## I. Team Members

<table>
<thead>
<tr>
<th>Name</th>
<th>Member Type</th>
<th>Email</th>
<th>Contact Phone</th>
<th>Responsible for what part</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don Foss</td>
<td>Primary Team Member</td>
<td><a href="mailto:don.foss@marin.edu">don.foss@marin.edu</a></td>
<td>7523</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Aftab Enty</td>
<td>Team Member</td>
<td><a href="mailto:aftab.enty@marin.edu">aftab.enty@marin.edu</a></td>
<td>7574</td>
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</table>

## II. Program Review Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Committee (Chairs)</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chris Schultz</td>
<td>Curriculum Committee Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blaze Woodlief</td>
<td>Educational Planning Committee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V-Anne Chernock and Erik Dunmire</td>
<td>Planning and Resource Allocation Committee Co-Chair/Academic Senate President</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yolanda Bellisimo</td>
<td>Planning and Resource Allocation Committee Co-Chair/Instructional Equipment Committee Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nick Chang</td>
<td>Planning and Resource Allocation Committee Co-Chair/Instructional Equipment Committee Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sara McKinnon and Becky Brown</td>
<td>Program Review Committee Chair and SLO Coordinators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chris Schulz</td>
<td>Student Access and Success Committee Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Michael Irvine</td>
<td>Tech Committee Chair</td>
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</table>

## III. Vice President of Academic Affairs

<table>
<thead>
<tr>
<th>Name</th>
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<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nick Chang</td>
<td></td>
<td></td>
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</tbody>
</table>

## IV. Board of Trustees President

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eva Long</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Program Overview—Introduction
Geology-and-Geography-2009

Instructions: Use this form to quickly outline your program at College of Marin. Briefly answer each of the questions and use bullet points whenever possible. Provide any attachments that substantiate or expand on the questions below.

I. Program Definition
Outline the unique qualities that define the importance of your program.

Introduction:
The Geology and Geography programs at the College of Marin can demonstrate a long and distinguished history of providing the denizens of Marin and adjacent counties a stimulating variety of courses of the highest educational standards and academic quality possibly. Our curriculum evolved and grew over time with the college. The Geology and Geography faculty have taken great care to insure that our course offerings and the content delivered in these classes reflect the primary educational objectives inherent to all earth science education. Our departmental goals strike a congruent course with the greater scoped educational goals of our College of Marin.

Historically our curriculum provided a strong transfer program and was rich in opportunities for life-long learners. It is our intention to instill the basic knowledge required and the industrial contacts for our students to secure entry level part time employment with local geotechnical engineering and mining firms. Lastly our faculty research program provides the means for our students to actually do science and for the faculty to stay current in their field of interest.

Our Transfer Program:
As defined in the goals of the college, we are responsible for providing the fundamental geography, geology and environmental science courses requisite for our students to transfer as juniors to a four year university or state college of their choosing. To insure the equivalence of our course content and prepare our transferring majors for academic challenges inherent to universities level study, we maintain a collegial working relationship, an open dialogue, with our colleagues teaching at these four year schools. The feedback that we receive from our university colleagues teaching at the primary schools our majors transfer to, Sonoma State University, San Francisco State University, U.C. Berkley, and U.C. Davis to name but a few, indicates that we are accomplishing this primary goal. These professors tell us our students are ready for their level of study. We have tried to track the progress of our students after they leave the college of Marin by asking them to keep in touch after their graduation. This effort defines a crude type of longitudinal tracking. We lose track of many but the information that we glean from those that choose to correspond supports the consensus of the professors at from four year colleges and universities. Our students are very successful in their Earth Science fields of employment and in their efforts to obtain graduate degrees. The latest tenure track professor at Sonoma State University is one of our former geography students and the chair of the Geology Department at Stanford did her initial geology course work at COM. We must be doing something right.

We base the success of our students on our very strong geological field studies programs and our ability to place students with summer internships and part time work during the school year. Our extensive offerings of field studies that range from day trips to full two week field trips to all seven western states prepares our majors in a fashion that cannot be duplicated in the class room. In short Geology and Geography our outdoor sports and thus we need to teach them how to live and work outdoors. We do a good job at this.

Life Long Learning:
The great diversity of our course offerings provides an excellent opportunity for enhancing the educational background of our communities general interest adult learners and for those individuals that find they are in need of specific training in Earth science. In example we have designed courses specifically targeted for elementary and secondary teachers seeking continuing education courses mandated by the state department of education. It is our pleasure to provide any assistance these
teachers may need in helping their students understand their lessons in the Earth Sciences. With aging we have come to realize that it is but matter of time, geologically a very short time, before their students are our students.

We facilitate our goal of service to Life Long Learners through our scheduling practices. We rotate our entire schedule through the evening time periods and in a two year period an evening student can complete all of our core offerings. We boast of having the highest number of field studies courses offered by any community college in the State of California. Every semester we schedule local Saturday and weekend field trips. We also offer 10 day trips over the Spring Break and at least one 14 day field study in the summer session. Our strong evening, weekend, and field studies program ensures that the citizen tax payers supporting this community college have the opportunity to benefit from their greatly appreciated contribution.

Entry Level employment opportunities:
By using our contacts within the industrial sector we have developed the ability to match a few of our more outstanding majors with enter level employment opportunities with local geotechnical engineering firms. We have also placed a few of our majors in the aggregate resource sector where they are employed at local quarries. Our students find the on the job training not only economically beneficial but extremely enlightening as to daily routine of their proposed field of study. By no means do we see ourselves as an employment agency and the number of students we manage to place in the industrial sector is minor relative to the number of students we serve. The benefits however to our department that derives from campus chatter generated by a gainfully employed student is immeasurable. To this end we are most proud to announce that for the summer of 2008 we have garnered employment for six of our majors. Four will be working in gold exploration in the states of Alaska and Nevada and one will be working in the Northwest Territories of Canada. Two of our students will be working monitoring groundwater well contaminants in Sonoma and Marin Counties for the summer.

