 2016-2017 and 2017-2018 were 71%, 61%, and 61%. The completion rate was lower in 2017-2018 (61%) than they were in 2015-2016 (71%). This may be because students were expected to complete a course report. I am currently working to improve student success with the report by providing a template and exercises to help with report completion.

Hybrid

None

100% Online

None

Dual Enrollment

None

Day time

The completion rates for 2015-2016, 2016-2017 and 2017-2018 were 71%, 61%, and 61%. The completion rate was lower in 2017-2018 (61%) than they were in 2015-2016 (71%). Maybe offering an evening class may boost enrollment.

Evening

None

How do the course completion rates for your program or discipline compare to your college's Institution-Set Standard for course completion?

Completion & Retention Rates by College			
Academic Year	College	Completion Rate	Retention Rate
2017-18	Merritt College	61 %	77 %
2016-17	Merritt College	61 %	80 %
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Completion & Retention Rates by Subject			
Academic Year	Subject	Completion Rate	Retention Rate
2017-18	GEOL	61 %	77 %
2016-17	GEOL	61 %	80 %
2015-16	GEOL	71 %	83 %

The course completion rates for Merritt College and Geology are identical: 2017-2018 and 2016-2017 are 61% and the 2015-2016 rate was 71%.

How do the department's Hybrid course completion rates compare to the college course completion standard?

None

Are there differences in course completion rates between face to face and Distance Education/hybrid courses? If so, how does the discipline, department or program deal with this situation? How do you assess the overall effectiveness of Distance Education/hybrid course?

None

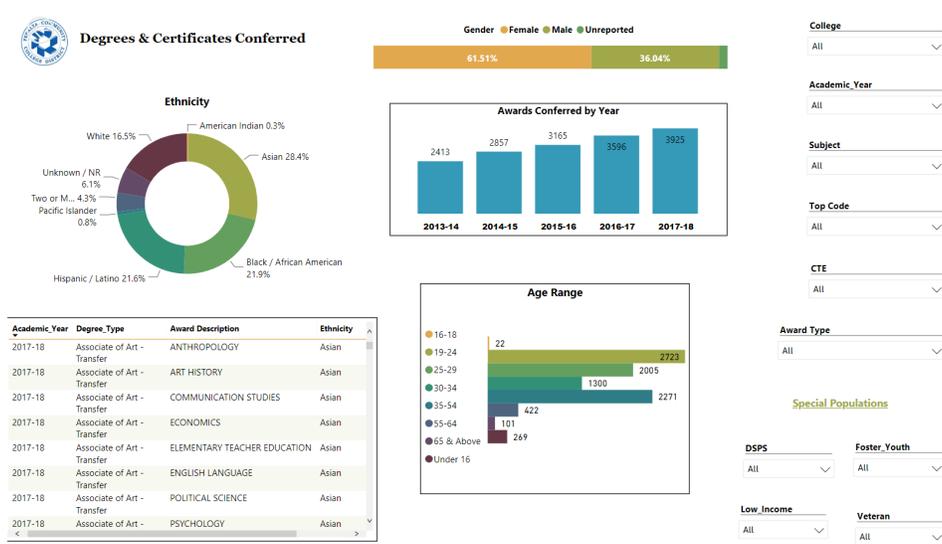
Describe the course retention rates over the last three years. If your college has an Institution-Set Standard for course retention, how does your program or discipline course retention rates compare to the standard?

The course retention rates for Merritt College and Geology are identical: 2017-2018 and 2016-2017 are 61% and the 2015-2016 rate was 71%.

What has the discipline, department, or program done to improve course completion and retention rates?

I will continue to explore ways to assist students in completing their report, and improve my lecture delivery.

Degrees & Certificates Conferred



Degrees & Certificates Power BI dashboard

What has the discipline, department, or program done to improve the number of degrees and certificates awarded? Include the number of degrees and certificates awarded by year, for the past three years.

None

Over the next 3 years, will you be focusing on increasing the number of degrees and certificates awarded?

No

What is planned for the next 3 years to increase the number of certificates and degrees awarded?

No

Engagement

Discuss how faculty and staff have engaged in institutional efforts such as committees, presentations, and departmental activities. Please list the committees that full-time faculty participate in.

I serve on the Merritt College Health and Safety Committee and the Districts' Health and Safety Committee, and attend Department Meetings.

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

I'm a Docent for East Bay Regional Parks.

Discuss how adjunct faculty members are included in departmental training, discussions, and decision-making.

I participate in activities and training as needed.

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				
Personnel: Student Worker				
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		

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Supplies: Software	Photo editing, writing software, video editing	\$700
Supplies: Books, Magazines, and/or Periodicals	None	
Supplies: Instructional Supplies	White board markers, paper, notebooks, pens, pencils, white board eraser, rock and mineral kits, maps	\$300
Supplies: Non-Instructional Supplies	None	
Supplies: Library Collections	None	

Resource Category	Description/Justification	Total Estimated Cost
Technology & Equipment: New	None	
Technology & Equipment: Replacement	None	

Prioritized Resource Requests Summary - Continued

Resource Category	Description/Justification	Total Estimated Cost
Facilities: Classrooms	None	
Facilities: Offices	None	
Facilities: Labs	None	
Facilities: Other	None	

Resource Category	Description/Justification	Total Estimated Cost
Library: Library materials	None	
Library: Library collections	None	

Resource Category	Description/Justification	Total Estimated Cost
OTHER	None	