ANNUAL PROGRAM PLANNING WORKSHEET (APPW)

Program: Earth and Ocean Science  Planning Year: 2014  Last Year CPPR Completed: 2010-11  
Unit: Physical Science  Cluster: MBPSNAHKA  Next Scheduled CPPR: 2015-16  

NARRATIVE: APPW

Use the following narrative outline and be brief and concise:

I. Program-Level Outcomes: List the outcomes established for your program.

1. Utilize the principles of the scientific method as it relates to modern Earth Science
2. Interpret aspects of global and California geology related to basic geologic principles of plate tectonics.
3. Describe the origin, distribution, and measurement of earthquakes and volcanoes.
4. Evaluate and assess mitigation strategies for geologic hazards.
5. Create, evaluate and interpret maps and other graphical representations
6. Describe physical and chemical earth processes
7. Utilize and evaluate the evidence for Geologic Time and Earth’s evolution
8. Differentiate between minerals, igneous, sedimentary and metamorphic rocks and understand basics of their distribution on the solid earth.

II. Program Contributions to Institutional Goals, Institutional Objectives, and/or Institutional Learning Outcomes: Identify how your program, within the past year, has helped the District achieve its Institutional Goals and Objectives, and/or how it has helped students achieve specific Institutional Learning Outcomes (ILOs), and provide data or evidence that demonstrates the progress. Please refer back to the Planning Documents section of this document.
The courses in Earth and Ocean Sciences are taken by a diverse population of students, including earth science majors; students considering an earth science major and liberal arts transfer students that need a Physical Science course for a GE requirement. Our scheduling efforts have focused on offering mainly GE courses on both NCC and SLO campuses at times to minimize conflicts with other required courses. The Oceanography Lab is offered separately from the Oceanography lecture to expand access for students that do not need to take the laboratory. The success of this strategy is reflected in the persistently high fill rates for SLO campus oceanography 210 (over 90%). The Ocean 210 Lab includes several opportunities for students to collect and analyze their own data, which is integrated into a final capstone report. All of these courses address aspects of ILO#3 as major concepts are presented as the historical acquisition of data that leads to understanding based on the scientific method. A variety of graphical formats are introduced to students to interpret data. The exams in all of our courses include short essays that require students to synthesize these ideas and draw conclusions. In our courses we coach students in effective study skills and exam preparation via detailed exam study guides and reviews.

There is one section of Ocean 210 offered each semester in the Distance Education modality, based on curriculum licensed from the American Meteorology Society. This course is highly structured and hands on, requiring students to complete detailed investigative activities for each chapter. The DE format accommodates the scheduling flexibility needed by the students and the course structure supports their success in mastering the material. It is the only DE course offered in Physical Science and the success and retention data is comparable to the face-to-face classroom offerings.

A major achievement last year was the development of an AS-T degree program for Geology, with final approval from the Chancellor’s office. To offer this degree required that Geology 211, Historical Geology, return to the schedule. This course was offered in Fall 2013 with relatively low enrollments. It will be offered again in Spring 2015. We hope to add an optical mineralogy component to the Historical Lab with the purchase of a few petrographic microscopes. This will further support student success to transfer to four year geology programs.

The TMC for Environmental Geology is in development and hope to match this to either our Geology 212 course or our Oceanography course to have a second AS-T offering. The Geology and Oceanography courses are also included in the Liberal Arts Transfer Degree for students that want to emphasize math and science. This latter degree is one of the most popular on campus and will include many of our current GE students. These new degree opportunities will facilitate transfer to four-year colleges and clarify required courses.