Faculty Research:
Geology, Geography and the new comers Environmental Science are very dynamic fields of study. We benefit from an exponentially growing knowledge base aided by an explosion in geotechnical technology. It is absolutely imperative that we stay current in our fields of interest. To insure currency we routinely conduct mapping problems of the local geological nightmare we call the California Coast Ranges. Our mapping projects usually funded through grants. Invariable include the assistance of our majors. Students that are interested in the opportunity to assist in the publication of research paper. Our results culminate as a publication in a professional trade journal. Our student assistants are involved from the initial concept of the mapping project, through the grant application processes to the final presentation. In the past 20 years, 25 of our Geology majors have been able to justly note a professional publication of a scientific paper to their resume. Three of these publications have been at the Geological Society of America. This is not the easiest work we have ever done, but to provide our students with the opportunity to do science and to follow through with the final publication of their data is a lesson above all the other.

II. Program Purpose
Pathway:
Briefly describe how your program fits into the pathways you have chosen.

The primary goal of the Geology and Geography programs is to provide College of Marin students with the highest quality Earth Science program possible and to prepare these students for transfer to a four year institution of their choosing. It is our goal to stay current in our fields. We insure our ability to do so through continual professional development and program renewal. We endeavor to provide our students with content definitive of current theory and practice. We make a conscious effort to employ teaching techniques and strategies that agree and complement the multiple and greatly variable learning styles exhibited in our diverse student population. It is goal to provide a schedule that permits students from all sectors of the work force the opportunity to enroll in our courses. We recognize the demographic
peculiarities of the citizens of Marin county and labor to provide the highest quality and variety of courses possible for this population of highly educated and motivated adult life-long learners. When possible we provide geotechnical firms seeking student assistants with the names of students that have completed the type of training that is required for the tasks they have in mind.

III. Students Served
Briefly outline what students are served in your program.

Our student population is as diverse as the broad spectrum of citizens residing in this demographically dynamic county. We serve 15 and 16 year old homeschooled high school students and octogenerians. The standard Monday through Friday day offerings are scheduled for what was once the standard college aged student body. To support the less customary college student we routinely generate a strong evening schedule. Geology and Geography courses are offered every night of the week including an occasionally Friday night course. We also offer multiple weekend and longer field geology courses. The Saturday field course is designed to provide our learners with the basic geology of the ground on which they live. Fortunately or unfortunately as the viewer may choose Marin county uneasily rests upon the biggest strike slip fault on Earth, the very plate tectonic boundary separating the Great Valley-Sierran microplate from the Pacific plate. In fact evidence of three types of Plate Tectonic boundaries are exposed within a 15 minute drive from our main Kentfield campus. We take advantage of this spectacular outdoor class room at every possible juncture.

IV. Program History
Briefly outline the recent history of your program.

The history of the Geology and Geography program is a history of the dedicated faculty that have served this community over the past 80 years and an overriding effort of neglect. In order to establish the validity of my perspective on the history of the Geology and Geography disciplines at College of Marin and prevent the reader from thinking that the author of this program review is completely consumed with the negative side of this district I feel it important to provide a brief history of my past experience as a teacher and a professional geologist. Please bear with me. I am 58 years old as of this effort. I have been teaching for over 31 years. At one time or another I have taught at every community college in the North Bay. I have taught at Boise State University and for a short period of time I taught applied geophysics at the Colorado School of Mines. I have taught every age learner on Earth from Kindergartners to post graduate students. I prefer the Kindergarteners for they are invariably better scientists. I have had many opportunities to work as a professional geologist primarily on the exploration side but I have labored in the environmental and mining fields as well. I have worked as a house painter, mechanic, carpenter, roofer, gas station attendant, apartment building manager, cow-hand, logger, sailor, miner, fence builder, plumber apprentice, welder, and a host of other jobs that I can hardly remember. I offer this employment background in the hope that the reader will apply some weight to my assertion, offered without the slightest hesitation, that the best job I have had in my life and the best school I have every worked for is without hesitation, the College of Marin. It has been the greatest honor of my life to work alongside my truly professional colleagues and to have taught the fine deserving folks of Marin County. This job has been far more than this farm boy from Idaho could have ever hoped to achieve in this life.

However it is difficult to discuss the history of Geology and Geography disciplines of the Marin Community College District without sounding negative and bitter for from my perspective it is a history rife with neglect and at times pointed denial of what is good for the geography and geology disciplines. When the author of this program review was hired in the fall of 1980, seven full time teachers were employed in the Geology and Geography disciplines at the MCCD. At present 1.4 FTE are assigned to teach in the ever-increasing complex and diverging disciplines of Geology and Geography. The one full time permanent instructor in the Earth Sciences, a federally recognized disabled person well over the minimum retirement age is assigned a split load between Geology and Geography. To provide a schedule that meets the bare minimum of courses necessary for a student majoring in
geology or geography, a schedule that permits our majors to transfer in two years, or
four semesters of study, this last full time instructor is forced to teach as many as
six preparations per semester. It is common for this instructor, the author of this
program review, to teach as many as eight units of overload in a standard semester.
The Geology program is the only science discipline taught at MCCD that does not have a
full time Laboratory Technician. The Geology-Geography lab technician position was
eliminated in 1986. Therefore the last full time instructor is also the lab tech and
as the Science Center has but one part time custodian, I also double as the janitor.
These appalling academic conditions have prevailed for over 10 years.

Over the last fifteen years approximately 115 annual teaching units, nearly four FTE,
have been cut from the Geology and Geography disciplines. Our students have suffered
greatly from this neglect.
The avalanche of decline in our ability to meet the educational needs of our students
began in the mid 1990's with the retirement of both district Geographers, Mr. James
O'Keefe and Mr. Harry Bartlett. Rather than hiring new geographers MCCD simply
shifted their Geography load to the existing geology teachers. Professor David Baver
taught a split load between geology and biology. His death in 1993, a great loss to
staff and students, was the first strain on the programs ability to offer a schedule
that provided the means for a student to complete all the course work offered in the
first two years of study for a geology major. Mr. Kenneth Miller retired 1997
followed by Mr. James Locke in 2005. To date we have endured a reduction in force of
approximately 82%. The following table is a numerical illustration of the argument
above.

