



MERRITT COLLEGE

Office of the Dean of Workforce Development and Applied Sciences



Summary of Program Review for Geography

CURRICULUM:

The current curriculum's effectiveness has been determined Anonymous Assessment data collected from Earth Science students. These data provide the instructor with feedback on the instructor's teaching and assessment methods, and classroom atmosphere. In addition, the program lead is in constant contact with Geography professors at CSU Hayward and UC Berkeley to make sure that the geography courses at Merritt College are equivalent to introductory geography courses taught at those 4-year institutions.

All course outlines have been updated with as of January 4, 2010. The Physical Science Department has conducted a curriculum review of the course outlines for the Geography Program.

The program's curriculum is being improved by using educational psychology research and instructor driven Acton Research projects to enhancing curriculum, improving the classroom environment and structure, and analyzing anonymous assessment data. In addition, a new course "Earth Stewardship" is being developed for Basic Skills students that will combine the field of biology, geography, geology, environments studies and political science.

All prerequisites, co-requisites, and advisories been validated.

Student Learning Outcomes have been developed for all program courses. The Student Learning Outcomes are (1) discussed during the first and final lectures, (2) added to the class syllabus, and (3) reevaluated and updated yearly based on student exit interviews.

The program outcomes were developed by merging the institutional outcomes with the educational needs of the students, universities and local community to create the student learning outcomes for this program.

INSTRUCTION:

Techniques derived from research in educational psychology are used to create safe learning environments that foster student success and psychological healing and knowledge acquisition in the learning environment. The college issued computer is used for classroom presentations and for displaying data.

Enrollment has decreased prior to 2004 but has been increasing gradually since 2008. There has been a steady drop in sections offered since 2005 but FTEF has remained steady. Nevertheless, productivity has increased since 2007.

STUDENT SUCCESS:

The student retention rates were as follows: 67% for 2005-06, 70.3% for 2006-07, 79.6% for 2007-08, and 87.1% for 2008-09. The completions rates were as follows: 51% for 2005-6, 55.8% for 2006-07, 61.3% for 2007-08, and 74.5% for 2008-09.

HUMAN AND PHYSICAL RESOURCES:

Instructional needs for the next three years:

1. A Periodic Table in an Earth Science Context (Poster)
Use: Show the relationship between elements, minerals, rocks and weathering. Total Cost: \$32.95
2. Inflatable/Writable Globe
Use: Allow students to plot information about rocks, mineral, mountain chains, tectonic boundaries distribution directly on a globe. Total Cost: \$194.25
3. World Nation Relief Globe
Use: Hand-on activities in Geography and geography to study seasons, weathering patterns, tectonic boundaries, mountain chain distribution, and climate belts. Total Cost: \$479.60
4. Giant Earth Model with Built-In Solar Panel Digital Display
Use: Hand-on activities in geology and geography to study seasons, climate belts, weathering patterns, and insolation. Total Cost: \$459
5. Water Tanks: Weather Fronts & Ocean Currents Model
Use: Hand-on activities in geology and geography to study weather, climate belts, ocean circulation, and convection. Total Cost: \$119
6. Complete Cloud-Forming Apparatus
Use: Demonstrate a variety of atmospheric conditions. Total Cost: \$348
7. WARD'S Contoured Landform Lab Activity
Use: Map reading, contour line analysis for geology and geography labs. Total Cost: \$65.00
8. Digital Psychrometer
Use: Demonstrate meteorological (climate) data collection methods and analysis. Total Cost: \$495
9. Soil Formation Collection
Use: Illustrate how soils are formed from rocks and minerals for geology and geography lab. Total Cost: \$580
10. Classroom Mineral Collection
Use: Introduction mineralogy is a mandatory lab for geology and geography students. Total Cost: \$612
11. Classroom Rock Collection
Use: Rock identification is a mandatory lab for geology and geography students. Total Cost: \$452
12. Computer Projector
Use: Projection device for laptop computer. Total Cost: \$350.00
13. Computer Printer and Scanner
Use: Printing and Scanning of materials. Total Cost: \$250

Other needed items:

1. Computer Projector: Light bulb is almost dead. Lack of a new projector light bulb limits the use of a computer, and this creates a substandard learning experience for students.
2. Laptops used in every class for PowerPoint slides, computer simulations, laboratory exercises, and curriculum research for classes. Laptop computer is used to supplement substandard laboratory materials and equipment.
3. 20-inch Television with poor resolution and sound – used monthly to show simulation of Earth Science processes. The television creates a substandard learning environment and educational experience for students.
4. Lab equipment old and broken (rock and mineral kits, and demonstration models) – they are used daily and they create a substandard learning environment and educational experience for students.
5. Lab Materials old and parts missing, world maps from the 1960's – they are used daily and they create a substandard learning environment and educational experience for students.
6. Laboratory tables are old with sharp edges that cut students, and damage their clothing, backpacks, and textbooks - they are used daily and they create a dangerous substandard learning environment and educational experience for students.
7. Laboratory stools are old and damaged - they are used daily and they create a dangerous substandard learning environment and educational experience for students.
8. Electronic classrooms, new shelving in storage room, new flooring, new chalk board, and new demonstration desk.

OUTREACH AND ARTICULATION:

The program lead meets with professors at 4-years institution who teach introductory geography courses, and follows the latest trends in Earth Science education by reading science and developmental education journals. Those trends are used to drive curriculum and instructional development.

STUDENT LEARNING OUTCOMES *This information was not listed on the form given to the department chairs, therefore, this information is limited.*

Number of courses w/ outcomes – completed

Number of courses with assessments - completed

PROGRAM OUTCOMES **X** yes **no**

expected date of completion

RECOMMENDATIONS: Are recommendations connected to outcomes?

Date