III. Analysis of Measurements/Data: Provide a brief narrative analyzing the institutional, program and site-specific measurements (data and evidence) that are most relevant to your current program status. Program data is available on the SLOCCCD Institutional Research
Oceanography 210 is a lecture course taught in both classroom and Distance Education modalities. Two classroom sections and one DE section are taught each semester. Only the DE course is offered during summer term. During 2011-2012, Meteorology was offered as Ocean 212, but there was limited enrollment for this course. The course name has been changed to METE 212 to facilitate students finding this in the schedule. There is a single lab section, Ocean 210L which includes students from both the classroom and DE versions of the course and always fills and has a waitlist. The FTES for oceanography has remained stable over the past five years and historically lower enrollments on NCC. FTES/FTEF has remained high in oceanography (over 16) except for 2011-12 when the new Meteorology course (Ocean 212) was averaged into the total bringing the FTES/FTEF down to 15. The fill rates for all SLO sections including DE are consistently over 90%, while the fill rates at NCC are below 80%. In 2012-2013 the fill rates on SLO campus continued to be above 80% even when the course was moved into a larger room. Total enrollments have grown from 184 in 2008-9 to 303 in 2011-12 and falling to 270 in 2012-13, with the lowest enrollments in NCC. Until Spring 2014, the Ocean 210 and Ocean 210 Lab courses were taught by a single instructor, and the total number of sections offered could not really be expanded. Beginning in Spring 2014 an second instructor offered a section on the NCC campus, therefore expanding availability and access. Every semester one section is offered in a large lecture room on SLO to accommodate a larger number of students. The question of whether a second lab should be offered is discussed every year. The student demand is not yet high enough to justify adding a second section on SLO campus and the cost of equipment duplication is too high to offer even a small section at NCC. A section of the Ocean 210 Lab will be offered in summer 2014 for the first time during the 6-week term.

Notable for the Distance Education Oceanography course offering is the increase in retention and success from 2009-10 to 2011-2012. The average for success in this DE course increased from 73% to 100%. The overall retention rate for this course has remained over 80% and equals the retention of the face-to-face classroom courses, which is 90%. This is a great success for a DE course and a reflection of the time invested to tutor and encourage students in the online format. The short summer schedule has proven to be the most challenging for student persistence. The success rate for the face-to-face class has remained near 88% during this time period. Meteorology (Ocean 212) was considered in this data for only 2011-2012. For this course, the success rate was 40% and the retention was 75%. It is not offered at this time.

Most of the students in Oceanography are continuing students and a slightly larger proportion are female. About 75% of the students plan to transfer to a 4-year institution. The declared majors are extremely diverse and span liberal studies and math/science. The majority of the students, however, are not science majors.

Four geology courses are taught consistently each semester. They are Geology 210, 212, 220 and 229A and 229B. None of these classes
is taught in the DE mode. Values for FTES ranged from a high of 35.24 (2010-11) to a low of 25.72 (2009-10) over the past four years with an average of 31.5. Excluding the low value for 2009-10, our FTES was steady with an average value of 33.53. The anomalous year reflects reduced class offerings due to sabbatical reassignment for one of our full-time faculty.

Fill rates for courses in the entire program were high for the three years (2008-2011) averaging 94.43%. A sharp decline to 85.2% occurred in 2011-12. While difficult to explain, this may reflect overall weakness in school enrollment due to economic pressure coupled with accreditation concerns. We have addressed this reduction by attempting to schedule classes during more popular times for typical working GE students. Low enrollments in our North County campus are also affecting our overall fill rate and may in part be improved by careful scheduling to eliminate overlap with other popular GE science courses such as Astronomy.

Success and retention percentage rates for all GE geology courses average in the mid 80’s to low 90’s with the principle student population being continuing students in the 20 to 24 age bracket. Only a small number of special admission K-12 students were served averaging 1.9% of the population. The majority intends to transfer to university to complete their B.S. or B.A. Of these students, 52% intend to complete their AA/AS before transferring with 18.4% planning to transfer without the associate’s degree. Most students are undecided or cite educational development as their intended goal. Over the last four years, there has been an increase from 9 to 16 students (average of 13.5) per year declaring a major in Geology. This most likely reflects a positive outlook in employment opportunities within energy and related fields.

IV. Program Outcomes Assessment and Improvements:

- Attach an assessment cycle calendar for your program.

Program Assessment Mapping and Calendar  
last updated: February 28, 2014

**Title of Program:** EARTH AND OCEAN SCIENCE

**Program Level SLOs**

- Utilize the principles of the scientific method as it relates to modern Earth Science
- Interpret aspects of global and California geology related to basic geologic principles of plate tectonics.
- Describe the origin, distribution, and measurement of earthquakes and volcanoes.
- Evaluate and assess mitigation strategies for geologic hazards.
- Create, evaluate and interpret maps and other graphical representations
• Describe physical and chemical earth processes
• Utilize and evaluate the evidence for Geologic Time and Earth’s evolution
• Differentiate between minerals, igneous, sedimentary and metamorphic rocks and understand basics of their distribution on the solid earth.