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<td>Mr. O'Keefe</td>
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<td>FTE Geography</td>
</tr>
<tr>
<td>Mr. Bartlett</td>
<td>0.5</td>
<td>FTE Geography</td>
</tr>
<tr>
<td>Mr. Miller</td>
<td>1.0</td>
<td>FTE Geology</td>
</tr>
<tr>
<td>Mr. Baver</td>
<td>0.5</td>
<td>FTE Geology</td>
</tr>
<tr>
<td>Mr. Locke</td>
<td>1.0</td>
<td>FTE Geology-Geography</td>
</tr>
<tr>
<td>Part Time Staff</td>
<td>0.75</td>
<td>FTE Geology and Geography</td>
</tr>
</tbody>
</table>

Total Geography-Geology FTE as of 1989 5.75 FTE
Total Geography-Geology FTE as of spring 2008 1.3+ FTE *
Reduction of FTE from 1989 to 2005 4.75 FTE
Reduction of FTE from 1989 to 2005 expressed as a % = 4.75/5.75 = 82%

Course Offerings in Geology and Geography:

The following list details the courses within the separate disciplines of Geology and
Geography defined by the 2001-2003 College of Marin Diamond Jubilee edition of our
Catalog. Through a diligent routine of alternating offerings over a three-year
schedule the two remaining faculty members managed to maintain a basic structure of
our potential offerings. Now there is one full timer and a handful of very busy part
time instructors. Our schedule is a meat and potatoes affair, a skeleton of our once
robust diversity. The rotation of course offerings was designed to prepare our
transfer students and provide courses designed to meet the demands and interests of
lifelong learners. In order to meet this demand extensive overload and summer course
offerings have become the normal workload.

Geology Discipline

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<tr>
<th>Section Number</th>
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<th>Teaching Units</th>
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<tr>
<td>Geology 99</td>
<td>General Science</td>
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</tr>
<tr>
<td>Geology 101</td>
<td>Geologic Field Excursions to</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>National Parks</td>
<td></td>
</tr>
<tr>
<td>Geology 102</td>
<td>Geologic Setting of the National</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Parks</td>
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<td>Geology 103</td>
<td>Environmental Geology</td>
<td>3</td>
</tr>
<tr>
<td>Geology 105</td>
<td>Cosmic Evolution</td>
<td>3</td>
</tr>
<tr>
<td>Geology 107</td>
<td>Introduction to Rocks and Minerals</td>
<td>1</td>
</tr>
<tr>
<td>Geology 109</td>
<td>General Oceanography</td>
<td>3</td>
</tr>
<tr>
<td>Geology 110</td>
<td>Earth Science</td>
<td>3</td>
</tr>
<tr>
<td>Geology 114</td>
<td>California Geology</td>
<td>3</td>
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</table>
The Environmental Forum of Marin is a non-profit organization dedicated to educating the denizens of Marin County on current environmental issues evolving within and affecting the quality of life of the citizens of this county. This highly respected and influential political organization has since its' inception depended upon the Geology and Geography faculty to offer day seminars to their students on the Geology and Soils of Marin County. In addition the Biology faculty is tapped for lectures on the native floral and faunal assemblages and problems stemming from invasive species of our county.

The Lack of Availability of Part Time Geology and Geography Instructors:
The continuing employment conditions for qualified geologists and the basic nature of the work itself create untenable problems for employing part time instructors. In short there are few geologists to choose from and those that are available are employed in the various sectors of industry and government and thus are required to be on site, usually out of the continental United States. It is difficult to teach a Tuesday 11:10-12:30 section of Geography 101 when you're drilling a hole on the North Slope of Alaska or mapping limestone units in Afghanistan.

Conclusions or consider the new Mission Statement of the College of Marin
The College of Marin's mission is to provide opportunities for all students and community members: preparation for transfer to four year schools and universities, workforce training, intellectual development, cultural enrichment, and basic skills improvement. The College is committed to offering extensive programs and services in a supportive, innovative learning environment. Through its widespread offerings, the College of Marin pledges educational excellence to all members of our community. The district desires at least one full time instructor for every discipline. It's good business. At present the two FTE in Geology and Geography are spread over three disciplines. With the retirement of the senior member of the department one instructor, the last one standing will be responsible for offering course work in three very diverse areas of study, Geology, Geography, and Environmental Science. This is obviously an impossible task. To stay current in Geology alone is a full time job. Currency in Geography? Without a full time replacement the district will not be able to offer a transfer program in Geology or Geography. The district is within the bounds of the Collective Bargaining Agreement to hire a full time replacement in Geography or Geology.

The availability of part time staff to fill in teaching units is a most difficult problem. There is a multitude of Biologist out there willing and capable to take on
the task of teaching part time but this is not the case in the Earth Sciences. With the retirement of the senior member of the Geology department the district will lose its capability of offering current technology courses such as Geographical Information Systems, GIS-GPS. Any professional working in a cartographic endeavor must sooner or later put it on the map. In the modern world that requires GIS GPS literacy.

Geography discipline, Don Foss will be retiring from this most wonderful profession. The district must recognize that his physical disability is a physiological response to an accelerating health problem which may require him to retire sooner than projected. It takes a new faculty member at least five years to acclimate to the methodologies and responsibilities of the excellent shared governance system of this district. Without a mentor this break in period would be even longer and more difficult. It would be a sour note indeed not to bring a new face on board now while we still have in place faculty members that can help a new hire learn the ropes. To finalize we would like to dispel the myth of low enrollments in the Geology Geography disciplines. To justify this statement the district most often compares the introductory courses in Geology and Geography with Biology 110. It is not a fair comparison. Biology 110 for all intents and purposes is a UC and CSU graduation requirement. Physical Geology and Geography are not. In addition Geology and Geography courses compete for enrollment with similar courses offered in Chemistry, and Physics. The greatest challenge is the continuous offering of four sections Astronomy at least one of which is a Television Course with a class maximum of 125.

Enrollment Comparisons:
If enrollment comparison must be made of Geology and Geography courses with those of the Biological sciences then at least compare our introductory courses to those in the life sciences of equivalent academic rigor, as designated by the course number and offered for prospective Biology majors. The far more accurate enrollment barometer would be to compare Geology 120 and Geography 101 enrollments with those of Biology 115 and 116, the major’s sequence. These courses have approximately the same academic rigor and are designed to serve students majoring in the three specific disciplines. This far more accurate process reveals that enrollment in the Geology and Geography introductory courses is consistently higher than these more comparable courses. It is also important to remember that Life Science is a requirement for graduation. The question then is why haven’t we hired in geology and geography?

Attachments:
List and briefly describe any attachments
This section will be filled out by faculty and reviewed by the Department Chair, the ARea Dean, the Instructional Equipment Committee, IPC and Budget. Please enter items that will be used over a period of semesters BY STUDENTS... (Note: These should be NEW items that you are requesting one time only - not ongoing or consumable. Ongoing and consumable requests go under "Other Instructional Equipment". Technology-related requests should go under "Technology Requests".

Select whether the item is less than or more than $200 each. If you are a large discipline with several areas, please include which area this item is for. Include Tax, Shipping and Handling in the total cost for each item.

I. Instructional Equipment/Materials Requirements

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<thead>
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<th>Priority</th>
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<th>Category</th>
<th>Discipline Area</th>
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</thead>
<tbody>
<tr>
<td>01</td>
<td>10 Classes</td>
<td>Over $200 Each</td>
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Description and part number for ordering:

2 (15 passenger vans) 1 4wd Pick-up truck

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<th>Qty.</th>
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<th>Tax:</th>
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<tbody>
<tr>
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<td>$60,000.00</td>
<td>$0.00</td>
<td>$0.00</td>
<td>$60,000.00</td>
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</table>

One-time expenses: (e.g. construction, electrical, installation)

On-going Expenses: (e.g. maintenance, repairs, staffing, and/or upgrades)

Maintenance would be conducted at IVC. Gas expenditure would be charged to students. Insurance would be required to operate vehicles.

Item to be shared with the following Department/Program: (Include any shared expenses)

These items would be shared between the Biology, Geology and Geography programs. By purchasing this equipment it would reduce the current cost of field courses for students by only charging them for maintenance and gas rather than a fee for rental vehicles. This purchase would also increase safety due to familiarity with the same vehicles rather than different vehicles everytime. By reducing the cost to students the courses with a field component would become more attractive to students.

Do you have space for this equipment? Yes

Justification for Item (See Rating Rubric)

1. Indicate how important this item is to the life of your discipline.
   - 'A' means that your discipline cannot teach your course(s) without the requested equipment.
   - 'B' means that your course(s) would be greatly enhanced with the requested equipment.
   - 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

   A

These items would be shared between the Biology, Geology and Geography programs. By purchasing this equipment it would reduce the current cost of field courses for students by only charging them for maintenance and gas rather than a fee for rental vehicles. This purchase would also increase safety due to familiarity with the same vehicles rather than different vehicles everytime. By reducing the cost to students the courses with a field component would become more attractive to students.
2. Is this equipment required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
Is this equipment required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

3. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

4. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

5. What student learning or other outcomes are expected? Is it important to the achievement of student goals?

6. How will these outcomes be measured for future planning? What data or evidence supports your request?

Additional Justification for this item:

I. Instructional Equipment/Materials Requirements
Priority: To Support: Category Discipline Area
03 120 Students Over $200 Each

Description and part number for ordering:
Brunton Compass

<table>
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<tr>
<td>10</td>
<td>$349.00</td>
<td>$30.00</td>
<td>$74.00</td>
<td>$3,594.00</td>
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</table>

One-time expenses: (e.g. construction, electrical, installation)
No special construction, electrical or installation is required.

On-going Expenses: (e.g. maintenance, repairs, staffing, and/or upgrades)
Unit would be maintained and cared for by current staff. No additional staffing or upgrades would be needed.

Item to be shared with the following Department/Program: (Include any shared expenses)
All classes needing compasses for field work, including various field courses.

Do you have space for this equipment? Yes

Justification for Item (See Rating Rubric)
1. Indicate how important this item is to the life of your discipline.
   • 'A' means that your discipline cannot teach your course(s) without the requested equipment.
   • 'B' means that your course(s) would be greatly enhanced with the requested equipment.
   • 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

B

These compasses would continue the forward progress of replacing old and outdated...
equipment in the Geology Program. This set would not only benefit the geology program but any other courses that have students collect data in the field, including some biology field courses.

2. Is this equipment required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
   Is this equipment required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

3. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

4. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

5. What student learning or other outcomes are expected? Is it important to the achievement of student goals?

6. How will these outcomes be measured for future planning? What data or evidence supports your request?

Additional Justification for this item:
## Technology Requests

### Part II : Hardware for Lab and Classroom

#### Geology-and-Geography-2009

**I. Technology Requests-Hardware for Lab and Classroom or other student use**

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

<table>
<thead>
<tr>
<th>Priority</th>
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<tr>
<td>02</td>
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<td>Other</td>
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**Description and part number for ordering:**

Garman GPS60MAP units.

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<th>Tax:</th>
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<td>3</td>
<td>$200.00</td>
<td>$0.00</td>
<td>$100.00</td>
<td>$700.00</td>
</tr>
</tbody>
</table>

**Type**

- College-wide
- Discipline-Specific

- New
- Open Lab
- Lab use

**If this is an upgrade or replacement, please briefly describe your existing equipment in terms of age and capability or lack thereof:**

**Item to be shared with the following Department/Program: (Include any shared expenses)**

These items will be used by a variety of classes in the field, and will help students better understand their classroom concepts.