**Course Level SLOs**

**Geol 210**
• Describe the scientific method and the importance of the doctrine of uniformity to the study of geologic processes and earth history.
• Explain the theory of plate tectonics and how discoveries in oceanography, seismology, and paleomagnetism support the theory.
• Understand basic chemical bonding and its role in the formation of minerals and rocks.
• Describe mineral groups and identify individual mineral and rock types.
• Explain the connection between plate tectonics and the origin and character of plutonic and volcanic rocks and volcanic activity.
• Describe the processes of weathering and the formation of sediments and sedimentary rocks.
• Explain the processes and products of metamorphic alteration and their connection to plate tectonics.
• Understand the geologic processes shaping the earth surface.
• Create, analyze and interpret topographic and geologic maps.
• Explain the origin, measurement and distribution of earthquakes and their use in the study of the earth's interior.
• Describe the principles of relative and radiometric dating of rocks and geologic structures or events.

**Geol 211**
• Explain the scientific theory of the origin of the earth and its lifeforms.
• Describe the tectonic development of North America and its biological evolution through time.
• Present an historical perspective of the development of geological principles and abstractions including the 18th century beginnings of modern geology and the development of plate tectonic theory.
• Identify major fossil groups.
• Interpret the geologic history and paleo-environment of rocks and regions
Geol 212

- Describe the scientific method and apply this to geologic phenomena such as plate tectonics.
- Explain the causes of earthquakes and describe their most hazardous effects.
- Measure the location and size of earthquakes, and explain how future earthquakes are forecast.
- Plan for survival of a major earthquake, including building modifications.
- Describe the characteristics of mass wasting, coastal erosion and subsidence events and explain the methods to mitigate their impact.
- Explain the relationship between plate tectonics and the cause and distribution of volcanoes and their associated hazards, and describe how eruptions are predicted and monitored.
- Explain the hydrologic cycle, the effects of river flooding and methods to reduce impact of flooding.
- Describe the causes of climate variation over short- and long-term cycles, and the causes and hazards of modern global warming.

Geol 220

- Describe the scientific method and apply the doctrine of uniformity to the study of geologic processes and earth history.
- Recognize rocks and minerals important to California and understand their distribution in the framework of plate tectonics.
- Explain the theory of plate tectonics and its relation to the development of the California landscape.
- Identify and locate the significant geological features of California.
- Explain physical processes shaping California's landscape.
- Explain the development and use of the geologic time scale and the measurement of geologic time.
- Name and describe the principal fossil assemblages found in California rocks.
- Explain the geologic history of California within a framework of plate tectonics.
- Explain the cause and measurement of earthquakes.

Geol 225

- Describe a common application of geospatial technology for decision support including appropriate hardware, software and data.
- Use appropriate cartographic principles to create a map for an application.
- Recognize basic map coordinate systems and map scales.
- Identify, locate, evaluate and prepare data for a geospatial application.
- Describe how remote sensing and geographic positioning systems (GPS) data can be used in geospatial technology applications.
- Create a geospatial database for use in a GIS.
- Build and analyze basic spatial data structures including raster and vector data models.
• Demonstrate that they can think critically and spatially to identify problems and propose solutions by producing an appropriate output (map, report, presentation) for an application area.

Geol 229A/B
• Explain how field work activities improve our understanding of regional geologic structure, geomorphology, and petrology.
• Demonstrate proper technique for the recording of field notes and maintain a field notebook.
• Describe and explain the geologic structure, geomorphology, petrology, and geologic history of the area under study.

Ocean 210
• Describe the process of scientific inquiry, commonly called the scientific method, and be able to apply the method as it pertains to oceanographic phenomena especially the origin of the Earth and atmosphere and the processes of plate tectonics.
• Contrast the principal types of physiographic features on the seafloor and discuss their origin relative to plate tectonics.
• Describe the origin of the four major types of marine sedimentary materials and predict the distribution of the types of sediments on the seafloor.
• Explain the influence of the hydrologic cycle atmospheric circulation, changes in atmospheric carbon dioxide and marine life on the chemistry of seawater.
• Understand how temperature, salinity, and density characteristics determine the physical structure of the ocean and produce deep ocean (thermohaline) circulation.
• Discuss Earth's heat budget and the influence of oceanic and atmospheric processes in distributing heat.
• Explain the Coriolis effect and characterize its role in the dynamics of ocean and atmospheric circulation.
• Draw and discuss the idealized global wind system and its affect on global climate patterns and global ocean circulation.
• Describe the characteristics, formation, and dynamics of wind-driven waves.
• Explain the motions of the Earth-moon-sun system and the resulting ideal monthly tidal cycle.
• Compare development of coastal landforms; provide examples of how man-made coastal structures affect shoreline processes.
• Describe the impact of the tectonic setting and impact of global rise in sea level of major US coastlines
• Understand the global distribution of primary productivity and its relationship to the physical dynamics of ocean circulation.