**Justification for Item (See Rating Rubric)**

1. Indicate how important this item is to the life of your discipline.
   - ‘A’ means that your discipline cannot teach your course(s) without the requested equipment.
   - ‘B’ means that your course(s) would be greatly enhanced with the requested equipment.
   - ‘C’ means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

   In addition, how many times have you requested this item, but you have not received it?

   - B

   These items will be used by a variety of classes in the field, and will help students better their understanding of classroom concepts.

2. Is this hardware required to meet Title 5 and/or Ed Code? If so, how? (Cite code)
   Is this equipment required to meet any local, state or federal Health and Safety Code? If so, how? (Cite code)

3. How will the quality of instruction be improved for student learning and success? Is it necessary for students to succeed in a series of courses?

4. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

5. What student learning or other outcomes are expected? Is it important to the achievement of student goals?
6. How will these outcomes be measured for future planning? What data or evidence supports your request?

Additional Justification for this item:
I. Consumable Instructional Operating Supplies

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Note: Please group requests into broad categories of items required to teach a class. Make ONE entry for each category.

Note: These are generally ongoing costs. One-time items go under Instructional Equipment.

<table>
<thead>
<tr>
<th>Priority:</th>
<th>To Support:</th>
<th>Discipline Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>14 Classes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Broad Category (for example in Chemistry - &quot;Chemicals&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in restricted and unrestricted funds for supplies in Geology.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual Cost</th>
<th>Previous Cost</th>
<th>Amount of Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>3500.0</td>
<td>2500.0</td>
<td>1000.0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>How Long?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increasing Cost</td>
<td>New/Will be Recurring</td>
</tr>
</tbody>
</table>

Item to be shared with the following Department/Program: (Include any shared expenses)

Currently Geography does not have a separate account, and therefore this account serves both Geology and Geography.

Justification for Item (See Rating Rubric)

1. Indicate how important this item is to the life of your discipline.

- 'A' means that your discipline cannot teach your course(s) without the requested equipment.
- 'B' means that your course(s) would be greatly enhanced with the requested equipment.
- 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

A

Over the last two academic years funding for the Geology program supplies has dropped from $1,768 (restricted and unrestricted funds) to $468. This is a loss of $1,300, or a decrease in funds of 74%. However, there has been an increase of WSCH in the Geology and Geography programs combined of 2.2%. The fact that any increase has been made is a testament to the drive for success of the programs; even with a budget loss of 74%. By restoring and increasing the funding for the Geology and Geography programs you will help enable the programs to thrive at their full potential.

2. Is it necessary for students to succeed in a series of courses?

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting new students?

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals?

5. How will these outcomes be measured for future planning? What data or evidence supports your request?
I. Consumable Instructional Operating Supplies

This section will be filled out by faculty and reviewed by the Department Chair, the Area Dean, the Technology Committee, IPC and Budget.

Note: Please group requests into broad categories of items required to teach a class. Make ONE entry for each category.

Note: These are generally ongoing costs. One-time items go under Instructional Equipment.

| Priority: 01 | To Support: 200 Students |

**Broad Category (for example in Chemistry - "Chemicals")**

Annual Budget 11100-22301-191400-23000 PT Class Student Hourly $1,650 U 11100-22301-191400-23200 PT Class Non-Student Hourly $1,100 U 11100-22301-191400-24000 PT Sal Student Instructional $2,750 U 11100-22301-191400-43000 Instructional Supplies $1,100 U 11100-22301-191400-56300 Software Licensing Fees $418 U 11100-22301-191400-56700 Other Contract Services $440 U 12400-22301-191400-43000 Instructional Supplies $525 Prop. 20 Total $7,983 Geology Supplies Total $7,983

<table>
<thead>
<tr>
<th>Annual Cost</th>
<th>Previous Cost</th>
<th>Amount of Increase</th>
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</thead>
<tbody>
<tr>
<td>7983.0</td>
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<td>0.0</td>
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</tbody>
</table>

**Type** Increasing Cost  
**How Long?** Ongoing/Recurring

**Item to be shared with the following Department/Program:** (Include any shared expenses)

**Justification for Item (See Rating Rubric)**

1. Indicate how important this item is to the life of your discipline.
   - 'A' means that your discipline cannot teach your course(s) without the requested equipment.
   - 'B' means that your course(s) would be greatly enhanced with the requested equipment.
   - 'C' means that you would like this piece of equipment for your course(s) but can wait for a future academic year.

In addition, how many times have you requested this item, but you have not received it?

A

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
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<tr>
<td>11100-22301-191400-23000</td>
<td>PT Class Student Hourly</td>
<td>$1,650</td>
<td>U</td>
</tr>
<tr>
<td>11100-22301-191400-23200</td>
<td>PT Class Non-Student Hourly</td>
<td>$1,100</td>
<td>U</td>
</tr>
<tr>
<td>11100-22301-191400-24000</td>
<td>PT Sal Student Instructional</td>
<td>$2,750</td>
<td>U</td>
</tr>
<tr>
<td>11100-22301-191400-43000</td>
<td>Instructional Supplies</td>
<td>$1,100</td>
<td>U</td>
</tr>
<tr>
<td>11100-22301-191400-56300</td>
<td>Software Licensing Fees</td>
<td>$418</td>
<td>U</td>
</tr>
<tr>
<td>11100-22301-191400-56700</td>
<td>Other Contract Services</td>
<td>$440</td>
<td>U</td>
</tr>
<tr>
<td>12400-22301-191400-43000</td>
<td>Instructional Supplies</td>
<td>$525</td>
<td>Prop. 20</td>
</tr>
</tbody>
</table>

Total $7,983

Geology Supplies Total $7,983

All supply funds should be in unrestricted accounts. If prop. 20 funds are used, they should be deposited in accounts before July 1st so that supplies can be purchased for the Fall Semester classes.