Ocean 210L
• Interpret bathymetric charts and knowledge of plate tectonics and mapping tools.
• Identify and locate major physiographic features of seafloor and continents.
• Identify and interpret geologic materials from the seafloor in the lab and in the field
• Explain and measure physical properties of water such as salinity, temperature, density.
• Contrast the processes that create wind-driven and density-driven current systems.
- Describe parts of water waves, how they are generated and impact on erosion and deposition.
- Explain origin of tides, monthly and annual variations, and apply to local tidal information
- Describe processes that create and modify the coastal zone, including beaches, marine terraces, and cliffs, and be able to recognize these in the field.
- Apply understanding of biological processes to nutrient (oxygen, nitrate) concentration and use these measurements to assess environment processes in the Morro Bay watershed and estuary system.

### Relationship between assessed Course Level SLOs and Program Level SLOs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Course name</th>
<th>Program Student Learning Outcomes</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>5</th>
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<tr>
<td>Geol 210</td>
<td>Physical Geology</td>
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<td>Geo; 212</td>
<td>Geological Hazards</td>
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<td>B</td>
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<td>Geol 220</td>
<td>Geology of California</td>
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<td>Geol 225</td>
<td>GIS</td>
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<td>Geol 229</td>
<td>Geology Field Seminar</td>
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<td>Geol 211</td>
<td>Historical Geology</td>
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<tr>
<td>Ocean 210</td>
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<td>Ocean 210</td>
<td>Oceanography Lab</td>
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Key: A (SLOs exist for course)   B (SLOs are assessed in course)   C (Course assessment report completed)

**Course Assessment Calendar**
<table>
<thead>
<tr>
<th>CYCLE STAGE</th>
<th>Fall 2013</th>
<th>Sp 2014</th>
<th>Fall 2014</th>
<th>Sp 2015</th>
<th>Fall 2015</th>
<th>Sp 2016</th>
<th>Fall 2016</th>
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<tr>
<td>SLO Assessment</td>
<td>Geol 211</td>
<td>Geol 229B Ocean 210L</td>
<td>Geol 220 Geol 229A</td>
<td>Geol 212 Geol 211</td>
<td>Ocean 210</td>
<td>Geol 211 Ocean 210L</td>
<td>Geol 210</td>
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<tr>
<td>Analyze Results &amp; Plan Improvements</td>
<td>Ocean 210 Ocean 210L</td>
<td>Geol 220 Ocean 210</td>
<td>Geol 229B Ocean 210L</td>
<td>Geol 210 Geol 229A</td>
<td>Geol 212</td>
<td>Geol 229B Ocean 210L</td>
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<tr>
<td>Plan Implementation</td>
<td>Geol 229B</td>
<td>Geol 220 Ocean 210</td>
<td>Geol 229B Ocean 210L</td>
<td>Geol 210 Geol 212 Geol 229A</td>
<td>Geol 212</td>
<td>Geol 229B</td>
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<tr>
<td>Post-Implementation SLO Assessment</td>
<td>Geol 229A</td>
<td>Geol 212</td>
<td>Geol 220 Ocean 210</td>
<td>Geol 229B Ocean 210L</td>
<td>Geol 210 Geol 212</td>
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**Program Assessment Calendar**

<table>
<thead>
<tr>
<th>CYCLE STAGE</th>
<th>Fall 2013</th>
<th>Sp 2014</th>
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<th>Sp 2015</th>
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<th>Sp 2016</th>
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<td>Analyze Results &amp; Plan Improvements</td>
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### Course or Program Assessment Summary

This form can be used to record SLO assessment plans and results for courses or programs. It is recommended that this document be stored on a group drive, or in MyCuesta.