Supplies needed to run geology classes in academic year 2009-2010.

2. Is it necessary for students to succeed in a series of courses?

3. How will access for students be improved? How many students (annually) will benefit from this request? Is it required to accommodate existing students? Would it be vital to attracting...
new students?

4. What student learning or other outcomes are expected? Is it important to the achievement of student goals?

5. How will these outcomes be measured for future planning? What data or evidence supports your request?
II. Other Non-Instructional Costs

This section will be filled out by the Department Chair and reviewed by the Area Dean, IPC and Budget.

Note: Service Contracts: maintenance, repairs, laundry, hazardous waste removal, etc.

<table>
<thead>
<tr>
<th>Category</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Contracts</td>
<td>Previously funded with cost increase</td>
</tr>
</tbody>
</table>

Description and part number for ordering:
Increase in funds for Contract Service Agreements.

<table>
<thead>
<tr>
<th>Annual Cost</th>
<th>Previous Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000.0</td>
<td>400.0</td>
</tr>
</tbody>
</table>

Justification
Please comment on request in terms of how it benefits your program, faculty and/or students:

The funds would be used to help service various rock saws as well as the petrographic microscopes that have not been serviced in over ten years. These instruments are in dire need of servicing and if not properly maintained the only other option will be to purchase additional microscopes at an average cost of $2,500 each.

There are no construction, electrical or installation expenses. This is a request for funds for the contract service agreement account to pay for the cost of upkeep on old and expensive equipment in the Geology and Geography program.

Funding for contract service agreement has gone down from $1,000 to $520. This is a decrease of $480 or 48%. I ask you how is a program expected to continue teaching effectively when there is no funding to maintain old equipment, and there is no funding to purchase new equipment. That is why there is a request to at least bring back the funding to where it once was so equipment may be maintained properly.
# Faculty Members
## Geology-and-Geography-2009

### I. Program Faculty

**List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bero</td>
<td>David</td>
<td></td>
<td></td>
</tr>
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</table>

**Status:**

<table>
<thead>
<tr>
<th>Emergency Hire</th>
<th>Shared W/other program(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer 2009 TU</th>
<th>Fall 2009 TU</th>
<th>Spring 2010 TU</th>
<th>Reassigned (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 to 8</td>
<td>00.000</td>
<td>00.000</td>
<td></td>
</tr>
</tbody>
</table>

**Years of Service:**

- **4.0**

**Specialty:**

- Mr. Bero teaches Geology 120, 120 lab and Extended or weekend field Geology courses

**Leadership:** List involvement in committees or other service

- Mr. Bero has not as of yet for he is still an emergency hire, participated in the shared governance system

---

**List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florsheim</td>
<td>Joan</td>
<td></td>
<td></td>
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</tbody>
</table>

**Status:**

<table>
<thead>
<tr>
<th>Adjunct, ETCUM</th>
<th>Shared W/other program(s):</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer 2009 TU</th>
<th>Fall 2009 TU</th>
<th>Spring 2010 TU</th>
<th>Reassigned (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>starting</td>
<td>00.000</td>
<td>00.000</td>
<td></td>
</tr>
</tbody>
</table>

**Years of Service:**

- **new**

**Specialty:**

- Hydrology

**Leadership:** List involvement in committees or other service

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**List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer**

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foss</td>
<td>Donald</td>
<td>j</td>
<td></td>
</tr>
</tbody>
</table>

**Status:**

<table>
<thead>
<tr>
<th>Full-time, tenured</th>
<th>Shared W/other program(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer 2009 TU</th>
<th>Fall 2009 TU</th>
<th>Spring 2010 TU</th>
<th>Reassigned (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.0</td>
<td>00.000</td>
<td>00.000</td>
<td></td>
</tr>
</tbody>
</table>

**Years of Service:**

- **I can teach all course offerings in the Geology, Geography and Environmental Science. I have also served and taught in the Alternative Energy Science Program however we no longer have the staff**
Leadership: List involvement in committees or other service

I am the only full time faculty member still standing in the once robust Geology-Geography disciplines. During my 28 year tenure I have served as a member of the Academic Senate and served as the President of the Academic Senate for the faculty of the Indian Valley Campus for a two year period that extended from 1984 through 1985. In 1984 I was a member of the Novato Energy Task Force representing the IVC campus. I have been a member of the United Professors of Marin Executive Council for over 17 years and have served, to insure our efforts of a shared governance system, on all UPM-MCCD Committees. These committees include but are not limited to the following: UPM Collective Bargaining Team, UPM Health and Safety Committee, UPM Professional Affairs Committee, Union-District Workload Committee, District Energy Task Force, and the Sabbatical Leave Committee.

List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locke</td>
<td>James</td>
<td>K</td>
<td></td>
</tr>
</tbody>
</table>

Status: Shared W/other program(s):
Part-time, RETCUM Yes

Summer 2009 TU | Fall 2009 TU | Spring 2010 TU | Reassigned (Total) |
---------------|-------------|----------------|-------------------|
3 to 6         | 00.000      |                |                   |

Leadership: List involvement in committees or other service

Mr. James Locke served on every committee formed by the College of Marin Academic Senate. During his highly productive tenure he served as the President of the Academic Senate on three separate occasions. Professor Locke was very active in the State Academic Senate representing the California Community College system as well where he served for two terms as a Senator at the state level and then was elected President of the California State Academic Senate representing the California Community College system. Mr. Locke has served as the President of the United Professors of Marin and served for many years as a member of the Executive Council of our union. Professor Locke has been a member in good standing of every district-faculty committee of any magnitude that meets in hopes of advancing our college.