**Division:** Physical Sciences  
**Program:** Geology  
**Date:** 3/8/2012  
**v. 2 2012**

**Courses in program, or course:** Geology

**Faculty involved with the assessment and analysis:** Jeff Grover, Debra Stakes, Anika Clements, and Tom Hollis

**Course to program outcome mapping document** is completed: Yes_X_ No____

| 1 | Student Learning Outcome Statements | 1. Utilize the principles of the scientific method as it relates to modern Earth Science |
|   | x Program | 2. Interpret aspects of global and California geology related to basic geologic principles of plate tectonics. |
|   | □ Course | 3. Describe the origin, distribution, and measurement of earthquakes and volcanoes. |
|   |   | 4. Evaluate and assess mitigation strategies for geologic hazards. |
|   |   | 5. Create, evaluate and interpret maps and other graphical representations |
|   |   | 6. Describe physical and chemical earth processes |
7. Utilize and evaluate the evidence for Geologic Time and Earth’s evolution

8. Differentiate between minerals, igneous, sedimentary and metamorphic rocks and understand basics of their distribution on the solid earth.

<table>
<thead>
<tr>
<th>2</th>
<th>Assessment Methods Plan (identify assessment instruments, scoring rubrics, SLO mapping diagrams)</th>
<th>Eight multiple choice questions will be given in each of our geology courses at the end of Fall semester 2011. See attached survey. Additional homework assignments during the semester will be used to assess (e.g. Hazard City interactive CD; exams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Assessment Administration Plan (date(s), sample size or selection of course sections, scoring procedures, etc.)</td>
<td>Assessment was completed during finals for all geology 210, 212 and 220 classes. 184 students were assessed. This included students who were enrolled in our geology 229B field course as those students currently or previously enrolled in one of the above mentioned courses.</td>
</tr>
<tr>
<td>4</td>
<td>Assessment Results Summary (summarize Data)</td>
<td>Results: SLO #1 = 158/184 correct responses = 86%, SLO #2 = 97/184 correct responses = 53%, SLO #3 = 158/184 correct responses = 86%, SLO #4 = 171/184 correct responses = 93%, SLO #5 = 98/184 correct responses = 53%, SLO #6 = 83/184 correct responses = 45%, SLO #7 = 87/184 correct responses = 47%, SLO #8 = 119/184 correct responses = 65%</td>
</tr>
<tr>
<td>5</td>
<td>Discussion of Assessment Procedure and Results, and Effectiveness of Previous Improvement Plans</td>
<td>Using a standard grade scale for academic class work, our assessment shows that we have “passing grades” in three of the eight student learning outcomes (SLO #’s 1, 3 and 4). SLO # 8 with 65% correct answers was close to an “acceptable, passing grade and outcomes 2, 5, 6 and 7 earned below 60% or what is traditionally a failing grade! As this is the first program assessment, it is difficult if not impossible to interpret these results, and comparing these data with the typical student grade distribution may not be valid or appropriate. Having said this, we recognize that SLO’s 2, 5, 6 and 7 need either a more accurate assessment tool or more focus in the classroom. We also recognize that differences in vocabulary used in different textbooks might have confused students. This might guide us to improving the primary assessment tool.</td>
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<tr>
<td>6</td>
<td>Recommended Changes &amp; Plans for Implementation of Improvements</td>
<td>We intend to meet with all geology faculty to discuss the results and intend to work towards better communication between faculty regarding program SLOs. We also will discuss the assessment tool and work to improve/clarify each SLO assessment question to better address the topic. Each question needs to be grounded in basic concepts rather than terminology in a single course.</td>
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<tr>
<td>7</td>
<td>Description or evidence of dialog among course or program-level faculty about assessment plan and results</td>
<td>All faculty were provided with the results of the entire survey and their own course results. There is general recognition of the importance of explaining specific processes such as isotopic age dating and incorporating maps and graphs into all courses. End of semester retreat to discuss the assessment is planned for May 2012. We may discuss a before and after survey and some variety of question types.</td>
</tr>
</tbody>
</table>
Course and program level outcomes are required by ACCJC to be aligned. Each program needs to complete a program map to show the alignment. See examples of completed CPAS and program mapping documents are available at http://academic.cuesta.edu/sloa
• Summarize in one to two paragraphs program improvements that have been implemented since the last APPW or CPPR.