List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meyers</td>
<td>Nicole</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Status: Shared W/other program(s):
Adjunct, ETCUM No

Summer 2009 TU | Fall 2009 TU | Spring 2010 TU | Reassigned (Total) |
---------------|-------------|----------------|-------------------|
6             | 00.000      |                |                   |
Leadership: List involvement in committees or other service

List of Faculty Members and Total faculty Units separately for Fall, Spring and Summer

<table>
<thead>
<tr>
<th>Last Name</th>
<th>First Name</th>
<th>MI</th>
<th>Year Retired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newton</td>
<td>Steve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peri</td>
<td>Andy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salcedo</td>
<td>N</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status:</th>
<th>Shared W/other program(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Hire</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer 2009 TU</th>
<th>Fall 2009 TU</th>
<th>Spring 2010 TU</th>
<th>Reassigned (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 to 6</td>
<td>00.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>00.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>00.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Years of Service: Specialty:

Mr. Newton has taught Oceanography, Physical Geology, California Geology and Geology of the National Parks.

Mr. Newton has not as of this point in time served on a district committee.

Andy Peri teaches Physical Geography, Geography 101. This is the only course he has taught for us as of the date of this Program Review

Professor Peri has not as of this date participated in the committee system mandated for shared governance.

Professor Salcedo teaches Introduction to Geographic Information Systems and Application of Geographic Information Systems in Research.
Leadership: List involvement in committees or other service

It is beyond the scope of a part time position to also demand that they donate their time as a member of a time consuming governance committee. The responsibility of defining the direction this district takes as well as the processes and procedures we agree to labor under must fall on the shoulders of full time faculty and staff.

Additional Teaching Unit Requests

III. FT Faculty Needs (Please fill this out ONLY if you are stating a need for new full time faculty in your area.)

1. Please indicate if there are NO FT faculty in your discipline. Please provide data regarding the length of time this discipline has been without a full time instructor.

2. Non-availability of part-time instructors in a subject area. Please provide evidence demonstrating the difficulty in finding part-time instructors to teach in the subject area.

3. RETCUM Faculty: How many FT faculty have retired in the past ten years. How many units are now taught by RETCUM faculty each year?

4. New FT Faculty: How many NEW FT faculty have been hired in past 10 years? Please list each faculty name and the year of employment. If this instructor is shared with another department, please list the equivalent FTE% for your department. Please list instructional equivalencies as necessary and if faculty member was the result of retreat rights.

5. Reduction in department TUs as a result of FT Faculty retirements or other significant causes? Please provide data that illustrates a change in teaching unit allocation as a direct result of FT faculty retirements within your department and how this may change in the coming year(s).

6. Other reasons: Have there been other causes for a reduction in units in your discipline? If so, please explain and provide evidence.

7. Changes in Student Demand: Recent or forthcoming growth as a result of added sections due to enrollment demands. Provide evidence that illustrates the need for additional faculty due to increased student demand such as numbers of sections added and/or courses with waitlist totals showing a need for additional sections. What is the % of FTEF for this increase in units? If there has been a decline in student growth, please explain why.

8. Current of forthcoming changes that illustrate the immediate need of additional FT faculty within this department. Please outline all relevant circumstances that justify the priority of a FT hire in addition to those already outlined above. Consider changes in the field, changes in the job market and population shifts.

9. Program Review Findings: Indicate what trends you identified in your last program review that support the need for full time faculty hires. Tie these to the department and college mission.

10. Other considerations: Include such information as matriculation needs, changes in student demand or community and job market needs, response to legislation, or rapid growth of the discipline.

11. Shared Resources: If you have requested FT faculty that will be used by more than one department, please indicate here. Please indicate which disciplines and/or departments and the number of combined students/faculty or classes he/she would serve. Please indicate how it will improve access or outcomes and if it is needed for health and safety concerns or required by law.
Program Summary
Geology-and- Geography-2009

Instructions: after reviewing your data and reports from all other sections of your program review, use this form to briefly summarize all of the information you have provided by closing with your concluding remarks (e.g. an executive one-page summary) for your entire program review.

I. Program Excellence (Best Practices)
Please address any of the following areas:
Overall Program structure, contextualized learning/learning communities, reputation of faculty, faculty collaboration, staff, retention and success, how you maintain a supportive environment, how you address issues of diversity, any specific student learning outcomes.

The best practice employed by the surviving members of the Geology and Geography discipline is defined below:

? The ultimate, the very best aspect of the Geology and Geography discipline is the exemplary teaching and research efforts exhibited by our dedicated part time staff. Their efforts to provide the highest quality educational program possible under circumstances far less than the average ideal is a noble effort indeed. Every student they have offers positive comments concerning their abilities and skills without the slightest hesitation and generally without inquiry. It is an honor and privilege to serve with these fine teachers and excellent scientist.

? Our transfer program hangs on a worn string. Our students move on to four year Universities and academically compete with their fellow students without problems. They are prepared. Without doubt our field studies program is the key to their success. Geology and Geography are outdoor sciences and that is where we take them. Nothing can equal a real world geology problem resting in the layers of rock below your feet. The unraveling of the unique geologic history of an area is the pure foundation of this wonderful science. If the climax vegetative community of a given terrain defines the climatic controls of the area then what better means to study such conditions than to observe them first hand. The loss of our field program will surely be the end of the excellent Earth Science program we now enjoy. Our majors and other students that take extended and weekend field studies courses are more than willing to pay for the rental of vans and the cost of fuel. Unfortunately the instructor cannot always define the exact cost of fuel, oil and tire repair. As there are no other expenses incurred by the district in this type of class is too much to ask that the district foot the bill for student drivers? These student drivers are by definition and contract employees of the district while behind the wheel. Surely it is illegal to ask the students to pay their own salaries while driving for the district. Many community colleges without one half the field courses we offer at COM have provide student transportation. We had van for this use until 1986. The purchase of three eight passenger vans would greatly reduce the cost to our students that benefit from this type of hands on education. The Indian Valley Automotive Technology program has offered to maintain any and all vehicles we may have in our motor pool. The reason for not moving ahead on school vehicles continues to pass my ability to reason.

? Faculty research shared with our students grants the opportunity for our students to do science rather than read about it. Our research may be small in comparison to our four year University colleagues, but it is the means whereby this faculty remains current in our fields and fresh of mind.