Program SLOs have been revised and assessed each year. All instructors have now aligned to the program outcomes and incorporated these topics into their courses. Questions embedded in exams for reflect the Program SLOs. Course SLOs have been revised and assessed via both direct and indirect methods. The effectiveness of our assessment tools has been discussed and revisions will be implemented for next semester.

Laboratory experiments for the Ocean 210 Lab have been improved based on input from prior classes and the Course SLO assessments. The lab schedule has been adjusted to permit a lab technician to participate in all field trips to manage the equipment and experiments. This is more cost effective than reducing the number of students or opening a second section of the Lab.

To better address program outcomes 1, 2, 3, and 5, a new laboratory exercise was developed and implemented this semester in Physical Geology lab (Geol 210L) The exercise incorporated recently purchased laptop computers and the web-based Google Earth program. Quantitative assessment of this assignment will be completed at the end of Spring semester, but initial student responses were very positive and we were pleased that the technology worked well throughout the exercise.

The two geology field courses, Geology 229A and 229B were both assessed last year. For both courses we have added summary worksheets that students complete at the end of each field day. We give them a more complex review sheet to be completed on the long drive home. Our review of this data suggested that it would be more valuable to students to return these worksheets in the field and have a discussion about the answers. Thus students could more effectively learn from structured input from all instructors and from each other.

• Identify and describe any budget requests that are related to student learning outcomes assessment results or institutional/programmatic objectives.

The request for petrographic microscopes will enable students to see the specific minerals in different types of rocks and how they have grown. It is part of the fundamental observational data for many aspects of classical geology. This is important to support students in our new Geology AS-T degree.

The request for pH sensors will expand the analytical tools available for our Oceanography lab. These labs challenge students to use the scientific method and relate global processes (carbon dioxide in the ocean) to measurements in the lab.
V. Program Development/Forecasting for the Next Academic Year:
Create a short narrative describing the development forecasting elements, indicating how they support efforts to achieve any of the following, where applicable: Program Outcomes, Institutional Goals, Institutional Objectives, and/or Institutional Learning Outcomes.

- New or modified action steps for achieving Institutional Goals and Objectives
- New or modified action steps for achieving Institutional Learning Outcomes
- New or modified action steps for achieving program outcomes
- Anticipated changes in curriculum and scheduling

The only anticipated curriculum changes would be to take advantage of approved Transfer Model Curriculum to develop another AS-T degree. Curriculum will be reviewed during 2013-2014 in order to determine compatibility with the C-ID course descriptors.

Geology 211 will be offered every other year beginning in Fall 2013 so that the AS-T in Geology can be offered. The development of the Liberal Arts AA-T with an emphasis in Science or Math might increase interest in all of our GE courses, especially the courses that offer laboratory experience. A second section of the Ocean 210 L might become feasible at this time, especially a smaller lab on the North County campus. A new AS-T in environmental science is under consideration and our Ocean 210 and 210 Lab or the Geology 212 might articulate to support this degree. Geology 212 historically has had a more environmental focus, and this course could easier be refocused to support students interested in this degree.

- Levels or delivery of support services
  Students continue to request tutorial support for both the mathematics embedded in the course and the Ocean 210 specific components. The laboratory sections are dependent upon the continued support of the physical science technician. This position must be maintained as full-time.

- Facilities changes
- Staffing projections
- Strategies for responding to the predicted budget and FTES target for the next academic year
  An increase in FTES/FETF, by teaching larger sections, is a goal that is limited by available room size. We will be reducing our Geology offerings on the NCC campus in Fall 2013 responding to low demand in Spring 2013. We will be rotating all the EAOS courses every two semesters to attain better enrollment numbers in these courses. We also plan to publicize the new AS-T in Geology across both campuses to ensure that students are well aware of the opportunity with this program.
SIGNATURE PAGE

Faculty, Director(s), Manager(s), and/or Staff Associated with the Program

Instructional Programs: All full-time faculty in the program must sign this form. If needed, provide an extra signature line for each additional full-time faculty member in the program. If there are no full-time faculty associated with the program, then the part-time faculty in the program should sign. If applicable, please indicate lead faculty member for program after printing his/her name.

Student Services and Administrative Services Programs: All full-time director(s), managers, faculty and/or classified staff in the program must sign this form.

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>Katherine Jimison</td>
<td></td>
<td>3/3/14</td>
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