? The five discipline reviews I have participated in over the past 28 years have received wonderful reviews from past administrations. Once the accolades died down these documents, painstakingly prepared and reviewed were filed in district cabinets never to see the light of day again. It is our hope that on this go around the requests for funding and additional staff will be reviewed and addressed. Without help soon this program is in real trouble.

? Last it is not yet too late to stop the madness of building a new yet not improved Science center. There must be someone out there that can recognize the folly of destroying a 33 year old building and constructing a new structure that in no fashion meet the needs of the science faculty currently teaching a COM, let alone those that we hope will come to teach in our disciplines in the future.
II. Program Resources (Responsiveness)

Briefly summarize examples of key resources required for your program to meet or exceed the college goals (as cited in this review).

The resources required to maintaining the Geology and Geography program are as follows:

? The district must hire replacements for the retired geologist and geographers. At a minimum the district needs to hire two full time geologists and one geographer. My pending retirement will occur within the next four years or possibly earlier depending on the rate of my declining health. To insure that the next generation of Earth Science educators are up to speed at the time of my retirement, meaning that they are well versed in the working of our shared governance system and have a full knowledge of where the few thousand specimens and samples are housed, the hiring of these new full time tenure track members of our faculty must occur within the next year. To wait is to invite disaster.

? The district must stop the continual process of cutting classes from our schedule. If we schedule a course we are obligated to teach that course. When we cut a course we lose the students to another local community college and worse, we have generated very unsatisfied customers. When one student enrolls in a lower level introductory course taught at different times and days I can understand the need for financial frugality, but when the district cuts a Saturday field course with seven students enrolled, that is pure folly.

? The district must provide a budget for the geology and geography disciplines that provides funds for the purchase of new equipment as well as the necessary funds for maintaining the aging instruments and equipment we are currently troubled with.

? The district must hire at least one new janitor to help maintain the rat ridden science center. My fellow teachers and our students are forced to work in a filthy rat infested pig sty and there is no good reason for it.

? The district should provide at least a part time laboratory technician, ¾ time would be acceptable to assist in the preparation of lab and lecture materials for the geology and geography faculty. The discrimination in work load is staggering. Physics, a discipline with fewer overall classes offered each semester that the total count in geology and geography has two lab techs. Biology has two lab techs. Chemistry has one highly productive full time laboratory technician that is assisted by at least two student assistants. Geology and Geography have no one.

? Last but not least, the new dean, a fine fellow I am sure is the 17th dean I have worked with in 28 years. Stability in the administrative ranks would be greatly appreciated. Every time a new dean comes aboard we have to educate them about our program, especially the field program. It would be nice to have the same dean advocating for the sciences for at least a two year period.

III. Moving Forward Objectives (Planning)

Please summarize any data-driven coordinated planning has your department done to improve enrollment, student learning, access and success?

We intend to get the counseling staff behind our program. We still feel it more important to know a bit about Earth before one delves into the eccentricities of the orbit of Pluto.

We intend to get the district administration to promote our Earth Science program for we can demonstrate that our majors find great success at the four year Universities they transfer to and that profession could possibly be needed more than one that treats the processes of Earth. We either mine it or grow it on this planet and to mine it properly, with the least amount of environmental degradation possible, requires highly trained geologist and geographers. We are the environmental field regardless of the suggestions of the Environmental Scientist, whatever that field may be as it is still being debated.

We intend to continue to provide the best Earth Science Education possible with the means provided. With or without a Lab Tech Geology and Geography will continue to offer the deserving citizens of this county the highest quality courses possible and when the district decides to cancel our field courses we will, as Professor Locke did this very semester, teach those deserving students on our own dime.

We will continue to keep our office and class room doors open for any and all students that wish to discuss their course work or any other problem they may be facing. I will continue to keep a set of tools at the school to help repair the minor vehicle problems that seem to haunt the Junkers some of my less financially affluent students drive.
We intend to convince the district to hire at least one full time instructor in Geology and one full time instructor in Geography at least one semester before I retire. A full year would be a much better time line but as the district has had over a decade to hire a geography teacher and nine years to date to hire another geology teacher, I would settle of a semester with great joy.

Now that I have stated what we will continue to do, we being myself and the three emergency hires teaching in our discipline, let me state that it would be greatly appreciated if the district would provide the equivalent financial assistance and technical support to my disciplines that they provided to every other science offered in this district. I would appreciate it if the district would remember that Geology and Geography are electives and when it is necessary to compare enrollment with that of Biology, make the comparison between courses of equivalent level. In example Geology 120 is comparable to Biology 115, not Biology 110.

**IV. Assessment of 2008 Program Reviews:**
1. What resources have you been granted from your previous program reviews?
2. Please assess how these resources have been used to improve access, learning outcomes and student success in your program?
3. What changes have you implemented based on previous program reviews?
4. What results have you found?

With all truth and honesty let me apologize for the lack of brevity in the construction of this review. With more time it could and certainly should have been much more concise. Thank you for the opportunity to review what I think is working and that which is not. With time and effort this can and will be a better program and in turn a better place to work and teach. It is time for both.

**V. Fall 2009 Requests Summary:**
1. Please summarize the main requests you have made in this program review in order of your priority starting with the most important one.
2. Summarize briefly why you want each one.
3. Summarize your overall rationale.

**VI. Other concluding remarks.**
Area Directors and Deans Comments  
Geology-and-Geography-2009

1. Please make any comments on the Five Pathways, Student Access and Success, Facilities, Curriculum and SLO sections.

2. Please comment on the instructional equipment requests, technology requests and other instructional materials requests sections. Please comment especially on any specific priorities without which this program cannot function.

3. Please comment on the faculty and staff sections.

4. Please itemize expenses currently covered by external funds that may revert back to general funds.

5. Other comments
   This report appears to be last year's version, unrevised. Still, the discipline is in need of budget lines for field courses. Currently we operate a field-trip/field-course program that is unfunded by the district.